Linköping Studies in Behavioural Science No 164

Developing Academic Literacies in Times of Change
Scaffolding Literacies Acquisition with the Curriculum and ICT in Rwandan Tertiary Education

Author

Charles Karoro Muhirwe

Academic dissertation

Academic dissertation for the Degree of Doctor of Philosophy in Education at Linköping University to be publicly defended on Wednesday September 19, 2012 at 13.00 in room I: 101 house I Campus Valla, Department of Behavioural Sciences and Learning.

Abstract

Inspired by the Bologna Process and other globalising influences from modern higher education, and driven by policy reform for national development after the ravages of the 1994 conflict and genocide, Rwanda's tertiary education has embarked on a number of policy reforms that have ushered in expectations, requirements and demands that call for both reinvigorated and new academic literacies in undergraduate study since 2007. With its aim of producing a highly skilled human resource as a panacea for Rwanda's social and economic development deficits, the tertiary education curriculum is more than never before focused on outcomes that are linked to further education and the labour market. However, one of the problems to contend with is academic and professional under- preparedness of students entering and exiting undergraduate study, respectively. Theoretically these developments involve distancing oneself from a previous pedagogy whereby the teacher imparts knowledge to the student but instead places greater responsibility on the student to search for knowledge either individually or in a group, as well as critically examine and be able to argue a point of view in writing and through other modes of communication. Therefore, this study has been informed especially by the New Literacy Studies and the Academic Literacies Approach to understanding the development of tertiary academic literacies. The study has also been inspired by the concept of educational scaffolding. It is against this backdrop that my study set out to investigate the academic literacies requested in undergraduate study, and to explore approaches adopted by tertiary learning institutions in the country to embed academic literacies acquisition into the mainstream curriculum over the last decade. Furthermore, the study sought to explore how technology is integrated at different levels to support the acquisition of academic literacies, including technological and information literacies. In order to achieve the aforementioned, the study embarked on a qualitative blend of cross-sectional and longitudinal research designs. Principal data were gathered from official documents obtained from the government and tertiary learning institutions. Drawing on the synergies of qualitative content analysis and intertextual analysis, the documentary data were analysed and then qualitatively interpreted. The data were supplemented by a couple of questionnaire mini-surveys which were also subjected to qualitative analysis. The findings indicate that a new and expanded definition of literacy in the 21st century implies students' development of a set of interrelated and transferable academic competences which are elaborated in the thesis. Curriculum discourses show that there is a shift of curricular and pedagogical emphasis from general linguistic competence as a vehicle for developing academic literacies to a more integrated embedment of a number of literacies including English for Specific Purposes (ESP), study skills, as well as information, communication and technological literacies. Regarding the use of ICT as a scaffolding tool for learning, findings show that the use of technologies has the potential to support students' processes of academic literacies development from a highly dependent level to a more autonomous level, given that the ICT integration policies and strategies could fully materialise.

Key Words: Academic literacies, English for Specific Purposes (ESP), scaffolding, curriculum embedment, ICT, tertiary education, Rwanda

Institutionen Beteendevetenskap och Lärande

Linköpings universitet, 581 83 Linköping, Sverige

ISBN 978-91-7519-841-5 ISSN 1654-2029

Linköping Studies in Behavioural Science No 164

Att utveckla akademisk literacy i tider av förändring
Kursplaner och IKT som stöd för tillägnan av literacy inom högre utbildning i Rwanda

Charles Karoro Muhirwe

Akademisk avhandling

som för avläggande av filosofie doktorsexamen vid Linköpings universitet kommer att offentligt försvaras i sal I: 101, Hus I, Campus Valla , onsdagen den 19 september 2012, kl. 13.00.

Abstract

Inspirerad av Bologna Processen och andra globala strömningar inom modern högskolepedagogik har man i Rwanda inlett en mängd policy reformer inom högre utbildning för att skapa nationell utveckling efter den förödande konflikten och folkmordet 1994. Sedan 2007 ställs nya förväntningar och krav på studenter inom den grundläggande högskoleutbildningen som skapar behov av att förstärka det som i forskningen benämns som 'new literacies'. Teoretiskt tar denna strömning avstånd från en tidigare pedagogik där läraren ger studenten kunskap och lägger i stället ett allt större ansvar på studenten att enskilt eller i grupp kunna söka kunskap, kritiskt granska och kunna argumentera för en ståndpunkt i skrift. Utbildning, och särskilt högre utbildning, ses som ett universalmedel för att råda bot för Rwandas sociala och ekonomiska underutveckling. Nya krav ställs också på att utbildningen både ska ha ett relevant akademiskt ämnesinnehåll som kan leda till fortsatt utbildning och vara anpassad till en kommande yrkespraktik. Detta ställer i sin tur krav på att blivande studenter är väl förberedda när de går in i utbildningen och att de vid genomförda studier har både akademisk kunskap och är förberedda för en yrkesprofession.

Mot denna bakgrund är syftet med denna studie att undersöka vilka krav på 'academic literacy' som har ställts på studenter i Rwanda över tid. Det sätt på vilket stöd för sådana kunskapskrav integreras i den allmänna kursplanen under det senaste årtiondet och hur kunskap i och om IKT kan integreras för att ge stöd i att uppnå kursplanens mål har också undersökts. Data består huvudsakligen av insamlade officiella dokument från regeringen samt ett tvärsnitt av institutioner för högre utbildning. Med hjälp av en kvalitativ innehållsanalys och intertextuell analys har dokumenten tolkats för att se vilka centrala förändringar vad gäller 'academic literacy' som skett över tid. Datainsamlingen kompletterades med mindre enkätstudier som också analyserats kvalitativt. Studien visar att en ny och utvidgad definition av 'academic literacy' vuxit fram under 2000-talet som innebär att studenter behöver utveckla ny akademisk kompetens som är relaterad till och kan överföras mellan olika områden. Diskursen i de dokument som studerats visar att det skett en förändring som innebär att allmän språklig kompetens inte räcker som medel för att utveckla 'academic literacies' utan den har utvidgats till att även integrera ämnesspecifik språkkunskap, olika former av studieteknik och IKT. När det gäller IKT som stödjande redskap för lärande visar studien att givet att politiska beslut och strategier för IKT-användning kan genomföras, förväntas användningen av dessa redskap ha en potential att stödja studenterna i den process som det innebär att gå från att vara helt beroende av lärarens undervisning till att mera självständigt söka och utveckla kunskap. Sammanfattningsvis understryks i studien att den kritik som framförts om högskolestudenters bristande förberedelse både för akademiska studier och för arbetslivet är utanför deras kontroll. Kritiken ska snarare ses som ett imperativ för institutioner inom högre utbildning att skapa lämpliga kurser och pedagogiska miljöer för att ge studenterna förutsättningar att kunna utveckla en 'academic literacy' som alla studenter har rätt att tillägna sig.

Nyckelord: Academic literacies, allmän engelska och engelskt fackspråk, stödjande redskap, integrerade läroplaner, IKT, högre utbildning, Rwanda

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Linköping University
FACULTY OF ARTS AND SCIENCES

Linköping Studies in Behavioural Science No. 164
Linköpings Universitet, Institutionen för Beteendevetenskap och lärande
Linköping 2012

Distributed by:
Department of Behavioural Sciences and Learning
Linköping University
581 83 Linköping, Sweden

Charles Karoro Muhirwe
Developing Academic Literacies in Times of Change
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Upplaga 1:1
ISBN 978-91-7519-841-5
ISSN 1654-2029

Printed by: LiU-Tryck, Linköping, 2012

In fond memory of my daughter, Erica

dad, Jean Baptiste Karoro

and all my departed brothers and sisters – may they rest in eternal bliss.

For my sons, Kevin and Jayden –

may their hard work be generously rewarded,

against the odds and tides of the constantly changing fortunes of time,

in a multi-literate, super-complex 21st century world and

a highly unpredictable future.

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Abbreviations and Acronyms

EDPRS	Economic Development and Poverty Reduction Strategies
ESP	English for Specific Purposes
GOR	Government of Rwanda
IELTS	International English Language Testing System
MINEDUC	Ministry of Education (Rwanda)
MOODLE	Modular Object-Oriented Dynamic Learning Environment – a free source e-learning software platform
NCHE	National Council for Higher Education
SAT	Scholastic Aptitude Test
TOEFL	Test of English as a Foreign Language
TOEIC	Teaching of English for International Communication
UNMDG	United Nations Millennium Development Goals
VOA	Voice of America – radio service
WWW	World Wide Web

Acknowledgements

My heartfelt thanks first go to all the individuals and groups from various institutions who helped to get around, informed me or otherwise participated in my research, for their invaluable time and data inputs which have greatly contributed to shaping up the thesis into what it is today.

I owe so much to my supervisors, Associate Prof. Ingrid Andersson and Dr. Nigel John Musk, especially for their indispensable, wise and patient guidance as well as friendly and constructive criticism. My thesis is partly a product of the collaborative and conducive working environment they helped me build.

I pay tribute to all IBL faculty who variously contributed to my learning while I was on my PhD programme or critically read my thesis drafts. Their precious feedback comments have helped me to refine my texts into presentable doctoral work. In particular, I would like to specially recognize Prof. Sven Andersson for his supportive role in my life – both academic and social – during my stay at LiU. I also wish to thank my discussants, Dr. Heiko F. Marten and Associate Prof. Elinor Edvardsson Stiwne, for constructive feedback.

Since I began my doctoral studies, my colleagues in the IBL department and many friends and family in Rwanda have supported me in various ways – materially, psychologically and morally – particularly when frustration, stress, procrastination and attrition threatened to set in as a result of prolonged and energy-draining study as well as pressures exerted by a number of socio-ecological challenges. Their advice and encouragement have been a powerful ingredient for my sustained resilience. Therefore, I intimately treasure appreciation for all these people have made available to me.

I cannot fail to register my distinguished gratitude to the Sida-SAREC/NURLi Project (operating under the auspices of the Swedish Institute) whose funding has empowered me to successfully complete my doctoral studies.

Charles Karoro Muhirwe

August, 2012

Chapter 1 ORIENTATION TO THE STUDY

The illiterate of the 21st century will not be those who cannot read and write,

but those who cannot learn, unlearn and relearn.

- Alvin & Heidi Toffler (1998)

1.1 GENERAL INTRODUCTION

Over the past twenty years, the twin processes of globalization and the information the revolution have resulted in the creation of a new global economy and society that are being driven by information and knowledge and powered by technology. The innumerable resultant social, economic and political changes are exerting pressure on nations and their people to constantly acquire new knowledge and skills. This new world order has put the less developed communities of the world in an even more vulnerable position (African Union [AU], 2007; Khelfaoui 2009; Obasi and Olutayo, 2009; United Nations Educational, Scientific and Cultural Organisation [UNESCO], 2009). With the changing market demands and the emergence of new literacies, people are required to be 'literate' in a new sense. This partly means being flexible and adaptive multiliterate individuals beyond: (i) the ability to read, write and count, (ii) mastery of a language, and (iii) consumption of teachers' transmissions of prescribed sets of information over fixed periods of time.

Under the aforementioned circumstances, tertiary students – among other concerned groups – are challenged to: (i) be able to continuously learn over their lifetime, and (ii) to acquire a stock of skills and competences to be able to learn and to fit into the competitive, unpredictable and constantly changing world of work. Although initiatives and efforts to face these challenges are expected at individual level, universities and other tertiary learning institutions bear a heavier responsibility. The potential of technology to leverage upon formal knowledge and skills acquisition cannot be overstated, but its limitations especially when applied to less developed settings and groups cannot be overlooked. In particular, conventional (or 'traditional') information and communication technologies (ICTs) need to be exploited in innovative ways and new digital technologies need to be adopted and integrated into teaching, learning and research (Colle and Roman, 2003; Reinders, 2007; Sharma and Hannafin, 2012; Tinio, 2003). It is generally believed that ICT offers potentially powerful enabling tools for educational reform and that it can help widen access to education, strengthen the relevance of tertiary education to the workplace and community development, and raise educational quality (Tinio, 2003). The promise of the latter is especially that it would make teaching and learning an engaging, active process that is connected to life in further studies and the world of work.

In the Rwandan context, which is the case for this study, transitional change in tertiary education has been mainly driven by a general transformation of the society after a devastating conflict and genocide as well as by policy reforms in the higher education subsector in response to the changing societal demands and labour market conditions. Nonetheless, Rwanda not being an island, these reforms may be located in sub-regional, regional and global contexts where similar or related educational reforms are taking place

(Rwanda Ministry of Education [MINEDUC], 2008b:6-9). An integral component of the reform in Rwandan tertiary education from 2007 onwards has been the introduction of English, a relatively new foreign language, as an official medium for academic communication. This reform movement is expected to usher in modified and new demands for language and other literacies on the part of tertiary students, which are worth research inquiry. Therefore, it was out of this curiosity that my study set out to investigate the academic literacies requested of undergraduates and how the acquisition of these literacies is supported (or 'scaffolded') at institutional level.

In the rest of this chapter the context of the study is further described and the research problem, aim and questions are spelt out. Also, theoretical considerations, research methods employed and the scope of the study are highlighted. The very last section guides the reader on how to read the other chapters of this thesis.

1.2 THE CONTEXT OF THE STUDY

Since the year 2007, Rwanda's tertiary education has been undergoing radical reform which marks a historic transitional period worth research. However, before then a sector-wide educational reform had gradually been taking place against a background of a general on-going post-conflict policy reform in all sectors of the Rwandan society from the early 2000s. The tertiary educational reform seems to have been accelerated by two major events: (i) the creation of the National Council for Higher Education (NCHE) in 2006, which subsequently introduced a number of reform policies and policy initiatives; and (ii) the 2008 legislation of a language-in-education policy that privileged English as the only official language of teaching, learning, research and other types of academic activity. The current study focuses on this transitional period as its immediate temporal, social and educational setting. Nonetheless, the study being partially a longitudinal one, national and global factors that have led to, influenced or inspired the tertiary educational reform are regarded as important and thus deserve some explication in this section.

In its 2008 *Higher Education Policy* document, Rwanda's tertiary education underscores its national/local contexts but also acknowledges the influences and tensions from a variety of sources at the sub-regional, regional and global levels:

> Higher Education in Rwanda does not operate in a vacuum. It is subject to numerous influences and tensions. These come from a variety of sources at a number of levels…The Government of Rwanda recognises the major international and regional trends and pressures that impact upon the design and delivery of higher education. It is in context of these [trends and pressures] that the specific policy objectives of Rwanda for higher education need to be viewed and the challenges it faces in realizing them to be considered (Rwanda MINEDUC, 2008b:5).

The above quotation sets the stage for closely examining how national and external factors have influenced or inspired Rwanda's tertiary education reform, with a special focus on the changing academic 'literacies' demands. As a point of departure, salient features of Rwandan tertiary education are first elaborated.

1.2.1 Salient Features of the Rwandan Tertiary Education

1.2.1.1 Important Definitions

Since the usage of certain technical terms can vary from context to context, key terminology used to describe certain aspects of Rwandan tertiary education is defined. To begin with, in the current study *tertiary education* (TE) is used as a synonym of *higher education* (HE), especially to avoid the controversy surrounding the divergent conception and usage of terms such as 'university', 'institute', and 'polytechnic'. In some world contexts 'higher' education is associated with research and 'the university', while 'institute' or 'polytechnic' are associated with teaching and technical training minus research activity which is common in other tertiary institutions. Rwanda has adopted the definition of higher/tertiary education to mean study beyond the level of secondary education where a degree, diploma or certificate is awarded at the end of the study, and the training/awarding institutions include universities, polytechnics, technical colleges, teacher training institutions, institutes for medical training (and training in other fields), distance education centres, as well as research centres and institutes (AU, 2007:9-10). The current study is interested in local public universities and institutes/colleges offering, among other programmes, bachelor's degree programmes. Also, in the study, the term *tertiary learning institution*, henceforth frequently abbreviated 'TLI', is preferred to *higher learning institution* (HLI) or *higher educational institution* (HEI) commonly used both in Rwanda and other settings. However, as explained below a 'university' status is understood to be different from that of an 'institute', 'polytechnic' or 'college'.

The following terms, which are referred to in this thesis from time to time, derive their definitions from the Official Gazette of the Republic of Rwanda (2006) which contains details about the law governing Rwandan higher education.

1. Comprehensive institution: an institution which offers a good range of curricula or courses spread across all or most of the major fields and disciplines, e.g. arts, humanities, social sciences, law, natural sciences, applied sciences and technology.
2. University: a higher learning institution that provides training in various disciplines, including technology and research in different domains; additionally, a university may have other higher learning institutes or schools and specialized research centres within itself.
3. Specialised institute/polytechnic/college: a higher training and research institution whose mission is to offer training and conduct research in various technical fields, and which may be affiliated to a university or have a separate legal status. However, there are polytechnics and colleges which don't award qualifications above diploma level.
4. Public higher learning institution: A public higher learning institution is established by the State, whereby the State is responsible for the HEI's organization, functioning, management and most of the funding.
5. Private higher learning institution: A private higher learning institution is an institution whose nature, functioning and organization are subject to an agreement entered in between its founders and the Government. But such an institution is managed and funded autonomously.

1.2.1.2 Brief History, Growth and Expansion

As is the case in most African countries, Rwanda's higher education is a product of the colonial enterprise and Western civilization. In Rwanda's case higher education came into being in 1963 under the cooperation between the then Government of Rwanda and the

Catholic Church – Dominican Fathers, to be precise. It is then that the first university in the country, the National University of Rwanda (NUR), was established. Between then and the late 1990s NUR had remained the only public degree-level tertiary learning institution in the country (see Tables 1.1a, b & c), and access to tertiary education was generally a privilege for a select elite based on such discriminatory variables as ethnicity, region of birth, social class, gender, age, and religious affiliation, a system of segregation perpetrated by the pre-genocide regimes (Mugisha, 2010). During the period between 2000 and the present tertiary education in Rwanda has experienced tremendous growth and development, both quantitatively and qualitatively (see Tables 1.1a, b & c).

Quantitative growth is clearly evident in student enrolments from less than 1,500 university graduates over three decades (i.e. between 1963 and 1995) to 26,576 students in 2010 alone, as shown in Table 1.1a. In the previous year the total enrolment in both public and private TLIs was 55,213 (Rwanda MINEDUC, 2010a:33). Therefore, 52% were enrolled in private TLIs. The average student population for each TLI shows in brackets the number of female (F) students as compared to that of male students. In spite of this plausible record, however, the enrolment rate is reported to be still falling below international standards and "well below [the level] required to create the knowledge base needed to accelerate growth of a skill-intensive Services Sector" (Government of Rwanda [GOR], 2007:33). Therefore, it is the Government's strategy to increase the gross enrolment rate to 4.5% by the year 2012 (GOR, 2007:37). Quantitative expansion is indicated by the number of public institutions in Tables 1a and b. Statistics from Rwanda's National Council for Higher Education (Rwanda NCHE, 2010) indicate that as of the year 2010 there were 29 public and private TLIs, among which 17 were public and 12 were private. The public TLIs included those awarding qualifications below degree level (see Table 1.1b). In total, 25 institutions, almost 90% of all TLIs in the country, were established between 1996 and 2010.

Table 1.1a: Rwanda's public tertiary learning institutions – degree level

Institution	*Date of Establish-ment*	*Average Student Population (2010)*	*Category*	*Major Undergraduate Fields*
1. National University of Rwanda (NUR)	1963	10,657 (3,069F)	University	Agriculture; applied sciences; pure sciences; arts, media & social sciences; economics & management; law; medicine; public health
2. Higher Institute of Agriculture & Animal Husbandry (HIAAH or ISAE in French)	1989	2,507 (734F)	Institute	Agricultural engineering & environmental sciences; agriculture & rural development; veterinary medicine
3. Kigali Health Institute (KHI)	1996	1,399 (672F)	Institute	Allied health sciences; nursing sciences; community health development
4. Kigali Institute of Science & Technology (KIST)	1997	3,004 (754F)	Institute	Engineering; architecture & environmental design; applied sciences
5. Kigali Institute of Education (KIE)	1999	6,177 (1,935F)	Institute	Education; physical & biological sciences; social sciences; business studies; arts & languages
6. School of Finance & Banking	2002	2,810 (1,216F)	Institute	Accounting; finance; marketing; human resource management
7. Umutara Polytechnic (UP)	2006	2,954 (1,054F)	Polytechnic Institute	Agriculture; commerce & applied economics; technology & applied sciences; information & communication technology (ICT); veterinary medicine
8. Institute of Legal Practice & Development (ILPD)	2008	75 (29F)	Institute	No degree so far; postgraduate diploma awarded
	TOTAL:	**26,579 (9,461 = 35.6%)**		

Source: Rwanda NCHE (2010), "Statistical Information on Higher Learning Institutions in Rwanda", plus institutional web sites

By NCHE's categorization, there were 9 college-level institutions, 16 degree-level institutes and four universities. By the same categorization, there was only one public university in the country, the National University of Rwanda, and seven public degree-level institutes. A special case is that of the Institute of Legal Practice and Development (ILPD) which was delivering postgraduate diploma programmes to graduates with a bachelor's degree in law and was planning to deliver related programmes to already practising legal professionals with no degree qualifications. In the private sector three universities and nine degree-level institutes were operating, the oldest of them being the Adventist University of Central Africa (AUCA) (see Table 1.1c).

Table 1.1b: Rwanda's public tertiary learning institutions – below degree level

Institution	*Date of Establishment*	*Category*
1. Kabgayi School of Nursing & Midwifery (KSNM 1)	2007	College
2. Rwamagana School of Nursing & Midwifery (RSNM)	2007	College
3. Byumba School of Nursing & Midwifery (BSNM)	2007	College
4. Kibungo School of Nursing & Midwifery (KSNM 2)	2007	College
5. Nyagatare School of Nursing & Midwifery (NSNM)	2007	College
6. Tumba College of Technology (TCT)	2007	College
7. Kicukiro College of Technology (KCT)	2008	College
8. Rukara College of Education (RCE)	2008	College
9. Kavumu College of Education (KCE)	2008	College

Source: Rwanda NCHE (2010), "Statistical Information on Higher Learning Institutions in Rwanda"

Obviously, many other indicators of quantitative growth and expansion have not been accounted for – especially for lack of sufficient data – but these are likely to include: growth in the number of academic and other staff, library stocks and technologies. Furthermore, the 2010 statistical report did not account for cross-border/trans-border and related systems of higher education delivery, which a new phenomenon in Rwanda. For instance, a few foreign universities (e.g. Mount Kenya University, a private institution based in Kenya) have opened campuses in Rwanda. Besides, some distance and/or blended programmes are being delivered by foreign institutions (e.g. from South Africa, India, the UK, the USA, the Netherlands, etc) with the cooperation of local institutions.

Table 1.1c: Rwanda's private tertiary learning institutions – degree level

Institution	*Date of Establishment*	*Category*
1. Adventist University of Central Africa (AUCA)	1984	University
2. Protestant Institute of Arts & Social Sciences (PIASS)	1990	Institute
3. Kigali Independent University (or 'Universite Libre de Kigali, ULK)	1996	University
4. Independent Institute of Lay Adventists of Kigali (INILAK)	1997	Institute
5. Gitwe Higher Institute of Education (or Institut Superieur Pedagogique de Gitwe, ISPG)	1997	Institute
6. Catholic Institute of Kabgayi (CIK)	2002	Institute
7. Institute of Agriculture, Technology & Education of Kibungo (INATEK)	2003	Institute
8. Ruhengeri Institute of Higher Education (or Institut d'Enseignement Superieur de Ruhengeri, INES)	2003	Institute
9. Byumba Polytechnic Institute (or Institut Polytechnique de Byumba, UPB)	2006	Institute
10. Kigali Institute of Management (KIM)	2006	Institute
11. Rwanda Tourism University College (RTUC)	2007	Institute
12. Catholic University of Rwanda (CUR)	2010	University

Source: Rwanda NCHE (2010), "Statistical Information on Higher Learning Institutions in Rwanda"

Qualitative growth and development is more difficult to notice physically, but it has been recorded in various policy and planning documents and reports from Rwanda's Ministry of Education, as well as from the local press. Major qualitative indicators include the following:

- The integration of ICT into teaching, learning and research at institutional and individual student and staff levels;
- Wider participation and access to higher education afforded by the removal of discriminatory barriers, including attention to gender balance, mature entrance and inclusion of students with disabilities;
- Introduction of and increasing number of master's degrees, which has happened for the first time in Rwanda's history;
- Staff development programmes, including doctoral and post-doctoral training;
- Increased number of graduates with higher qualifications, hence improved skilled labour force;
- Increasing research initiatives and projects;
- Capacity building, such as the creation of the National Council for Higher Education.

One quality indicator that is most relevant to the current study is the recognition by the Ministry of Education that there is a need to link economic growth, skills and employment. Reflecting on the National Skills Audit Report published in 2009 and a World Bank funded study conducted in 2009, both of which indicated gaps between graduates' skills and employment demands, the *Education Sector Strategic Plan 2010-2015* underlines the importance of supporting students in developing generic transferable academic skills for employability purposes (Rwanda MINEDUC, 2010a:26).

1.2.1.3 The Structure of Rwanda's Tertiary Education

After two years of nursery schooling, pupils proceed to a compulsory a nine-year basic education cycle. Six years of Elementary school and three years of Lower-secondary school constitute this cycle. On successful completion of the basic education cycle, students can opt to join the Upper-secondary level (or 'A' level) and pursue either a general/academic programme or a vocational training course. Students who have completed vocational training in vocational schools have the opportunity to upgrade their training in a relevant technical area. The qualification at the end of such training is either an advanced certificate of education or a higher diploma (A1). Students spend an average of four years in higher education (HE), depending on the type of study programme. Until recently, local tertiary learning institutions offered only undergraduate study programmes, but some HEIs are now offering master's degree programmes in some fields. Recent media reports indicate that in the near future well established institutions like the National University of Rwanda will be capable of running doctoral programmes. Continuing education is closely related to the world of work (e.g. distance, open and lifelong learning), but it also includes adult and non-formal education. The framework of qualifications and cycles of study adopted in Rwanda since 2007 have had been borrowing from the European system, thanks to the Bologna Process, but this is elaborated in Chapter 5.

1.2.1.4 Curricular Orientations of Rwandan Tertiary Learning Institutions

First of all, the curricular orientation of a TLI determines whether it will be called a 'comprehensive' or a 'specialized' institution (see 1.2.1.1). Part of the local institutions' curricular orientations is shown in Table 1.1a (fifth column), whereby the major fields

represent the faculties, institutes, schools or centres running them. However, according to NCHE's classification , academic programmes across TLIs are clustered into four core groups: sciences & technology; medicine & health sciences; economics & management; and arts and media. Like the public TLIs, private TLIs too may be classified as those delivering a comprehensive or a specialized curriculum. Another major similarity is that both public and private TLIs are charged with designing and developing their own curricular with no intervention from the Ministry of Education.

The field/disciplinary distribution pattern is not very different between public and private TLI but there are a few exceptions. For example, to date no private TLI delivers any programme in medical and health sciences. Moreover, there is a tendency for private TLIs to offer more arts, humanities and social science programmes, attracting a significantly higher enrolment (especially female students, who tend to shy away from the hard sciences). This was revealed in the Education Sector Strategic Plan 2010-2015(Rwanda MINEDUC, 2010a:33). On the other hand, the statics provided by NCHE's statistical report of 2010 (Rwanda NCHE, 2010) reveal that there has been a significant increase in enrolment in the science & technology cluster. In both 2009 and 2010 this cluster recorded the highest enrolment (i.e. 22, 421 and 25,894, respectively), whereas the medicine & health sciences cluster recorded the lowest enrolment (i.e. 5,958 in 2009 and 6,879 in 2010). A noteworthy trend is that overall enrolment in the arts, humanities & media domain is on the decline, as compared to the earlier situation. One explanation for this trend may be the on-going government policy of emphasis shift to science and technology subjects throughout Rwanda's education system.

Another important difference in curricular orientation between public and private institutions is that whereas the curricula orientation of public TLIs must be determined or endorsed by the State, those of private TLIs are independently determined and developed. Yet it is noteworthy that most TLIs, even those that have a curricular setting unrelated to arts, run language courses in conformity to the national language-in-education policy.

1.2.2 Tertiary Education in the National Policy and Planning Framework

Emerging from a devastating war and genocide in 1994, Rwanda, steered by the new government which was formed in 1995, embarked on a programme of national reconciliation, unification, rehabilitation and reconstruction. This almost coincided with the demands on Rwanda to carve her niche in the 'global village' and information society and economy of the New Millennium (21st century). Thus, though Rwanda has had all the reason and the capacity to set her own development agenda, there has been a need to align with the usually top-down agendas set at supranational levels. In the Rwanda of today, you cannot discuss at any level matters pertaining to policy, planning and development without invoking two key references: (i) Vision 2020, and (ii) Economic Development and Poverty Reduction Strategies (EDPRS). The third reference, the Rwandan Millennium Development Goals (Rwanda MDGs), has over time been embedded in the first two (GOR, n.d.).

After some time of reflection and deliberation with key stakeholders across the Rwandan society, the Government of Rwanda drew up a document in 2000, christened *Vision 2020*, "in which a long-term development path for Rwanda is outlined and ambitious goals to be reached by the year 2020 are formulated" (GOR, 2000a:2). The Vision forms an extremely important framework for Rwanda's development process in all sectors, including education, from the macro level down to the micro level. It is through this framework that key priorities are articulated and presented, thus providing a guiding tool for needs assessment, planning,

implementation, monitoring and evaluation at all levels. For example, in the education sector – including tertiary education – there must be a sector vision in place matched by a mission and plans to attain the vision. This pattern must be adhered to by all learning and other institutions as well as agencies under the Ministry of Education. In some cases a 'vision' and 'mission' component is included in course planning at the department level in tertiary learning institutions in relation to the institution's vision and mission. In the case of government TLIs, each institution derives its vision and mission from the broader Vision 2020 and the education ministry's Vision. With the Vision's premium put on Rwandans as the most valuable asset, and with its ambition to develop a skilled human resource and become a knowledge-based hub (GOR, 2000a), tertiary education is expected to play a leading role in achieving these aspirations.

Deriving from earlier international development targets, the Millennium Development Goals are a United Nations initiative (hence UNMDGs) consisting of eight international development goals that all 193 UN member states and at least 23 international organisations sitting at the Millennium Summit in 2000 agreed to achieve by the year 2015. Each of the goals has specific targets, totalling 21 targets. The aim of the MDGs is to encourage development by improving social and economic conditions in the world's poorest countries (GOR, 2003a). Thus Rwanda has locally adopted the goals and set *Rwandan Millennium Goals*, and releases a country status report on regular basis.

Related to the goals are the Poverty Reduction Strategies (PRS), a World Bank and International Monetary Fund (IMF) initiative, normally expressed in writing through Poverty Reduction Strategy Papers (PRSPs).The PRSPs, describe a country's macroeconomic, structural and social policies and programmes to promote growth and reduce poverty, as well as associated external financing needs. Poverty Reduction Strategy Papers provide the basis for World Bank and IMF assistance as well as debt relief under the Heavily Indebted Poor Countries (HIPC) [The World Bank Group, 2012). A country needs to write a PRSP every three years, but the period may be extended or reduced. Whereas Rwanda's first PRSP covered the period 2002 to 2005, the latest PRSP covers the period 2008 to 2012. The latter strategy paper redefines Rwanda's priorities and sets out objectives and major policies for the next five years (GOR, 2007). The paper provides a medium-term framework for achieving the country's long-term development goals and aspirations as embodied in Rwanda's Vision 2020 and the Millennium Development Goals. One of the key sectors focused by Rwanda's PRSP is the education sector, including tertiary education.

In attempt to interface between Vision 2020 and Rwanda MDGs, the Government formulated a framework known as the Economic Development and Poverty Reduction Strategies (EDPRS). This has created a formidable and pervasive framework. For instance, in the governance sector all levels from the Ministry of Local Government to the provincial, district, sub-district and village level, a community's activity is guided by a Vision and strategic plan with clear goals and targets as well as times set to achieve those goals and targets. Of late, this framework has percolated to the domestic level, whereby each household is required to regularly fill out a "performance contract" (i.e. *imihigo*, as it is called in Kinyarwanda) [Rwanda New Times, 21st June, 2012]. Similarly, all workers in the civil and public services must fill out and sign a yearly performance contract.

In the education sector, the policy formulation and planning pattern and process start from the national level and end at institutional level, whereby faculties, centres and schools and their departments align with the broader institutional frameworks. In national policy and EDPRS

there is a slot for the education sector. On this basis, the Ministry of Education formulates its sector and subsector policies (e.g. secondary education policy and higher education policy) and must fit them into the national Vision 2020 and EDPRS. The ministry also draws its own sector EDPRS. Then, learning and other institutions under the ministry derive their strategic plans from those of the ministry. Thus discourses of such issues as academic literacy and ICT integration find their way to the department level and are often reflected – explicitly or inexplicitly – in the plans of study programme and courses. To illustrate this point, one of the key objectives of the national EDPRS (2008-2012) is to promote skills development and the service sector. This is reverberated in the *Education Sector Strategic Plan* (2008-20012) by emphasizing the teaching of ICT skills and entrepreneurship skills. Priority areas of training include science and technology, tourism and hospitality, education and health sciences (e.g. nursing), thus diversifying and widening the scope of training to areas not given much attention before. In parallel, the 2008 *Higher Education Policy* stresses the need to match curricula and skills acquired therein to the labour market demands. There is also an explicit focus on transferable skills, student-centred pedagogy and outcome-and practically-oriented educational exit behaviour.

Furthermore, a number of macro policies and macro policy decisions are directly absorbed and applied by tertiary learning institutions. Two cases in point are the language-in-education policy and the ICT policy, both of which TLIs must be seen to implement at meso and micro levels.

1.2.3 Tertiary Education and National Legislation

1.2.3.1 Establishment and Operation

From the early 2000s it was strongly felt that to be able to ensure that tertiary education provision is developed within a regulated strategic framework of national priorities a legal framework for tertiary education was a prerequisite (Rwanda MINEDUC, 2002). This policy objective was achieved in 2005 when, through parliament, the *Law Governing the Organisation and Functioning of Higher Education* was established (GOR, 2006a). Coming into force on March 1, 2006, the law "defines the operating environment for all higher education institutions, public and private as well as specifying the roles, responsibilities and duties of all institutions" (Rwanda MINEDUC, 2008b:5). It is through this law, for example, that the National Council for Higher Education was created (GOR, 2006b).

Thus the law has become a legal framework that defines terms of reference for every institution, faculty or department, and classroom. For example, for any institution, be it public or private, to exist, or to issue certificates, it has to comply with the requirements and provisions of this legal framework. In the case of public TLIs, their creation, removal or merging, as well as the curricula they have to teach are all matters usually decided or endorsed by the Government through parliament. For example, the *Law Determining the Structure, Organisation and Functioning of the National University of Rwanda* (NUR) [GOR, 2009a] and the *Law Determining the Structure, Organisation and Functioning of Kigali Institute of Science and Technology* (KIST) [GOR, 2009b), had to be put in place even though the TLIs started operating in 1963 and 1997, respectively.

1.2.3.2 Roles, Functions and Responsibilities

In the current study, it is important to understand the roles, functions and responsibilities of Rwandan TLIs, as these do not only mandate the TLIs to sanction literacy acquisition but also to assess/analyse and interpret the prevailing literacy needs and make provisions for addressing them – be it at institutional level or at the levels of the faculty, department or classroom. From a legal perspective, Article 35 of the Law Governing Organisation and Functioning of Higher Education (GOR, 2006a:27) stipulates that Rwandan HEIs will have the following duties and responsibilities, which I consider to be relevant to this study:

- To devise programmes and provide programmes and provide higher learning;
- To carry out and promote research in all scientific and technological disciplines and on different problems of the country;
- To publish research results and collaborate with other institutions to ensure their dissemination so as to contribute to the promotion of national development;
- To provide the student with skills, technology and education that enable him or her to assert himself or herself so as to create employment for his or her personal fulfilment and advancement as well as national development; and
- To contribute to the research for solutions to other issues related to national development.

The overall objective of higher education in Rwanda is to meet manpower needs (Rwanda MINEDUC, 2006b:11). The overall aim is described as to substantially increase student numbers and improve quality while reducing costs. The responsibility of TLIs is described by the 2008 *Higher Education Policy* as "the creation, absorption and transmission of knowledge", and their role is seen as "generating new knowledge through research and innovation and transferring this knowledge to support social and economic development" (Rwanda MINEDUC, 2008b:4). The TLIs are also charged with building human capacity "by educating and training students for skilled employment" (MINEDUC, 2008b:4).

1.2.4 Globalization and Internationalization in Rwandan Tertiary Education

1.2.4.1 Globalizing and Internationalizing Trends and Impact

Globalization in the context of higher education may be defined as "the reality shaped by an increasingly integrated world economy, new information and communications technology (ICT), the emergence of an international knowledge network, the role of the English language, and other forces beyond the control of academic institutions". *Internationalization* may be defined as "the variety of policies and programs that universities and governments implement to respond to globalization" (UNESCO, 2009:iv).

Comparing and contrasting globalization and internationalization, Altbach and Knight (2006:1) argue that these two terms should not be confused. They define globalization as "the economic, political, and social forces pushing 21st century higher education toward greater international involvement." According to Altbach and Knight, whereas globalization may be "unalterable" internationalization involves many choices. That is, globalization tends to concentrate wealth, knowledge and power in those already possessing these elements. By contrast, according to these authors, internationalization is a two-way traffic, whereby the needs of the less developed countries are served. This is achieved through, for example,

cross-border students and higher education programmes and institutions, the growing international market for academic and scientific personnel, curricular internationalization, and the commercialization of international higher education – resulting in profit making in educational institutions. Internationalization may also include other elements such as technology transfer, student mobility, and curricula with an international orientation in content, aimed at preparing students for performing (professionally and socially) in an international and multicultural context (AU, 2007:11-12).

The impact of both globalization and internationalization on Rwanda is already being felt, as most of the above elements are increasingly being integrated into higher education. Below the impacts documented in Rwanda's 2008 *Higher Education Policy* (Rwanda MINEDUC, 2008b:7-8) are outlined:

- The importance of knowledge and research, whereby the pursuit, production and use of knowledge has replaced the exchange of goods as the key factor in economic competitiveness;
- The need to train and retain populations with high-level skills, as knowledge constantly changes and transforms itself – hence the need for lifelong learning;
- Widened access (i.e. 'massification') to include disadvantaged groups, e.g. female students, students with disabilities, mature students and working class;
- Economic globalization, reducing government funding for institutions and prompting the latter and students/parents to share the cost; and
- ICT's fast development, putting countries and institutions with economic problems and low-technology at a disadvantage.

In addition to the above, Rwanda's subscription to international development targets (e.g. Education for All by the Year 2015) [Rwanda MINEDUC, 2003], has to some degree influenced the following:

- Increasing student mobility within the African region and overseas, plus cross-border and trans-border and e-learning possibilities;
- Increasing diversity in and broadening of curricula;
- Pressure to put in place new systems for academic support and innovative approaches to pedagogy;
- Increasing popularity of many professionally or job-oriented programmes and institutions offering them (e.g. business studies and ICT);
- Increasing attention to technical and vocational training;
- Increasing attention to quality assurance and qualifications frameworks;
- Increasing establishment of private institutions; and
- The adoption of English as an academic lingua franca in the place of French.

1.2.4.2 Adopting the Bologna Process and its Impact on Reform Policies

Although the *Bologna Process* is not without shortcomings, it has been of interest to nations outside Europe. Tapping into its successes and learning from its pitfalls, Rwanda has joined these other nations to adopt the Process to her own tertiary education, and the former's impact on recent higher education reform policies is evident in many respects. Rwanda adopted the Bologna Process in 2007 (New Times [Rwanda], 2nd May, 2008), and her reasons

for doing so can be best understood within the context of globalization and internationalization.

The Process is named after the *Bologna Declaration*, which was signed in the Italian city of Bologna on June 19, 1999 by ministers in charge of higher education from 29 countries. It is the main guiding document of the Bologna process. Today, the Process unites about 47 countries. The Bologna Declaration was followed up with a series of meetings between European Union (EU) ministers of education, in Prague (2001), Berlin (2003), Bergen (2005), London (2007), and Leuven/Louvain-la-Neuve (2009). The latter meeting marked the beginning of the second phase to run for the next decade. The Bologna Process seems to be a response to the prevailing competitiveness of the globalized 21st century world (Obasi and Olutayo, 2009).

Since its inception, the Process has spread its tentacles not only to European countries outside the EHEA or European Union, but also to other countries such as Australia, New Zealand, China, and Canada. By 2009 it had gained momentum in most African countries (Khelfaoui, 2009). Africa had made some efforts at harmonizing its higher education long before the Bologna Process, e.g. through the *Arusha Convention on Recognition of Qualifications in Higher Education in Africa* (1981). There were similar efforts at sub-regional and national levels, but all the African efforts at establishing an African Higher Education Area (AHEA) have borne no tangible fruit. Therefore, it was against this crisis that in the *Arusha Convention 2003* and the *2006 Amendments* harmonization efforts towards the Bologna Process were initiated instead (Obasi and Olutayo, 2009:166), although there are no signs of follow-up concerted efforts at continental level. Sub-regions and nations have been trying to adapt their systems to the Process independently. This partly explains why Rwanda found it easy to adopt a system that had already registered success in Europe. Within the East African Community (EAC), of which Rwanda is a relatively new member, recent harmonization efforts seem to have borrowed a leaf from the Bologna Process by forming a sub-regional Credit Transfer System (to promote student mobility) and an *Inter-University Council for East Africa* and an *East African Quality Assurance Framework*.

The overarching aim of the first phase of the Process was to create a European Higher Education Area (EHEA) by 2010, and to promote the European system of higher education worldwide (Eurostat-Eurostudent, 2009:35). This broad aim was translated into several operational goals, the following of which are relevant to Rwanda because the discourses used to express them have permeated Rwanda's higher education policies and strategic plans, as well as curriculum documents such as programme and module plans:

- To adopt an easily readable and comparable common framework of qualifications – the foremost tools to achieve this being the European Credit Transfer System (ECTS) and the Diploma Supplement;
- To form uniform degree structures and study cycles – 3 cycles (bachelor, master, doctorate), each level with generic descriptors based on learning outcomes and competences (rather than based on knowledge accumulation) and credit ranges for qualifications within the first and second cycles;
- To establish a system of credits as a means of promoting student academic mobility between countries and of facilitating the accreditation of prior learning outside of higher education contexts;
- To promote further education and lifelong learning, with emphasis on interdisciplinary training and the development of transferable skills;

- To develop quality assurance with a view to developing comparable criteria and teaching-learning methodologies;
- To reinforce the social dimension and to remove obstacles related to students' social and economic background so that they can complete their studies, implying that the mobile students will need an academic lingua franca and ease with a range of academic literacies.

Although Rwanda's adoption of the Bologna Process has not been a matter of copy-and-paste, there is substantial evidence that many of its elements have found their way to the Government's policies on and plans for higher education, in general, and to the reform policies and policy initiatives of Rwanda's National Council for Higher Education, in particular. For example, the 3-cycle degree system and the descriptors employed to set the qualifications framework are similar in many respects. Within the EHEA framework, qualifications that signify completion of the first cycle are awarded to a student who: (i) has demonstrated knowledge and understanding of a field of study; (ii) can apply their knowledge and understanding; (iii) have the ability to gather and interpret relevant data; (iv) can communicate information, ideas, problems and solutions; and (v) have developed learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy. Also, the EHEA credit system is in large part similar to that now used in the Rwandan Credit Accumulation and Modular Scheme (CAMS). Furthermore, the purposes for and elements of the Diploma Supplement within the EHEA system of higher education is comparable to the Personal Development Planning in Rwandan higher education.

Generally speaking, adopting the Bologna Process implies a significant change in the ways students in Rwandan tertiary education are used to learning, taking assessment tasks and researching. It is a great paradigm shift from a system hitherto dominated by teacher-centred pedagogy and knowledge transmission and accumulation.

1.2.5 The Language-in-Education Policy in Tertiary Education

Cutting across all the ethnicities and regions of Rwanda, Kinyarwanda, a Bantu language, is by and large the First Language (L1). Another mostly used African language is Swahili, as the latter is a regional lingua franca bridging all the countries constituting the Great Lakes Region. Other regional languages used in the country, but on a small scale, are vernaculars widely spoken in the neighbouring countries, such as Lingala from the Democratic Republic of Congo, Luganda from Uganda and Kirundi from Burundi. French and English are the two most actively used European languages, and their relative status and functions have shifted over the past two decades or so due to the prevailing political, economic and social circumstances during a given period of time. The use of French as an official foreign language and as a medium of instruction in the Rwandan formal education system is a colonial and post-Independence legacy from French-speaking Belgian colonial administrators and from Rwanda's sustained relations with France, respectively. English was legislated as another official foreign language and medium of instruction (from Upper-primary to tertiary level) after the 1994 Rwandan Genocide and the installation of a new government, primarily to socially and economically integrate a significant number of Rwandan returnees who had been born or had grown up in Anglophone countries outside their motherland. There are several other social, economic and political factors that motivated the adoption of English, but discussing them falls outside the scope of the current study. Moreover, "language use, language practices, language policies and language politics represent interrelated aspects of

social and linguistic relations that cannot be meaningfully addressed from a point of view of one scientific discipline only" (Saarikivi and Marten, 2012:1).

After the new institution of the French-English bilingual policy, English language literacy became a policy interest in the country. Within the education sector, the English language-in-education policy can be situated in the Kinyarwanda-French-English multilingual education policy that prevailed from the late 1990s to 2008. Thus in its 2003 sector policy the Rwandan Ministry of Education refers to *trilingualism* (to accommodate the use of Kinyarwanda as a language of instruction at Lower-primary level and below) as an educational issue worth attention (Rwanda MINEDUC, 2003). In its *Education Sector Strategic Plan 2006-2010* the Ministry of Education foregrounds "To promote trilingualism in the country" as one of the ministry's specific sector policy objectives (Rwanda MINEDUC, 2006b:8). By contrast, in its *Sector Strategic Plan 2010-2015* the ministry shifts its emphasis from 'trilingualism' to 'English' as the only official medium of instruction (Rwanda MINEDUC, 2010a: 6, 7).

Generally speaking, the following features characterised the language-in-education policy in tertiary education between the late1990s and 2008:

- Focus on French-English bilingual education, but without much restriction as to which of the two languages should dominate the other;
- Lack of a standardised, coherent tertiary foreign language curriculum, thus allowing tertiary learning institutions ample latitude to design language programmes idiosyncratically deemed to fit in their mainstream curriculum and socio-linguistic orientation;
- Focus on general language proficiency, underrating the need for academic and work-related language competences;
- Generally, low or intermediate proficiency levels among students, especially in English as a relatively new foreign language for the majority of the population (but also very low levels for Anglophones who had to study French for the first time);
- Mixed codes and code-switching between English and French and Kinyarwanda, including during formal learning and teaching activities;
- Treatment of language programmes and courses as a peripheral curriculum, hence language instruction mostly at foundation level or first year of university.

A concrete and well-defined language-in-education policy in higher education came into force after Rwanda's National Council for Higher Education released the *National Policy on Language Teaching in Higher Education* [NPLTHE] in 2007. But the most critical turning point in the history of language-in-education in Rwandan tertiary education is when English was adopted by the government of Rwanda as an exclusive language of instruction at all levels of education from Upper-primary to tertiary level and of official communication in October 2008. Until then, English and French had a similar legal status, functions and roles in what was then commonly referred to locally as *bilingualism*. After the new policy was introduced, tertiary learning institutions had to adjust their in-house language policies and curricula in order to shift focus from bilingualism to English monolingualism.

The adoption of English as the official language of instruction in tertiary education has accelerated the demand for academic and work-related English (i.e. English for Academic/Specific Purposes). Thus, henceforth, educational success in tertiary study, which is mainly based on disciplinary literacy (i.e. knowledge and skills in academic subjects), will be greatly influenced by the students' ability to communicate (i.e. listen, read, speak and write) competently in English. This also has implications for the teaching and learning of

transferable academic skills and competences, most of which are developed through the medium of language.

There being several social, economic and political reasons to explain Rwanda's abandonment of French and adoption of English as a language of official communication and of instruction, the study's interest is in English use in higher education. So, it suffices to conclude that one convincing rationale for adopting an English language in higher education policy is the language's status, function and role in the context of globalization and internationalization of higher education discussed earlier, whereby English has become a global academic lingua franca (Mauranen, Hynninen and Ranta, 2010). Therefore, Rwanda is in good company with many higher education systems in the world who are struggling to cope with the requirement to use a foreign language in their academic activity. The English language-in-education policy is further discussed in Chapter 5.

1.2.6 The Creation of the National Council for Higher Education (NCHE)

Against the background of the multi-faceted context elaborated in the foregoing sub-sections, the stage was set for radical reform in Rwanda's tertiary education by the year 2007. For example, enrolments in higher education were soaring, a number of private tertiary institutions were coming up and a number of social, economic and political transformation policies at macro level were under implementation. Besides, the pressures from globalization and internalization were intensifying and becoming increasingly complex. Therefore, there was the need to formulate policies to guide the transformation process in tertiary education. There was also the need to overhaul and innovate on tertiary curricula and to design new ones. Yet for all this to happen a powering engine needed to be in place, and a mechanism to control and assure quality was a paramount necessity. Therefore, the creation of a higher education council was a timely intervention. The legal framework for Rwanda's higher education being in force from 2005 was a particularly crucial setting for the creation of the council.

The National Council for Higher Education (NCHE) – currently often referred to as Higher Education Council (HEC) – was established in 2006, one year after the higher education law was passed by parliament. The overarching responsibility of NCHE as a regulatory government agency is to oversee the accreditation of learning institutions and programmes of study, as well as other issues regarding standards, quality assurance and quality control. For example, the council evaluates the quality and standard of educational provision and research. A role of the council that is of most importance for my study is that of policy making.

Rwanda adopted the Bologna Process almost at the same time NCHE was created, and this partly explains why many of its policies contain elements of the Process. Only one year after its creation, NCHE introduced into tertiary education a package of policies and initiatives that marked the beginning of a radical reform process and that, to a large extent, currently determine what transpires in public tertiary learning institutions. The study focuses on only those related to the demands for and the development of tertiary academic literacies, namely: the qualifications framework; the credit and modular system; learning, teaching and assessment; students' personal development planning; and teaching English as a foreign/second language.

The establishment of the higher education law and NCHE is a crucial landmark in the history of Rwanda's tertiary education. With this mechanism in place, a number of changes have

taken place within the legal and institutional frameworks. Notable among these is the widening of access opportunities for several groups hitherto disadvantaged especially by the political climate in the country before 1994. Among them are students from lower social classes, female students, students with disabilities, mature students (i.e. on a lifelong learning scheme), working class (i.e. enrolled in evening classes), and foreign students particularly from neighbouring countries. Another remarkable development that has increased access is the council's accreditation of more and more private institutions and cross-border programmes, as well as distance and e-learning. Further, the council has played a big role in the introduction for the first time in the country's education history of postgraduate programmes at master's level. Moreover, through its policies NCHE has initiated reforms that mean not only structural changes but also curricular innovations. These innovations have ushered in new academic and work-related requirements and demands that call for rigorous preparation of students in tertiary institutions for academic life and the world of work.

1.3 RESEARCH PROBLEMS, RATIONALE AND SIGNIFICANCE OF THE STUDY

Apart from the requirement to conduct PhD research, my study has been motivated by two major factors: (i) my familiarity with the context elaborated in the previous section; and (ii) my broadening and deepening understanding of the phenomenon of academic literacies and its relatedness to the world of work. Being a Rwandan national and having been a university teacher in Rwanda for the past 17 years, I am part and parcel of the said context. My teaching areas have included English language, literacy skills, literature in English and educational sciences such as teaching methodology and educational technology. I have also held leadership positions as head of department and programme leader, where I have not only led programme planning but also actively participated in various course design and development processes.

The establishment of NCHE, the adoption of the Bologna Process, NCHE's introduction of new higher education reform policies and the adoption of English as the official language of instruction are four important factors that marked the beginning of a historic process of transformation in Rwanda's tertiary education. It is this critical moment of transition from the old to the new that has caught my attention, so my study has inquired into how the current educational reform and socio-economic situation relate to literacy requirements and demands. Since both educational reform and socio-economic transformation are vast and complex areas, the study has concentrated on literacy-related higher education policy changes and responsive changes in academic literacy curricula across Rwanda's public tertiary institutions. But, since literacy curricula and pedagogy are closely linked to the broader institutional curricula, the latter have also been of interest at some points in the study. It is against this backdrop that I turn to the problems whose solution the study seeks to contribute to.

A variety of people in Rwanda have been expressing dissatisfaction about the quality of students studying in and graduating from local institutions. But, who are these people and what are they dissatisfied about? Both academic and non-academic staff often lament that students exhibit lack of knowledge, skills and competences in the following areas: disciplines of their specialization (evidenced by difficulties in assessment tasks, e.g. assignments, term papers, examinations, and research projects); and general and academic language (now English) communication. In addition, there is dissatisfaction about students' generic (non-linguistic) academic skills and attributes, such as critical, analytical and creative thinking.

Besides, employers, educated parents and politicians complain that graduates are non-performers in: knowledge, skills and competences in their areas of specialization; general language communication skills; job-related language communication skills; and other job-related competences and attributes. Politicians in particular have been making serious statements about the quality of tertiary curricula and calling for explicit innovations in the reform programme, and asking tertiary institutions to engage stakeholders such as employers in joint design, development and evaluation of curricula (New Times [Rwanda], 08/06/2012). Furthermore, under this pressure from different quarters, even students mumble among themselves about their inadequacies, torn between blaming themselves, their lecturers and institutions or the Government (i.e. the executive, the parliament, and the agencies in charge of education, especially NCHE).

Having painted a general picture of tertiary academic literacy in Rwanda, the next question might be why this educational issue is of particular interest among other educational issues, and why this should be so in the Rwandan context when it seems to be a global one. The commonest understanding of the term 'academic literacy' is the ability to read and write in academic contexts, which is often linked to a foreign language in the case of many countries in Africa. Today, academic literacies are a well-researched area, and one major result of the research endeavour has been to point out to the world that there is not a single 'literacy' but a multitude of 'literacies' being learnt and used by people in different contexts and situations (e.g. Gunn, 2011; Kress, 2003; Lea, 2004; The New London Group, 1996; Street, 1984; Thesen, 2001). This is a great paradigm shift, although it seems that many educators are still clung to the conception of a unitary 'literacy' – as evidenced in discourses making up academic literacy programmes and courses on institutional websites, as well as discourses used in publications such as textbooks, journal articles, theses, and so on.

Academic literacy as an educational phenomenon is frequently approached with ambiguity by educators (e.g. curriculum designers, teachers, and academic managers). In many tertiary education contexts academic literacy is perceived as language skills developed and acquired when language instruction takes place. Thus, different institutions have been constructing different configurations of language courses with a view to supporting their students in their academic literacy needs. For example, several UK universities offer academic literacy support programmes to students whose first language (L1) is not English and who often find that they require additional support and training in English that focuses on their academic disciplines (Krishnamurthy and Kosem, 2007:356) – that is, English for Academic/Specific Purposes. Meanwhile, debates and publications continue on various aspects of the phenomenon. Some studies indicate that a good portion of students with weak academic literacies either drop out or fail at the end of their study period. This phenomenon has been documented in the USA (Gose, 1998) and in the UK (Furlong, 2003). As a result, the discrepancies between literacies acquired outside the learning institution, such as at home and in the larger community, and those acquired at school or university as well as the nature of academic literacy within or without a linguistic context, are becoming an area of research interest (McKenna, 2004). However, overall, research publications (their valuable contributions notwithstanding) are still dominated by empirical studies conducted within English as a Foreign/Second Language (EFL/ESL) contexts, with very little emerging from or on the African scenario generally.

Nonetheless, some research and research-based initiatives on new skills outside the English language context are emerging. Examples are: (i) Daniel H. Pink's book, *A Whole New Mind*, about the changing workplace needs/skills in the 21st century (Pink, 2005), especially in the

USA; (ii) the North Central Region Educational Laboratory (NCREL) and Metiri Group's project, *enGauge 21st Century Skills: Literacy in the Digital Age for 21st Century Learners* (NCREL-Metiri Group, 2003), in the USA; (iii) the Scottish Government's *Curriculum for Excellence: Building the Curriculum 4 Skills for Learning, Skills for Life and Skills for Work*, in Scotland (Scottish Government, 2009); and (iv) the Pacific Policy Research Center's 21st Century Skills for Students and Teachers (2010), in the Asia-Pacific region.

Yet, establishing a common understanding of academic literacies continues to plague institutions. For example, some studies (e.g. Barrie, 2004, 2006; Brown, Hesketh and Williams, 2003; Knight and Yorke, 2002, 2004, 2005, 2006; The King's-Warwick Project, 2010; Wingate, 2006; Yorke, 2005; Yorke and Knight, 2006) indicate that conceptual understandings of what constitutes 'academic literacies', 'generic skills', 'transferable skills', and 'graduate attributes' vary among teachers and learning institutions, and that these are partly associated with particular beliefs about teaching and learning (Barrie, 2004). Since conceptual misunderstandings are likely to feed into instructional design and teaching, a shared understanding among teachers in a given learning context would help to create a good environment for focusing on common goals (Thies, 2012). Therefore, educators need to establish a common understanding of links between the academic literacies that students develop at one stage (e.g. high school or early years at university) and those that are needed and valued at other stages (e.g. later years of university, postgraduate study, workplace and lifelong learning).

Recently, higher education institutions in countries like the UK, the USA and Australia, to mention a few, have been concerned about the academic literacy competences and attributes of their students and graduates, especially in relation to their transition to postgraduate study and the 21st century world of work. In response, vigorous research on the area has been going on and some curricular strategies have been mapped out as a result of collaborative efforts within and between higher learning institutions, and between the institutions and governments and/or national or multinational organisations (e.g. the Bologna Process bloc and others, some of which are mentioned at certain points in this thesis). But still, what makes the Rwanda's context of particular interest?

A study like mine which deals with such a crosscutting issue as academic literacy is bound to be confronted by a number of research problems. Apart from the on-going globalization and internationalization pressures exerted on Rwanda's tertiary education, as well as the requirement to adopt English as an academic lingua franca, there are several issues that make the Rwandan case a little unique. The list can be long, and these issues cannot be dealt within a single thesis, so I focus on a few of those concerning tertiary academic literacy, although they may be related to other fields of research too.

One, while for the past many years employers in the country seem to have closely associated graduates' fitness for employment with their knowledge and mastery of the 'hard skills' from their academic areas of specialisation (mainly certified by their degree award and having covered the internship or work-related practice component of their degree programme), factors such as the reputation of the institution attended and the class of award obtained are increasingly becoming insufficient qualification for employment as more and more employers require that graduate job aspirants possess the 'soft skills' and attributes currently on high demand in the developed nations. The questioning of local graduates' preparedness for working life calls for some scientific investigation into two related academic literacy areas: (i) the literacies foregrounded by Rwanda's tertiary learning institutions as serving to

academically support the acquisition of knowledge and the development of practical skills in students' disciplinary specialisations, and (ii) the structures and strategies employed by the institutions to embed the acquisition of these literacies into the mainstream curricula. Besides, while the values attached to the 'soft skills' and the curricular and pedagogical approaches employed to embed these skills and attributes into the curriculum are expected to vary across institutions, it is important that institutions, their staff, students, as well as employers establish a common understanding of which generic and discipline-specific literacies are given priority in each workplace context, starting with the literacies that cut across all careers and professions. This is especially so when there is a current global demand (Rwanda inclusive) for the so-called transferable '21st century skills', a conglomeration of skills, competences and attributes which are more commensurate with the new knowledge-driven world of work and economy, and which have hitherto been of secondary importance among employers, educators and graduates. Moreover, although there are some forms of academic literacy curriculum development going on at present among local tertiary institutions, the transition from old curricular elements to new ones may take years. More importantly, there is no research to refer to in order to understand how this transition is being approached by tertiary educators, e.g. approaches and strategies to academic literacy programme development.

Two, a wide skills gap in Rwanda's labour force has been reported in Rwanda's National Skills Audit Report of 2009 (GOR, 2009c). As Brown, Hesketh and Williams (2003:109) observe, "the economic welfare of individuals and the competitive advantage of nations have come to depend on the knowledge, skills and enterprise of the workforce." In line with the value attached to a skilled human resource in Rwanda's development agenda (GOR, 2000), there is an urgent national call on local tertiary institutions to intervene through their curricular and pedagogic strategies in order to have this gap bridged. Graduates with degree-level qualifications are seen to play a particularly important role in managing and sustaining the knowledge-driven economy of 21st century Rwanda. From my study's perspective, this has two vital implications: (i) that undergraduate students be supported by their learning institutions to develop academic literacies which would in turn leverage upon their acquisition of specialized disciplinary knowledge and skills; and (ii) that undergraduates be enabled to develop academic literacies that would support their academic progress and success within and beyond undergraduate study, particularly in their employability and postgraduate study. The graduates' ability to further their studies may not be overemphasized, as it would not only greatly contribute to Rwanda bridging the skills gap existent in her labour force, but also improve the employability status of local graduates. In Rwanda as elsewhere, mass tertiary education is likely to result in an oversupply of graduates for the graduate employment market, thus creating unemployment and underemployment among lower-qualified graduates and those who cannot exhibit the outcomes-or outputs-oriented literacies currently requested in the labour market.

Three, even when lecturers, employers, politicians and other concerned stakeholders express dissatisfaction with tertiary student quality as described earlier, the focus of their concerns has been mainly on academic literacy difficulties among students and graduates who are flowing into the job market, with little explicitly voiced concern about students' preparedness as they move through the transition from high school to tertiary study and the transition from undergraduate study to postgraduate study. It is likely that part of the undergraduates' literacy problems has to do with the literacies with which (or without which) they enter tertiary education. Another possibility is that tertiary learning institutions are not paying sufficient attention to this issue, hence their inability to address it adequately during the transition

period. Moreover, postgraduate academic literacy is an unfamiliar issue in the context because postgraduate education is a very new development amongst Rwanda's tertiary institutions. Hitherto, almost all students graduating from Rwandan tertiary institutions have been training outside the country (e.g. especially in regional universities or in Asian, European and the North American institutions). But now with more and more institutions introducing masters-level and postgraduate diploma programmes things are beginning to change, and in the near future most Rwandan students are likely to undertake their postgraduate studies in Rwanda.

Four, the research situation in the country is limited, not only in the area of academic literacy but also in other fields including education. So, under such circumstances identification of research problems is often achieved through personal experiences and experiences of other people or by informally observing incidents and events. In addition, information also frequently comes through media outlets such as the radio, TV and written media. Therefore, it is hard to scientifically qualify and quantify the discourses of literacy issues by other means than research, which would move beyond assumption, guesswork and speculation. For example, to the best of my knowledge, there has been no doctoral-level (or beyond) research on tertiary academic literacies in my context to build on. Therefore, interest in academic literacies as an area of research concern is relatively new, and through my study I look forward to contributing to ground-breaking research in this area, particularly owing to its broad perspective on the subject.

Finally, a broad situation like the one explained in this section is likely to stimulate debate on the multiple issues raised and many others implied. However, only a few of them can be addressed in a single study of the nature of a PhD thesis. This explains the limited scope of my study, which is briefly explained in section 1.8. All the issues highlighted above put together, there are several implications for students, the most important for the study being that they are required to develop a number of new academic literacies in addition to deepening their engagement with the literacies traditionally existing in their institutional curricula (e.g. study skills). One of the emerging opportunities that need to be fully exploited is the potential of ICT to support literacies acquisition, given the political and policy support ICT enjoys as well as a growing ICT infrastructure in the country. As highlighted earlier, a critical and urgent pedagogical issue is how institutions are going about supporting their students to develop these literacies. It is against this backdrop that I believe my study (i) will promote a better understanding of the widening conceptualizations of academic literacy and thus help bridge the gap between policy makers and other decision makers and curriculum developers (mostly teachers); and (ii) promote awareness of the potential of ICT to scaffold the acquisition of literacies related to study and work.

1.4 AIMS OF THE STUDY

1.4.1 General Aims

In view of the educational reform going on in Rwandan tertiary education, the overarching aim of the study is to promote awareness about the academic literacies undergraduate students need to successfully complete their study programmes and be able to further their education and to become competent and competitive in the changing labour market. Although content area literacies (i.e. knowledge and skills specific to the mainstream subjects) are a matter of concern for a study like this one, the latter's focus is rather on the literacies that support the development of content area literacies, but need to be taught and acquired in the

first place. As the aforementioned awareness underpins how learning institutions support their students to acquire these literacies, the study also aims at understanding how this support is evident in institutional embedment into their mainstream curricula for academic literacy education and ICT-supported learning. In practical terms, linking a clear understanding of the requested literacies with the curriculum and pedagogy is likely to help programme and course developers to better prepare students for successful tertiary study, the workplace and lifelong learning.

1.4.2 Specific Aims

The specific aims of the study are as follows:

1. To identify academic literacies requested in undergraduate study and explain the relationships between them and literacy requirements and demands implied by policies across the macro and meso levels of tertiary education over time;
2. To explore approaches and strategies used over time to develop and embed curricula for supporting the acquisition of the academic literacies across tertiary institutions in response to the changing literacy requirements and demands; and
3. To examine how technology has been integrated to support the acquisition of academic literacies across tertiary learning institutions.

In order to achieve the above aims, research questions have been preferred to hypotheses particularly because the study is qualitative, hence data-driven.

1.5 RESEARCH QUESTIONS

Research questions corresponding to the aforementioned aims were formulated in order to guide the study. They are:
1. What academic literacies are requested in undergraduate study over time, and what reasons are behind this?
2. How has the acquisition of academic literacies been scaffolded through curriculum development over time?
3. How has ICT been integrated to scaffold the acquisition of academic literacies?

1.6 CONCEPTUAL AND THEORETICAL FRAMEWORKS

Although my study does not seek to develop any theory or build on a specific existing one per se, it is, nonetheless, underpinned by theoretical insights gleaned from academic literacy research, and is particularly informed by the *Academic Literacies Approach* to literacy development and acquisition (Lea, 2004; Lea and Street, 1998, 2006; Street, 2003). The 'academic literacies' framework is closely linked to the *New Literacies Studies* [NLS] (Gee, 1990, 1991; Street, 1984, 1995; The New London Group, 1996), which challenge the belief that literacy is concerned with the acquisition of a particular set of cognitive skills, which once acquired can be put to use unproblematically in any new context (Barton, 1994; Gee, 1990; Street, 1984). Literacy should not be seen as a unitary concept; literacy exists in many different forms and modes, so it is not confined to reading and writing or language skills. Communication practices are complex activities that are central to the development of subject-matter understanding in the disciplines rather than simply a vehicle for the transmission of subject knowledge (King's-Warwick Project, 2010).

The *Academic Literacies Approach* is a three-levelled framework that recognizes three 'conceptual models of' or 'perspectives on' academic literacy development (Lea and Street, 1998): *Study Skills*, *Academic Socialization*, and *Academic Literacies*. The three 'models' or 'perspectives' are not mutually exclusive of one another, and the third level, the 'academic literacies' model has the capacity to include or subsume aspects of the other two models. I concur with Turner (2012) that this understanding of 'academic literacies' is particularly useful as an overarching framework within which to embed a focus on a number of literacies in contemporary higher education. By the terms of the framework, reading, writing and other modes of communication are not discrete bodies of knowledge to be mastered by students but are essential intellectual practices. These practices are central to the ways in which students come to 'know' in their chosen disciplines and how students will continue to 'learn' after graduation. Therefore, these practices are cultural and social in nature, and they vary depending upon the particular context in which they occur, e.g. within a discipline or an institution. Work in the NLS draws on linguistics and social anthropology for its theoretical and methodological framing. But, continued research in the academic literacies field has also allied itself to work in Critical Discourse Analysis, Systemic Linguistics and Cultural Anthropology which has come to see student writing as "constitutive and contested rather than as skills or deficits" (Street, 2010:349).

While content area literacies continue to be at the centre of higher education, characterized by rigorous student development and acquisition of disciplinary and/or interdisciplinary knowledge and skills, there is a new emphasis on the so-called 'soft' literacies (including linguistic literacies) that support and enhance disciplinary/interdisciplinary understanding and skills development, and hence academic progress and success, employability and lifelong learning. It is on this strand of literacy development that my study is focused. The lens of academic literacies research has been predominantly focused on academic writing, but the lens adopted in my study is a broad view of the wide range of literacies requested in tertiary learning, including academic reading and writing as well as a number of other communication skills, study skills and 21st century skills demanded by the New Millennium employability and lifelong learning. Using *scaffolding* as a guiding metaphor, the study is also interested in the approaches and strategies employed by institutions to support the acquisition of these literacies.

In their search for a conceptual framework within which to develop a model for academic literacy development, some researchers and educators have utilized the concept of 'scaffolding' (e.g. Azevedo et al., 2005; Cotterall and Cohen, 2003; Early, Potts and Mohan, 2005; Hammond and Gibons, 2005; Parkinson, et al., 2007; Puntambekar and Hubscher, 2005; Rose, Farrington and Rose, 2007; Sharpe, 2006; Walqui, 2006). Scaffolding, as a construct having roots in social constructivism (Stone, 1998) and being closely linked to sociocultural theory, and particularly to the notion of the *Zone of Proximal Development* [ZPD] (Lantolf and Thorne, 2006; Stone, 1998; van Lier, 2004), has gained popularity over the past three decades or so. It is seen as a valuable learning model (Mercer, 1994), and as both structure and process that are applicable to different levels of learning – macro, meso and micro.

In current educational research and practice scaffolding is by and large used as an umbrella term to mean any kind of teacher or educational support. The term can also be used as a blanket metaphor to refer to how "teachers or peers supply students with the tools they need in order to learn" (Jacobs, 2001:125). Such tools can be in the form of pedagogical supports (e.g. teaching activities) or technologies embedded in a literacy curriculum. As the learner

demonstrates mastery of new knowledge or skill, or is able to accomplish a task or solve a problem on his/her own, the teacher gradually fades or removes the scaffold(s). In other words, it is a progression of support on a continuum from overdependence (i.e. when the learner cannot accomplish a task or solve a problem on his/her own at all), to autonomy (i.e. when the learner can partly accomplish the task or solve the problem with no guidance and with minimal support), to total self-regulation (i.e. when the learner can accomplish the task or solve the problem on his/her own and be able to transfer this learning to other contexts and situations). According to the scaffolding concept, this is when learning takes place. In this regard, scaffolding easily lends itself to the *Academic Literacies* framework (Lea and Street, 1998) through the study skills – academic socialization – academic literacies continuum.

The intricate links between the *Academic Literacies* framework and *English for Specific Purposes* (ESP) range from historical, to social, cultural and linguistic, to theoretical/conceptual, to pedagogical. In educational and work settings where the official language of communication is *English as a Second/Foreign Language* (ESL/EFL), the pragmatic stance of ESP implies the idea of wanting to solve real-life, specifically contextualized, problems through a specifically oriented needs analysis. Thus, many ESP professionals perceive meeting learners' needs as empowering in a world where English opens doors to technology, research findings, and educational and job opportunities (Belcher, 2006:142,143). According to Hyland, ESP's "research-based language education and the applied nature of the field has been its strength, tempering a possible over-indulgence in theory with a practical utility" (Hyland, 2002:386). Practices in ESP curriculum and pedagogy draw on synergies from *New Literacy Studies*, the *Academic Literacies Approach* to literacy development and the *Systemic Functional Approach* - particularly based on Halliday's and his colleagues' socially oriented, *functional theory* of language (e.g. Christie and Martin, 1997; Eggins, 1994; Halliday, 1978, 1985, 1994; Hasan and Wiliams, 1996; Martin, 1993). My study partly builds upon research conducted on ESP needs analysis and curriculum design/development, and it attempts to link these with 'scaffolding' strategies for embedding academic literacies into the tertiary curriculum.

1.7 THE SCOPE OF THE STUDY

The conceptual/theoretical framework of my study has been explained in section 1.6 above. Driven by both external forces and internal forces of change, Rwanda has for the past one and a half decades been undergoing multifaceted social transformation, not least in the education sector. Making some retrospective references to macro policy and educational sector policies and strategic plans as well as literacy curriculum practices during the period between the early 2000s and 2006, my study focuses on the period from 2007 (when new reform policies were introduced into tertiary education) to 2010. The selected reform policies are those which have implications for the requested academic literacies in all tertiary learning institutions in the country – including both private institutions and government institutions awarding qualifications below the bachelor's degree. But the group in focus is only cohorts attending undergraduate study at degree-level public institutions. While there are various aspects of learning that constitute academic literacy in its broadest sense, the focus of my study is limited to literacies which are acquired to support academic progress and success in students' disciplines of specialization as well as enhance their employability.

1.8 THE STRUCTURE OF THE THESIS

The thesis is a monograph organized around eight chapters and a number of sections and sub-sections within each chapter. The first chapter is introductory but has been deliberately named "Orientation to the Study" to avoid the reader's potential confusion over the use of the word 'introduction' in the first section of every chapter. Chapters 2 and 3 account for the review of the research literature from which the study derives some concepts to underpin it, namely: academic literacies, scaffolding, and English for Specific Purposes (ESP). Chapters 5, 6 and 7 make up the empirical part, where results of the investigation are elaborated. The research process which the study has undergone is described in Chapter 4. Chapter 8 reflects on and discusses key issues emerging from the findings.

Chapter 2 TERTIARY ACADEMIC LITERACIES

2.1 INTRODUCTION

Until now, it is hard to locate an indisputable meaning of literacy. There have been about four concepts of literacy: (i) as reading and writing – and, lately, as numeracy also; (ii) literacy as naturally being an integral part of a language system, hence inseparable from language (understandably, since you cannot read or write in void); (iii) literacy as a range of skills and competences (mulilliteracies) located in a language system, hence the inclusion of the other language skills of listening, speaking, grammar/syntax and vocabulary/lexis (and linguistic aspects such as discourse, style, rhetoric, etc), as well as how these are applied to other dimensions of 'knowing' and 'doing' in a variety of communicative situations and contexts ; and (iv) literacy as an infinitive list of forms of 'knowing' and 'knowing-how' –where almost 'anything goes'.

The fourth conception has brought about considerable confusion – evidenced even in some reputable publications – which reigns in comprehending and employing the range of synonymous terms used as tags of literacy: knowledge, skill, competence, ability, capability, proficiency, aptitude, intelligence, attribute, and so forth. By the same token, discourses on literacy have lately borne such unprecedented usages as: language or linguistic literacy, cultural literacy, research literacy, mathematical literacy, scientific literacy, critical literacy, information literacy, technological literacy, computer literacy, to mention a few. The fluidity and elusiveness of the term permits one to apply it to any area of knowledge and skill such that there would be nothing bizarre about saying that so and so has a driving/ sporting/swimming literacy, or that community X needs to acquire health/civic/financial literacy.

In this chapter, I focus on the fourth conception of literacy as 'literacies', in relation to its applications in tertiary learning and in utilizing this learning in the world of work and lifelong learning – hence academic literacies, which is the central theme of my study. Once students have entered tertiary education, they are expected to become familiar with the discourses and 'cultures' of their academic communities and to cope with all the academic demands geared towards successful completion of their programmes of study. Besides, they are expected to transfer the literacies acquired at pre-university level to the tertiary level and build on them by socially constructing the newly required literacies while they undertake their study programmes. Furthermore, the students are expected to transfer the academic literacies acquired at their initial training institution to postgraduate study and/or the workplace.

2.2 DISCOURSES AND CONCEPTUALISATIONS OF ACADEMIC LITERACY

2.2.1 Background to the 'Literacies' Concept

The first phase in the history of academic literacy research is attributed to Pierre Bourdieu's seminal work translated from French as *Academic Discourse: Linguistic Misunderstanding and Professorial Power* (1965). Later on, Bourdieu and colleagues based on this work to point out three pillars on which academic literacy stands: the role that academic discourse plays in higher education; the lack of understanding (of a linguistic nature) on the students'

part resulting from the diversity in frames of reference; and the notions of power as they reside in both the students and teachers (Bourdieu, et al., 1994). These researchers attempted to inquire into questions relating to gaps between what was taught and what students could grasp, as well as whether their capacity to understand was influenced by their social background. Bourdieu et al.'s (1994) findings are still reflected by more recent researchers dealing with issues of apprenticeship and acquiring entry into and recognition within *communities of practice*. Good examples are Wenger (2000), Northege (2003b), Jacobs (2005) and Williams (2005). However, Bourdieu's early work seems not to have had a great impact on literacy pedagogy in higher education. The provision of real support in developing academic literacy among tertiary students seems to have been initiated by the 'academic literacies' movement (Lea and Street, 1998; Street, 1984). The movement is elaborated in section 2.3.

What has come to be termed as the *New Literacy Studies* (NLS) (Gee, 1991; Street, 1995) represents a new tradition in considering the nature of *literacy*, focusing not so much on acquisition of skills, as in dominant approaches, but rather on what it means to think of literacy as a social practice (Street, 1995). This entails the recognition of multiple literacies, varying according to time and space, but also contested in relations of power. As such, NLS takes nothing for granted with respect to literacy and the social practices with which it becomes associated, problematizing what counts as literacy at any time and place and asking "whose literacies" are dominant and whose are marginalized or resistant (Street, 2003:77).

Street's work begins with the notion of multiple literacies, which makes a distinction between *autonomous* and *ideological* models of literacy (Street, 1984), and develops a distinction between 'literacy events' and 'literacy practices' (Street, 1988).

The standard view in many fields, from schooling to development programmes, works from the assumption that literacy in itself will (autonomously) have effects on other social and cognitive practices. It would mean, for instance, that introducing literacy to poor, 'illiterate' people, villages, urban youth, etc, will have the effect of enhancing their cognitive skills, improving their economic prospects, making them better citizens, regardless of the social and economic conditions that accounted for their poverty and 'illiteracy' in the first place. Street refers to this as an *autonomous model* of literacy. He proposes that this model disguises the cultural and ideological assumptions that underpin it so that it can then be presented as though they are neutral and universal and that literacy as such will have these benign effects. Research in NLS challenges this view and suggests that in practice literacy varies from one social and cultural context to another and so, therefore, do the effects of the different literacies in different conditions. Street's suggestion is a protest against the idea that "The autonomous approach is simply imposing western conceptions of literacy on to other cultures or within a country those of one class or cultural group onto others" (Street, 2003:77).

Applied to learning settings, the *autonomous model* views academic literacy development as being directly linked to language proficiency in such a way that as long as students are in the process of acquiring classroom-based language proficiency they will acquire academic literacy at the same time. The construction of knowledge or meaning rests solely on language proficiency, and each student is held responsible for all difficulties he/she encounters in attaining shared meaning in the classroom (McKenna, 2004:3), since the collective literacy of the class is conceived as being available to all and independent of diverse values, attitudes and norms. Academic texts are often seen as 'autonomous' and de-contextualized texts ready to be understood and interpreted by readers as intended by their authors. However, the

question is: would all the students exposed to a text 'access' its meaning equally and be able to interpret it in the same way? The autonomous model focuses on skills acquisition (hence its alliance with the study skill model) and ignores the social and cultural realities within which literacy operates and resides. But by doing so, the model fails to address the relationship between formal literacies of educational institutions and the power structures within these institutions and society in general. The model constructs literacy as a technical ability to decode and encode texts, hence the perception of academic literacy acquisition as a process of developing technical academic literacy skills. Moreover, the model sees written and oral modes of communication as cognitively distinct. Research within the autonomous model framework has, therefore, focused on evaluating pedagogical approaches designed to develop technical literacy skills (McKenna, 2004:5). The autonomous model is opposed to the ideological model of literacy (Street, 2003:77).

The *ideological model* starts from different premises than the autonomous model. It posits instead that literacy is a social practice, not simply a technical and neutral skill; that it is always embedded in socially constructed epistemological principles. By so doing, the ideological model offers a more culturally sensitive view of literacy practices as they vary from one context to another. Literacy is about knowledge; that is, the ways in which people address reading and writing are themselves rooted in conceptions of knowledge, identity and being. It is also always embedded in social practices, e.g. those of a particular job market or a particular educational context, and the effects of learning that particular literacy will be dependent on those particular contexts. Literacy, in this sense, is always contested, both in its meanings and practices, hence particular versions of it are always 'ideological', and they are always rooted in a particular world-view and in a desire for that view of literacy to dominate and to marginalize others (Gee, 1991; Besnier and Street, 1994). The argument about social literacies (Street, 1995) suggests that engaging with literacy is always a social act even from the outset. The ways in which teachers or facilitators and their students interact is already a social practice that affects the nature of the literacy being learned and the ideas about literacy held by either side of the participants, especially the new learners and their position in relations of power. It is, therefore, not valid to suggest that 'literacy' can be 'given' neutrally and then its 'social' effects only experienced afterwards (Street, 2003).

It follows, therefore, that academic literacy development cannot be separated from the people who use the type of literacy being developed: students, lecturers, researchers and others who constitute or relate to a given academic context. Researchers in NLS employing an ideological model of literacy would find it problematic to simply use the term 'literacy' (e.g. in measuring a community's 'literacy rates') as their unit or object of study. Literacy comes already loaded with ideological and policy presuppositions that make it hard to do, say, ethnographic studies of the variety of literacies across contexts. As a result, NLS researchers have developed alternative terms such as 'literacy events' and 'literacy practices' so that they may use these as objects of study (Street, 2003). The focal point of research based on the ideological model of literacy development seeks an understanding of how human groups and institutions socialize people into their specific literacy practices. The problem with the ideological model is that ideology is often perceived as 'common sense' (McKenna, 2004:6), which translates into allowing "true interests and injustices to be concealed" (McKenna, 2004:6). That is, some socially prestigious, hence 'powerful', forms of literacy are imposed as impersonal, standardized and commonsensical. For example, most scientific writing does not seem to be about people, and if you cannot read and understand it or write it according to the conventions you are excluded from that literacy.

2.2.2 The New Literacy Studies and the Concept of Multiliteracies

Two key interrelated human engagements the 21st century world is preoccupied with are meaning-making and communication. The New Literacy Studies (NLS) movement, at the helm of which was the New London Group (1996), came as a challenge to the belief that literacy is concerned with the acquisition of a particular set of cognitive skills, which once acquired can be transferred without any problem to new contexts (Barton, 1994; Gee, 1990; Street, 1984; The New London Group). It also came as a response to the imminent 21st century global changes in all spheres: economic, social, cultural, environmental, and so on. The word is a helpful response because the term 'literacy' in its narrow definition has become increasingly incompatible with educational systems where the latter are gripped with the need for data, testing and comparison regimes. For instance, a person growing up in a digitally connected, media-rich country, home, or other environment, is disadvantaged if his/her literacy development is mainly judged through the narrow strand of 'reading and writing in print media'. Conversely, a person who grows up in an environment deprived of modern technology (not mentioning deprivation of even more basic human needs), will be left far behind others and will be unable to compete for decent life with them in the new Millennium, and this should be a major concern for education and social justice. Moreover, if the 'literacy' of people within deprived environments will continue to be judged through their abilities to read and write print texts – often in a language that is not their own – then, the need for them to acquire the new literacies will be eclipsed.

The New London Group is named after the place where members of the group first met in New London, USA. The group was made up of nine members from different universities the US, the UK and Australia: Courtney Cadzen, Bill Cope, Norman Fairclough, Jim Gee, Mary Kalantzis, Gunter Kress, Allan Luke, Carmen Luke, Sarah Michaels, and Martin Nakata. Taking a sociocultural view of literacy (Stephens, 2000), the group developed the ideas in 1994 which became the core of a jointly authored paper, *A Pedagogy of Multiliteracies: Designing Social Futures*, which was published in the Spring 1996 of the Harvard Educational Review. This frequently cited paper takes the form of a manifesto, a series of hypotheses about the directions literacy pedagogy might take in order to meet the radically transformed communication demands students are likely to encounter in their near futures. Work in the NLS draws on linguistics and social anthropology for its theoretical and methodological framing. As its starting point, it takes the position that literacy "is not a unitary concept; reading and writing – literacies – are cultural and social practices, and vary depending upon the particular context in which they occur" (Lea, 2004:740).

Consequently, the term *multiliteracies* was coined, the central focus being language-based communication. That is, the way people communicate is changing due to two critical developments: (i) new technological advancements (whereby new forms of communication abound); and (ii) shifts in the use (and usage) of English within different cultural contexts, whereby different versions of *English as an International Language* are emerging. Therefore, new 'literacies' are in use and should be developed and used by those who do not possess them. The world is becoming 'smaller' and the demands of an emerging information society are such that communication between/across languages and cultures becomes a necessity for everyone. Communication based only on written text is no longer the only main way to communicate. The understanding of the word 'text' itself has evolved to include other forms of texts and combinations of them, e.g. written text combined with sound or voice, written text with images and animations, print texts and virtual texts, and so on. The demands of the 21st century require complex and multiple literacies. This requests the ability to understand a

multimodal world. Hence, The London Group notes tries to apply the multiliteracies concept to education in relation to social and economic wellbeing of the society:

> [T]he multiplicity of communication channels and increasing cultural and linguistic diversity in the world today call for a much broader view of literacy than portrayed by traditional language-based approaches. Multiliteracies…overcomes the limitations of traditional approaches by emphasizing how negotiating the multiple linguistic and cultural differences in our society is central to the pragmatics of the working, civic, and private lives of students (The New London Group, 1996:60).

The proliferation of technology and the capacity to easily record, store and send moving images, sounds and text is changing the way people communicate and challenging the way they create meaning from different forms of communication. Globalization is basically about economic issues, but in its broad sense it includes social, political, cultural and environmental issues (Sugden and Wilson, 2001). Globalization has increased immigration, creating "increased capacity for transcended borders and a wire-up world" (O'Rourke, 2005:1). This has also created a need for more complex 'readings' and processing of information. This in turn requires both a broad knowledge base and a strong capacity for critique and analysis, with consideration of factors that may affect the form, content and meaning of messages and information. Therefore, how students learn and are taught across the globe matters much more than ever before.

Language and all other subjects should evolve to incorporate multimodal ways of communication. The Group proposes the teaching of all representations of meaning including linguistic, visual, audio, spatial, gestural and multimodal through a balanced classroom design of Situated Practice, Overt Instruction, Critical Framing and Transformed Practice. Students need to draw on their experiences and semiotic literacy practices to represent and communicate meaning in a variety of settings. The authors of the aforementioned article maintain that the use of multiliteracies approaches to pedagogy will enable to achieve the authors' twin goals for literacy learning: (i) creating access to the evolving language of work, power and community, and (ii) fostering the critical engagement necessary for them to design their social futures and achieve success through fulfilling employment. However these goals – access and critical engagement should not be incompatible. The teachers' role should not be one of producing docile, compliant workers. So, students need to develop the capacity to speak up, to negotiate, and to be able to engage critically with the conditions of the working lives.

Life is viewed as existing in a multilayered world which creates challenges for literacy pedagogy, as the latter has to address the changing realities in world economy, politics and so on, as well as the trends for the futures educators want their citizens to be in, which are 'productive diversity', 'civic pluralism' and 'multilayered lifeworlds' (New London Group, 1996:71). The phenomenon of literacy is itself multilayered. The Brazilian literacy educator, Paulo Freire, has likened literacy to an onion where the more literate people become, the more they see the complex layers within (O'Rourke, 2005:2).

The NLS has had a considerable impact on literacy research and education. It has reminded researchers and educators that people communicate in multiple ways and by multiple means: linguistically (or orally), aurally (by listening), spatially, visually, through gestures through a number of modes. The multiliteracies perspective combines these broad modes of communication and meaning-making with the diverse practices of individuals, families,

communities, workplaces and the broader global society, whereby the practices are situated, social and cultural. Therefore, the words 'reading' and 'writing' have changed meaning. 'Reading the world' now means being able to make sense/meaning alone or with others from the vast and complex information and knowledge presented as it is, 'writing' now means the ability to create or make sense/meaning and disseminate it to others, singly or in collaboration with others. In addition to that, each social or cultural situation an individual encounters involves values, beliefs, attitudes and opinions that may affect their 'reading' and 'writing' (Barwind and Piecowye, 2002). This requires flexibility and openness to more relaxed forms of language. In the field of English language teaching (ELT), for instance, the impact of the NLS can be felt in the rate at which new versions of *English as an International Language* are being accepted into the mainstream, as well as renewed de-emphases on such notions as 'grammatical or pronunciation correctness', 'accuracy', or 'form' (as long as the latter does not affect intended meaning), as they are applied to the use of English.

Although the rate at which nations and institutions are responding to and applying the concept of multiliteracies to their literacy education programmes is varied, it is clear that some education systems have now acknowledged the diverse forms of literacy practices required for different contexts, and which need to be embedded in educational curricula in order to prepare students to effectively operate in these contexts: study, work, leisure, citizenship and community participation, personal growth and cultural expression. Thus, according to O'Rourke (2005:1) the concept:

- Broadens literacy from an emphasis on 'reading the word' to reading multi-modal texts;
- Includes the assumption that in the process of becoming literate, people are making sense of the world and themselves in the world;
- Assumes that literacy is also about communicating with, and understanding the communication of others; and
- Assumes that part of becoming literate involves developing the capacity to understand the influence of social, cultural, historical and political contexts.

2.2.3 The Definitional Dilemma: 'Literacy' or 'Literacies'?

The fact that various approaches, models, perspectives and interpretations have been brought forth to give meaning to academic literacy as a social phenomenon makes it difficult to provide a single clear-cut definition for the term without allegiance to one of the paradigms or conceptual frameworks.

Problems with defining *academic literacy* fundamentally lie in the problem of defining *literacy*. On the surface, the definition of literacy is relatively unproblematic. Everyone will tell you that it is the ability to read and write. To be *literate* is to possess this ability; to be *illiterate* is not to possess the ability – simple. However, even if this definition is still largely accepted all over the world, several important problems need to be addressed, for to define literacy as 'the ability to read and write' is – particularly in the 21st century – to make an incomplete statement. That is, questions regarding *what* one reads and writes, and *how much* ability in reading and/or writing is required in order to be considered literate, are left unanswered. In his article, *Defining Literacy: Paradise, Nightmare or Red Herring?*, Peter Roberts provides a glimpse of how problematic defining the terms is:

> The problem of defining literacy has bewitched scholars, policy makers and practitioners since the early 1940s. The range of definitions of 'literacy' advanced in the past half-century is quite remarkable, yet there remains little agreement among 'experts' over what these terms mean. Lay conceptions and dictionary definitions show greater consensus, though there is still room for considerable ambiguity in these as well" (Roberts, 1995:412).

Roberts, however, acknowledges that what he calls 'the pluralist perspective' (i.e. the conception of literacy as naturally existing as a multiplicity of 'literacies') as appearing "to have the most to offer in understanding literacy in the contemporary world" (Roberts, 1995:412) – although he also recognizes that this perspective, too, has its difficulties. One of the difficulties, in my view, is the persistent focus on reading and writing skills even though these are applied in some new literacy contexts such as multimedia literacy by prominent proponents of the 'multiliteracies' ideology (e.g. Lea, 2004). This argument is supported by the literature review of the *academic literacies* research field in the next section.

Wickert (1992:30) adopts a rather relativist position on what literacy means by positing that "Arguments over definition are arguments about whose construction of literacy will win and accordingly whose related politics of literacy will prevail." Although Roberts still maintains that "we do better to focus on multiple *literacies*, each with distinct assumptions and practices associated with 'reading' and/or 'writing'" (Roberts, 1995:413), I tend to agree with Wickert when I look at the elasticity with which 'literacy' is being used in the 21st century. I take, for example, the list of competences and attributes that are not necessarily exclusive of reading and writing but are in some contexts independent of those skills and the linguistic settings in which reading and writing may be required: critical thinking, teamwork, autonomy, time management, stress management, cultural literacy, driving literacy, and so forth.

Meanwhile, attempts at defining what 'academic literacy' is have been made. According to Spack (1997:3), tertiary academic literacy is "the ability to read and write the various texts assigned [at university]." Johns (1997:15) explains that academic literacy "encompasses ways of knowing particular content and strategies for understanding, discussing, organizing, and producing texts." There are multiple literacies that incorporate reading, writing, listening and listening practices occurring within the social and cultural contexts of institutions (Gee, 1996), and they represent "particular views of the world, uses of language and ways of constructing knowledge within academic disciplines" (Curry, 2004:51). Also, literacies "embrace multiple approaches to knowledge" (Zamel and Spack, 1998:ix). The list of contributors to the definitional debate is too long, so one can easily get 'lost in definitions'. Meanwhile, Mary R. Lea's definition and explication of the term (in its plural form 'literacies'), especially because she has played a key role in coining it, is fairly comprehensive:

> …the diverse and multiple literacies found in academic contexts such as disciplinary and subject matter courses…The literacy practices of academic disciplines can be viewed as varied social practices associated with different communities. In addition, an academic literacies perspective also takes account of literacies which are not directly associated with subjects and disciplines but with broader institutional discourses and genres. An academic literacies perspective views student writing and learning as issues of epistemology and identities rather than of skill acquisition or academic socialisation alone, although the perspectives are not mutually exclusive and individuals may move between them according to context and purpose (Lea, 2006:227).

When Lea's definition is applied to my study, my own understanding of the concept of *academic literacy* is that it is an ability encompassing a constellation of skills, competencies and attributes needed by tertiary students for them to progress and succeed in their programmes of study, as well as to comfortably fit into and fully participate in an a multi-layered academic culture and in a variety of learning communities, and in the world of work, now and in future.

Furthermore, when 'literacy' is understood in the above usage the term is almost synonymous with such terms as ability, skill, knowledge, competence, proficiency, and so on, as evidenced by how these are currently employed in publications. Thus, the term a*cademic literacies* would mean possessing the aforementioned (and more) in an academic setting, including academic reading and writing. Nonetheless, the term 'skill' seems to be the most popular in the discourses of literacy, and it is frequently used as a substitute for 'competence', or both are used interchangeably. Another term that is closely allied to 'skill' and 'competence' is 'attribute', though it is often used to refer to the more personality-related competences that may be developed over time through learning and practice of certain skills, e.g. time management, autonomy, and teamwork. By the same token, a bewildering nomenclature has emerged and is being used to label some clusters of purpose and context driven literacies. Whereas terms like 'study/learning skills', or 'learning strategies' and 'communication skills' are all familiar in discourses related to learning and literacy, the following terms are relatively new: core skills, key skills, generic skills, graduate skills, transferable skills, employability skills, job-related skills, entrepreneurial skills, discipline-specific skills, life skills, academic support skills, benchmark skills, and so forth. This presents a definitional and conceptual confusion that requires further elaboration, but this is too vast and complex to treat in the space of the present study.

2.3 THE ACADEMIC LITERACIES APPROACH

2.3.1 Higher Education in the 21st Century

If 'literacy' is now generally understood in terms of social practices that are embedded in social and cultural contexts (Barton and Hamilton, 2000; Heath and Street, 2008; Street, 1995; The New London Group, 1996), it follows that 'academic literacies' are social practices embedded in the 'social' and 'cultural' aspects of the academic environment. Also, this implies that different contexts (e.g. regions or nations, systems of education, learning institutions, and specialist fields/disciplines) might require different literacy practices. Besides, higher education is undergoing transformation worldwide. Reasons to explain this transformation can be numerous, but one of them is the unprecedented and increasing diversity/heterogeneity of the student population: young adults and non-conventional age (i.e. advanced aged), different races and nationalities, students from non-traditional academic backgrounds (e.g. from vocational areas), etc, all configuring a situation where wider participation has resulted in once 'minority' students becoming 'majority' in some contexts (Kuh, et al., 2006). The second reason is that higher education curricula are increasingly becoming interdisciplinary, cross-disciplinary and trans-disciplinary, crossing traditional disciplinary boundaries in what Klein (1993) terms 'blurring, cracking and crossing'. This phenomenon accompanies the expansion of higher education into professional training (Lea and Stierer, 2000).

Although studies of disciplinarity have revealed that disciplinary borders were never sacrosanct and have ever been fluid (Messer-Davidson, et al., 1993), disciplinary border

crossing has been accelerated and complicated due to the emergence of a focus in higher education on vocational training (Couchman, 2008). For example, cross-disciplinary studies and new disciplinary areas have emerged to accommodate such vocational specializations as dancing, nursing, hospitality industry, sporting, and many others. This presents a complex and complicated situation that requires, among other things, substantial diversity in the assessment of students. This draws attention to some conventional methods of student assessment such as 'the essay'. The coursework essay has been a popular and common method of assessment for a long time, but it is no longer the dominant form of assessment in many institutions of the world.

In addition, in one course a student may be required to write as a sociologist, a philosopher, a lawyer, a scientist and a practitioner (Baynham, 2000). A good example is a student taking a course/programme in Medical Humanities, one of the emerging fields, which is a combination of medical and health sciences and the arts, humanities and social sciences. This can be complicated by the increased offering and take-up of double-degree programmes, which are often situated across academic departments and disciplines (Krause, et al., 2005). Consequently, 'heterogeneity' is becoming the catchword for both the content and the types of assessment higher education students now face (Couchman, 2008:82). Therefore, the heterogeneity in student background, higher education disciplines and assessment demands bring with them new responsibilities for educators. The educators need to understand the lived experience of students in the new educational environment, not just in the cognitive, but also in the affective, cultural and social domains (Higbee, et al., 2005).

2.3.2 The Academic Literacies Movement: Brief History and Research

Academic Literacies refers to a body of work that has developed over the last one and a half decades. The work is closely linked to the *New Literacy Studies* (NLS) initiated in another work by Brian Street, *New Literacies* (Street, 1984). It is also linked with *The New London Group* which was created in the mid-1990s. What seems to be 'new' in New Literacy Studies is representing a new tradition in considering the nature of literacy, focusing not so much on acquisition of skills but rather on what it means to think of literacy as a social practice (Street, 2003). Later work in the field of Academic Literacies has been concerned with building on the theoretical and methodological frameworks developed in the NLS through research into the particular contexts of higher education and the apparent gaps between lecturers' and students' understanding of writing for assignment (e.g. Jones, et al., 1999; Lea and Stierer, 2000; Lea and Street, 1998).

The research has been undertaken in a diverse range of settings, including: in distance learning settings (Stierer, 1997; Lea, 1998) and with non-traditional entrants into higher education (Lea, 1994; Lillis, 1997; Ivanic, 1998). As a critical field of enquiry, Academic Literacies, has epistemological origins in New Literacies (Street, 1984) and linguistic ethnography, both of which draw to varying degrees on linguistics, social theory, social anthropology and ethnography (Coffin and Donohue, 2012). Nonetheless, the research carried out in the field has tended to adopt language-based methodologies drawn from social linguistics (Lea, 2004). According to Lea (2004), research findings from the different efforts cited above all indicate a complex relationship between the acquisition and development of subject-based knowledge and writing in higher education. The studies all point to the difficulties faced by students when they try to unpack the ground rules of writing in any particular context. These studies have provided an insight into the relationship between the

texts that students produce during their studies and the practices which are implicated in the production of these texts.

Having evolved in response to literacy issues in an expanded higher education system and the way in which "student academic writing and the pedagogy in which it is embedded, seems to thwart opportunities for a higher education premised upon inclusion and diversity" (Lillis, 2003:192), Academic Literacies as a theoretical research paradigm is focused in scope. Recently, the paradigm is influencing a number of researchers and practitioners in the area of English for Academic Purposes (EAP). In their position paper, Lillis and Scott, state that one of the main goals of the paradigm is to problematize the definition of and articulation of perceived 'problems' in student writing, thus positioning Academic Literacies as a critical field of enquiry (Coffin and Donohue, 2012:65). Based on 'literacy' practices as a primary object of study, some of the major questions researchers in this paradigm have been addressing are: What are the writing practices in universities? How can Academic Literacies researchers find ways of drawing on critique to design new writing pedagogies?

While the lens of academic literacies research has been predominantly focused on the identities of student writers and the disciplinary contexts within which they write, it has in recent years expanded to other facets of academic literacy. For example, Lea (2004) has slanted her research at the relationship between writing and learning in higher education, showing how this has been relatively neglected in course design practice. Also, Lea and Stierer (2009) have looked at higher education as a site of workplace literacy, highlighting the range of writing practices that academic staff are engaged in. By contrast, Lillis and Curry (2006, 2010) have moved to a global focus, describing and assessing the practices and politics of publishing in English, as experienced in non-Anglophone scholars.

Whereas the Academic Literacies paradigm was developed in the UK, an almost parallel paradigm developed in the US; that is, the *Writing in the Disciplines* (WiD) movement. The latter grew out of the Writing Across the Curriculum Movement (WAD), and it has been popular in the US for many years (e.g. Bean, 1996; Mitchell and Evinson, 2006). It has also enjoyed some popularity in the UK at institutions such as Queen Mary University of London, University of Warwick and Anglia Ruskin University. The main difference between WAD and WiD is that the former advocates for the development of generic academic writing skills that can be transferred to specific disciplinary writing, whereas WiD emphasizes the development of writing skills related to a specific discipline.

The WiD ethos views writing as inseparable from the intellectual development of students (and this can be extended to other literacies), as writing is a primary way in which students express and develop disciplinary knowledge. This implies that the skills should be learnt as explicit parts of the mainstream curriculum. One of the important characteristics of the WiD approach is that language skills (writing in particular) should not be seen as problems but rather as an integral part of learning in the disciplines. This counters the 'deficit' model of literacy which focuses on students' constraints in performing the literacies as their problems that warrant 'remediation', thus adopting a 'pathological' perspective on academic literacies development. The WiD approach emphasizes 'process' rather than 'product', whereby writing is part of learning. Students cannot develop the writing skill by merely being exposed to exemplars and templates without practising, hence the need for students to be engaged in practice. The approach also emphasizes that a wide range of written forms should be used.

Another approach that has recently been evident in Academic Literacies research is the *Systemic Functional Approach* (SFA) which originates in systemic linguistics and has now taken root in Australia and elsewhere (e.g. Halliday, 1978; Hood, 2006, 2010; Lee, 2010; Woodward-Kron, 2009).

2.3.3 The Academic Literacies Framework

In 1998 Lea and Street published an article, *Student writing in higher education: an academic literacies approach*, in which they set out an *Academic Literacies Framework* (ALF) for understanding student writing in higher education (Lea and Street, 1998). Based on their findings from research carried out with staff and students in two UK universities, they outlined three approaches to student writing in higher education. They referred to these as 'perspectives' or 'models', but they can also been viewed as 'levels' or 'stages': (i) the *study skills model*; (ii) the *academic socialization* model; and (iii) the *academic literacies model*. I prefer to call them 'perspectives'. As Lea explains, the use of the term 'academic literacies' in this respect does not imply that the terms applied to the other two perspectives mean that the three are mutually exclusive (Lea, 2004:741). On the contrary, people, such as course designers and teachers, may move between them according to context and purpose (Lea, 2006).

2.3.3.1 The Study Skills Perspective

With its roots in behavioural psychology and training programmes, the *Study Skills Perspective* (SSP) views writing and learning as primarily an individual and cognitive skill. Also, based on a theory of language that emphasizes surface features, grammar and spelling, the SSP assumes that once students master rules pertaining to these, they can successful write essays, for instance, in a disciplinary subject across the curriculum (e.g. biology, chemistry, engineering, and so on). Therefore, it aims to remediate students' language/literacy weaknesses, hence the stress on the basics and a 'training' environment. Writing and other language skills or competences are taught independently of the mainstream curriculum (e.g. in an autonomous language or literacy course). The 'transferability' aspect makes it comparable to pedagogies of more recent 'study skills' courses which incorporate into language-oriented study skills other generic transferable skills and competences expected to be mastered during a course and subsequently applied to all disciplinary learning contexts as well as in work contexts after graduation.

The teaching focus is on attempts to 'fix' problems with student learning, thus treating the latter "as a kind of pathology" (Street, 2009:348) and teachers as problem solvers. Typical curricular and pedagogical examples are the 'College Composition' and 'Remedial Classes' instruction found in many tertiary 'English as a Second/Foreign Language' (ESL/EFL) settings. It is on this basis that Mary Lea and Brian Street sought to refine the meaning of 'skills' involved and paid attention to broader issues of learning and social context. Their enquiry led them to the identification of the 'academic socialization' perspective (Lea and Street, 1998).

2.3.3.2 The Academic Socialization Perspective

Having its roots in social psychology, anthropology and constructivism, the *Academic Socialization Perspective* (ASP) sees writing in academia as a process of induction (or acculturation). Therefore, the task of the lecturer is to inculcate students into a new 'culture'

– the academic culture of the university. According to Grusec and Hastings (2007:547), 'enculturation' is the process by which a person learns the requirements of the culture by which he/she is surrounded, and acquires the values and behaviours that are appropriate or necessary in that culture. In academia and issues relating to tertiary education and the preparation for the world of work, the issue of enculturation has been of quite an interest (e.g. Haneda, 2009; Prior and Bilbro, 2012). Haneda makes interesting distinctions between *enculturation* and related terms when applied to academia. She defines *academic enculturation* as "a process of cultural learning in which [students] learn to act as productive members of their disciplinary communities and locally of their …departments" (Haneda, 2009:65). Owing to the fact that she said this in the context of graduate studies, it was assumed that the concerned students were not strangers to the academy as such but needed to adjust to higher level demands as graduate students. So, she was quick to 'contrast' this term with "other similar terms such as *acculturation* and *assimilation*" which are used in other contexts to refer to processes that newcomers (e.g. first year undergraduates) undergo as they become integrated into a new, say, cultural or linguistic community in which they intend to settle.

The ASP is a more discipline-based approach which acknowledges that different disciplines privilege different written forms, styles and practices. Thus, inherent in the study of a particular academic subject is the learning of written academic conventions. However, when applied more generally the perspective means that students acquire the ways of talking, writing, thinking and using literacy that typifies members of a disciplinary area community (Lea, 2006). While many studies have focused on classroom activities to investigate academic socialization, there are studies indicating that multiple aspects of socialization within students' social interactions outside the classroom context can enhance academic socialization (Seloni, 2012), foregrounding oral academic tasks and interactions as important inputs for students' successful academic socialization. For example, the following studies have focused on the link between oral discourse, writing development and academic socialization of multilingual tertiary students learning in English-medium educational settings: Belcher (1994), Casanave and Li (2008), Connor and Mayberry (1995), Connor, Nagelhaut and Rozyciki (2008), Duff (2002), Kobayashi (2003), Lee (2009), Morita (2000), Weissberg (1993), and Zappa-Hollman (2007).

Although the ASP is more sensitive to both the student as learner and to the cultural context, it could be criticised on certain grounds. It appears to assume that the academy is a relatively homogeneous culture, whose norms and practices have simply to be learned to provide access to the whole institution. The ASP presumes that the disciplinary discourses and genres are relatively stable and that once students have learned and understood the ground rules they will have no problem reproducing them. An example of how this model is practised in both curriculum and pedagogy is the design and teaching of 'Study Skills' or 'Writing Support' courses. Despite that the fact that contextual factors in student writing are recognized as important (Hounsell, 1988), the ASP tends to treat writing as a transparent medium of representation and so fails to address the deep language, literacy and discourse issues involved in the institutional production and representation of meaning (Street, 2010). Even though at some level disciplinary and departmental difference may be acknowledged, institutional practices, including processes of change and the exercise of power, do not seem to be sufficiently theorized within the ASP framework.

2.3.3.3 The Academic Literacies Perspective

The *Academic Literacies Perspective* (ALP), which is the one most closely allied to the New Literacy Studies, moves beyond the SSP and ASP models. Its proponents argue that since writing is a social practice it is embedded in the values, relationships and institutional discourses of the university. To illustrate this, I use a recent example from the University of Western Sydney (UWS), Australia. In an effort to establish "a comprehensive system of embedded academic literacy in mainstream units" particularly for students of non-English speaking backgrounds, the university drafted a document titled *Academic English Literacies Framework* in order "to provide a framework for the development of academic literacies of UWS students" (UWS, 2010:1). The framework states in part that "The term academic literacies can be used interchangeably with English language proficiency as defined by the '[Australian University Quality Agency] Good Practice Principles': the ability of students to use English language to make and communicate meaning in spoken and written contexts while completing their university studies" (UWS, 2010:1). So, in the described context 'academic literacy' is equated with 'English language proficiency', generally, and with 'speaking' and 'writing', specifically – despite the multiple literacies that the targeted students are likely to possess.

In the ALP model writing and learning are issues which are at the level of epistemology, power and identities constituted in the academy, rather than skill or socialization. For example, in most essay and related writing at university students are required to engage their own 'voice' in their writing – which gives them some empowering identity as they are able to articulate a sense of themselves. They locate themselves in their own writing, and this is likely to enhance their self-confidence. Conversely, students are also required to identify themselves with authoritative research literature – especially in dissertations and theses – so that their own work can be seen as relevant, standard, valid, credible, reliable, and so on. Thus, identities and power relations can be marked by tensions. The ALP sees the literacy demands of the curriculum as involving a variety of communicative practices, including genres, fields and disciplines. From the student point of view a dominant feature of academic literacy practices is the requirement to switch practices between one setting and another, to deploy a repertoire of linguistic practices appropriate to each setting, and to handle the social meanings and identities that each evokes (Street, 2010). A student's personal identity (i.e. who am 'I'?) may be challenged by the forms of writing required in different disciplines, e.g. prescriptions about the use of impersonal and passive forms as opposed to first person and active forms, and students may feel threatened and resistant [i.e. 'this isn't me'] (Lea, 2004). The recognition of this level of engagement with student writing as opposed to the more straightforward study skills and academic socialization approaches, or the focus on text types typical of the *Genre Approach*, comes from the social and ideological orientation of the *New Literacy Studies*. Allied to this is work in Critical Discourse Analysis, Systemic Linguistics and Cultural Anthropology which has come to see student writing as "constitutive and contested rather than as skills or deficits" (Street, 2010:349).

There is a growing body of literature based upon the ALP, which suggests that one explanation for student writing problems might be the gaps between academic staff expectations and student interpretation of what is involved in student writing (e.g. Lea, 2004; Lea and Street, 1998; Stierer, 1997; Street, 1995). Since Lea and Street's provision of the *Academic Literacies Framework* (ALF), the framework has offered a theoretical account of how people in universities practice literacies – as applied to the language skills of reading and writing, and extended to the other language skills, sub-skills and competences. Increasingly,

the framework is also being drawn on as a paradigm for academic practices more broadly, which encompasses a large area of competences and attributes (e.g. Haggis, 2003). While in some way Academic Literacies research has emerged as a response to the ESP global enterprise, it is also true that the Academic Literacies Approach (ALA) has lately had an impact on ESP curriculum development and teaching (Coffin and Donohue, 2012). However, as is further elaborated in section 2.5, ESP has also been influenced by the *Systemic Functional Approach* (SFA) from systemic functional linguistics (Halliday, 1978).

2.3.4 Dimensions of Multiliteracies: Lessons for Educators

Education systems and learning institutions are currently working through the challenge of identifying the new learning and literacies that are required in the 21st century society and being able to contribute to that end. The challenge requires consideration of how best to prepare students for the changes they face in a world that is increasingly characterized by local diversity and local connectedness. Thus, in addition to developing the skills to communicate and make sense/meaning amidst diverse audiences, students need to be engaged in observing and critiquing the communication systems to which they have access. This requires (for both teachers and students) a shift and broadening in terms of what is valued as literacy practice, as it will determine the extent to which educational providers and educators will focus on what literacies to develop for their students (e.g. language skills, language-based reading and writing skills, information literacy, and so forth). The broader and more complex dimensions of multiliteracies would enable students to more accurately demonstrate their ideas, learning and knowledge. When students are provided with these opportunities, "there is often a clearly demonstrated change in [their] confidence, their status among their peers, and their view of themselves as successful learners" (O'Rourke, 2005:2). According to Lea (Lea, 2004:739), "the increasing use of information and communication technologies and virtual learning environments add dimensions" to literacy.

Building on the work of The New London Group (1996), Lankshear, Synder and Green (2000), Cope and Kalantzis (2000), and Kalantzis and Cope (2004), O'Rourke (2005) argues that there is a need for conceptual understanding of mutliliteracies as part of the schooling experience. She proposes that one way of understanding multiliteracies is to consider four dimensions of literacy that are applicable regardless of the communication mode: (i) the human, (ii) the foundational, (iii) the critical, and (iv) the creative. The *human dimension* reminds educators that literacy is not a simple technical endeavour. It is shaped and influenced by the individual sense maker and communicator, as well as by the sum total of his/her knowledge and life experience. This includes not only knowledge in the subjects/disciplines, but also knowledge of other people, situations and contexts. It also refers to the affective or emotional aspect of communication which is particularly highlighted in multiliterate practice, e.g. when music is used to create a mood or feeling associated with a message.

The *foundational dimension* refers to the particular skills and knowledge that generally need to be directly taught to students and then practised in order for them to become 'literate' or proficient. While huge emphasis has traditionally been placed on surface-level foundational skills of reading and writing and to a lesser extent on listening and speaking (especially in a foreign language, as is the case in Rwanda and the rest of Africa), the communication modes associated with visual, aural, spatial and gestural forms has mostly been addressed through specialist or elective subjects such as the Arts and Design. In order to expand existing literacy

practices, the wealth of knowledge that exists in the disciplines needs to be mined and linked to everyday literacy experiences.

The *critical dimension* of literacy has serious implications for educators' pedagogy and some questions that arise, thus: How do educators (e.g. curriculum developers, instructional designers, and teachers) examine the educational intentions of the tasks they set for students? For example, do they aim simply at engaging students with the technology or do they provide opportunities for critical engagement where students are encouraged to use higher-order thinking and develop deep understandings? Do educators encourage students to reflect on the content of their work, its relevance at a local and global level, as well as the appropriateness of the mode of communication they have used to exhibit their knowledge and ideas? Is the learning environment designed physically, socially and culturally to be a place where students regularly give and receive feedback, and is there time provided for them to revisit their ideas and reshape them with such feedback in mind? Teachers' ability to question effectively and providing scaffolding support to stretch students in their thinking is a contributing factor to the development of the critical dimension.

A *creative dimension* provides opportunities to genuinely assess how well the other dimensions of literacy have been assimilated as they are adapted, adopted and innovated on for the individual's own purposes. This is where the expression, testing and elaboration of ideas takes place, with learners creating their own opportunities as they manipulate and reconstruct situations and make their creative experiences meaningful. According to Jeffrey and Craft (2003:2), "something new is created and there is a significant change or 'transformation in the [student]." Further, when educators become more conscious of these dimensions and actively plan to include them in the curriculum opportunities they provide their students, they foster the holistic development of individuals. At the same time, the educators gain deeper insight into their students' capabilities, competences, attitudes and thought processes (O'Rourke, 2005).

2.4 TOWARDS A TYPOLOGY OF TERTIARY ACADEMIC LITERACIES

2.4.1 Content Area Literacies: Disciplinary Understanding and Skills

A few other terms have been used in discourses of content area literacies: subject-specific or discipline-specific skills, disciplinary understanding and skills, and so on. Content area 'literacy' (in an inclusive sense) is an important aspect of academic literacy in tertiary education, but content area literacy is not necessarily dependent upon general and academic language proficiency/competence or other 'soft' skills and competences (Yorke, 2005; Yorke and Knight, 2006). According to Sowden (2003), academic training will not necessarily enhance language development, nor does language proficiency presuppose academic competence. However, proficiency/competence in the language used as a medium of teaching, learning and research (e.g. English) is deemed to critically scaffold academic language (e.g. English for Academic Purposes), and the latter is believed to, in turn, scaffold content area literacy (Afful, 2007; Evan and Green, 2007; Turner, 2004; Woodward-Kron, 2008;). Therefore, it might be desirable to address both academic training and language development in a complementary way (Sowden, 2003). Furthermore, it is believed that to some degree when a language of instruction is used to teach the content-area subject matter there is language input, hence acquisition of that language by the recipient of the instruction (Gibbons, 2002).

Critically examining the nature of disciplinary literacy as it relates to employability, understanding and skills, Bennett et al. (2000) devised that connects disciplinary content 'knowledge', disciplinary 'skills' and workplace 'experience'. In a related approach, Knight and Yorke (2002, 2004) employ the USEM model, which interrelates disciplinary 'understanding', disciplinary 'skills' and metacognition. In the latter model, the term 'understanding' is preferred to 'knowledge' because of its implication of depth. According to the authors, the term 'skill' is used because of its significance in political and employment circles, but there is a real danger of its being given a simplistic and unhelpful interpretation. The terms 'skilled practices' or 'skilful practice' are preferred, instead, with the implication that this hinges on awareness of, and responsiveness to, the context. The significance of metacognition is increasingly being recognised because of research related to student learning that has developed over the last three decades (Yorke and Knight, 2006). The research has become an essential underpinning in institutional programmes for the development of teaching in higher education. The usage of the term 'metacognition' can have different meanings, depending upon the perspective adopted. One such a perspective is that is subsumes the elements of learning how to learn, reflection *in* practice, reflection *on* practice, and reflection *for* practice (Yorke and Knight, 2006:6).

One of the distinct phenomena in 21st century higher education is the latter's explicit focus on study and research between and/or across related disciplines (e.g. between branches within a vast field such as applied sciences or medical sciences) or different disciplines (e.g. between disciplines in the social sciences and in applied sciences or medical sciences). A few terms have been used to distinguish patterns and trends of how these shape up: interdisciplinarity, crossdisciplinarity, and transdisciplinarity. For the purposes of my study, I use the term *inter-disciplinary* study or research here to encompass all the three. Interdisciplinarity within an educational context may be conceptualised as "an encounter with knowledge sets, methodologies and skills from more than one established academic discipline, combined with reflection on the relationships between the sets of knowledge, skills and methodologies explored" (King's-Warwick project, 2010:10). Although disciplines continue to be the main organising structure for undergraduate education around the world, there is an increase in foundation year programmes, inter-disciplinary first-year courses and general education requirements (King's-Warwick project, 2010; Lea, 2004, 2006; O'Rourke, 2005).

While content area literacies continue to be at the centre of higher education, characterized by rigorous student development and acquisition of disciplinary and/or interdisciplinary knowledge and skills, there is a new emphasis on the so-called 'soft' literacies that support and enhance disciplinary/interdisciplinary understanding and skills development, and hence academic progress and success, employability and lifelong learning. It is on this strand of literacy development that my study is focused.

2.4.2 Language Literacies

Distinction is to be made between *general language* and *academic language* as they relate to the concept of academic literacy. 'Language literacy' may be comfortably viewed as encompassing a number of skills and competences in either general language or academic language, whereby academic language is an integral – albeit situated – part of language literacy. While language fluency is basically one's ability to understand and to be fairly understood by other speakers of a language, language/linguistic proficiency (e.g. English language proficiency) involves an advanced language level that is mainly characterized by

accuracy and use of a variety of discourse strategies. Although much of the literature on communicative language learning-teaching advocate more for fluency than for proficiency, some scholars (e.g. Canale and Swain, 1980) see *communicative competence* in a more critical way. Canale and Swain (1980) divide communicative competence into four components: *grammatical competence* (i.e. knowledge of the code of language, including vocabulary, word formation, pronunciation, spelling and sentence formation); *sociolinguistic competence* (i.e. knowledge of the appropriateness of language, determined by factors such as topic and status of participants, concerning appropriate use of both meaning and form); *discourse competence* (i.e. knowledge of the way in which grammatical forms and appropriate meanings work together to make a text – written or oral – both cohesive and coherent as a unit of discourse); and *strategic competence* (i.e. knowledge of the way in which language is used to communicate an intended meaning or to compensate for miscommunication).

Therefore, communicative competence may be seen to mean almost the same thing as *language proficiency*, which seems to be at the centre of general language acquisition and teaching. Thus, a proficient speaker of, say, a foreign language is not only fluent but also communicatively competent. Cummins (1991, 1994, 2000) believes that in the course of learning one language a child (or even an adult, for that matter) acquires a set of skills and implicit metalinguistic knowledge that can be drawn upon when working in another language. He calls this *common underlying proficiency* (CUP). So, CUP provides the basis for the development of both the first language (L1) and the second language (L2). It follows that any expansion of CUP that takes place in L1 will have a beneficial effect on L2 and any additional languages (Cummins, 2000). Cummins (1991) distinguishes between two different kinds of language proficiency. *Basic Interpersonal Communication Skills* (BICS) are the 'surface' skills of listening and speaking which are typically acquired quickly by many students in, say, an English-medium learning context – particularly by those from backgrounds similar to English who spend much of their school time interacting with native English speakers. On the other hand, *Cognitive Academic Language Proficiency* (CALP) is the basis for student ability to cope with the academic demands placed upon them in the various subjects/disciplines. Cummins claims that while many students tend to develop fluency in BICS relatively fast, it takes long to develop proficiency and to be able to work at the same level as native speakers within the domain of CALP.

For Turner (2004), *proficiency* in a language used as a medium of instruction is as important as competence in content area subjects. For instance, words and expressions used during teaching, in assessment activities, and in reading materials (e.g. textbooks, articles, internet texts, etc) might need to be explained if comprehension has to take place. Thus, academic vocabulary is mostly developed through readings based in educational settings and repeated exposure during content-based classroom activities. Academic language structures include language structures and vocabulary that are much more complex than those of everyday conversations. This vocabulary is needed to communicate effectively in content area classes. Academic language is different from, but not unrelated to, the language of instruction since the latter is meant to address the general language needs of students regardless of their fields of specialization (i.e. language-in- education). The specificity of academic language has to do with such elements as style, discourse strategies and techniques, genre, register, etc. The Teaching English to Speakers of Other Languages (TESOL, 2010) organization defines academic language as language used in the learning of academic subject matter in formal schooling context. Aspects of language are strongly associated with literacy and academic achievement, including specific academic terms or technical language, and speech registers

related to each field of study. The glossary developed by the Center for Research on Education, Diversity and Excellence (CREDE, 2002) defines academic language proficiency as the ability in language skills needed for mastering academic material, including both written and oral language. Academic language more broadly defined includes both linguistic and social components, for example, semantic and syntactic awareness/knowledge along with functional language use (Echevaria and Short, 2002), or the ability to interact in social and academic settings, and to comprehend and use the language of the disciplines (Gottlieb, 2005).

One area where general language proficiency meets academic language is that the latter relies on a broad knowledge of words, including use of cognates, concepts, language structures, and interpretation strategies. However, language literacy goes beyond the acquisition of the technical aspects of language even when these are situated in an academic context such as English for Academic Purposes, or academic reading/writing. Much of the research on academic literacy has been concerned with how to socialize students into 'proper' academic practices without being critical of the practices themselves (Ivanic, 1998). Even when the language literacies are pedagogically integrated (as they often are) with related study and other academic skills such as critical thinking, research skills, examination skills, time management, and so on, to form a modular unit of academic literacy instruction, the latter skills might still be seen as "just a set of skills that the student must master in order to perform successfully as a 'scholar'" (Henderson, 2007:26). In any case, the role of academic language is fundamental in connecting 'content area literacy' and 'language literacy' skills. It is apparently in this light that the development of learning, teaching and research in *Language for Specific Purposes* (LSP), as an umbrella term to include *Language for Academic Purposes* (LAP), interfaces between academic literacy in its holistic sense and general language literacy.

Since thousands of languages are in existence, I use English as a contextual example of the development of LSP as a facet of academic literacy. Students in English-medium higher education whose first language is not English are expected to control the same set of language competencies for success as their native or near-native speaking peers. They must also meet the demands of advanced level academic work. Therefore, they need to acquire a high level of proficiency in both general and academic language, "which requires dispositions and skills beyond those of conversational fluency" (ICAS, 2002:30).

2.4.3 English for Specific Purposes (ESP) as a Case Study

The rationale for using ESP as a case study for language literacies is not only because it is a relatively new 'literacy' area in the Rwandan educational context and hence needs particular attention, but also because of four other factors: (i) it is a well-researched area, and of late research on its *English for Academic Purposes* (EAP) branch has been greatly influenced by the Academic Literacies Approach (e.g. Lillis and Scott, 2008; Thesen and Pletzen, 2006; Turner, 2004), (ii) it has a longstanding practising experience all over the world, (iii) it has several features that link it to the 'academic literacies' paradigm, and (iv) historically, it has been increasingly embedding many academic literacies in its curricula and pedagogies.

2.4.3.1 Context, Definition and Description

Language for Specific Purposes (LSP) is known to have evolved from the early 1960s (Huckin, 2003). According to Selinker and Douglas (1987), LSP has historically been a

pedagogically oriented discipline that arose from two trends: teaching that focused on specific, mainly development-related, technical areas demanded by language-learning consumers in developing nations; and a research interest in register analysis that led naturally to taxonomies of specific content for language teaching. This resulted in the publication of textbooks on specific-language or language related courses (e.g. 'scientific French', 'English for Engineers', and 'business telephone skills'). These texts laid emphasis on the needs of learners as related to specific vocational/occupational and academic themes and topics (Strevens, 1980).

Whilst it is a fact that research in other world languages has not evolved their own LSP to compete with ESP, it is also true that English has no exclusive role to play in the development of the world's LSP programmes (Chaudron, 1983) and that teachers of English have no monopoly on LSP instruction (Belcher, 2006:134). On the other hand, English has a widespread application and thus the English-based literature serves to illustrate the issues involved in LSP (Chaudron, 1983). Although ESP has now evolved as an independent field of research and practice, it is one of the sub-areas of the vast and lucrative industry known as *English Language Teaching* (ELT). At the theoretical and empirical levels, however, ESP is better situated in Applied Linguistics (AL), and its consistent target on non-native English speaking audiences (NNS) relates it to the field of *Second Language Acquisition* (SLA), as well as to the broader ELT field branch, *English for Speakers of Other Languages* (ESOL), which can comfortably be subdivided into *English as a Second Language* (ESL) and *English as a Foreign Language* (EFL).

The first breakthrough in attempting to clarify the meaning of ESP was Tony Dudley-Evans' (2001) extended definition in terms of 'absolute' and 'variable' characteristics that ESP is purported to possess, as summarized below.

Absolute Characteristics	- ESP is designed to meet specific needs of learners. - ESP makes use of the underlying methodology and activities of the specific discipline it serves. - ESP is centred not only on the language (grammar, lexis, register), but also the skills, discourses and genres appropriate to those activities.
Variable Characteristics	- ESP may be related to or designed for specific disciplines. - ESP may use, in specific teaching situations, a different methodology from that of General English (GE). - ESP is likely to be designed for adult learners, either at a tertiary institution or in a professional/occupational work situation. It could, however, be for learners at secondary school level. - ESP is generally designed for intermediate or advanced students. - Most ESP courses assume some basic knowledge of the language system.

Figure 2.1: Characteristics distinguishing ESP (after Dudley-Evans, 2001)

For Dudley-Evans (2001), the single most important defining characteristic of ESP is that teaching and resources for teaching/learning are based on the results of a needs analysis, key questions in this analysis being: What do students need to do with the language?; Which of the skills do they need to master and how well?; and Which genres do they need to master either for comprehension (i.e. listening and reading) or production (i.e. speaking and writing) purposes? Thomas Orr further provides a definition and description of ESP where he not only encompasses several aspects of ESP in its broadest perspective but also tries to harmonize the controversy that exists in most definitions:

> ESP is English language instruction designed to meet the specific learning needs of a specific learner or group of learners within a specific time frame for which instruction in general English will not suffice. Most often, this instruction involves orientation to specific spoken and written English, usually unfamiliar to the average speaker, which is required to carry out specific academic or workplace tasks (Orr, 2001:207).

A generally accepted definition of ESP is that it is the teaching and learning of English used for communication purposes in academic studies and in the world of work, as distinct from *English for General Purposes* (EGP) which is taught and learnt for no specified purposes. ESP teaching and learning may take place at foundation level in undergraduate study, at a graduate school, during new employee orientation at a factory, or in a professional development seminar at corporate offices. The learners may be university or vocational school students, recent immigrants, or working professionals. Furthermore, the ESP providers may be tenured university faculty, trainers/consultants from a private agency, or in-house language specialists within a major international corporation.

2.4.3.2 Scope and Classification

An examination of the literature on ESP reveals that researchers are far from consensus about which types of ELT should qualify as ESP. This has resulted in the difficulty of providing a clear-cut universal definition of ESP, owing to its involvement of not only in language teaching but also in a diverse and complex set of topics, e.g. student needs, language policy and education policy (Fortanet-Gomez and Raisanen, 2008). For example, it has been referred to as 'applied ELT' because the content and aims of any ESP course are usually determined by the needs of a specific learner or a group of learners. It has also been conceptualized as a pedagogical 'approach' to teaching English. One helpful way of classifying the varieties of ESP may be to subject them to two dimensions: (i) the ESP-EAP divide, and (ii) the wide-angle, narrow-angle perspectives that form a continuum. A central characteristic of ESP is that it must be based on learners' *specific* needs, which prompts carrying out a needs analysis. This is elaborated in 2.4.3.3.

Conventionally , the scope of ESP is described as involving a continuum of two 'perspectives' or 'approaches', namely, the *wide-angle* and the *narrow-angle* perspectives (Blue, 1988; Dudley-Evans and St. John, 1998; Hyland, 2002, Widdowson, 1983). The wide-angle approach represents a cluster of ESP courses offered to students on campus to address generic academic communication and other academic literacy needs across the curriculum. These courses are often taught in foundation year or first year of university and may be attended by all students at that level, regardless of their chosen discourse communities. Adopting an approach akin to that of the *study skills model* in the 'Academic Literacies Approach', the programmes or courses within this 'angle' are believed to impart generic transferable English language literacies that will be automatically applied to the academic English needs in the disciplines of specialization and beyond (e.g. further study and working life). Examples are *General English for Academic Purposes* (GEAP) and *English for General Academic Purposes* (EGAP). While GEAP's immediate concern and main focus is general English language proficiency – which is taught and applied in an academic context – EGAP is academic English applicable across the institution's or programme's curriculum (e.g. writing/speaking across the curriculum, generic academic grammar, academic word list, etc).

Table 2.1: Varieties of ESP on the wide-angle to narrow-angle continuum

Perspective	*Varieties*	*Literacies*	*Content Area (exemplar)*
Wide-angle	General English for Academic Purposes (GEAP)	Listening; speaking; reading; writing; grammar; vocabulary	General/foundation
	English for General Academic Purposes (EGAP)	Generic academic listening, speaking, reading, writing, grammar, vocabulary + genres, discourses, texts	All fields across the curriculum
Medium-angle	- English for Specific Academic Purposes (ESAP 1) - English for Specific Professional or Occupational Purposes (ESPP 1 or ESOP 1)	Specific academic listening, speaking, reading, writing, grammar, vocabulary + genres, discourses, texts	Medical Sciences
Narrow-angle	- English for Specific Academic Purposes (ESAP 2) - English for Specific Professional or Occupational Purposes (ESPP 2 or ESOP 2)	Specific academic listening, speaking, reading, writing, grammar, vocabulary + genres, discourses, texts	Internal Medicine; Orthopaedics; Paediatrics; Ophthalmology; Gynaecology; Dentistry; Anaesthetics; Cardiovascular Diseases; Epidemiology; Dermatology; Pathology
	English for Extra-Specific Purposes (EESP)		English for Academic Research; English for International Communication; English for Testing Purposes (e.g. TOEFL, IELTS, SAT, TOEIC)

I argue that there is a third perspective that exists between the wide-angle and narrow-angle, the *medium-angle*, which needs to be recognized (see Table 2.1). The *medium-angle* courses are field-specific, so they address academic language needs that are of a fairly specific nature but are not entirely specific. For instance, science and technology, medicine, business, and social sciences – as faculties/departments or as vast fields of study – encompass a range of subjects/disciplines within each of them. It, therefore, follows that an ESP course covering the whole field will not be able to satisfy the academic communication needs required or demanded in each specific branch of the field. Students are 'socialised' into the broad field but not into their respective specialized branches. English in the field of medical sciences is used as an exemplar in Table 2.1. Hence, students who have successfully completed a general course in *Medical English* or *English for Medical Professionals* would be expected to competently use the learned field-wide academic English communication skills in the numerous branches of medicine. In undergraduate or postgraduate study, such a course is likely to be subsumed under the broader programme for *English for Specific Academic Purposes* (ESAP 1) and *English for Specific Professional* or *Occupational Purposes* (ESPP 1 or ESOP 1). The ESAP variety concerns itself with language used to support the development and acquisition of disciplinary knowledge and skills, whereas the ESPP/ESOP varieties are meant for the world of work. However, as noted earlier, there is often the difficulty of

drawing borders between what is 'academic' and what is 'professional' or 'occupational'. The symbol '1' in each of the varieties signifies that they are at field-wide level.

The *narrow-angle* courses take on a more discipline-specific stance than medium-angle, as they address academic English language needs in a specialized area, e.g. *English for Paediatricians*. The symbol '2' in each of the varieties signifies that they are at branch level. This angle can be further narrowed to 'extra-specific' needs (i.e. very specific purposes) and call for what I have termed *English for Extra-Specific Purposes* (EESP). In the general ESP field, this variety can accommodate virtually any specific English language communication need(s) of individuals, groups, companies, organizations and learning institutions. As the ever-diversifying and expanding range of purposes of ESP come into existence new and innovative courses are invented (Belcher, 2006). They range from what Belcher (2006:134) refers to as "more specific-mission-oriented ESP" or what Master (1997) has labeled "English for Sociocultural Purposes" (e.g. English for AIDS Education, family literacy, citizenship), to those targeting learners with highly specialized needs (e.g. learners who are incarcerated, or who have disabilities [Johnstone, 1997; Master, 2000]). This type of ESP range goes beyond the academic or workplace settings, as it addresses neighbourhood community needs.

A random search on the World Wide Web reveals a range of curricular provisions that fall within the EESP category. A good example for an academic context is the *English for Academic Research* course offered at Stockholm University. Other examples are given in Table 2.1. Generally speaking, the narrow-angle perspective deals with the teaching and learning of the features that distinguish one discipline from other disciplines even if they all belong to the same field (Blue, 1988; Dudley-Evans and St. John, 1998; Hyland, 2002). Therefore, while EGAP covers more general contexts, ESAP focuses on specific linguistic features and tasks.

2.4.5 Generic Transferable Literacies other than Language Literacies

This strand of literacies for academic support covers four main areas: (i) undergraduate studies, where newcomers need academic acculturation into the university academy and to progress, achieve and succeed academically in their mainstream disciplines; (ii) academic enculturation into postgraduate studies, which calls for more advanced skills, strategies and competences than those needed at undergraduate level; (iii) preparation for working life; and (iv) preparation for lifelong learning.

2.4.5.1 Key Concepts

In the wording of this subsection I have preferred the term 'literacies' deliberately to avoid the conceptual controversies that underlie separating the meanings of the terms *skill*, *competence*, and *attribute*. But, this is not to suggest that 'literacy' is a neutral term either, as has already been signposted in its definition earlier. However, at least for the purposes of my study, the term 'literacy' or 'literacies' may be understood to combine the meanings of skill, competence and attribute. As said before, other terms commonly used in current discourses of academic literacies education include *study skills*, *communication skills*, *generic skills*, *transferable skills*, *employable skills*, *graduate skills* and *entrepreneurial skills*. These are complicated, intriguing and contested terms, which are discussed along with other concepts in the following subsections.

2.4.5.2 The General Context

The state of the 21st century University is changing fast, as students from different backgrounds flock into the universities – especially in Europe, North America and the Pacific. In less developed countries, too, trends are changing, given the prevailing conditions of wider participation. The global wider participation movement has resulted in at least two phenomena closely related to the issue at hand: (i) high student populations on campuses, putting much strain on space and resources, and (ii) diversity of the student population. The first one, which tends to be more aggravated in less developed countries, is linked to the need to support students studying in resource-limited environment so that they do not get lost into the crowd.

The second one, which now seems to be international, is a greater challenge to all concerned learning institutions to ensure the progression of students from different backgrounds and abilities, e.g. students from non-traditional backgrounds such as those from work/vocations, vocational training institutions, 'mature' students, or overseas students (in the case of Europe, North America, etc). The overall importance of academic support skills, especially upon tertiary entrance, is that they are "part of a broader process of personal, academic and professional development" (Cottrell, 2001:46) throughout the university course into postgraduate study and working life. The overall importance of academic support skills, especially upon tertiary entrance, is that they are "part of a broader process of personal, academic and professional development" (Cottrell, 2001:46) throughout the university course into postgraduate study and working life.

In more developed education systems (particularly in developed countries), most universities have lately began to implement wider skills development schemes, accompanied by structures (e.g. academic advisory services) that help students to plan their learning and professional development as well as their lifelong learning. Certain skills such as problem solving, time management, stress management and communication have been common across such universities. Yet, because in most cases these skills have not been taught explicitly inside other courses, students have not been aware of them and their transferability to the workplace (Wingate, 2006:460). In many universities today, including those located in less developed countries the general situation is changing, especially due to globalization factors and the internationalization of higher education frequently referred to in this thesis. This change has made the need for explicitly teaching academic support skills and work-related competences even more important.

Over time, various approaches, models and perspectives have evolved, but it is outside the scope of my study to review them. Therefore, for the study's purposes below I examine four perspectives, which I term: the *conventional perspective*, the *21st century perspective*, the *critical perspective*, and the *integrative perspective*. The last two are closely related since they both emerge from the 'academic literacies' theoretical/conceptual and empirical frameworks.

2.4.5.3 The Conventional Perspective

Generic academic skills are those skills generally expected of every student regardless of the field or discipline of specialization such as sociology, social work, medicine, engineering, and so on. The commonest term used to describe skills and competences needed for tertiary learning and preparation for lifelong learning is *study skills*.

In Burke's *Academic Literacy Foundation Skills* (Burke, 2006) he delineates three categories of what he calls 'foundation skills' which constitute academic literacy; they are: 'basic skills', 'thinking skills' and 'personal qualities'. I outline the first two in Figure 2.2 below and discuss the third later in this chapter. As shown in Figure 2.2, the skills in bold are general statements of the broad aims, while the vertically numbered on the left are corresponding skills to achieve those aims. The first cluster, 'basic skills', consists of key macro language-based skills (i.e. reading, writing, speaking, listening) which are developed and used in a given socio-linguistic environment through the micro skills shown on the right. Thinking skills do not depend on any language per se but their pervasive nature makes them cross the artificial border between themselves and the 'basic skills'.

BASIC SKILLS: Reads, writes, performs arithmetic and mathematical operations, listens and speaks	
1. Reading	Locates, understands, and interprets written information in prose and in documents such as manuals, graphs and schedules
2. Writing	Communicates through thoughts, ideas, information and messages in writing, and creates documents such as letters, directions, manuals, reports, graphs, and flow charts
3. Arithmetic	Performs basic computations, uses basic numeric concepts such as whole numbers, etc
4. Mathematics	Approaches practical problems by choosing appropriately from a variety of mathematical techniques
5. Listening	Receives, attends to, interprets, and responds to verbal messages and other cues
6. Speaking	Organizes ideas and communicates orally
THINKING SKILLS: Thinks creatively, makes decisions, solves problems, visualizes, and knows how to learn and reason	
1. Creative thinking	Generates new ideas
2. Decision-making	Specifies goals and constraints, generates alternatives, considers risks, and evaluates and chooses best alternatives
3. Problem-solving	Recognizes problems and devises and implements plan of action
4. Seeing things in the mind's eye	Organizes and processes symbols, pictures, graphs, objects, and other information
5. Knowing how to learn	Uses effective learning techniques to acquire and apply new knowledge and skills
6. Reasoning	Discovers a rule or principle underlying the relationship between two or more objects and applies it when solving a problem

Figure 2.2: Academic literacy foundation skills (After Burke, 2006)

Another model that may be used to gain insight into the academic literacies requested of high school graduates entering tertiary education is *A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities* published by the Intersegmental Committee of the Academic Senates of the California Community Colleges,

the California State University, and the University of California, henceforth abbreviated as ICAS (ICAS, 2002). In the spring of 2002, ICAS published a statement of academic competences expected of tertiary students entering California's public colleges and universities that can be applied across a much wider parameter. These competencies are close to Burke's foundation skills in Figure 2.2 but they go deeper and beyond the latter inn explicating what is entailed in becoming academically literate.

Apart from acknowledging the complex nature of academic literacy, ICAS identifies what constitutes academic literacy as: reading, writing, listening, speaking, habits of mind (or critical thinking) and use of technology. The ICAS claims that these skills are important for students' success. The ICAS (2002:3) recognize the connection between academic reading and writing, as well as the fact that "reading and writing are the lifeblood of educated people." Therefore, students, like the writers whose work they read, should articulate a clear thesis and should identify, evaluate, and use evidence to support or challenge that thesis while being attentive to choice of words, syntax and organization. Academic reading, in ICAS's perspective, should go beyond foundation level and involve analysis/synthesis, effective critical reading strategies, reflection and inquiry.

Furthermore, academic reading should involve students in "finding campus instructional resources on their own" (ICAS, 2002:4), hence the ability to learn independently. Academic writing entails synthesizing information from several sources; producing work relatively free of language errors and submitting carefully revised and edited work; expressing thinking clearly, accurately and compellingly; completing complex writing tasks across the disciplines with little instruction provided; and exercising independent thinking and intellectual dialogue. Academic listening involves active, discerning listening in lectures and discussion classes, and making critical distinctions between key points and illustrative examples. Academic speaking entails speaking with a command of language conventions, and speaking in large and small groups.

Habits of mind are described as "foundational dispositions well-prepared students have for academic reading, writing, and critical thinking." (ICAS, 2002:12). Thus, intellectual habits of mind interface among academic reading, writing, listening and speaking. Habits of mind include curiosity, daring and participating in and contributing to intellectual discussions, experimenting with new ideas, challenging own beliefs, seeking out other points of view, thinking analytically and critically, assuming a measure of responsibility for own learning, discerning crucial values of the academic community, seeking assistance when needed, and advocating for own learning in diverse situations.

Use of technology, according to ICAS (2002), requires that students should enter higher education with basic technological skills, e.g. word-processing, e-mail use, and the fundamentals of Web-based research, as students' success "has as much to do with their ability to find information as to recall it" (ICAS, 2002:6). Therefore, technological literacy entails the ability to evaluate online resources critically, that is, students should form questioning habits when they read, especially materials found on the Internet where students must evaluate materials for clarity, accuracy, precision, relevance, depth, breadth, logic, significance, and fairness.

From the two examples outlined above, it is tempting to concur with Burke and ICAS about their lists of literacies critically requested of higher education students. Nonetheless, from an academic literacies standpoint a number of pedagogical questions could be posed. They

include: At what stage of the university study programme will the literacies be taught – at foundational level, in first year, etc? What curricular and pedagogical strategies will be used to support students' acquisition of the literacies – for example, will they be taught in a single or a few stand-alone generic courses, or integrated into existing academic language/literacy courses, or embedded into the mainstream disciplines? Some of these questions are revisited after examining the next two perspectives on tertiary generic academic literacies.

2.4.5.4 The 21st Century Perspective

Until the diversity of student populations in higher education (described earlier) came about in more developed countries, the need for study skills was regarded as a problem of a few 'at-risk' students, so universities would engage them in study skills instruction through the 'remedial approach' (Cottrell, 2001:40), the UK being a good example. This is because before then, entrance into university was a highly selective system in which most admitted students were expected to enter university equipped with the adequate skills to study effectively. In less developed countries like those in Africa it is hard to generalize due to the variety of historical, higher education, and other types of backgrounds. What can be generalized though is that, with very few exceptions, the most important role of study skills has been to support students in their communication ability through the foreign language – English and/or French, especially. From personal experiences as a student and teacher in a few different African contexts, non-linguistic study skills were not given any explicit attention. However, with the educational reform going on in many parts of Africa, following such influences as the Bologna Process elaborated in Chapter 1, the explicit teaching of these skills is becoming a new focus from educators, as it is now an integral aspect of the nations' qualifications frameworks.

As a matter of comparison, Drummond, et al.'s (1999) report on the UK educational reform during which the so-called *Dearing Report* of 1997 asked universities to explicitly incorporate study skills and competences meant to be transferred to working life. This was a result of pressure from employers' associations and Government agencies to equip students with skills that are transferable to contexts outside their academic discipline. The report recommended that skills such as the following should be an explicit and assessed part of the curriculum and that they should be specified in the outcomes of degree courses: *communication skills*, *IT literacy*, *numeracy*, *problem-solving*, *working with others*, *managing own learning*, and *performance*. This list is standard, since it more or less resonates with the lists a random search would generate from the world's university websites today. The change educational transformation requested by the Dearing Report is one of the signals for a paradigm change in the history of literacy in general and of academic literacy in particular.

A relatively new set of discourses on the '21st century literacies' have emerged, although there is no doubt that they have built and innovated on the existing discourses elaborated in the foregoing sub-sections. Nonetheless, there are some newcomers among them. My study uses three sources of such discourses, based on powerfully sponsored research: (i) the North Central Region Educational Laboratory (NCREL) and Metiri Group's project (NCREL-Metiri Group, 2003) *enGauge 21st Century Skills: Literacy in the Digital Age for 21st Century Learners*, funded by the Institute of Education Sciences (IES), US; (ii) the Scottish Government's *Curriculum for Excellence: Building the Curriculum 4 Skills for Learning, Skills for Life and Skills for Work*, in Scotland (Scottish Government, 2009); and (iv) the Pacific Policy Research Center's (PPRC's) *21st Century Skills for Students and Teachers*

(PPRC, 2010), in the Asia-Pacific region. In Table 2.2 I outline the 21st century literacies highlighted by the three projects. The second column shows the broad clusters under which the key literacies are subsumed. It is to be noted, however, that the key skills are still expressed in broad terms. That is, under each of these there are a number of specific literacies and competences.

Table 2.2: Twenty-first century literacies

Research Projects	*Skill Clusters*	*Literacies/Skills*
A. NCREL-Metiri Group's enGauge 21st Century Skills	1. Digital Age Literacies	a. Basic, scientific, economic, technological literacies b. Visual, information literacies c. Multicultural & global awareness
	2. Inventive Thinking	a. adaptability, managing complexity & self-direction b. Curiosity, creativity & risk-taking c. Higher-order thinking & sound reasoning
	3. Effective Communication	a. Teaming, collaboration & interpersonal skills b. Personal, social & civic responsibility c. Interactive communication
	4. High Productivity	a. Prioritizing, planning & managing for results b. Effective use of real-world tools c. Ability to produce relevant, high-quality products
B. Scottish Government's Curriculum for Excellence	1. Personal & learning skills	a. Literacy across learning b. Numeracy across learning
	2. Literacy and numeracy	Communication, numeracy, problem solving, IT & working with others
	3. Essential skills	Include 1 & 2
	4. Vocational skills	Specific skills for sectors or occupations
C. PPRC (2010) 21st Century Skills	1. Core subjects and interdisciplinary themes	Learning that bridges disciplines with broad contemporary themes, e.g. civic literacy, environmental literacy, global awareness, financial literacy, health literacy, visual literacy
	2. Critical learning and innovation skills	a. Clear articulation of ideas b. Listening effectively c. Utilizing multiple media d. Working efficiently and respectfully in diverse teams
	3. Life and career skills	a. Synthesising information b. Managing complex projects c. Demonstrating responsibility to the community and environment d. Multitasking effectively and acting in an ethical and professional way
	4. Information, media and technology skills	a. Recognising when information is needed, locating, evaluating and putting it to proper use b. Accessing, understanding and filtering media bias, e.g. inclusion or exclusion of opinions and factual evidence

Sources: (i) NCREL-Metiri Group (2003); (ii) Scottish Government (2009); (iii) PPRC (2010)

1. The 'enGauge' study

The 'enGauge' researchers believe that the 21st century must change its skills in order to deal with the changing complexities brought about by the ICT Age. Information and communication technologies are defined as the ability to use "digital technology, communications tools, and/or networks to assess, manage, integrate, evaluate, and create information in order to function in a knowledge society" (International ICT Literacy Panel, 2002:2). Most of the literacies foregrounded by 'enGauge' being familiar in the dominant discourses on current literacies, but there are some literacies worth commenting on. Included in the 'digital age literacies' cluster is what is termed 'basic literacy'. The first still under this literacy which 21st century students must demonstrate is 'language proficiency in English'. I would argue that the view that English language literacy should be foregrounded so as to overshadow other language literacies of the world without clarifying the particular context of application runs contrary to the 'new literacies' perspective on multiliteracies (The New London Group, 2006). This is notwithstanding the language's current status as a global lingua franca. One of the literacies which are not common in earlier literacies discourses as related to learning is 'multicultural literacy'. The 'enGauge' researchers view multicultural literacy as the student's ability to understand and appreciate similarities and differences between the customs, values, and beliefs of their own culture and the cultures of others. 'Global awareness' requires students to recognize and understand relationships among various entities across the globe.

While 'higher-order thinking and reasoning' are not strange terms and sound like the familiar 'critical thinking', this category of skills add few dimensions to what is commonly listed for 'critical thinking': to be adept at cognitive processes of analysis, comparison, inference/interpretation, evaluation and synthesis, as applied to a range of academic domains and problem-solving contexts. According to the researchers in question, 'experts' agree that as technology becomes more prevalent in our daily lives today, cognitive skills become increasingly critical.

'Interpersonal skills' is equally a familiar term but it is sometimes not clear what it means exactly. In the 'enGauge' study the skills require students to be able to 'read' their own and others' emotions, motivations and behaviours during interactions or in social-interactive contexts. The 'personal responsibility' literacy is relatively new. It demands students to demonstrate a depth and currency of legal and ethical issues related to technology, combined with an ability to apply this knowledge to achieve balance, and hence integrity and quality in life. 'Social and civic responsibility' are aimed at promoting the public good and protect society, environment and democratic ideas.

2. The Scottish Government's curriculum project

Like most other policy framework document, the Scottish 'curriculum for excellence' focuses on a number of overlapping or intersecting clusters of skills. Unlike the 'enGauge', the Scottish policy does not foreground English as a literacy but one of the aspects of the cluster labelled 'literacy and numeracy' it is stated that one of the literacy areas involves "using language, symbols, text and data" (Scottish Government, 2009:10). Working with others entails planning and carrying out projects in small groups, sharing tasks and responsibilities, and being ready and willing to learn from and with them as well as on their own.
Underpinning the curriculum project includes the following principles:

- The development of skills is essential to learning and to helping students to achieve academic success
- The skills should be developed across the curriculum areas, in interdisciplinary studies and in all the contexts and settings of learning.
- Progression in skills is signposted, so practitioners (designers, teachers, etc) should ensure that as they progress through the levels, students build on, extend and apply similar skills developed at previous levels (i.e. incremental instruction).
- A firm focus on the learner is sustained and learners' needs are prioritized. Providing timely support to meet student's individual needs as requested.

3. The PPRC (2010) 21st century skills

Unlike the above two projects (# 1 and 2), the PPRC research project has focused on a blend of content knowledge, specific skills, expertise, and literacies necessary to succeed in work and life. The NCREL-Metiri Group (2003) describes these skills as the outcome of 21st century learning, which emphasizes digital-age literacy, inventive thinking, effective communication, and high productivity. According to Paige (2009), 21st century skills are more than technological literacy; they include proficiency in critical thinking, problem solving, communication and team work. From the PPRC's perspective, the phrase '21st Century Skills' encompasses several interrelated skill sets: life and career skills; learning and innovation skills; information, media and technology skills; and core-subject mastery and familiarity with interdisciplinary themes. With a recent emphasis on generic learning and employability, the latter set seems to be disappearing from current discourses of academic preparation for work and employability. In the PPRC's view, the skill sets in question are framed as desired outcomes for learners that are built upon standards and assessments, curriculum and instruction, teacher professional development and learning environments. As such, the framework provides a holistic representation of the student outcomes and support systems required to establish 21st century career and life readiness. Based on its findings, the PPRC identifies six drivers of 21st century skills as follows:

- Focus on core subjects;
- Emphasis on interdisciplinary learning;
- Incorporation of 21st century tools (e.g. ICT);
- Teaching and learning in a 21st century context;
- Teaching and learning with 21st century content; and
- Assessment of learners in rigorous and relevant ways.

These 'drivers' imply that teachers and other educators need to do the following in order to bring the 21st century learning outcomes to fruition:

- Begin with real-world problems and processes;
- Support inquiry-based learning experiences;
- Provide opportunities for collaborative project work; and
- Emphasise 'how' to learn (i.e. above 'what' to learn).

Hence, the PPRC stresses learning that bridges disciplines with broad and contemporary themes, e.g. civic literacy relates to the need for students to be able to successfully influence decision making in community affairs and politics. Although critical thinking and problem solving remain salient assets for learning and working life, they are given new dimensions in the 21st century via advanced technologies for accessing, analysing and creating information (Trilling and Fadel, 2009). The abundance of information at one's fingertips does not itself create an informed citizenry. Instead, it requires individuals to develop skills with which to use information effectively. The PPRC defines the 21st century learning environment as the physical and virtual spaces, the assemblage of tools, and the learning communities that enable students and their teachers to engage in knowledge and skills development. Where students learn affects the quality of how they learn. Therefore, the learning environment should be flexible and adaptable so that it may inspire a sense of community and promote formal and informal learning. The environment should also allow equitable access to quality learning tools and resources (Sak-Min, 2009; Black, 2007).

In Table 2.3 above, the emphasis on 'soft skills' appears to outweigh that placed on the 'hard skills' associated with disciplinary understanding and practical application of theoretical knowledge. This is the trend in most discourses of 21st century skills, driven by knowledge and information.

2.4.5.4 The Critical Perspective 1 – Focus on Academic Progress and Success

The critical perspective is presented in two parts: the first part focusing on academic progress and success during undergraduate study, and the second focusing on employability. The first part covers two aspects of the critique: some common approaches used by institutions to provide academic literacy support and limitations of provisions on offer.

1. Approaches to academic literacy support provisions

As expected, different contexts have their own needs, priorities and constraints, so no uniform pattern of providing the academic support skills should be expected. Yet, some generalised and common patterns and trends can be discerned across a wide area of the globe. In the case of Africa, the tendency has been to follow to some extent the dominant trend(s) prevailing in the former colonising nation or in the parts of the developed world that are actively engaged in cooperation with the country. One of the reasons for this is that local educational experts and educators have been educated overseas, or have been trained by foreign tutors, or are otherwise influenced by ideas from the Western power. Hence, the approaches I draw from are from the UK, although they have some semblance to what I have seen in the African context.

What Cottrell (2001) calls the 'remedial approach', or the 'bolt-on approach', in Bennett, et al's (2006) terms, has been adopted differently in the African countries I am familiar with. While the approach was used in the UK to cater for a few 'at-risk' students, in the African context the 'at-risk' group is the overwhelming majority. Why? First, the diversity in the background of university students was more pronounced than in the developed countries long before the wider participation movement came on. This is mainly due to the inherent social divides, in terms of well-to-do vs. poor, rural family/school vs. urban family/school, well-resourced vs. poorly-resourced school, and so on, such that by the time students enter university they are prepared in quite a diverse manner. The second and related reason is that at university students are expected to use a foreign language as a medium of learning and

assessment. Students with a rural background tend to be poorer in speaking skills, especially because they encounter lesser opportunities for practising the foreign language. On the other hand, those with a more urban background tend to be better 'speakers' but at the same time more versed in social communication (including slang and colloquialism), rather than formal language expected to be used in tertiary study. Thus, as both groups meet at the same campus each side has its own disadvantages, so generally they both need academic support, especially in academic writing. Some institutions have been implementing approaches and models similar or near similar to those outlined below from the UK experience, courtesy of Cottrell (2001) and others.

What I find strikingly similar between the UK experience discussed by Cottrell (2001) and the African experience is the general assumption that most students have been prepared by their high school experiences to enter university and fit into it. It also true for the African experience that a result of this assumption study skills have been embedded in language courses and students do not seem to pay attention to them unless they can connect them to examinations (e.g. revision techniques, the essay) and employment (e.g. writing a CV, job application letter, report).

A common approach to providing learning support is by extra-curricular 'study skills' courses, often offered in dedicated university learning centres, schools, or institutes – the 'bolt-on' approach. This is quite different from an 'embedded approach', now becoming popular in Australia, New Zealand, but also elsewhere in some parts of Europe. In the bolt-on approach, teachers responsible for teaching the support skills are not members of the department or faculty where students taking the course come from. They are in many cases general language teachers or in some cases EAP/ESP teachers (in Anglophone settings). In some other cases, the instructors are non-staff but other staff from university or outsourced services (e.g. computer instructors, library information literacy staff). The skills taught thus are de-contextualized from the disciplinary area of the students. Such courses are commonly offered at foundational level – often referred to as 'pre-course' in the UK context – or during the early years of the study programme. When students need help at other times they are referred to services outside their department. By contrast, in an embedded approach, the skills teachers are the same subject teachers from the department. That means that the skills curriculum is integrated into the disciplinary curriculum where both connect to train the students to learn and use the skills in a context that is authentic to them. Therefore, they internalize the competences and attributes as they get on with their mainstream studies. From experience, it is unclear if this approach is familiar in Africa, though it has succeeded in the UK (Wingate, 2001), Australia (Gunn, Hearne and Sibthorpe, 2011) and elsewhere.

With the ICT adoption in the vogue everywhere, more and more universities now are solving the resources problem by using the web-based approach. A random search of the Web reveals that from the beginning of the 21st century a number of universities in developed countries – especially – use their web sites to give advice (e.g. on career planning, settling in on campus for newcomers, study strategies, and so on). It can be in the form of course materials (e.g. a handbook, self-access tutorials, with links to other web sites for more "lengthy instructional text" (Wingate, 2001:458). Examples of this approach are writing across the curriculum in the USA (e.g. Reiss, Selfe and Young, 1998), issues of access in Australia (e.g. McLoughlin and Oliver, 2000), and transferable skills development in the UK (e.g. Drew, Shaw and Mowthorpe, 2000). In the African context, the adoption of ICT by universities in this respect is still slow. However, the good news is that students who are aware can access such resources on web sites of overseas universities, since these are often freeware.

2. Limitations of provisions on offer

1. It is a common trend that students who need to acquire the skills do not regularly attend the extra-curricular courses because they do not see their importance, as compared to the importance they attach to their disciplinary subject areas.

2. The 'bolt-on' approach has severe limitations mainly because it separates study skills from the process and content of learning. Moreover, practices at universities still cling onto this practice, based on the deficit model of providing support to weak students (Wingate, 2001). This suggests that if those categorised as not being weak also need instruction in the skills, say in academic writing (Winch and Wells, 1995; Lillis, 2001), they will be unjustly left out of focus and this might lead to serious learning difficulties for them as they progress in their mainstream programmes. Students all backgrounds potentially need academic support "for successful achievement and progression within the education system and beyond" (Blythman and Orr, 2002:46).

3. As individual institutions value their autonomy/independence and prioritize their goals and plans they are likely to prioritize generic skills differently according to their context. Therefore, there is bound to be a wide diversity of practice across universities (Murphy, 2001), and even faculties and departments. Here, I additionally argue that in a context where students are being trained for the same destination, e.g. postgraduate study, job placement, entrepreneurship, and so on, a too wide diversity (especially if quality is not assured) may result in inequity where students from university X will be better or less educated than those from university Y.

4. Some skills may be more valued than others, according to how they are labelled – hence a conceptual problem. For instance, in the case the UK Drummond (1998) found that the term 'key skills' was more valued than the schemes labelled 'graduate skills', 'transferable skills' and 'employability skills'. It is also observed that unlike 'study skills' the schemes labelled 'key skills' were often embedded into the mainstream curriculum (Wingate, 2006), suggesting that study skills was given less importance. Wingate (2001) also that in most existing key skills schemes study skills did not explicitly feature, suggesting that they might either have been regarded as identical with key skills, or that they were regarded as discrete skills. While some people regard study skills as being different from key skills, others see them as being the same. For institutions where study skills are separated from other generic skills, the impression given is that they are believed to be acquired simply through induction activities. As Wingate (2006:461) argues, "This view neglects the complexity of learning at university."

5. Although new initiatives in higher education institutions have materialised in the embedment of academic literacies into the curriculum by developing web-based delivery of materials and resources (e.g. self-access tips, models and templates for academic writing or study skills across the curriculum), this has its own difficulties. Delivery of such resources from a central unit via a single point of access, and 'on demand', can help to some extent, but there are problems with the selection and structure of generic materials, and in making students aware of their existence (McAvinia and Oliver, 2001), let alone of their importance for academic literacies acquisition. Moreover, while in some parts of the world skills development initiatives have encouraged secondary school educators to seek ways of filling the gaps in their students' knowledge and experience that are essential for their future working life and lifelong learning, this is not the case at university level. At this level the

development of the so-called 'key skills' (i.e. employability and lifelong learning skills) frequently falls to students' spare time or to their extra-curricular activities (McAvinia and Oliver, 2001). This is partly explained by the departmental traditions and experience, which may not encompass generic skills development.

2.4.5.4 The Critical Perspective 2 – Focus on Employability and Entrepreneurship

Academic literacy (e.g. ESP or study skills) courses have frequently embedded lifelong learning skills and employability skills and attributes to some extent, with a view to students transferring these literacies to further education and working life. Many curricular or pedagogical approaches of this type of literacy instruction have been used – e.g. a module at the beginning of a degree programme, a prolonged and progressive academic literacies programme, etc. However, the constructs of both 'transferability' of literacies and 'employability' have recently come under critical scrutiny, and thus leading to the questioning of the effectiveness of such 'generic' approaches to employability training. There is a likelihood that this critical inquiry has been spurred, at least in part, by two developments: (i) the 'New Literacy Studies' and the ensuing 'Academic Literacies Approach'; and (ii) the advent of the so-called 21st century skills. The zealous campaign for and stress on the so-called 'soft-skills' – understandably driven by the 21st century labour market demands – tends to overshadow the necessity of the 'hard skills', although in some work situations the softer the skills one has, the better (e.g. some managerial positions or some occupations in the services sector such as the hospitality industry). The following is a review of critical perspectives on 'employability' and, to some extent, entrepreneurship, based on a variety of theoretical and empirical inputs.

The link between higher education and economies of nation is longstanding. The employability of graduates has become an aim that governments around the world have imposed on national higher education system (Yorke, 2005; York and Knight, 2006). This interest in employability reflects an acceptance of human capital theory (Becker, 1975). The employability policies of governments are based on the assumption that the economic welfare of individuals and the competitive advantage of nations have come to depend on the knowledge, skills and entrepreneurial zeal of the workforce (Brown, Hesketh and Williams, 2003). Thus, governments often invest in higher education and expect returns on their investment in terms of national skills stock that would assumedly ensure a nation's economic and social development. However, Brown, Hesketh and Williams (2003) argue that even when people are 'employable' they may fail to find suitable jobs because of market congestion caused by the realities of work in a knowledge-driven economy and the positional competition that governments are finding increasingly difficult to control. This is echoed by Yorke and Knight (2006:3) who define employability in relation to graduates as:

> a set of achievements – skills, understandings and personal attributes – make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy.

The above definition is comparable to Hillage and Pollard's (1998) conception of employability. To them, employability is about three abilities: (i) gaining initial employment; (ii) maintaining employment; and (iii) obtaining new employment if required. Thus, 'employability' refers to a graduate's achievements and his/her potential to obtain a 'graduate job', to maintain it and succeed in it, and should not be confused with the actual acquisition of a 'graduate job' (which is subject to influences in the environment, a major influence being

the state of the economy). There is a need to recognise that it is possible to be employable but not be in employment (Brown, Hesketh and Williams, 2003) and that the co- and extra-curricular achievements of students contribute to a graduate's employability (Yorke, 2005; King's-Warwick Project, 2010).

Yorke (2005) has identified three superordinate constructs of employability that cut across various interpretations of the term: (i) employability as demonstrated by the graduate actually obtaining a job; (ii) employability as the student being developed by his/her experience of higher education (i.e. it is a curricular and perhaps extra-curricular process); and (iii) employability in terms of the possession of relevant *achievements* (and implicitly potential). As Yorke asserts, "[i]t is a mistake to assume that provision of experience, whether within higher education or without, is a sufficient condition for enhanced employability" (Yorke, 2005:7). For example, to have work experience does not of itself ensure the student develops (further) the various prerequisites (cognitive, social, practical, etc) for success in employment. The same argument applies to whole curricula. While the curricular process may facilitate the development of prerequisites appropriate to employment, it does not guarantee it. So, employment derives from the ways in which the student learns from his/her experiences.

The 'transferability' of skills is often too easily assumed. Way back in the 1980s attention was given to 'transferable' or 'generic' skills which would be learned in one context and fairly readily be transferred to another (Yorke, 2005). Context-dependent skills, as opposed to context-independent skills (Bridges, 1993), can be exemplified by behaviour that might be appropriate in one context but not be well received in another. Moreover, different employers tend to have different emphases, some valuing 'generic skills' more than disciplinary-based understanding and skills, and deeming sufficient general 'graduateness' (York, 2005:4). A repertoire of attributes and achievements may have a general value, but may well prove insufficient for some specific situations. Thus, far from transfer being a simple translation, its potential applicability requires an appreciation of how the change in context might impact. This consideration led Bridges (1993) to a further category of skills which he termed "transferring skills"- that is, higher order skills that enable the person to "select, adapt, adjust and apply [his/her] other skills to different situations, across different social contexts and perhaps similarly across different cognitive domains" (Bridges, 1993:50). Bridges points out that the exercise of 'transferring skills' involves very sophisticated personal or intellectual achievements that are much more attuned to professional behaviour than "the atomistic list of 'competences' towards which we are sometimes invited to direct our enthusiasm" (Bridges, 1993:51). This is another way of describing metacognition or self-regulation (Yorke, 2005).

Transferability thus connects with a range of discourses and has many facets which range from understanding of one or more subject disciplines to 'soft skills' [e.g. working effectively with others] (Yorke, 2005). According to Yorke (2005), employability also encompasses both academic intelligence and 'practical intelligence'. Graduate attributes are highly complex and strongly influenced by discipline and context. Apparently generic terms such as 'problem-solving' have meaning only within a context (King's-Warwick Project, 2010:13). Hence graduate attributes should arise out of the learning context, both the formal and informal curriculum, in order to develop a sophisticated and workable conception. It is argued, however, that there may be a need for generic 'skills' provision, but the development of attributes is likely to be more effective in a curricular or co-curricular context. In any case, extensive separate skills provision is likely to be expensive and to divert resources away from discipline-based teaching (King's-Warwick Project, 2010).

There is much writing – both print and electronic – on transferable or generic skills which contains little more than "wish-lists" (York, 2005:13). Two approaches which try to make connections between employability and theories of learning (and are compatible with the academic literacies framework) are (i) Bennett and colleagues' (2000) model linking disciplinary content, disciplinary skills, workplace experience, workplace awareness and generic skills; and (ii) Knight and Yorke's (2002, 2004) USEM model which interrelates understanding; skills; efficacy beliefs, personal skills and qualities; and metacognition. In the latter model, the term 'understanding' is preferred to 'knowledge' because of its implication of depth.

According to the authors, the term 'skill' is used because of its significance in political and employment circles, but there is a real danger of its being given a simplistic and unhelpful interpretation. The terms 'skilled practices' or 'skilful practice' are preferred, instead, with the implication that this hinges on awareness of, and responsiveness to, the context. Of critical importance in a student's efficacy and self-belief is the extent to which he/she feels that he/she might 'be able to make a difference' – not every time, but in a probabilistic way. There are advantages in a student having malleable, rather than fixed, self-theories – for example that his/her intelligence is fixed for all time. Malleable self-theories go with a disposition to see tasks as opportunities for learning rather than as performance-oriented opportunities to demonstrate competence (or avoid showing incompetence). Metacognition encompasses self-awareness regarding the student's learning (or 'learning how to learn), the capacity to reflect on, in and for practice, and a capacity for self-regulation.

Employability is complex and it is not merely an attribute of the new graduate. It needs to be continually refreshed throughout a person's working life. Employability goes well beyond the simplistic notion of key skills, and is evidenced in the application of a mix of personal qualities and beliefs, understandings, skilful practices and the ability to reflect productively on experience (York, 2005). The use of 'understanding' and 'skilful practices' signals the importance of a rich appreciation of the relevant field(s) and of the ability of to operate in situations of complexity and ambiguity. Therefore, it follows that a pedagogy for employability – and the associated assessment – needs to take the inherent complexity of the construct into account. Therefore, employability and 'good learning' are seen as being closely aligned and not as oppositional constructs (York, 2005).

Much of the discussion of employability refers to the full-time student who enters higher education at around the age of 18 and graduates at the age of 21 or 22, and deals with matters beyond the boundaries of subject/disciplines concerned. For older people (many of whom will opt to study part-time), employability may take on a different colouring, since they may well have experienced employment and/or voluntary work prior to (or whilst they are) engaging in higher education. For them, the emphasis is that they give to employability may be on the development of subject-specific understanding to complement what they have already learned about employability in general. Today, there is also a need to acknowledge the employment-relevant learning that ostensibly full-time students derive from part-time employment or other forms of community service engagement (e.g. voluntary work). This is, in most cases, believed to enhance the capability of the student for employability. Capable people not only about their specialisms, but they also have the confidence to apply their knowledge and skills within varied and changing situations and continue to develop their specialist knowledge and skills (Stephenson, 1998). These words point beyond employability at the moment of graduation towards employability in the context of lifelong learning.

Though contemporary attention seems to be focused on the transition between higher education and employment, employability, for most people, is for life.

2.4.5.5 The Integrative Perspective

At university, different levels of learning are necessary for students to be able to carry out various academic tasks. One of the ways learning can take place through the development and acquisition of literacies is through a multi-staged engagement with the skill one intends to develop. The development of academic writing is such a skill, which is one of the academic linguistic skills. Moreover, from a 'new literacies' point of view, "writing is a key assessment tool, with students passing or failing courses according to the ways in which they respond to, and engage in, academic writing tasks" (Lillis, 2001:20). In learning contexts where a skill like writing is viewed as a technical skill to develop and acquire by tackling a 'textual' problem, the resulting pedagogical approaches tend to focus on the teaching of technical aspects of academic writing divorced from its disciplinary context, or separated from other forms of knowledge construction (Wingate, 2006). According to Lillis (2001:26), in such settings teachers (or others responsible for instruction, for that matter) give students advice on "surface language features" – e.g. grammar, spelling, simplified representations of text structure and citation practices. Wingate illustrates how complex it can be for a novice academic writer, showing that giving advice on surface features of academic writing may not be sufficient (Wingate, 2006:462). I replicate the illustration in Table 2.3 below.

Table 2.3: Academic writing and levels of learning (after Wingate, 2006)

Stages in Writing Academic Texts	***Levels of Learning***	
	Techniques	***Understanding***
1. Selecting/evaluating information sources	- Finding information in library and on internet	- Making meaning within unfamiliar discourse - Understanding which information is relevant
2. Synthesising the ideas/arguments from other sources with one's own ideas/arguments	- Referencing: conventions of citation - Avoiding plagiarism	- Knowing why, when and whom to reference - Understanding referencing as a method of: a. providing evidence b. acknowledging the work of others in the field c. giving greater authority to one's own ideas d. constructing knowledge
3. Writing ideas/arguments up into a structured, coherent text	- Structuring - Language skills (spelling, grammar, rhetorical strategies, cohesion) - Using appropriate terminology, style, conventions	- Participating in specialist discourse - Understanding rhetorical processes needed for the construction of knowledge

The first level consists of techniques, while the second level is far more complex. For example, while students would generally acquire the conventions of referencing in a generic study skills or English for General Academic Purposes (EGAP) course – hence generic technical skills – it may not be easy for them to understand the sources, to select relevant

ones, or to know why and when to reference. Therefore, it would be necessary for them to understand knowledge as something that is constructed, debated and contested, as is the norm in academia. Tertiary level academic writing requires students to know that knowledge is constantly developing, and that they are expected to question existing knowledge and contribute to its development, using evidence from previous contributors (Wingate, 2006). This is a complex level that cannot be achieved by many students if they are not taught the very competence. Another example may be drawn from micro study skills, e.g., presentation and note-taking. These also require a complex level of learning that involves the understanding of the nature of knowledge.

While note-taking is a quite popular micro reading-writing or listening-writing skill in study skills courses, students may fail to take meaningful notes because they uncritically accept everything in a lecture or in a textbook as equally important knowledge (Wingate, 2006). Learning the techniques of taking/making notes in a generic study skills course is not likely to sufficiently support students with this problem, as they have minimal opportunity to link the skill to how they are used in learning their disciplinary subjects, let alone transferring them to the next stage (e.g. postgraduate study). As proposed by Wingate, these micro skills "would be better integrated into a wider skills framework in which they would be seen as part of students' overall personal, academic and professional development" (Wingate, 2006:2006), hence integrating them into macro study and work competences such as communication skills or autonomy. By using this approach, educators would recognize the complexity of the learning involved and the time needed for it. They would also recognize the relevance of the skills beyond campus. Table 2.4 shows how some micro study skills may be integrated into a wider skills framework and be taught/learn in that way.

Table 2.4: Integration of study skills into key skills (after Wingate, 2006)

Key Skills	***Study Skills***
Communication	Written: essay, project, report writing Oral: presentation
Information technology (IT)	Library/information skills
Numeracy	Using graphs, statistics in written work, presentations
Problem-solving	Planning and conducting projects, experiments
Working with others	Planning and conducting group projects
Managing own learning and performance	Time management, memory

The right column in Table 2.4 presents common academic tasks, most of which are often listed under the term 'study skills' in course plans/syllabuses, textbooks, articles and on websites. All of the macro study skills fit into the broader key skills categories. Most of them are skills needed both in study and in working life. In order to transform such a neat skills fitting from 'plan on paper', though, the strategy of choice would be to pedagogically implement them with a long-term developmental perspective.

Bennett et al. (2000:23) usefully point out the terminology problems associated with 'core' and 'generic' skills, settling for using the term 'core' for discipline-specific skills and 'generic' to represent "the so-called transferable skills that can support study in any discipline." Their usage of these terms, therefore, differs from commonplace usage in higher education. More importantly, they identify four management skills that can be applied across a range of contexts: management of self, management of others, management of information,

and management of task. Linked with this is their model of curricular provision, in which 'generic' skills interlock with disciplinary content, disciplinary skills, workplace awareness and workplace experience. Whilst their approach to skills development is useful for its strong focus on the person's performance, it has been criticized for giving little emphasis on the individual psychological conditions that "underpin" a person's performance (Yorke and Knight, 2006:4). According to Yorke and Knight (2006), good curriculum designs will continue to help learners to construct understandings of the subject matter and maintain the more recent interest in developing a number of skilful practices, or 'skills'. However, they will also show care for the development of positive efficacy beliefs, metacognition and other complex achievements that employers value. Drawing what they call "secure conclusions from social and cognitive psychology", Yorke and Knight (2006:6-7) list the following as having important implications for the embedment of employability literacies into the curriculum:

- Development of skills takes – months and years;
- Development takes practice;
- Students need to hear, repeatedly, what it is intended that they learn in order to understand what that means, to know ways of judging what they have achieved, and to see how to improve; and
- Ideally, this would mean programme-level planning having priority over planning at the level of the module.

Furthermore, the significance of co-curricular and extra-curricular activities should not be overlooked or underrated, e.g. career development activities. A number of the achievements that employers value are stimulated by a variety of activities and engagements in life and work generally. Also, curriculum designers should try to strike a balance between the students' "knowing that" [i.e. focus on content) and "knowing how" (i.e. focus on processes through which learning takes place] (Yorke and Knight, 2006:9).

2.5 LINKS BETWEEN ACADEMIC LITERACIES AND ESP

Since the term 'literacy' is of Western origin, it has always been laden with Western culture and ideology which are often imposed on other societies and cultures from the times of colonization and imperial expansionism. In the context of Western civilization, being literate is to know how to read and write, and this is normally not possible outside the skill's natural residence – language. Literacy and language are thus inseparable. As noted earlier in this section, ESP is a lucrative sub-area of an enormous world industry in the name of ELT. Before ESP spread to other parts of the world – which it has done rather gradually – the pedagogy (and research) first developed in English-speaking Western nations, mainly the US and the UK, to cater for the academic or occupational communication and other specific needs of an expanding population of immigrants and overseas students. In Australia, ESP was primarily motivated by the English language needs of the 'language-minority' Aborigines.

With the global spread of English as a dominant language amidst a steady globalization process, more and more countries outside the *English as a First Language* parameter have been adopting English as a foreign or second language, and as a language of instruction and communication at work. In these contexts the new meaning of being 'literate' has been to know how to read and write in English, and to do this so well if you are a student attending formal education. In adopting English, especially as far as teaching English in tertiary

education is concerned, the countries have invited ESP pedagogy to infiltrate their conception of literacy. If you have to succeed academically, you have to be 'good' in English communication, which transcends the reading and writing skills. Thus, as a matter of historical fact, the enterprise of Language for Specific Purposes (LSP), particularly English for Specific Purposes (ESP), preceded the Academic Literacies Approach (ALA) but is so well linked to the concept of Western-oriented 'academic literacy'. Furthermore, the nuclei of both the ESP and Academic Literacies movements share the same context: geographical, social and cultural.

In its practice in terms of curriculum and pedagogy, ESP has essentially been concerned with the acquisition of academic literacy both in its narrow and broad sense. Cases of ESP curricular and pedagogical patterns are so numerous that it is impractical to summarize them in this space. Some ESP programmes in tertiary institutions the word over have taken a comprehensive, institution-wide approach where graded/staged courses range from generic academic skills to more discipline-specific and work-related English language communication skills. Others have privileged certain skills such as writing, speaking and writing, adopting the wide-angle approach (e.g. study skills, or writing across the curriculum) or the narrow-angle approach (e.g. speaking in the disciplines, or writing in the careers), while others have concentrated on certain language or linguistic competences such as discourse, genre, style, and so on, as applied to academia. In this way, it has been quite difficult to separate the terms 'English for Academic/Specific Purposes' from 'academic literacy', not least because their borderlines are so blurred both in conception and pedagogical practice. Yet as it stands today, the two have distinguished themselves as autonomous but complementary fields of enquiry.

Much as ESP preceded ALA, the latter has lately influenced research and praxis in ESP (Coffin and Donohue, 2012; Turner, 2012), not least because some outstanding proponents of the ALA movement have simultaneously been active researchers or practitioners in the ESP field. In particular, in the English for Academic Purposes (EAP) sub-branch, the Academic Literacies Approach to literacy has had great influence (e.g. Lillis and Scott, 2008; Thesen and Pletzen, 2006; Turner, 2004). Indeed, one of the initial purposes of the Academic Literacies research agenda was to move away from a skills-based, deficit model of student writing as an area of academic literacy and to encourage students to recognise the complexity of writing practices in tertiary institutions. It has, therefore, been concerned with wider institutional approaches to, and perspectives on, student writing. In particular, it seeks institutional acknowledgment that writing should not be seen as a set of generic transferable skills or something technical, with problems (where they exist) easily fixed. This is a dominant perspective in many parts of the world, and it manifests in General English or English for General Academic Purposes (EGAP) curricula's stress on foundational and generic language skills (e.g. reading, writing, speaking, listening, academic word lists) and sub-skills (e.g. note-taking, taking examinations, summarising), sometimes supplemented by a few non-linguistic skills (e.g. critical thinking, time management, stress management).

Academic Literacies, therefore, positions itself as a critical field of enquiry with an agenda for institutional change/transformation. Rather than focusing on how teachers can help students to learn the literacies of the university, it focuses more on how teachers and students understand the literacy practices of the university and the issues that arise from the meanings that literacy has for them. Partly, as a result, there have been some innovations in ESP curriculum and pedagogy, which are explained in the subsequent paragraphs. This is because it is not clear whether the innovations in EAP/ESP have solely evolved from within the fields,

or have partially borrowed from ALA and other inspirational and conceptual sources. What is clear, though, is the fact that a number of innovations in ESP practice can be paralled with ALA advocacy.

Of course, critical perspectives on academic writing from ALA are not the only source of innovation in ESP curriculum and pedagogy, not least because the former has concentrated on academic writing at the expense of the other language and non-linguistic skills – until recently (e.g. Goodfellow and Lea, 2007). Over the last 20 years in the combined fields of EAP, ESP and ELT there has been continuous engagement with socio-theoretical perspectives in order to examine the ideological effect of expert academic discourses and the ways in which mastery of these are related to status, authority and the maintenance of socio-political elites (e.g. Benesch, 2009; Gunnarson, 2009; Miller, 2011; Ruiz-Garido, Palmer-Silveira and Fortanet-Gomez, 2010a, 2010b;Tuner, 2011), whereas others from the same field (e.g. Seloni, 2012;Turner, 2012; Wingate, 2006) have maintained a clear 'academic literacies' perspective.

Apparently the critical stance of ALA explained earlier has had some impact on ESP practice, in terms of curriculum development and pedagogy. This is particularly so in national and/or institutional settings where English is used as an official language of instruction and/or of official communication in the world of work. The following trends illustrate this phenomenon.

1. *More attention paid to other English language skills and linguistic features*: As the ALA views academic literacy partly as encompassing all language skills and linguistic features (hence 'literacies'), its position can be connected to the attention paid to this type of pedagogy both in course design and in the classroom over the last decade or so in ESP. A plethora of empirical cases exists and cannot be reviewed in this space. To use one example, the English Language Institute at Syracuse University College (online) offered during its 2006-2007 academic calendar an EAP course that highlighted the following language skills: reading comprehension; academic writing; grammar; listening comprehension; and oral production.

2. *Embedment of non-linguistic competences and attributes into ESP courses and sessions*: An Oxford Tutorial College's (online) *Study Skills Course* lists the following instructional content items (i.e. broad skills): motivation and time organisation; memory and revision; essay-writing; and examination technique. At the University College London (online) a diploma EAP course was offered in 2006, and it covered the following linguistically oriented areas: essay writing and academic writing conventions; reading general, academic and specialist texts; listening to lectures and effective note-taking; discussion, seminar and presentation skills; and grammar usage and vocabulary development for general and academic purposes. In addition, the course covered areas that are not conventionally taught in language courses, namely: academic research skills and IELTS preparation. The Queensland University of Technology (online) had on offer in 2006 a 12-week EAP degree support course which delineated language oriented skills from non-linguistic components of the course. The language components were listed as: seminars and presentations; academic reading and note-taking; academic writing; listening and note-taking from lectures; and speaking in academic settings. In addition these broad components were to be covered: academic study skills; assignment preparation; computer word-processing and internet research skills; and library research skills.

3. *Focus on English for the workplace*: It is hard to draw a line between most generic literacies required or demanded in postgraduate study and employment since they intersect with one another and overlap. At the University of Bristol (online), for example, the following 'skills' are valued as leading to both academic progress and employability: flexibility and willingness to cope with change; self-motivation, organisation and planning skills; excellent communication and interpersonal skills; information handling and decision-making skills; team-working skills and leadership potential; relevant business awareness; relevant IT literacy; creative and analytical thinking skills; and mental and physical resilience.

4. *The EIL/EIC and CLIL movements*: As a response to globalization generally and the globalization of English as a world lingua franca – especially in education, the sciences, ICT and business – the ELT and ESP enterprises have apparently adopted the stance advocated in the New Literacy Studies and the ALA, thus allowing and supporting the flourishing of various versions of *English as an International Language* (EIL) or *English for International Communication* (EIC). This has taken place almost at the same time as the CLIL movement. Content and Language Integrated Learning (CLIL) is a movement that appears to be built on some tenets of the ALA. It involves teaching a curriculum subject through the medium of English in settings where English is not normally used. Teachers working with the CLIL approach are specialists in their own disciplines rather than traditional language teachers, but they are usually fluent speakers of English, bilingual or native speakers of English. The key issue is that learners gain knowledge in the non-language subject while encountering, using and learning English. The methodologies are often linked to the subject area with the subject content leading the teaching-learning activities.

6. *Some 'bridging' empirical studies*: Some empirical studies with an explicit 'literacies' stance seem to also bridge the artificial 'gap' between ESP and academic literacies education. Such studies are many, but here I briefly review a few. Mary Lea investigated two case studies in 2004 and 2006 (Lea, 2004). In her 2004 study, she investigated an online postgraduate course to explicate some principles of course design derived from 'academic literacies' research. The principles took account of the different texts involved in student learning and do not focus merely on assessed writing. In her 2006 study along with her colleague, Brian Street (Lea and Street, 2006), they investigated two academic literacy development programmes offered at different universities in the UK. They show with their results how an academic literacies model can help provide a design frame for the developing of instruction in academic contexts. Gunn, Hearne and Sibthorpe (2011) investigated a case where online tutorials were used to integrate information literacy – as a generic academic skill – into first year business courses in an Australian university. They discovered that theoretical grounding of design concepts, integration of the tutorials into course activities and collaboration between course lecturers and academic support staff are all key success factors, and hence proposing that this integrated approach was the most effective way to promote academic literacy skills development in large university classes.

Turner (2012) investigated the issue of proofreading of student work by professors in the humanities and social sciences. She highlights "the potential of academic literacies as a theoretical framework for EAP, encompassing not only texts, but the wider socio-political, geopolitical, and institutional contexts and practices in and with which EAP operates" (Turner, 2012:17). Therefore, she problematizes proofreading as a social practice that has become "socio-politically and ethically sensitive" (Turner, 2012:17). Lastly, Seloni (2012) conducted a micro-ethnographic analysis of the application of an 'academic socialisation

model' with multilingual students in the field of education as they progressed through their first year of a doctoral programme. One of the results was the researcher's discovery that socialising into the practices of academic discourse is a complex and multi-layered process in which students collaboratively construct meaning and engage in interactive dialogues outside the classrooms "in order to learn how to become legitimate participants in their academic disciplines" (Seloni, 2012: 47).

Nevertheless, there have also been influences on ESP from the *Systemic Functional Approach* associated with systemic functional linguistics based in Australia but also operational in the UK and elsewhere (Coffin and Donohue, 2012). *Systemic Functional Linguistics* (SFL) is a theory of language which highlights the relationship between language, text and context. It sets out to explain how human beings make meaning through language and other semiotic resources, and to understand the relationship between language and society. So, whereas 'literacy practices' are a primary object of study in ALA, 'text' is the primary unit of analysis in SFL (Coffin and Donohue, 2012:65). So, ESP draws on the synergies of both ALA and SFL.

2.6 CONCLUSION

Although it is problematic to define the term *academic literacy* in any straightforward manner, contemporary conceptualisations of the phenomenon have expanded beyond the narrow conception of it as reading, writing and numeracy as developed and used in academic settings or for academic purposes. The expanded usage – *literacies* – encompasses all language/linguistic and non-linguistic skills, competences and attributes particularly related to student academic progress and success, employability and lifelong learning. Evolving as an intellectual opposition to the shortcomings of the traditional literacy paradigm hinged on such models as the *deficit model*, *study skills model* and *autonomous model*, the *Academic Literacies* movement has closely associated itself with the *New Literacy Studies* which upholds the principle of *multiliteracies*. Some of the key characteristics of these multiple literacies are that they: are social practices and contextualized in social settings and situations, relate to power and identity, are multi-natured and multimodal, are interrelated, unstable, and are too complex to develop over a short period and be able to transfer from one context to another in time and space.

A useful contribution which the *Academic Literacies* movement has made to the understanding of the academic literacy phenomenon is setting out an *Academic Literacies Approach* to literacy (Lea and Street, 1998), a conceptual/theoretical framework that has had impact on literacy and related research for the last decade or so. Although the framework has not been able to develop an explicit pedagogical model (Lea, 2004), it has begun to impact on ways of embedding academic literacies into tertiary mainstream curricula (e.g. Gunn, Hearne and Sibthorpe, 2011; Lea, 2004, 2006; Street, 2010). The framework also has important implications for future academic literacies pedagogy across world tertiary institutions, with its multi-modelled framework engaging perspectives on academic literacy as *study skills*, *academic socialization* and *academic literacies*. Through this framework the task of delineating various literacies for curricular embedment becomes more feasible, and it is by this means that a typology of tertiary academic literacies has been mapped out in this chapter as: content area literacies, language literacies, and non-linguistic generic and transferable literacies. While a number of perspectives on these literacy groupings obtain, my literature review in this chapter has identified four main ones, namely, conventional, 21st century, critical and integrative.

The recognition of the intricate relationship between the Academic Literacies Approach and ESP is significant for all post-secondary settings where English is used as an academic lingua franca, as this recognition might inform curricular and pedagogical practices so that they can better devise strategies for integrating academic language and a number of other literacies into the mainstream curricula. The links between the two range from historical, to social, cultural and linguistic, to theoretical/conceptual, to pedagogical. It may be relatively easy to draw up 'wish-lists' (Yorke, 2005) of literacies that students need to develop and eventually acquire and exploit in various academic and working life circumstances, but how to scaffold this development in a curricular and pedagogical context remains a great challenge. Therefore, the next chapter examines how the concept of educational scaffolding can be of help to this end.

Chapter 3 SCAFFOLDING TERTIARY ACADEMIC LITERACIES ACQUISITION

3.1 INTRODUCTION

This chapter departs from a theoretical position that academic literacies are not only multiple and interrelated but also too complex to develop, acquire and transfer from one spatial and temporal context to another. The literacies are also social practices and contextualized in social settings and situations, and relate to power and identity. The Academic Literacies framework (Lea and Street, 1998) required different perspectives on the way students learn and transfer academic literacies. One of the implications this has for educators in tertiary education is that a socially-oriented educational approach might be the one appropriate for supporting the development of academic literacies among undergraduate students, at different levels and in different ways. It is this 'support' that is referred to in this chapter and elsewhere in the thesis as 'scaffolding', a term derived from educational psychology. The *scaffolding* concept, which is now generally agreed to have as having links with sociocultural theory and social theories of language learning, has been used to guide curriculum development and pedagogy in various branches of knowledge at different levels of education – not least in academic literacies education.

The aim of this chapter is three-fold: to elaborate the *scaffolding* concept, locate it in my research as a relevant conceptual framework and explain how it relates to supporting the acquisition of academic literacies in tertiary learning using the curriculum and ICT, both as structures or a combination of tools and processes.

3.2 EDUCATIONAL SCAFFOLDING

3.2.1 Overview

The *scaffolding* theory was first introduced in the late 1950s by the cognitive psychologist, Jerome Brunner. He used the term to describe young children's oral language acquisition. When young children start learning how to speak their parents or other close caretakers help them through the process by providing them with instinctive structures to learn a language – usually a first language. The original use of the scaffolding metaphor was confined to the context of dyadic adult-child interactions in domestic settings. Its application was extended by Cadzen (1979) to an analysis of teacher-student interactions in classroom settings. She drew comparisons between parents' use of games and turn-taking as temporary scaffolds for their children's early language use and problem solving activity with teachers' use of repeated question-answer sequences in classroom lessons as scaffolds for their students' mastery of the implicit participation structures of classroom discourse (Stone, 1998a:345).

The concept of scaffolding as applied to teaching and learning is believed to have its roots in cognitive theory linked to the work of Piaget (Donato, 1994; van Lier, 2004) and social constructivist theory (Stone, 1998a), but it was later linked to sociocultural theories of Vygotsky and Luria, particularly to the notion of the Zone of Proximal Development [ZPD] (Lantolf and Thorne, 2006; Stone, 1998a; van Lier, 2004). The increasing unpopularity of Piagetian 'individual-child-learner model' during the period between the late 1970s and the 1980s seems to have boosted the popularity of the scaffolding concept (Stone, 1998a:345).

Educationists became more interested in the role played by adults in child development and learning; so the ZPD was a very welcome conceptual tool. Furthermore, Wood, Bruner and Ross' (1976) analysis of the scaffolding process as well as some operationalizations of Vygotsky's ideas had considerable impact on the popularity of the scaffolding metaphor (Wertsch, 1979).

Cadzen's pioneering of the scaffolding metaphor's application to teacher-learner classroom interaction did not receive much attention at first. It was not until the mid-1980s that classroom research motivated by scaffolding began to appear. The most important elaboration made by these later researchers, argues Stone (1998b:349), was the explicit linkage of scaffolding with Vygotsky's developmental psychology, in general, and with Vygotsky's notion of the ZPD, in particular. Active research and debate on the relationship between scaffolding and the ZPD continue today, as evidenced in the volume of publications in the forms of textbooks and journal articles. In any case, Vygotsky's original construct of the ZPD has been broadened by more recent work beyond the expert/novice level and considers the conceptual development of students within supportive learning environments (e.g. Brown and Ferrara, 1985; Hedegaard, 1990; Lantolf, 2000; Mercer and Fisher, 1998; Moll and Whitmore, 1998). Mercer (1994) argues that the scaffolding metaphor seems to capture something (i.e. student support) that many teachers regard as central to the core enterprise of teaching.

3.2.2 Explicating the 'Scaffolding' Construct

While scaffolding has been widely used in education generally, and language and literacy education particularly, the metaphor has on theoretical and epistemological grounds been criticized for having a narrow focus and for lacking a clear definition, especially when it comes to its application to learning. In particular, its association with the notion of Vygotsky's ZPD has provoked questioning it as a metaphor that in its literal usage refers to a rigid structure, not the fluid dynamics of collaborative work that is associated with the ZPD (Gibbons, 2003). For example there have been calls for a redefinition of the metaphor from researchers on early literacy (e.g. Maybin, Mercer & Stierer, 1992; Hammond, 2001). *Scaffolding* as applied in education has variously been referred to by different authors as a theory, strategy, method, paradigm, concept, principle, notion, construct, etc. In literal and ordinary usage the term refers to the structures that are erected around a building during construction, repair or renovation.

As narrated by Walqui (2006: 163-164), the original idea of scaffolding comes from the work of Jerome Bruner, which he developed in the context of an intensive investigation of six infants (aged 7 – 18 months) over a period of 10 months, as they and their mothers played games. According to Bruner, scaffolding is:

> A process of 'setting up' the situation to make the child's entry easy and successful and then gradually pulling back and handing the role to the child as he becomes skilled enough to manage it. (Bruner, 1983:60)

Bruner and his fellow researchers focused particularly on the game of peekaboo, which was played frequently over the entire period. For a start in this game, a child needs help from the mother but as the game becomes ritualized or conventionalized there is a gradual shift of agency, a 'take-over', with the child becoming self-directed and the roles of being agent and recipient being reversed. Thus, scaffolding is a concept that is not easily translated into a

practical classroom context (Sharpe, 2006). The bulk of earlier research has concentrated on instructional scaffolding as contrasted with other forms and scopes of the concept's application. The focus has been on the social nature of cognition, whereby traditional scaffolding is seen as transferring strategic thinking from an expert 'other' to a novice through such strategies as modelling, guided practice and feedback. For example, Rogoff and Wertsch (1984:4) define scaffolding as "a process wherein an adult provides support to a child learning to master a problem." Cadzen (1983:6) defines a scaffold as "a temporary framework for construction in progress", which is close to the literal function of a physical scaffold.

The early simplistic ideas about scaffolding as involving only a breaking down of a task to enable the learner to make new meaning have been replaced by a recognition of the complexity and potential multiple layering of the process that requests a constantly shifting perspective of the task at hand (Sharpe, 2006; Stone, 1998b). In current pedagogical practice and educational (including literacy) empirical research scaffolding is by and large used as an umbrella term to mean any kind of teacher support, or a 'supportive structure' (or set of tools and structures). According to van Lier (2004:147), "In general terms, scaffolding is assisted performance." The term can also be used as an umbrella metaphor to refer to how "teachers or peers supply students with the tools they need in order to learn" (Jacobs, 2001:125). Thus, it can be a 'collaborative process'. As asserted by Walqui:

> "[I]f we think only of the support structure without focusing on the actual construction work, then [the reservation about the rigidity of scaffolding] is justified. Most importantly, then, the dynamics between the scaffolding structure and the scaffolding process must be kept in mind. The process is enabled by the scaffolding structure, and a constant evaluation of the process indicates when parts of the scaffolding structure can be dismantled or shifted elsewhere. (Walqui, 2006:164).

Brush and Saye (2002:2) argue that "the concept of scaffolding has been broadened to include a multitude of different tools and resources that can be used by students to assist them with instructional activities." Duffy and Cunningham (1996) define scaffolding as any type of support for learning. This may include the support of more knowledgeable peers and "any artifacts in the environment that afford support" (Duffy and Cunningham, 1996:183). Brown, Hedberg and Harper (1994:9) assert that, "The instructor can support the development of metacognitive strategies in students either personally or through the use of cognitive support tools." Cognitive tools are devices that help the learner to brainstorm, organize work, monitor performance and develop new strategies. My study subscribes to the latter (optimistic) part of the definitional debate outlined above – that is, scaffolding as both structure(s) or tools and process.

In their attempts to elaborate the scaffolding concept, a number of authors have written on its various aspects, both in general terms and in terms of specific learning settings or disciplinary contexts. For example, some have focused on delineating its types (e.g. Arinto, 2006; Azevedo, et al., 2004; Brush and Saye, 2002; Chung and Coombs, 2001; Donato, 1994; Hannafin, Land, and Oliver, 1999; Holton and Clarke, 2006; Lai and Law, 2006; Merrill, et al., 1995; Moll, 1990; Simon and Klein, 2007; van Lier, 1996). Others have focused on its features and characteristics (e.g. Applebee and Langer, 1983; Lipscomb, et al., 2004; Rogoff, 1990; van Lier, 2004; Wells, 1999). As a result, many labels have emerged. Since reviewing all this falls outside the scope of the chapter, I focus here on salient features that are significant to my study. A few of them have already been highlighted above, so they are

enhanced in this space. My point of departure is to note that in pedagogical contexts, scaffolding has come to be perceived both as a structure and process. Just as is the case on a construction site, scaffolding is the supportive structure (which is relatively stable, though easy to assemble and reassemble) and the collaborative 'construction' work that is carried out. The latter process involves much activity and employs a variety of tools and resources (e.g. software and hardware technologies) that support it to successfully go on. In a pedagogical sense, a curriculum is a good example of structure, although Puntambekar and Hubscher (2005) regard it as a tool as well. It can be 'assembled', 'adjusted', 'dismantled' and 'reassembled'.

Puntambekar and Hubscher (2005:1) are rather critical of the liberal ways in which the construct of scaffolding has been applied in education, especially on the grounds that "some of the critical elements of scaffolding are missing." The features I outline below are based on their argument that reflects other authors' arguments, as well as the features proposed by van Lier (2004).

1. *Intersubjectivity*: Central to successful scaffolding is the notion of shared understanding of the goal of the activity to be carried out – intersubjectivity (Rogoff, 1990; Wells, 1985). That is, mutual engagement and rapport are established, and there is encouragement and non-threatening participation (van Lier, 2004) in a shared community of practice (Walqui, 2006).

2. *On-going diagnosis*: The teacher or another agent provides appropriate support based on an on-going assessment and monitoring, watching carefully for the learner's current level of understanding, hence readiness to take over. The on-going diagnosis thus leads to a careful *calibration* of support (Stone, 1998a) so that the adult or more knowledgeable person is able to provide *graduated* assistance of different types. Exploration is encouraged in a safe, supportive environment (van Lier, 2004). The 'scaffolder' draws from a repertoire of methods and strategies to provide support, constantly fine tuning the support based on the learner's changing knowledge and skills. This implies that the amount and types of strategies are different not only for different learners who are at different levels in their learning, but also for the same learner over a period of time (Puntambekar and Hubscher, 2005).

3. *Dialogue and interaction*: On-going assessment and adaptation of support are attained through the dialogical and interactional nature of scaffolded instruction. Although the teacher plays a vital role in the instructional process, the learner is also an active participant so that scaffolded instruction is a function of participation by the teacher and the learner.

4. *Flow, contingency and continuity*: Skills and challenges are in balance; participants are focused on the task and are 'in tune' with each other; task procedures are adjusted depending on actions of learners; contributions and utterances are oriented towards each other and may be constructed; tasks are repeated, with variations and connected to one another [e.g. as part of projects] (van Lier, 2004).

5. *Fading*: This is the final stage in a scaffolding cycle whereby the support being given to the learner is faded (i.e. considerably reduced) so that the learner is now in control and taking responsibility for learning. This transfer of responsibility leads to transfer of the learning to accomplish a similar or related task in different contexts.

3.2.3 Why Scaffolding?

As the sub-title of this thesis suggests, one of my research aims is to explore the approaches used by tertiary learning institutions in the context to 'scaffold' the acquisition of academic literacies through the curriculum and ICT. There are good reasons for my preference for the scaffolding metaphor to guide the larger part of my study: (i) it is theoretically and historically located in the social theories of learning and the socially oriented theories of language learning, both of which stress the social nature of knowledge and language construction; (ii) its principles and features such as 'supporting', 'collaborating', 'calibrating' or 'graduating' and 'fading' resonate with the Academic Literacies Approach to literacy development; (iii) it relates well with technology both as a supportive set of tools and a supportive process (i.e. as tools and methodology); (iv) it's principle of ultimately achieving autonomy and self-regulation for the learner is not only appealing to tertiary students, considering their age, cognitive level and life experiences, but also imperative for 21st century lifelong learning and employability. I elaborate the first two in some detail below and weave the last two into other parts of the chapter.

Learning is naturally a complex process, but when it comes to learning through a language that one is in the process of learning, as is the case for the educational context of my study, learning becomes even complicated. Why? A foreign language such as English is for the students in question a set of literacies in its own right which they need to not only become fully proficient and competent in but also to use it to mediate knowledge construction and communication in their academic areas of study (Cummins, 2000; Gibbons, 2002; Mercer, 1994). Such students need two fundamentally vital things: (i) teachers who understand their problem and know how to duly support them in developing deep disciplinary knowledge and engage in challenging academic activities; and (ii) a conducive social environment in which they can construct their knowledge through shared social practices with their teachers and other learners in a friendly, secure, non-threatening, non-frustrating, non-stigmatizing 'climate'. Some studies have suggested that students' perception of how the majority society accepts or rejects the culture and language they bring to school are extremely important for their eventual success in school (e.g. Cummins, 1984; Skutnabb-Kangas, 1984; Verhoeven, 1990). So, as Walqui (2006) rightly argues, such students' language background needs to be appreciated and validated through classroom practices.

3.2.3.1 Scaffolding within a Social Theory of Learning

As highlighted earlier, although scaffolding is believed to derive from cognitive research (Donato, 1994; Verenikina, 2004), there seems to be a considerable consensus that Vygotskian sociocultural theory in general and the notion of the *Zone of Proximal Development* (ZPD) in particular provide the theoretical underpinning of scaffolding (e.g. Berk, 2001; Daniels, 2001; Lantolf and Thorne, 2006; Wells, 1999; Verenikina, 2004). Although Vygotsky does not mention the term 'scaffolding' in his writings, his definition of the ZPD provides, to a large extent, a conceptual context for scaffolding. The ZPD is the best known construct in sociocultural theory (Walqui, 2006:162), and its most often quoted definition is that:

> It is the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (Vygotsky, 1978:86)

Thus, the ZPD can also be described as the area between what a learner can do by himself/herself and that which can be attained only with the help of a more knowledgeable 'other' adult or peer (Lipscomb et al., 2004; Ohta, 2005). Vygotsky argues that the most effective learning is that which occurs within the ZPD – when the challenge presented by a task is beyond the learner's actual/current development. That is, it is only when support is required that 'new' learning will take place, since the learner is then likely to be working within the ZPD (Hammond and Gibbons, 2005). By extension, this means that if the learner needs no support – from the more knowledgeable 'other' or from other mediating agency such as technological artefacts (e.g. 'texts' in their diversified forms – print, sound, signs, images, etc) – then no 'new' learning takes place. It is the task-specific support, designed to help the learner to independently complete the same or similar task later in new contexts that scaffolding is about. According to Ohta (2005:505), the actual assistance in the ZPD (i.e. the acts and processes) may be considered to be synonymous with Wood and his colleagues' 'scaffolding' (Wood et al., 1976). Lantolf and Thorne (2006:274) recognize that in spite of the debate about the links of scaffolding with the ZPD, the former explicitly links with the latter at least in one sense: that of adult's or teacher's control over the child's or learner's learning that is beyond the child's/learner's ability.

3.2.3.2 Scaffolding within a Social Theory of Language

The notion of learning is congruent with the essentially social nature of learning and it affirms the importance of language in meaning making in the learning process (Early, Potts, and Mohan, 2005; Hammonds and Gibbons, 2005; Sharpe, 2006; Walqui, 2006). As signposted earlier, scaffolding allies itself with the social theories of language. A case in point is the Hallidayan functional theory of language which focuses on the socially-oriented nature of language acquisition (e.g. Christie and Martin, 1997; Eggins, 1994; Halliday, 1978, 1985, 1994; Hasan and Williams, 1996; Martin, 1993; Unsworth, 2000). According to Wells (1999), the intersection between Vygotsky's socially oriented theories of learning and Halliday's socially oriented theories of language is a productive one. Halliday's *systemic functional theory* of language is a modal of language as a social semiotic. It is a 'functional' theory in the sense that it is concerned with the ways in which language functions to make meanings in various cultural, social and vocational (or workplace) contexts – hence its link with the Academic Literacies Approach to literacy and language for specific purposes (LSP) for their focus on contextual specificity. Central to the functional theory is its explanation of the interrelationship between contexts and patterns of language choice in the construction of meaning. The theory thus highlights the role of language in mediating the construction of knowledge – 'in' and 'through' classroom interactions – which occurs between the teacher and students, and between students themselves.

Some insights into the relationship between spoken and written modes of language have generated various notions among researchers and practitioners concerned with the systemic functional framework. The basic unit of language, as a social semiotic, is conversational interaction, not sentence structure or grammatical pattern (Walqui, 2006). Drawing on Systemic Functional Theory, Sharpe (2006) set out to explore scaffolding as a means of supporting meaning making in a scaffolded classroom environment, and as a result she articulated various kinds of discourse and multimodal strategies that constituted the nature of scaffolding in the language-based classroom she investigated. The discourse strategies included: repeating, recasting and appropriating language to develop technical vocabulary and re-contextualise the content; increasing the prospectiveness of questions to extend or

reformulate students' reasoning; cued elicitation to encourage joint construction and 'track' students' understanding; use of analogy to draw on students' existing background knowledge; and 'metacomments' to summarise key concepts. Multimodal support was provided through visuals such as maps, diagrams and pictures, as well as by gestural and actional cues. Hammonds and Gibbons (2005) utilized the notions of 'register' and 'genre' to build a systemic functional framework for their research focus on 'teaching language', 'teaching *through* language' and 'teaching *about* language' (Halliday, 1979).

The systemic functional model of language also highlights the importance of taking into account the context in which the language is to be used. As Hammond and Gibbons (2005) aptly argue, a model of language-in-context (e.g. English language-in-education) challenges the Deficit Model which is closely associated with the Study Skills Model in the New Literacies context of enquiry (Gee, 1990, 1991; Street, 1984, 1995; The New London Group, 1996). The systemic functional framework views language development "as a process of learning to control an increasing range of registers and genres, rather than viewing development in relative terms of 'more' or 'less' language" (Hammonds and Gibbons, 2005:10). The latter view is the commonplace of the deficit/study skills model where students are seen as lacking certain skills and therefore needing to acquire them. Once they are taught these skills – usually in a technical fashion – the students are weaned from instruction, with the assumption that they have possessed or acquired the skills and will transfer them to other academic tasks and contexts. Hammond and Gibbons (2005) are of the opinion that the success of students who find themselves having to simultaneously learn English as a Second/Foreign Language and use it as a means for academic access and progress is largely related to the opportunities they have to participate in a range of authentic learning contexts and meaning making, and the scaffolding that they are given do so successfully in English.

3.2.3.3 Scaffolding and the Academic Literacies Approach

Apart from both Academic Literacies Approach (ALA) and scaffolding having roots in social theoretical frameworks of learning and language, they have other compatibilities. Outside its conception as a structure, scaffolding involves knowledge construction or meaning making that entails interaction between students and teachers. This is comparable with the argument presented/sustained in the ALA debate concerning the transferability of literacies from a generic context – when the learner has only mastered the literacies as technical skills – to a discipline-specific context – when the learner is expected to apply the same technical skills for subject matter understanding and knowledge construction. Effective scaffolding should result in 'handover', with the learner being able transfer understanding and skills to new tasks in new learning contexts. This is when the state of autonomous or self-regulated learning can be said to have taken place.

The concept of *mediation* is generally regarded as the centrepiece of Vygotsky's theory of learning (Walqui, 2006). Literally, mediation is "the use of a tool to accomplish some action" (Walqui, 2006:161). Many of these 'tools' are culturally and historically produced, so the child/learner learns to use these tools. Vygotskian theory is primarily concerned with the mediation of culture. In daily life the cultural tools are made available to the learner (no matter of what age) through social interaction. Thus, activity mediated by tools is mediated by social interaction, where language "provides the most powerful mediation tool of all" (Walqui, 2006:161). In the school-oriented learning context, the process of mediation involves the cognitive and linguistic socialization of students as they are initiated by their teachers into the 'common knowledge' (Mercer, 1995) that comprises educational discourse.

This is reminiscent of the Academic Socialisation model in the Academic Literacies conceptual framework (Lea and Street, 1998) where the task of the lecturer is to inculcate students into a new 'culture' – the academic culture of the university.

As Hammond and Gibbons (2005:9) argue, "teaching is not simply the transmission from one individual to another, but is a collaborative and negotiated social process, whereby knowledge is constructed between, rather than within, individuals." I may add that this is especially so at tertiary level where students – by virtue of their age, cognitive level and experiences in life – bring to the learning environment a rich repertoire of knowledge and skills which need to be exploited and linked to new learning as they share among themselves and with their teachers. Hence, teacher support or scaffolding, or teaching-learning relationship more generally, remains a vitally important element in learning. Although the Vygotskian theoretical perspective on learning focuses on different roles of both teacher and learner in the learning process, these are generally complementary. Hammond and Gibbons (2005) further argue that the crucial nature of teacher scaffolding can be found in the work of Mariani (1997).

Mariani has argued that the most effective classrooms are those where there is both 'high challenge and high support' for students. In order to clarify his argument, Mariani contrasts this kind of learning environment with three other learning scenarios: (i) where there is high challenge but inadequate support (resulting in learner frustration); (ii) low challenge but high support ('feel good' classrooms where students operate in their comfort zones but where little learning occurs), and (iii) low challenge and low support (classrooms where boredom sets in and where behavioural problems are a likely outcome). By contrast, learning environments with high challenge and high support are likely to be working within the ZPD, whereby high challenge is the raison d'être for the scaffolding intervention.

Moreover, the dialogic and interactive nature of scaffolded instruction – in the current understanding of the concept when applied to a pedagogical context – rhymes well with not only tertiary level learning but also the Academic Literacies perspective on literacy acquisition (Lea and Street, 1998). Furthermore, the notion of 'fading' in scaffolded instruction (i.e. gradual decrease or removal of support) resonates well with the contested notion of 'skills transfer' from one learning context to another in the Academic Literacies framework. This implies that if this scaffolding idea of fading were applied to the 'study skills' model, for example, the shortcomings of the model in assuming that students will easily transfer technical skills will become more visible, as many students are likely to find the skills transfer process problematic.

Another relevant idea connecting scaffolding – particularly on the basis of this notion of fading – is 'autonomy' or self-regulation (although these terms have slightly different meanings). I argue that autonomy or self-regulation is an extremely important attribute in higher education especially in the 21st century as has been discussed in the previous chapters. This is based on the premise that an autonomous learner takes control over his/her own learning (Cottrell, 1995, 2000; Crabbe, 1993; Perry and VandeKamp, 2000; Yang, 1998). That control entails such predispositions as: being able to identify what they need to learn and how they will learn it; having a range of learning approaches, skills and strategies; being able to organize their learning; being able to make use of resources in the learning environment; being able to seek support when it is needed; and being well motivated to learn. However, learner autonomy does not mean isolation or academic hermitism. On the contrary, learning is a social activity, so an autonomous learner should be able to socialize his/her learning,

which requires the learner to recognize the benefits of working with other learners and be able to share and negotiate with them (Hart, 2002). Therefore, the kind of academic autonomy/independence advocated by scaffolding is a balance between individuality and socialization. In 'scaffolding' terms, the socialization aspect values mutual support and integration among learners (Little, 2007), which is compatible with the 'academic socialisation' model in the Academic Literacies Approach.

3.3 SCAFFOLDING ACADEMIC LITERACIES ACQUISITION WITH THE CURRICULUM

3.3.1 Curriculum and Curriculum Change

3.3.1.1 Key Concepts

Due to the breadth of *curriculum* as an area of research and because the term has been used interchangeably with other terms such as programme, course, and syllabus, it is necessary to explain what 'curriculum' means in my study. Terminology related to curriculum, as noted by Graves (2008), is used somewhat differently in British-influenced and North American-influenced English. For the purpose of this study, I draw on the definitions provided by Graves (2008:147) and the King's-Warwick Project (2010:5). In its broadest sense, *curriculum* is the total sum of the processes and products of planning, teaching and evaluating a course of study or related courses that make up a whole. This is the sense in which it is used in the study when employing such phrases as 'writing in/across the curriculum'. However, 'curriculum' can also mean all of the intended learning experiences, both within and beyond formal teaching. This 'intentionality' is normally translated into written statements and other forms of writing expressing such elements as aims, targeted outcomes, planned activities and experiences, and so on. The second usage is also frequently referred to in this thesis. Curriculum is multi-levelled; it can be applied to all programmes of study across an education system (e.g. the higher education curriculum in Rwanda), a single institution (e.g. the Linkoping University curriculum), or to a single branch of knowledge across a system of education (e.g. the literacy curriculum in UK higher education), or an institution (e.g. the English language curriculum at NUR), at degree level (e.g. the undergraduate science curriculum), at faculty or department level (e.g. the engineering curriculum), or at cohort level (e.g. the year-one law curriculum). Based on the first usage, 'curriculum' may extend the processes and products of teaching-learning even to the classroom level.

A *programme* is all of the courses of study offered in a particular institution or department (e.g. an academic literacies programme covering all courses or course elements taught from year-one to year-three in undergraduate study). A *course* is a teaching/learning experience that occurs over a specific period of time with a specific focus. The term 'course' is used more in adult, tertiary and secondary education, where levels, years in school or courses of study are divided that way. It is not a good fit with primary education because of its holistic nature. In a modular structure, the term *module* or *modular course* is used more frequently used than 'course'. This may be partly explained by the fact that the character of a module is such that it encapsulates several course elements from the same wider field of study or between or across one or more disciplines. A *syllabus* is a written plan for what is to be learned in a particular course of study.

A few other terms used when referring to curriculum in my study need some clarification: design, selection, adoption, adaptation and development. *Design* is used to refer to the process and product of thinking out what should go into a curriculum – at different levels – and putting it on paper as a plan or road map. The plan is original in the sense that it did not exist anywhere else before it was put on paper. This is when a programme, module or lesson plan is mostly visible as an educational 'structure' or 'tool'. *Selection* means choosing parts of a whole from of an existing programme or module wholesale, without making any changes. This type of selection thus *adopts* what already exists. Should there be any modifications, transformations, alterations or any other changes on the original, then this is viewed as *adaptation*. Adaptation might involve making minor or major changes to the original (e.g. shortening, lengthening/expanding, reinforcing, enriching, etc). Therefore, when such changes on the curriculum occur – which usually takes place over some time – the *development* of the curriculum, programme, module or syllabus is taking or has taken place. The 'development' of a curriculum signifies contingency or a process of working on it usually in order to improve it or adjust it to emergent needs. The concepts of design, selection, adoption, adaptation and development also apply to instructional materials, e.g. course books and other textbooks; visual, audio and video materials; and materials based on the computer and the internet.

3.3.1.2Curriculum Change: A Global View of Major Trends

A number of universities and other tertiary institutions worldwide have recently undergone curriculum change in varying proportions, not only updating academic curricula but also taking a wide view of the entire student experience. In the Rwandan context, a similar change has been signalled in some detail in Chapter 1. Overall, curriculum change is not something to be taken lightly because no matter how carefully handled, "it is always a contentious issue and takes considerable time and resources to achieve" (King's-Warwick Project, 2010:6). The focus of my study is on curriculum change at undergraduate level, as undergraduate education is part of a pathway from schooling into employment and lifelong learning. Below I list only three major trends of curriculum change from a global perspective, but which have relevance for Rwanda's tertiary education in the context of the current curricular change. They are based on research involving such authors as: Barnett (2000), Biggs (2003), Cuthbert (2006), Fullan (2001), Mintzberg (1994), Morgan (1986), Prosser and Barrie (2003), Whitchurch (2007), Wiers-Jenssen , Stensaker and Grogaard (2002), William and Cappuccini-Ansfield (2007); and Yorke and Knight (2006).

- Some institutions have a complacent view of their curricula, believing that the salient curriculum characteristics are simply present in their curriculum, permeating the curriculum because of the nature of the institution (e.g. a tradition of high standards). Others take active steps, setting out requirements and/or structuring characteristics into the curriculum.
- Professional and accrediting bodies play an important role in influencing and supporting curriculum change.
- Support from faculty (i.e. academic staff) for the direction of change is essential. Successful change requires both a top-down framework and bottom-up support. If a change strategy is entirely top-down, faculty may feel uninvolved in the initiative.

It is hard to generalize the characteristics that an undergraduate curriculum exhibits, since these have to be based on several variables. The most important and broadest one is that curricula are designed or planned and developed differently across time and space. Besides,

even if a particular period such as the current decade were to be considered, still there are a number of variables that make generalizations problematic, e.g. the positioning of a programme in the wider institutional curricular orientation, national or institutional priorities, student demographic profiles, affordances given by the infrastructure and resources, and so on. Nonetheless, the characteristics outlined below (based on research findings across global institutions by the King's-Warwick Project [2010]) resonate with the ones currently being emphasized in Rwanda's policy discourses of curriculum change in undergraduate education. They include emphases on: a research environment, twenty-first century academic literacies, interdisciplinarity, community engagement, and global connectedness.

The 21st century literacy demands discussed in Chapter 2 and elsewhere in this thesis call for tertiary pedagogies that focus on more advanced academic literacies. In this regard, the 'Academic Literacies Approach' to tertiary literacy education (Lea and Street, 1998) is increasingly informing the undergraduate curriculum at least in some parts of the world, leading to the provision of academic literacies programmes in academic reading and writing, and other transferable academic literacies (e.g. study skills, communication skills, IT skills, problem-solving, teamwork, etc) within and beyond students' disciplines. In addition, there is increasing demand for 'multimodal learning'. In view of widening participation in higher education, especially with serious constraints on space and other resources, there is a significant emphasis on increased possibilities for online, distance and e-learning. In less developed countries the benefits of these relatively unconventional learning possibilities include the fact that they are cheaper (for individual students and funders such as the State) than conventional higher education.

3.3.2 An *ESP Approach* to Curriculum

3.3.2.1 The Basics of an ESP Curriculum

The scaffolding role of curriculum development in ESP education cannot be overemphasised. The most crucial point in ESP course design is *needs analysis* (discussed in 2.4.3). One of the core aspects in an ESP needs analysis is a research-like investigation of specialist language to attend to in the ESP focal areas (e.g. generic academic skills, specific academic skills or work-related skills, etc). The specificity of needs being the common denominator across institutional practices of ESP curriculum design and pedagogy, three other major determinants guide the adoption of a course design type. The first one is the 'angle' to which the designer is inclined – that is, 'wide-angle', 'medium-angle' or 'narrow-angle' (also covered in 2.4.3). The second one is the organizing unit of language/literacy to be acquired (e.g. genre, structure, discourse, etc). The third one is the extent to which the target group of students is homogeneous or heterogeneous (e.g. all foundation year students, all first year students in social sciences or medicine, only third year students in pharmacy, etc). The more multi-disciplinary and/or multi-levelled the students, the more complex the programme or course design will be – either as a set of documents and other artefacts or as a process (Yong, 2005; Yongman and Kaylani, 1996).

Brown (1995) identified four different philosophies that underpin practice in curriculum design and development in ESP. What he terms as the *discrepancy philosophy* has some consonance with the scaffolding construct. The discrepancy philosophy takes the view that students' needs are the differences (or discrepancies) between what the students can actually do with the language and what the designer (e.g. teacher) thinks they should be able to do. For example, the designer may want his/her students to be at high level of work-related

English so that they can get good jobs after graduation, but observe that they are currently at a low English proficiency level. So, the gap becomes a 'needs gap', reminiscent of the Zone of Proximal Development (ZPD) in sociocultural theory, or the 'knowledge gap' in the learner's ability to perform a task on which scaffolding focuses support or assistance.

3.3.2.2 Design Principles

Normally, the process of designing an ESP curriculum at different levels is an elaborate one, so each stage or step in the process is governed by some principles. Offord-Gray and Aldred (1998) argue that for an ESP course to be directly relevant and useful to the learners of a specific group, the course needs to be underpinned by certain theoretical and practical principles, and that such principles should not only reflect a theory of language learning and the kind of methodology that it implies but also be grounded in research into the learner needs as perceived by the target group. It should also be underpinned by a linguistic analysis of the texts produced by that group, together with knowledge of the learners' previous language experience in the wider educational context. These authors delineate seven principles underlying course design in ESP. My list in Figure 3.1 below is an outline based on their original text. Though the authors were primarily concerned with teaching and learning materials as a course design strategy, the principles emerging from their research may be applied to other forms of ESP course design strategies or foci. Examples given in brackets are mine.

Principle 1: Reflect the needs as perceived by the discourse community (e.g. a group of medical students aspiring to specialize in the same branch of medicine).
Principle 2: Base on knowledge of what is regarded as effective communication in the discourse community.
Principle 3: Reflect the communicative purposes for which the discourse community produces texts.
Principle 4: Make the forms and functions that characterise the internal linguistic structure of the texts explicit.
Principle 5: Go beyond making the language explicit but provide a means by which the learners can engage in a process of text reconstruction.
Principle 6: Engage the learners in a process of developing skills for evaluating their own language performance (e.g. writing) and becoming independent learners in the workplace.
Principle 7: Plan the use of teaching methodology and content that are sensitive to learners' previous experience

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Figure 3.1: Principles underlying course design in ESP (after Offord-Gray and Aldred, 1998)

The first principle assumes that most of the lower classes in an academic context (e.g. foundation year or first-year students in university) have not mastered content knowledge and hence do not represent a discourse community yet. Therefore, the ESP course should help them form a discourse community. The role of the course is to identify the processes and inputs that will scaffold the learners to achieve their goals. This comes close to the *academic socialization* model in Lea and Street's (1998) Academic Literacies Approach. In the second principle, it is proposed that the ESP course should address the question 'What characterizes effective communication in the discourse community?' and thus focuses on the 'cultural' values of a context. The third is on the purpose of using the language skills, whereby genres and subgenres are characterized by communicative purpose.

The fourth principle suggests that some attention should be paid to authentic language input and analysis of the input (e.g. genre-based texts) in terms of discourse, rhetorical, grammatical and lexical features. In the fifth principle there is need to go beyond making the

language explicit; genre-oriented texts should not be static models for learners to emulate, but should involve learners in a process of reflecting on authentic communication. If learners are able to independently write acceptable genres as a result of their learning, then, new learning has taken place – as they can in that case regulate themselves. The sixth principle implies that designers – through the activities and tasks they plan for instruction – engage learners in a process of developing skills for evaluating their own communication competence and becoming independent learners in their target situations of language use. It is, therefore, useful to develop criteria for evaluating the effectiveness of genres and ways of sharing feedback. Lastly, it is important to draw on the learners' previous uses of the language and to give them enabling opportunities to explore and compare their previous uses and the target uses for which they are studying the ESP course.

3.3.3 The Academic Literacies Approach to Curriculum

3.3.3.1 An Academic Literacies Framework for an Academic Literacies Curriculum

At the global level, there are mounting claims in higher education that students struggle with the demands of academic writing and other literacy practices in their programmes of study. Such an issue is not simply the outcome of on-going widening participation that is seeing more and more 'non-traditional' students accessing higher education but affects students from all backgrounds – educational, cultural and socio-linguistic. The Academic Literacies Approach to tertiary literacy offers a significant strategy for understanding and developing the provision of academic literacy support at university. However, one challenge to the approach has been "its apparent lack of attention to pedagogy" (Lea, 2004:741). For example, Lillis (2003) suggests that unlike the other two models/perspectives – study skills and academic socialization – it is unclear what the 'academic literacies' perspective is like in terms of curriculum design and pedagogic practice. Lillis (2003), therefore, argues that the development of 'academic literacies' as a curriculum design frame in higher education has been limited. There are two principal explanations. The first one is that most universities and other tertiary learning institutions all over the world have developed and persistently practised curricula that are oriented towards the 'study skills' perspective (i.e. communication practices and other literacies taught as de-contextualized technical and instrumental skills assumed to be transferable to any situation), or the 'academic socialisation' perspective (i.e. literacy practices as unproblematic acculturation into the university discourse community) [Lea and Street, 2006].

A related reason is that, as the frontline 'academic literacies' researchers themselves admit, the Academic Literacies Approach has mostly served to explicate and critique the predominant models of literacy practices and pedagogies in higher education, and proposing a better model or perspective in the name of 'academic literacies' – the third model in the approach – but failing to show the way in which this could be developed into a design or pedagogical frame (Lillis, 2003; Lea, 2004; Lea and Street, 2006). Moreover, as pointed out earlier, most of the approach's attempts to point to pedagogical implications of the 'academic literacies' model has focused primarily on academic writing or language training more broadly (Lea and Street, 2006), leaving out a broad range of other literacies. Hence, in response to Lillis' argument above, Lea affirms the limitation of the research:

> Whilst agreeing with Lillis that academic literacies has yet to be fully developed as a design frame, I argue that the focus of this body of research, both on critique and primarily on student writing, might also indicate why the work has not yet been taken up by educational developers

> concerned with pedagogy and practice more broadly, rather than specifically with supporting assignment writing (Lea, 2004:241).

Also, in response to Lillis' argument, Lea examines how research findings from the field of academic literacies might be used to underpin course design across the broad curriculum of higher education in her article *Academic literacies: a pedagogy for course design* (Lea, 2004). In this article she explicates some principles of design derived from her and colleagues' 'academic literacies' research. She used a specific case study of an online, postgraduate course – thus signposting that "the increasing use of information and communication technologies and virtual learning environments add dimensions which are only beginning to be recognized in the academic literacies literature" (Lea, 2004: 739). But before explicating the principles, she first reaffirms the 'academic literacies' position against complacency with the 'academic socialization' model which seems to be supported in the phenomenographic tradition (Marton, et al., 1997) and in the approaches to learning which utilize the concept of 'communities of practice' (Lave and Wenger, 1991; Wenger, 1998).

Phenomenographyic interpretation of student learning tasks suggest that the academy is a relatively homogeneous culture whose norms and practices can be learnt in order to gain access to the whole institution. Similarly, the users of the concept of 'communities of practice' often fail to recognize the multiplicity of communities of practice within the academy (e.g. different faculties, or departments within one large faculty, or disciplines within one department, etc) and focus instead on the novice student acting as an apprentice moving towards full membership in the wider university community (Lea, 2004). By contrast, the Academic Literacies Approach does not assume that students are acculturated unproblematically into the academic 'culture' in its entirety through engaging with the discourses and practices of established practitioners or insiders. This is the central 'critique' of the approach which also applies to the 'study skills' model (Lillis, 2003). The Academic Literacies Approach does not deny the legitimacy of literacy education research and practices based on the 'study skills' and 'academic socialization' models but argues that the relationship of students to the dominant literacy practices and discourses of the academy is more complex than other work on understanding student learning might suggest.

In fact, Street (2006) clearly points out that the three models are not mutually exclusive but overlap, and he goes ahead to illustrate how they can be interacted in the same teaching-learning context. For example, a university may run a programme that encourages participation by a widening range of people with diverse backgrounds. An 'academic socialization' model might guide how lecturers help students move from note-taking to doing overhead projector presentations, while an 'academic literacies' model might make explicit how such tutoring procedures are framed not as "deficit" for students who are non-native speakers of the language of instruction but something that all students encounter as they shift from secondary school into post-secondary education. Similarly, with regard to writing and other literacy practices within a Law School (university level), a 'study skills' model focusing on the surface features of texts might be enhanced by reference also to an 'academic literacies' model in order to foreground text production and the relationship between writing and epistemology, helping students understand what "counts" as Law in a course for year-one students.

Lea uses a case study of a postgraduate course from the Open University (UK), where an attempt was made to embed the design principles (see Figure 3.2) into the initial design of the course, to illustrate how these principles could work. Space constraints cannot allow a

description of how each of the principles was designed into pedagogy. In her explication of the course design principles, Lea urges course designers to move away from the narrow attention that has exclusively been paid to 'the essay' or similar assignment towards (i) the inclusion of other texts involved in course design, such as course materials, guidance notes for students, web-based resources, feedback sheets, policy documents and a broad range of other written texts implied in a course, not just its assessed text, and (ii) consideration of other aspects of today's higher education context, such as the increasing use of ICTs in mainstream course delivery and the multimodal nature of texts. Similarly, Thesen (2001) argues that designers need to move away from their attention to the verbal and acknowledge how different modes – visual and verbal – can interact with each other in new ways, which challenge the reliance on the written text in higher education. This is notwithstanding the fact that "The dominant authoritative texts in higher education reflect the institutional concerns with knowledge and assessment, which are still – for the most part – instantiated in writing" (Lea, 2004:744). The principles, which state what an academic literacies course design should be able to do, are presented verbatim in Figure 3.2 below.

- Takes account of students' present and previous literacy practices.
- Acknowledges that texts do more than represent knowledge.
- Recognizes the relationship between epistemology and the construction of knowledge through writing and reading practices, using both written and multimodal texts.
- Recognizes the gaps between students' and tutors' expectations and understanding of the texts involved in learning.
- Involves thinking about all texts of the course – written and multimodal – and not just assessed texts.
- Attempts to create spaces for exploration of different meanings and understandings by all course participants.
- Does not create a dichotomy between other literacies and academic literacies.
- Recognizes and builds upon issues of identity and how these are implicated in the creation of texts.
- Acknowledges the power dimensions of institutional structures and procedures and the ways these are implicated in text production.
- Rather than try to acculturate students into a discipline, attempts to see students as engaged participants in the practices and texts which they encounter during their study of the course.
- Sees the course as mediated by different participants. Allows spaces for this and embeds this in both the course content and the course design.
- Recognizes the integral nature of the relationship between literacies and technologies.

Figure 3.2: Principles of an approach to course design based on an 'academic literacies' model (after Lea, 2004)

From the point of view of the 'academic literacies' research, central to the process of students actively participating (as contrasted with 'peripherally participating') in the academy are issues concerned with language, identity and the contested nature of knowledge. However, it could be argued that the general tendency of the research in the field to foreground particular groups of students (i.e. 'non-traditional' students) and assignment writing is a limitation (Lea, 2004). Nonetheless, as argued by Lea, this has been a valuable starting point and it should not obscure "the much broader implications of work in the field; in particular in the arena of course design, since all students are negotiating a range of different texts as part of their studies" (Lea, 2004:742). Therefore, by explicating the principles outlined in Figure 3.2, Lea broadens the contexts for the 'academic literacies' research. These principles are further built

on by Wingate's (2006) proposals in illustrations which are presented in Table 2.5, and in a joint study carried out by Lea and Street and was published in their article *The 'academic literacies' model: Theory and applications* (Lea and Street, 2006). In two case studies, a university programme for widening participation in the university for linguistic minority students and a university law programme, respectively, Lea and Street show how an academic literacies model can help provide a design frame for the development of curriculum and instruction. Both cases (Lea and Street, 2006) provide the opportunity to operationalize in context the principles of the 'academic literacies' model. The examples provided by Lea and Street show that relying solely on the other two models – skills and academic socialization – had its limitations. The examples also show the relative value of the 'academic literacies' model in emphasizing the importance of explicitness in teachers marking for students the shifts in genres and mode as they move between group work, speaking, note taking, presentation, more formal writing, etc. In particular, the authors/researchers identify the link between cultural practices and different genres; the importance of feedback on students' written assignments in the learning process; and how both students and their tutors can learn much from the foregrounding of both meaning making and identity in the writing process. What follows below is a brief discussion of the application of the academic literacies curriculum design principles outside the aforementioned experimental case studies conducted by Lea and Street. Some higher learning institutions in different locations of the world have been trying to adapt the Academic Literacies Approach in order to embed literacies education into their mainstream curriculum, but their practices are so varied that they cannot be reviewed in this space. So, below I briefly review some literacies curriculum embedment approaches adopted by institutions in different world contexts.

3.3.3.2 Curricular Responses to the Need for Embedding Academic Literacies

Thies (2012) proposes that while consensus on definitions of key terminology will be important for higher education policy development, developing curricula based on an understanding of the hierarchical nature of students' acquisition of skills, competences and attributes will help to clarify theory. This process should also contribute to clarifying the relationship between generic skills and disciplinary knowledge. Moore (2004) describes two contrasting ways of considering students' acquisition of generic skills – one being the *generalist* view that skills can be learnt independently from disciplinary context and the *specifist* view that skills are always learnt within a disciplinary context. A third view seen by Moore as *relativism* is that generic skills after being learnt in a specific context can be applied in other contexts. This is also supported by Chanock (2003) who contends that while students develop an awareness of disciplinary norms, the challenge is not only to integrate academic literacies into the curriculum, but also to consider how students may be able to transfer some of what they have learnt to other contexts.

According to Thies (2012), embedding academic literacies in curricula can be seen as a developmental or staged process which needs to be planned at a course level – although I argue that it is also possible to plan above the course level (e.g. programme level where several courses are planned to be enacted in bottom-up hierarchical series from first-year to third-year). Projects within institutions which seek to map the academic literacies development of students from entry into a first-year undergraduate course until graduation are likely to help inform curricular development (Willison and O'Regan, 2007). But a couple of questions can also help to guide course designers in their planning – that is, (i)What academic literacies do students need to be successful in their studies; and (ii) What learning activities

and student experiences are required in the course to facilitate the acquisition of "graduate attributes" (Thies, 2012:A-18).

An intention to enhance student lifelong learning (including postgraduate study) and employability rests upon the learning, teaching and assessment methods embedded in the wider curriculum structure (Yorke and Knight, 2006). The learning, teaching and assessment approaches need to be consistent with the overall educational intentions. According to Biggs (2003), 'constructive alignment' conveys the importance of coherence in curriculum design. Biggs' conception of alignment starts with learners who construct their own understandings from their experience of the world. One such understanding has to do with 'self-theories' (Yorke and Knight, 2006). Students whose self-theories are fixed may, given appropriate 'messages', be encouraged to revise them in the direction of malleability. Revision is more likely when students are presented with a consistent affirmation that the sort of intelligence that is valued in lifelong learning and the world of work differs from the supposedly-fixed intelligence which is widely believed to determine success or failure. For example, practical 'problem-working' and contributory skilled practices are often components of success in employment in the 21st century world (Yorke and Knight, 2006). As problem-working can involve multidimensional problems whose boundaries and solutions that are ill-defined, success may be attributed to 'practical intelligence' in contrast with the 'academic intelligence' (Sternberg, 1997) needed to solve academic problems and puzzles which occur in study and assessment circumstances.

Biggs (2003) argues that the pedagogical approach needs to engage students positively in their learning, and should discourage a relatively passive approach that is likely to lead to surface, rather than deep, learning. Therefore, teachers and other designers should be considerate of learners by creating modules that can creatively complement one another (Yorke and Knight, 2006). Constructive alignment requires attention in some detail to the nature of learning activities that the students will experience. In terms of academic literacies development and acquisition, this implies that the designers at programme or module level need to ensure that in each individual module there will be learning activities and tasks that capture the aspects of academic progress, employability (including entrepreneurship which stresses creativity for self-employment) and lifelong learning. The designers should also be concerned with setting tasks for students to do outside scheduled contact sessions in order to engage them with the module's learning intentions. According to Yorke and Knight (2006), if such tasks are embedded, then, students should be given 'signals' that this is the case.

As far as curriculum embedment of academic literacies development is concerned, no size can fit all institutions. Variables that influence this type of curriculum embedment include context (e.g. institutional, national), student recruitment patterns, envisaged contexts of literacies application (e.g. undergraduate academic progress and success, working life, lifelong learning), and disciplinary traditions. Further, any major change destined to create an 'ideal' curriculum oriented towards the development of the currently endeared skills and attributes of *graduateness* and *employability* "may prove to have prohibitive collateral costs". If Fullan's (2001:69) dictum that "Educational change is technically simple and socially complex" is something to learn from, then, systems and institutions will see that it is relatively easy to draw up a blueprint for change, but rather more difficult to make the blueprint an operational reality. In any case, however, there is a spectrum of ways or approaches in which academic literacies can be embedded into the mainstream curriculum. The ones outlined below are major ones which can take any shape as they meet local adaptation conditions from country to country and from institution to another. It is

noteworthy that differentiation is not clear-cut even between these major types, so they smudge into each other (Yorke and Knight, 2006).

1. ***Through the whole curriculum:*** In this approach the transferable skills, competences and attributes are gradually and incrementally integrated into both general education and specialist subjects from when students are admitted into the university over time during their undergraduate study. Courses designed for this purpose usually focus on learning activities and tasks that foster staged literacies acquisition, say, from study skills learning, through academic socialization into the broad field of specialization, to critical and inquisitive development and use of the literacies within and across specialized disciplines and beyond. The literacies to be developed inform course objectives, teaching methods and assessment approaches at different levels of curriculum enactment. The 'through the whole curriculum' approach is top-down in the sense that change usually comes through change policy that is translated into course design before the design is enacted at micro level (i.e. class level) as lesson/session planning and teaching. In this approach, the transferable skills are integrated into all modules of the curriculum from year-one, implying that it is the disciplinary teachers who teach the literacies alongside the content area subject matter.

2. ***Within the core curriculum:*** This approach is not very different from the previous one, only that in the second approach certain existing modules in each department and programme level are designated as 'core' so that they are used as vehicles for the formal teaching/development of the transferable skills. In some cases this approach can take a bottom-up direction, whereby curriculum change begins or is continued from within individual programmes and modules as a result of initiatives by academic staff teams.

3. ***Literacy-related courses within the curriculum:*** This approach involves a number of variants. For example, in systems where there is a growing emphasis on the development of student 'skills' at the beginning of the study programmes, running varying kinds of freestanding 'skills' modules at foundation level or year-one is common practice. These apparently autonomous courses run alongside the disciplinary courses from which they are ostensibly informed. A good example would be the full range of EAP/ESP courses offered in an institution with a comprehensive or specialized curricular orientation. These may range from general English proficiency courses to courses in English for studying and working. The general educational argument for this is that if students can develop their academic literacy at the beginning of their studies, this will pay off later (Yorke and Knight, 2006). In some other institutional contexts such courses are staged from generic to more specific focus. If a language or related department is an integral part of an institution, the former becomes the unit of choice for running such courses. Where no such a department exists, one is created – strictly as an integral department operating under a larger unit – or as a 'school' or 'centre' of the main institution. In some cases, mainstream academic staff will be involved in teaching in these centres/schools or other staff specializing in the literacies may be specially hired to do that. In some contexts, a more extra-curricular approach is used, whereby non-teaching staff (e.g. librarians) are the ones to run a literacies course.

3.3.4 The *Scaffolding* Approach to Curriculum

As described in the previous section (3.2), in a pedagogical sense a curriculum is – in one way – like a structure that can be 'assembled', 'adjusted', 'dismantled' and 'reassembled'. It can also be viewed as an educational 'tool' (Puntambekar and Hubscher, 2005). Most research attention on educational scaffolding has been focused on classroom-based micro-

scaffolding, paying little attention to other layers of the curriculum such as the policy framework at national and institutional levels, the curriculum framework at institutional and programme or disciplinary levels, as well as supportive practices in other layers of the learning environment outside conventional classroom instruction. The reason could be inherent in the original conception of scaffolding discussed in the previous section – that is, the dialogic and interactive character of scaffolding between only two people: the child/learner and the adult/more knowledgeable person such as a teacher. This conception has over time been expanded to address the various patterns and trends obtaining in the real educational domain where conditions in formal teaching considerably vary and are much more challenging, e.g. a single teacher having to scaffold the learning of a large class, students learning in virtual environments, teaching students who are even more knowledgeable than teachers in some areas (such as an English language teacher teaching discipline-specific ESP to students who are far more versed in content knowledge that the language teacher), the use of sophisticated scaffolding artifacts based on contemporary technology, and so forth.

A distinction may be made between scaffolding as "vertical construction in interaction" and "game-like routines", as van Lier puts it (van Lier, 2004:149). He identifies two kinds of work involved in successful scaffolding as: (a) the *structural strand*: planning, setting up, and maintaining the scaffolding structure (both building up and dismantling it as required); and (b) the *interactional strand*: work on, at or inside the scaffold. From this metaphorical usage, he proposes three related levels/layers of scaffolding:

1. The *macro layer*: involving planning task sequences, projects, recurring classroom rituals;
2. The *meso layer*: planning each activity in terms of sequences of actions or moves; and
3. The *micro layer*: the actual process of interaction from moment to moment.

Apparently, Walqui (2006) derived her scaffolding 'scales' from van Lier's model. Therefore, what van Lier labels 'levels' or 'layers' is labelled 'scales' in Walqui's case. She proposes that educational scaffolding may "be thought of as three related pedagogical 'scales'" (Walqui, 2006:164). These are: (i) providing a support structure (or framework) to enable certain activities to take place and skills to develop; (ii) the actual carrying out of particular activities in class; and (iii) the assistance provided in moment-to-moment interaction. Schematically, she presents this as follows (Walqui, 2006:164):

Scaffolding 1:	Planned curriculum progression over time (e.g. a series of tasks over time, a project, a classroom ritual)
Scaffolding 2:	The procedures used in a particular activity (an instantiation of Scaffolding 1)
Scaffolding 3:	The collaborative process of interaction (the process of achieving Scaffolding 2)

Therefore, the sequence of scaffolding moves from macro to micro, from planned to improvised, and from structure to process (Gibbons, 2003; van Lier, 1996). It is in the ordinary that curriculum or course plans have a way of changing as they are being carried out. To be more precise, "pedagogical action is always a blend of the planned and the improvised, the predicted and the unpredictable, routine and innovation" (Walqui, 2006:164). This implies that even though the three 'scales' suggest a top-down structure, there is also bottom-up change that can affect and transform the scaffolding at the top – just as the dynamics in the construction process (inside the building under construction) would

determine or influence if and when the scaffolding structure is adjusted, shifted or removed altogether. As scaffolding is premised upon the notion of handing over (by the teacher or any other educator) and taking over (by the student), assistance/support provided should always be only 'just enough' and 'just in time' (Walqui, 2006). As the students are able to do more and gradually come to be more in charge of their own learning, the macro (curriculum) level scaffolds are changed, transformed, restructured or dismantled.

van Lier's ecological perspective on scaffolding pedagogy is later on reflected in Kramer-Dahl, et al.'s (2007) study. Kramer-Dahl and colleagues draw a clear line between what they term *macro-scaffolding* and *micro-scaffolding*. On the whole, macro-scaffolding, as applied to their study, involves planning a unit of study. Therefore, at the macro-level of the unit, rather than focusing on individual lessons, the researchers focused on on-going sequences of lessons, observing such details as: how the teachers manage different stages of learning (e.g. how the theme of the unit and its various tasks is introduced); if and how connections between various teaching and learning activities and texts are made across lessons; and how new learning and language are accumulated and taken up by students as the unit progressed. Outside the cited study, macro-scaffolds may also include the provision of materials, equipment and other resources as well as other environmental inputs beyond the classroom.

As suggested in 3.3.1, a curriculum has different layers: all study programmes of an institution put together, all study programmes of a faculty or department; all modules of a study programme; and so on, up to the micro level when an individual teacher plans a lesson/session. For example, the notion of scaffolding through the curriculum is embodied in what Sharpe (2001) calls *designed-in* scaffolding, from which "teachers plan tasks that are situated within the students' ZPD" (Sharpe, 2006:214). According to Sharpe (2006), the function of 'designed-in' scaffolding is to set up the unit of work so that students will be able to achieve specific outcomes. The teacher needs to consider the starting point for the unit, informed by knowledge of students' prior experiences, interests and language and learning needs; the sequence of tasks within each lesson and the language demands inherent in each; the types of resources to be utilized and the various participant structures to be used. In my study, specifically in Chapter 6, the concern is mostly with 'scaffolding 1' scale at the 'programme' or 'module' level of the curriculum, where the specifications for 'scaffolding 2 and 3' have been sketched on paper in the form of programme/module plans or parts of them. However, at some points recourse is taken to other components of the curricula, e.g. instructional materials in use. Since these modules operate within their broader curricular contexts it is also inevitable to refer to these more macro contexts whenever need arises.

An important thing to note here is that it is not only possible but desirable to adapt the scaffolding features usually inherent in classroom-level scaffolding to the planning level: intersubjectivity; on-going diagnosis; dialogue and interaction; flow, contingency and continuity; and fading. However, due to the fact that what is planned is not symmetrical to what is enacted in actual scaffolding – as Sharpe (2006) reminds above – there are limitations to the success of such scaffolding at planning level. One testimony to this fact is Hammond and Gibbon's experience (Hammond and Gibbons, 2005). Adopting the term 'designed-in', they set out to foreground the notion that macro-scaffolding is consciously planned by teachers. According to them, the realisations of designed-in scaffolding can be found in the ways in which classroom goals are identified; how classrooms are organized; and in the selection and sequencing of tasks. Based on discussions with teachers, and on the teaching and learning activities that they observed during their research, they identified features that appeared to be integral to the process of programme/unit design.

Although the features at the macro level of programme planning were present in all programmes, the ways in which the teaching and learning processes were played out in individual classrooms differed significantly (Hammonds and Gibbons, 2005). This was partly due to the fact that students' needs and current knowledge varied considerably across the learning institutions that participated in the research. So, as they conclude, "it is not surprising that the ways in which teachers worked with students varied widely in response to the specific needs of their students, in response to the broader sociocultural context of the school" (Hammond and Gibbons, 2006:12). The lesson they derived from their experience is that scaffolding – like other approaches of teaching – is a dynamic and situated act that is responsive to a particular set of circumstances in a particular curriculum context. In my view, this affirms the validity of the Academic Literacies Approach to language and academic development, which stresses the importance of contextual specificity and diversity. This is also a longstanding tenet in the theory and praxis of ESP.

3.4 SCAFFOLDING ACADEMIC LITERACIES ACQUISITION WITH ICT

3.4.1 The *Academic Literacies* Perspective on ICT

3.4.1.1 The Role of ICT in Academic Literacies Acquisition

Technology has been presented as one key pedagogical solution to embedding literacies support within the curriculum. The term *multiliteracies* was originally taken up to refer to the place of multiple modes that are used in meaning-making which involves changing technologies, the impact of media as well as popular culture (Archer, 2006; Cope and Kalantzis, 2000; Kress, 2003). The nature of Computer Mediated Communication (CMC) is such that communication processes are predominantly text-based (Kern, 2006). Therefore, reading and writing are obviously key modes of online language. However, a more complex view is required in view of the fact that the internet, which is computer mediated, does the following (Kern, 2006): (i) introduces multimedia dimensions that go beyond print textuality; (ii) alters traditional discourse structures; (iii) introduces new notions of authorship; and (iv) allows users to participate in multicultural learning communities. The *Multimodal Approach* to literacy development which was propounded by Archer (2006) represents advocacy of literacy development and acquisition via a variety of modes of meaning-making other than or inclusive of verbal ones. Apparently, there is a shift of attention from verbal to visual and the role of technology in mediating knowledge construction and sharing in different modes using different media in space.

According to Archer (2006:451), student equity and access are enhanced when multiple modes of meaning are provided, including audio, spatial and behavioural modes. For instance, in a group of students some may be marginalized by text-based tasks or activities. These students may become more academically successful if given an opportunity to use a variety of media to access and demonstrate knowledge and/or skills through movement and voice. Rapid evolution of several communication technologies is changing and enabling new forms of discourse, new forms of authorship, and new ways to create and participate in communities (Kern, 2006:183). In fact, as new technologies emerge the need to be 'literate' goes far beyond language communication, although the latter still remains central.

Based on her case study on the application of the 'academic literacies' principles to course design, Lea (2004) was able to explain some merits of and constraints against using technology in literacies development. According to her, ICTs help educators and researchers to think about literacy and learning in different ways. ICTs are seen as integral to instructional content (in terms of learning activities, materials and resources that contain the subject matter or are used to develop the acquisition of the literacies). Based on the 'academic literacies' framework, Lea argues that ICTs should help students to acquire not only the technical skills (e.g. language skills, study skills, employability skills) and to get socialized into the campus community at various levels, but also to get opportunities for alternative voices to be heard. Through the use of ICT it is possible to achieve a balance between students' and other writers' (e.g. published works and lecturer-produced texts) authority and identities (cultural and linguistic). The study also foregrounds other types of texts through which these voices can be heard, rather than concentrate on the conventional academic publications and students' assessment texts (e.g. assignment essay, examinations, etc). These may be in the form of web-based resources posted by students, which can be shared among them and even be kept and added to the course resources for subsequent cohorts. This foregrounded attention to multimodal texts, e.g. requiring students to produce and engaging them in producing both written assignments and a visual presentation of these assignments using overhead transparencies or PowerPoint slides. The technologies also offer new spaces for learning through academic literacy practices, e.g. reading, writing, speaking/oral presentation and exchange, listening. Students' active participation in meaning-making and knowledge construction provides spaces for transitional literacy, acting as a bridge between a student's personal understanding of the subject and the formal assessed work. They also offer opportunities for reflexivity as students iterate between conventional ICTs (e.g. print texts) and newer technologies and technologically enhanced modes (e.g. electronic debates through private and personal texts, learning journals, etc) so that the students can "see how their approach to a subject area has changed and developed over time" (Lea, 2004:750).

There are many examples of excellence in the use of ICTs to support the development and acquisition of academic literacies in various contexts of curriculum embedment, e.g. within ESP courses or collaborative initiatives between subject specialists and specialists in writing, communication skills, information literacy, and other literacies. Besides, a number of empirical studies have been carried out to investigate and critically report on these cases. These examples and the technologies are simply too many to review in the available space. The following list refers to a few of these:

- Critical information processing skills through the World Wide Web (Slauti, 2002)
- Using discussion webs to develop an academic literacy community of learners (Matusov, Hayes and Pluta, 2005);
- Scaffolding reading in the disciplines – the case of engineering texts (Salsbury, 2005) and teaching reading and writing in ESP through weblogs (Arani, 2005)
- Supporting self-access and self-directed learning (Reinders, 2007)
- Using ICT in ESP classrooms (Kalinavaliauskiene and Kaminskiene, 2010), blended learning in ESP (Kalinavaliauskiene, 2011), writing in ESP using weblogs and wikis (Kalinavaliauskiene, 2010).

3.4.1.2 A Critical View of ICT-based Literacy Development

Although Archer (2006) envisions equity and success in his *Multimodal Approach*, the latter may be queried on the grounds that whilst access to technology may favour some people

within a discourse community, the lack of access by others, by contrast, will marginalize them. Nonetheless, the successful use of ICT in improving academic literacies development in higher education cannot be overlooked. However, it is important that the use of learning based on the computer and internet as the locus of literacies development is not interpreted as relegating this aspect of knowledge construction as extra-curricular, optional activities carried out online (King's-Warwick Project, 2010). If disciplinary content is prioritized through classroom face-to-face interaction, online academic literacies learning is likely to be viewed as being taken over by technologies. For example, Ivanic and Lea (2006:11) warn "Is technology taking centre-stage and overshadowing more fundamental issues of literacies in higher education?" Also, there is a need to be aware of the "complexity of…virtual environments as writing spaces" (Goodfellow, 2005:483) and to have a "critical awareness of online writing practices" (Goodfellow, 2005:493). According to Lea (2004), the new textual forms afforded by ICT look on the surface as egalitarian and tend to position the teacher as facilitator. But the question remains as to whether they really change the power and authority dimensions of writing in learning. In her view, the teacher still remains "the final arbiter of the quality of the students' work" (Lea, 2004:751). Thus, the role of the teacher can be both as a facilitator and as an authority or "an academic gatekeeper" (Lea, 2004: 751).

In their co-authored book, *Challenging E-Learning in the University: a Literacies Perspective*, Goodfellow and Lea (2007) examine some of the underlying principles and approaches which underpin e-learning in today's higher education. The book takes a critical lens to both policy and practice at the macro and micro levels, and it challenges some of the more dominant approaches to e-learning and presents a new perspective drawn from studies of language, literacies and learning. One of their criticisms of the dominant approaches is that little attention has been paid to the production and negotiation of the specific and contextualized texts and practices which are central to the learning environments. In contrast, the Academic Literacies Approach pays attention to the broader institutional context of learning, as contrasted with other approaches which focus only on the individual learner's engagement with the technologies. The 'literacies' approach foregrounds the social practices of the university, its literacies and discourses, and the ways in which these interplay with technologies. In a study conducted by Bayne it was discovered that some teachers demonstrated resistance to digital texts and authorships within academic practice, "generally viewing the texts of cyberspace as somehow subversive and 'other' to the true academic project" (Bayne, 2006:16). This can be related to innumerable such contexts all over the world. Therefore, any intention to develop student literacies through e-learning – in particular – would need to consider (i) that the online environment does not function as a neutral space for practicing literacies but constructs practices in ways that are potentially different from the traditional literacy spaces in the curriculum; and (ii) the need to investigate and critique the range of spaces within which literacy practices operate and the impact such spaces might have on practices.

3.4.2 The *Scaffolding* Perspective on ICT

More recent conceptualizations of educational scaffolding view learner support not as an exclusively teacher-guided process but as an enterprise that also involves interfacing the use of artefacts with teacher guidance (e.g. Azevedo, 2004; Brush and Saye, 2002; Lipscomb et al., 2004). Tools and resources – currently referred to as 'scaffolds' – include curricula and artefacts that are used not only for demonstrating relevant aspects of the task or strategies and making covert processes visible (Linn, 1998), but also for promoting peer interactions (Puntambekar and Hubscher, 2005). According to Puntambekar and Hubscher (2005),

computer-based scaffolds should map onto the original tenets of scaffolding. That is, the technologies should offer structure and support for completing tasks and at the same time address the critical features of *intersubjectivity*, *ongoing diagnosis*, *graduated assistance* and *fading*. In addition, the technologies should enable peers to support each other's learning. According to Puntambekar and Hubscher (2005), technologies that support scaffolding should be flexible enough to adapt to students' knowledge and skills.

Sharma and Hanafin (2007) challenge the conventional technology-based environments where scaffolding design has been guided by expert understanding of how best to support a novice's learning. They argue that while this is important, scaffolding design and implementation should also account for both learner characteristics and contextual influences. Understanding the learner's role is vital to augmenting expert-novice dialogue related to learning goals (Rogoff and Wertsch, 1984; Wertsch, 1984). The expert human adapts to changing learner needs. One of the big constraints with use of technology-enhanced learning environments based on the scaffolding conceptual framework is that while in face-to-face learning environments dynamic scaffolding obviates the need for a priori understanding since joint understanding is negotiated, dynamic negotiation is difficult to replicate in some technology-based environments (e.g. distance and e-learning) unless there is a teacher-student interaction added to it. Lumpe and Butler (2002) conceptualize this process as an interaction between the learner and software that provides scaffolding. Therefore, from this perspective, learner perceptions define quality and level of scaffolding (Sharma and Hannafin, 2007). Thus, the design of effective technology-enhanced scaffolding requires consideration of a learner's ability to interact with and use scaffolding tools.

3.5 CONCLUSION

In this chapter, literature review has partly focused on the concept of *scaffolding* and how it is applied in teaching and learning generally and in academic literacies education particularly. Due to the complex and social nature of academic literacies development, acquisition and transfer, a conceptual framework like *scaffolding* that has roots in socially oriented theories of learning is appropriate for guiding the embedment of academic literacies education into mainstream curricula and the integration of technology to support literacy acquisition. Three approaches to the academic literacies curriculum have been presented: the ESP, academic literacies and scaffolding approaches. In the first two approaches theoretical principles which can help in creating a framework academic literacies curriculum or course design and development have been outlined, and ways of operationalizing these principles are manifest in the highlighted major types of embedding academic literacies into the mainstream curriculum have been. The scaffolding approach is based on the premise that the curriculum is both a structure and a dynamic process, a structure that is movable and adjustable. A 'scaffolded' curriculum is also multi-levelled or multi-scaled and should be built on the critical features of the scaffolding framework.

Nevertheless, while the Academic Literacies Approach is lauded for its close association with student-centred learning and social theories of learning, the approach's research record tends to be biased towards academic writing and literacies based on or linked to it. Therefore, institutions need to extend the scope of the definition of 'academic literacies' to include a broader range of literacies beyond the traditionally privileged writing practices evident within some 'academic literacies' research (King's-Warwick Project, 2010). Moreover, as highlighted earlier, the approach has not sufficiently come out with a clear model for putting its good ideas into curriculum design and pedagogical practices – especially at macro level

(Lillis, 2003; Lea, 2004). Furthermore, the development of lists of skills, competences and attributes graduates should acquire and transfer to further study, employment and lifelong learning or the notion of simply adding in some literacies to existing subjects is a somewhat simplistic approach to a complex teaching and learning challenge (Australian Learning and Teaching Council, 2009). Therefore, the designing and planning of (or 'mapping') of academic literacies development at a programme or course level is a first or foundation step. Other systems in the institution that is the site of change need to be considered in order to bring about curriculum renewal or innovation.

The way ICT supports the acquisition of academic literacies may be viewed from two perspectives: 'academic literacies' and 'scaffolding'. While there are a number of technologies and ways in which these technologies have leveraged upon literacies acquisition – in formal, informal and non-formal learning contexts – technologies, from an 'academic literacies' point of view, at the same time present challenges which need to be watched carefully. The 'scaffolding' perspective regards technologies as: enablers of learner support, a broad range of tools which include curricula and artefacts used in its design/development and enactment, addressing the critical features of educational scaffolding.

Chapter 4 METHODOLOGY

4.1 INTRODUCTION

In this chapter the aim is to elaborate the research process I went through in order to arrive at the results presented in the present thesis. It also seeks to relate my practical research experience to theoretical principles that guided it. After the 'introduction' the chapter covers five major components: theoretical considerations, methodological considerations, ethical considerations, quality considerations, and methodological reflections.

4.2 THEORETICAL CONSIDERATIONS

4.2.1 A Blended Design

From the outset, I made a decision to use a qualitative strategy for my research; therefore, the research questions and aims outlined in Chapter 1 provided a framework for the research journey – although the research design and methodology employed in the field allowed room for revision and improvement in light of emerging data. As frequently pointed out in the literature review part of this thesis, academic literacies are social in nature and are constructed through contextualised or situated social practices. Moreover, the processes of developing and acquiring the literacies have largely been investigated and conceptualised by theoretical frames based on or rooted in socially oriented theories of learning. Qualitative, as opposed to quantitative, research usually emphasizes words rather than quantification in the collection and analysis of data. The main distinguishing features of qualitative research may be summarized as follows (Bryman, 2004):

- It emphasizes an inductive approach to the relationship between theory and research, in which the emphasis is placed on the generation of theories;
- It has rejected the practice and norms of the natural scientific model and of positivism in particular in preference for an emphasis on the ways in which individuals interpret their social world; and
- It embodies a view of social reality as a constantly shifting emergent property of individuals' creation.

It is, therefore, appropriate to employ social scientific methodology in this study, which is qualitative in nature, albeit it has utilized quantitative data at some points.

It was not until I was in the middle of my research that I realised I was 'caught' between a longitudinal and cross-sectional design. Today, more and more researchers are mixing methods from both the quantitative and qualitative traditions to construct interesting hybrid approaches. A more common way of perceiving the mixture is from a 'method', rather than a 'design', perspective. This is what may be referred to as 'multi-strategies' (Bryman, 2004) or 'mixed methods research' (Clark and Creswell, 2008; Creswell and Clark, 2011). According to Bryman (2004), a research design provides a framework for data collection and analysis. It is a framework for generating evidence that is suited both to a certain set of criteria and to research questions. This differs from a research method which is defined as a technique for collecting data which can involve a specific instrument (Bryman, 2004). Bryman (2004) delineates four kinds of research design: experimental, cross-sectional, longitudinal, and

comparative designs. The design employed in this study is what I am calling *blended design* because combined elements of *cross-sectional* design and *longitudinal* design, as well as a *retrospective* dimension of the latter. The overarching aim of this approach was to make use of the strengths and minimise the weaknesses of each design. But more importantly, this was influenced by three interrelated factors: (i) my personal understanding of the research problem(s) at hand, (ii) my research questions, and (iii) my initial exposure to the field.

According to Bryman (2004), c*ross-sectional design* is a framework that entails the gathering of data on more than one case and at a single point in time in order to collect a body of quantitative or quantifiable data in connection with two or more variables, which are then examined to detect patterns of association. Therefore, these study data were collected mainly from different layers of the policy and decision making hierarchy as well as from different tertiary learning institutions, several times over time, with the aim of examining relationships between variables (i.e. patterns of association). Selecting several cases increases the chances of variation in all of the variables and it enables researchers to make finer distinctions between cases (Bryman, 2004). In contrast with longitudinal research, there is no time ordering to the variables, because the data on them are collected more or less simultaneously, and the researcher does not manipulate any of the variables. This creates ambiguity about the direction of causal influence. That is, if a researcher discovers a relationship between two variables, all that can be said is that the variables are related, but he/she cannot be sure whether this denotes a causal relationship. Even if the researcher can draw causal inferences from the research these rarely have the credibility of causal findings deriving from experimental design. Therefore, one weakness of cross-sectional research this study attempted to avoid is the point that "the variability associated with a construct at a given time can be quite different from the variability associated with a construct over time" (Ployhart and Vandenberg, 2010:96). Thus, cross-sectional research will often provide little insight into how variables will change over time and may lead to inaccurate conclusions (Maxwell and Cole, 2007). This is a shortfall that can be offset by collecting data on several cases over time.

I began my formal data collection process in 2004 and ended it in 2010 – a six-year period consisting roughly of two phases, or *panel waves*, to be more technical; that is, from 2004 to 2006, from 2007 to 2010 and during 2010. Longitudinal design may be defined as "research emphasizing the study of change and containing at minimum three repeated observations (although more than three is better) on at least one of the substantive constructs of interest." (Ployhart and Vandenberg, 2010:97) According to Bryman (2004:46), longitudinal design, as compared to cross-sectional design, "can allow some insight into the time order of variables and therefore may be more able to allow causal inference to be made." An emphasis on change in longitudinal research permits researchers to capture two important characteristics of change: (a) change within a unit of observation (e.g. a policy or a programme of study) across time, or growth trajectories (Ployart and Vandenberg, 2010), and (b) inter-unit differences in change that can be either predicted or used for prediction (Bollen and Curran, 2006; Singer and Wellet, 2003). In my study, the main units of observation featured include policies, strategic plans, curriculum plans and ICT integration practices. In a *panel study* a randomly selected sample is the focus of data collection on at least two occasions. Data may be collected from different types of case within a panel study framework, e.g. learning institutions. This is different from a cohort study which selects either an entire cohort (i.e. a population which shares certain characteristics) of people or a randomly selected sample of them as the focus of data collection. So, there is more emphasis on time ordering of change in panel studies than there is in cohort studies.

In longitudinal design data are usually collected in a forward direction (i.e. prospective) over time on one or more variables. However, while I was in the middle of my field work I found it necessary to go back in time from the point I started my field work and collect data on the units of observation, hence the incorporation of a retrospective dimension (i.e. looking backward). A researcher conducting a study within the longitudinal (panel study) framework will often be prompted to oscillate not only between data collection and theorisation but also between the present and the past. A retrospective study is a study that involves collecting data about the past events, and it is mainly employed to measure and understand change and to include a time dimension to the data that can be used to identify causal factors or patterns of association between variables contributing to any observed change. The main rationale for collecting retrospective data is that such data can provide a means of understanding change for either descriptive or explanatory purposes. In order to move on from design to fieldwork, a data collection and analysis method needed to be selected from the range of qualitative social research methods and employed accordingly.

4.2.2 Qualitative Content Analysis

A clear distinction needs to be made between *quantitative content analysis* and *qualitative analysis*. According to Elo and Kyngas (2008:107), "[c] content analysis is a method that may be used with either qualitative or quantitative data in an inductive or deductive way." One of the most cited definitions of content analysis is that:

> Content analysis is a research technique for the objective, systematic and quantitative description of the manifest content of communication (Berelson, 1952:18).

Therefore, it follows that 'quantitative' or 'deductive' content analysis is subsumed under quantitative research (Bryman, 2004). Hence, my study being qualitative from the outset, *qualitative content analysis* was selected. Moreover, this choice was motivated by the strengths or advantages this inductive approach has over the deductive approach. Apart from the general weaknesses the deductive version of content analysis shares with other quantitative methods – from a social research perspective – it leaves out the following some important aspects, namely, the context of the texts or their components, latent meaning inside the texts, distinctive individual cases, and things that do not appear in the texts. Elo and Kyngas (2008) further clarify the differences between quantitative and qualitative content analysis. As research processes, both approaches are represented as three main phases: preparation, organisation and reporting. Although the preparation phase is similar in both approaches, they differ in the premises from where they depart and in their aims. Inductive or qualitative content analysis is used in cases where there are no previous studies dealing with the phenomenon or when it is fragmented. So, the concepts are derived from the data. On the other hand, deductive or quantitative content analysis is used "when the structure of analysis is operationalized on the basis of previous knowledge" (Elo and Kyngas, 2008:107). This approach is useful if the general aim is to test a previous theory in a different situation or to compare categories at different time periods.

Strictly speaking, qualitative content analysis is not a method of collecting data but of analysing them. However, the usual usage of the term positions it as a legitimate research method among the array of other methods used in the qualitative research paradigm. According to Bryman (2004:542), qualitative content analysis is:

> [a]n approach to documents that emphasizes the role of the investigator in the construction of the meaning of and in texts. There is an emphasis on allowing categories to emerge out of data and on recognizing the significance for understanding the meaning of the context in which an item being analysed (and the categories derived from it) appeared.

Berg (2000) argues that when the voice of the subjects (e.g. the authors) of the texts is included in the results, the perspectives of the producers of the texts can be better understood by the investigator as well as the readers of the study's results. Furthermore, qualitative content analysis pays attention to unique themes that illustrate the range of the meanings of what is being investigated rather than the statistical significance of the occurrence of particular texts or concepts which is valued in quantitative content analysis. However, the approach does not need to exclude deductive reasoning (Patton, 2002). Generating concepts or variables from theory or previous studies is also very useful for qualitative content analysis, particularly at the beginning of data analysis (Berg, 2001).

Hsieh and Shannon (2005) outline three approaches to qualitative content analysis, which may be summarized as:

- *Conventional Qualitative Analysis*: coding categories is derived directly and inductively from the raw data (e.g. commonly used in grounded theory development);
- *Directed Content Analysis*: initial coding starts with a theory or relevant research findings – then during the data analysis the researcher immerses himself/herself in the data and allows themes to emerge from the data; the purpose is to validate or extend a conceptual framework or theory; and
- *Summative Content Analysis*: starts with the counting of words or manifest content, then extends the analysis to include latent meanings and themes.

The second is most relevant to this study because the latter was progressively informed by theoretical concepts and empirical research in the following areas, as elaborated in Chapter 2 and 3: the New Literacies Studies, the Academic Literacies Approach to literacies development, the 'academic literacies' and 'scaffolding approaches' to academic literacies curriculum development and embedment, and the 'academic literacies' and 'scaffolding' perspectives on ICT integration for academic literacies acquisition. It is generally agreed that the process of qualitative content analysis often begins during the early stages of data collection. The advantage of beginning analysis early is that the researcher will be able to iterate between concept development and data collection, and this may help to direct his/her subsequent phases of data collection towards sources that are more useful for addressing the research questions (Miles and Huberman, 1994).

4.2.3 Intertextual Analysis and Hermeneutical Inspiration

Analyses of the textual data generated from fieldwork in this study were also subjected to *intertextual analysis*, and were inspired by *hermeneutics*. The inherent relationships existing between documents authored within the same social context or organisational setting is succinctly explicated thus:

> Documents do not stand alone…Documents refer – however tangentially or at one removed – to other realities and domains. They also refer to *other* documents…The analysis of documentary reality must, therefore, look beyond separate texts, and ask how they are related. It is important to recognize that, like any system of signs and messages, documents make sense because they have relationships with other documents (Atkinson and Coffey, 2004:66-67).

Intertextual analysis can be used to trace the progress of events, actions and processes. Documents may be written in order to refer to other, equivalent or hierarchically arranged, documents (e.g. strategic plans, policies, reports, curriculum plans, etc); so they are constructed and read as a part of a documentary domain of interlinked documents. Therefore, intertextual relationships can be explored to trace the dimensions of similarity and difference (between levels of a hierarchy of power or authority, between cases in the same organizational setting, and between either levels or cases progressively over time). The latter implies that documents can be used to construct sequences of decisions and their consequences. Documents can circulate and be exchanged partly because they are used to de-contextualise events (i.e. things are transformed by incorporating them into texts such that they become documentary realities (Atkinson and Coffey, 2004). An example is a report, which creates a new reality different from what really transpired and in many cases becomes a legitimate and powerful determinant of certain courses of action.

The central idea behind the hermeneutic approach to interpreting document-based data is that the analyst must seek to bring out the meanings of a text from the perspective of its author (Bryman, 2004:394). This means that the analyst must be fully conversant with or pay attention to the social and historical context within which the text was produced. The approach can follow these steps, or 'moments', a term used by Phillips and Brown (1993):

- Examination of the producer of the text, its intentional recipient, what it refers to, and the context in which the text is produced, transmitted and received;
- Examination of the constituent parts (using any of the several techniques, e.g. discourse analysis); and
- The synthesis of the results of the first two steps.

4.3 METHODOLOGICAL CONSIDERATIONS

This study being qualitative in approach, the research aims and questions outlined in 1.4 and 1.5 provided me with a frame for collecting data. Due to the fact that the study aimed at different things at the same time, each aim correspondingly guided choice in terms of settings, data sources and participants. Data collection procedures and data analyses were also slightly different.

4.3.1 Settings and Participants

From a cross-sectional design perspective (Bryman, 2004), data were collected from two principal levels of setting, that is, macro and meso levels. The macro-level consists of three sub-layers: (i) the national level represented by the Government of Rwanda, (ii) the sector level represented by the Ministry of Education and two other ministries, and (iii) the National Council for Higher Education, a government agency operating under the Ministry of Education. The meso-level is represented by the following tertiary learning institutions (TLIs).

- National University of Rwanda (NUR)
- Higher Institute of Agriculture & Animal Husbandry (ISAE)
- Kigali Health Institute (KHI)
- Kigali Institute of Science & Technology (KIST)

- Kigali Institute of Education (KIE)
- School of Finance & Banking (SFB)
- Umutara Polytechnic (UP)
- Institute of Legal Practice and Development (ILPD)
- Institute of Agriculture, Technology and Education of Kibungo (INATEK)

Apart from the last institution on the above list, the others are public. It is to be noted, however, that it was until 2008 that UP was assigned public status. So, in the data collection accounts of the period before 2008 UP is considered in this study as one of the two private TLIs. Due to the fact that the research process entailed collecting data on a number of cases from different settings, at different times, during a series of periods stretching over six years, the study was more longitudinal than cross-sectional. Therefore, the study process may be described as having involved a number of cases and having taken place across various spaces over time. Besides, a few data were collected at the micro level through questionnaire mini-surveys, informal conversations, personal/e-mail communication and unstructured observation, which involved teachers and students living and acting within their tertiary institutional contexts. Natural/unstructured observation was also done in classrooms, computer/multimedia labs and libraries. The details are summarized in Table 4.1 below.

Table 4.1: Research settings and participants across space over time

Panel Wave	*Period*	*Setting*	*Participants*
Retrospective	1996 - 2003	**MACRO-LEVEL** - Government of Rwanda (GOR) - Ministry of Education (MINEDUC) - Ministry of Finance and Economic Planning (MINECOFIN)	N/A
		MESO-LEVEL NUR, ISAE, KHI, KIST, SFB, KIE, INATEK (7)	N/A
I	2004 - 2006	**MACRO-LEVEL** - Government of Rwanda (GOR) - Ministry of Education (MINEDUC) - Ministry of Finance and Economic Planning (MINECOFIN)	N/A
		MESO-LEVEL NUR, ISAE, KHI, KIST, SFB, KIE, INATEK, UP (8)	N/A
		MICRO-LEVEL	Students; teachers
II	2007 - 2010	**MACRO-LEVEL** - Government of Rwanda (GOR) - Ministry of Education (MINEDUC) - National Council for Higher Education (NCHE) - Ministry of Public Service and Labour (MIFOTRA) - Ministry of Finance and Economic Planning (MINECOFIN)	N/A
		MESO-LEVEL NUR, KHI, KIST, ILPD (4)	N/A
		MICRO-LEVEL	Students; teachers

As shown in Table 4.1, the real panel study began, prospectively, in 2004 and ended in 2010. However, retrospectively, some policy and curriculum documents belonging to the period between 1996 and the beginning of data collection were collected and incorporated into the pool of emerging data between 2004 and 2010. At the meso-level, the number indicated in brackets after each list of TLIs means the total number of meso-level settings from which data were collected in each of the periods under consideration. In the column labelled 'Participants' *N/A* means not applicable, as the collection of documentary data did not involve participants except at the level of face to face interaction or electronic

communication between people working in the settings and I, when I had to collect the documents in person or request for them.

Most of the macro-level policy documents from the government and the Ministry of Education were collected during panel waves I and II while those from NCHE were incorporated during and after 2007. This is because the council was established in 2006 and it started availing its policy texts to the public domain in 2007. Also, policy and curriculum plans were collected across tertiary TLIs, both public and private. The number of TLIs involved in the data collection process varied between the two waves (see Table 4.1). Policy and curriculum documents authored between 1996 and 2004 were collected from seven TLIs. During panel wave I policy and curriculum documents were collected from eight TLIs (the last two in the list being private at that time), but during the second panel wave focus was reduced to three public TLIs. The fourth TLI, ILPD, was incorporated for the first time in 2010.

The focus on the three leading public TLIs (also see Table 1a) was based on preliminary document analyses which indicated that they were representative enough. The three TLIs (NUR, KHI and KIST) are some of the oldest and largest public TLIs in Rwanda. As NUR is a comprehensive university (see Table 1a) and the other two are 'specialist' institutes, their curricular orientations put together paints a representative curricular landscape for Rwandan tertiary education. Besides, real change in tertiary education is most evident after the introduction of the 2007 tertiary educational reform policies. With the older TLIs having longer traditions of educational practice and due to the TLIs' positioning as change pacesetters, there has been a tendency for the smaller and younger TLIs to emulate key responses to policy change from the bigger and older TLIs. Furthermore, it is a general observation that, given the legal framework within which Rwandan tertiary education operates, public TLIs' curricular practices are often reflected in private ones as a way gaining official recognition and accreditation.

The fourth TLI, the Institute of Legal Practice and Development (ILPD) first appears in panel wave II because it was only founded in 2008. It has been included in the research for three reasons: (i) its new entry into the Rwandan tertiary education mainstream arouses curiosity whether is embracing the new reform policies; (ii) its highly specialized and focused curricular orientation needs some analysis and commentary; and (iii) its lack of an academic literacy training agenda is a research concern. As such, the ILPD is not as visible as many others in the findings.

4.3.2 Data Collection

4.3.2.1 Documents as Data Sources

As highlighted earlier, documents constitute the largest portion of the textual data used in this study. The term 'documents' covers a range of different kinds of sources including personal, official and virtual documents as well as mass media outputs (Bryman, 2004). Although the data from documents are qualitative in nature, they can be analysed deductively or inductively. This study collected official documents from the macro and meso levels. Official documents offer researchers some advantages. For example, as long as they are accessible they can yield huge amounts of statistical and textual information which may be otherwise hard to get. Besides, they are likely to be authentic and meaningful – in the sense of clarity and comprehensibility to the researcher (Bryman, 2004).

Table 4.2: Text-based data collection and preparation procedures

Level and Context	*Primary Data Selected for Analysis*	*Quantity*
Government Level		
(a) Official documents from the Government of Rwanda (including those from ministries other than the Ministry of Education)		
GOVERNMENT OF RWANDA (GOR)	- Rwanda Vision 2020 (GOR, 2000a) - Rwanda National Information & Communications Infrastructure (NICI) Plan 2001-2005 (GOR, 2000b) - Economic Development & Poverty Reduction Strategy 2002-2005 (GOR, 2001) - Rwanda National ICT Policy (GOR, 2002) - Rwanda Millennium Development Goals (GOR, 2003) - Economic Development & Poverty Reduction Strategy 2008-2012 (GOR, 2007) - Achieving the Vision 2020 & the MDGs through Economic Development Goals (EDPRS) (GOR, n.d.) - Law Governing the Organisation and Functioning of Higher Education (GOR, 2005) - Law Governing the National Council of Higher Education (GOR, 2006) - National Skills Audit Report (GOR, 2009)	
	Total	**10**
Sector Level		
(b) Official documents from the Ministry of Education		
MINISTRY OF EDUCATION (MINEDUC)	- Education Sector Policy (Rwanda MINEDUC, 2002) - Education Sector Policy (Rwanda MINEDUC, 2003) - Rwanda Education Sector: Long-term Strategy and Financing Framework (Rwanda MINEDUC, 2006a) - Education Sector Strategic Plan 2006-2010 (Rwanda MINEDUC, 2006b) - EDPRS: Education Sector Self-Evaluation (Rwanda MINEDUC, 2006c) - Education Sector Strategic Plan 2008-2012 (Rwanda MINEDUC, 2008a) - Higher Education Policy (Rwanda MINEDUC, 2008b) - ICT in Education Policy (Rwanda MINEDUC, 2008c) - Education Sector Strategic Plan 2010-2015 (Rwanda MINEDUC, 2010a) - Education in Rwanda: Achievements 2003-2010 (Rwanda MINEDUC, 2010b) - Vision 2020: The Role of Education in the Realisation of Vision 2020 (n.d.)	
	Total	**11**
Council Level		
(c) Official documents from the National Council for Higher Education		
NATIONAL COUNCIL FOR HIGHER EDUCATION (NCHE)	- Rwandan National Qualifications Framework for Higher Education (Rwanda NCHE, 2007a) - Notes of Guidance: Programme Specification Form (Rwanda NCHE, 2007b) - Notes of Guidance: Module Description Form (Rwanda NCHE, 2007c) - General Academic Regulations (Rwanda NCHE, 2007d) - Procedures for the Validation of Modules and Programmes (Rwanda NCHE, 2007e) - National Learning, Teaching and Assessment Policy (Rwanda NCHE, 2007f) - National Policy on Language Teaching in Higher Education (Rwanda NCHE, 2007g)	

	- Personal Development Planning (Rwanda NCHE, 2007h) - National Student Support and Guidance Policy (Rwanda NCHE, 2007i) - National Equality and Diversity Policy for Higher Education (Rwanda NCHE, 2007j) - Code of Practice for Private Higher Education Institutions (Rwanda NCHE, 2007k) - Rwanda National Policy Framework for the Recognition, Accreditation, Institutional Audit and Subject Review in Higher Education (Rwanda NCHE, 2007l) - Code of Practice – Cross-border/Transnational Provision (Rwanda NCHE, n.d.) - Strategic Planning Guidelines for Public and Private Sector Higher Education Institutions (Rwanda NCHE, 2009) - Statistical Information on Higher Learning Institutions in Rwanda (Rwanda NCHE, 2010)	
	Total	**15**
Institutional Level		
(d) Official documents from tertiary learning institutions		
NUR	- National University of Rwanda Draft Strategic Plan 2004-2009 (NUR, 2004a) - A Web document stating the motto, vision and mission of NUR (NUR, 2007a) - A Web document stating the motto, vision and mission of NUR (NUR, 2009) - The National University of Rwanda Strategic Plan (NURSP) and Business Plan (NURBP) 2008-2012 (NUR, 2007b)	
ISAE	A Web document stating the vision, fundamental values, mission and strategic plan of ISAE (ISAE, 2009a)	
KHI	- Kigali Health Institute Strategic Plan 2007-2011 (KHI, 2007a) - A Web document stating the vision, objectives and mission of KHI (KHII, 2009b)	
KIST	- A Web document sating the vision and mission of KIST (KIST, 2009a) - KIST Action Plan July 2010- June 2012 (KIST, 2010)	
KIE	- Web document stating the vision, mission and objectives of KIE (KIE, 2009a)	
SFB	- A Web document stating the vision and mission of SFB (SFB, 2009a)	
UP	- A web document stating the vision and mission of UP (UP, 2009a)	
ILPD	- A web document stating the vision, mission and objectives of ILPD (ILPD, 2009b)	
	Total	**13**
(e) Official curriculum documents: English language programme plans		
NUR	See Table 4.3	
KHI	See Table 4.3	
KIST	See Table 4.3	
	Total	**13**
(f) Official curriculum documents: Transferable academic support skills module plans		
NUR	See Table 4.3	
KHI	See Table 4.3	
	Total	**3**
(g) Other Curriculum Documents		
	Course materials: The New Cambridge English Course	
	Course materials: English for Healthcare Professionals	
	ESP needs analysis workshop documents	

As shown in Table 4.2 above, various types of documents were collected from different levels and contexts. These are the ones selected for analyses. The third column, *quantity*, shows the number of documents selected to form each category from (a) to (g). However, the totals for documents in Group (g) are not indicated in the table. These documents are from *The New Cambridge English Course* materials – i.e. course books and their accessories – and texts retrieved from a workshop event on ESP needs analysis in one of the tertiary learning institutions. I found quantifying these documents unimportant because it is their main contents that matter to the study, not their number. For Groups (e) and (f) reference is made to Table 4.3 which contains more details about the documents, including their quantities.

4.3.2.2 Data for Academic Literacies Requested in Undergraduate Study

The aim was to identify academic literacies requested in undergraduate study and explain how these relate or are linked to the policy requirements and demands. Therefore, I decided to interrogate how these are articulated in policy making and planning at the macro level and, to a lesser extent, at the meso level, both of which have influenced change in the requirements and demands for academic literacies in tertiary education. In order to keep the variety and change dynamics in focus, which is important in cross-sectional and longitudinal studies, respectively (Bollen and Curran, 2006; Bryman, 2004; Ployhart and Vandenberg, 2010; Singer and Willet, 2003), the collection of documents was done across different layers of the macro-level and across various tertiary learning institutions within three time frames (i.e. panel waves), as shown in Table 4.1 above and further explained below. The documents collected from the macro level consisted of policy documents, strategic planning documents and reports. These were supplemented with documents enshrining the learning institutions' visions, missions, values and broad educational aims, as well as a few strategic planning documents. In the context of the study I loosely refer to the discourses contained in all these texts as *policies*, hence the usage of *policy document(s)* at some points in the thesis, without separating the *policy*, *plan* or *report* attributes. The documents are all pre-authored official texts written in English. Also, they were originally print (thus personally collected from the sources) or virtual. The latter were in the form of either embedded web pages or downloadable attachments before I downloaded, printed and filed them for coding and analysis.

4.3.2.3 Data for Curricular Approaches and Strategies for Scaffolding Academic Literacies Acquisition

The aim was to explore approaches and strategies used by tertiary learning institutions to develop and embed curricula for supporting the acquisition of academic literacies across tertiary institutions, in response to the changing literacy requirements and demands in undergraduate study in present-day Rwanda. Two types of curriculum documents were collected, and these were: (a) language and literacy programme and module/course plans; and (b) language/literacy instructional materials. As was the case with the collection of policy documents, curriculum documents were collected both in person and from the relevant web sites. Plans of whole literacy and/or language programmes (i.e. separate modules or courses in one programme bloc) and individual modules/courses made up an important pool of textual data particularly for the construction of Chapter 6. The curriculum documents indicated in Table 4.3 below are only those that were selected for analysis.

Table 4.3: Language and literacy curriculum plans selected across three public tertiary learning institutions

Institution	*Type and Level of Curriculum Plan*	*Year/Period in Operation*	*Number of Documents*
NUR	ESP course I (NCEC)	1996-2010	1
	ESP course II (ESWP)	1998-2007	1
	English language programme I	1996-2006	1
	English language programme II	2007-2010	1
	Module I: Transferable academic support skills	2008	1
	Module II: Transferable academic support skills	2008	1
		Subtotal	**6**
KHI	English language programme I	1997-2007	1
	English language programme II	2007-2010	1
	ESP course I (NCEC)	1997-2010	1
	ESP/Communication Skills module	2007-2010	1
	ESP course II	2008-2010	1
		Subtotal	**5**
KIST	English language programme I	1998-2007	1
	English language programme II	2007-2008	1
	English language programme III	2009-2010	1
	ESP course I (NCEC)	1998-2009	1
		Subtotal	**4**
		TOTAL	**15**

As shown in Table 4.3, the curriculum plans selected for analysis ranged from full programmes to individual modules or courses (depending on the terminology applied at a given time). The use of the New Cambridge English Course (NCEC) course books and other materials has been sustained throughout the public learning institutions since the late 1990s, so this is why the 'period in operation' featured is the one between 1996 and 2010 for NUR, between 1997 and 2010 for KHI and between 1998 and 2009 for KIST. The English for Speaking and Writing Purposes (ESWP) course has been specifically offered at NUR (and adopted/adapted in some private TLIs) as an institution-wide language course for academic support in year-one, but from the time the new language teaching policy in tertiary education was introduced in 2007 the course started disappearing from some departments' curriculum outlines. The English language programmes have been changing over time in the three institutions represented in Table 4.3. NUR was the earliest to have an English language programme in place in 1996 because the other two institutions were founded either in 1996 or later – KHI in 1996 and KIST in 1997.

The collection of language and literacy curriculum plans afforded a rich resource of curriculum discourse on what has been going on in TLIs in response to the changing policies at the macro level, especially as from 2007. Furthermore, course materials for two separate language and literacy programmes were collected. Materials for the New Cambridge English Course (NCEC) were gathered so that they could be analysed in order to identify academic language and other literacies articulated in the programme package (see 6.5.5). Since the NCEC is a ready-made, commercial course package I did not need to collect its materials from different TLIs. Another course package, an academic and professional English

programme for undergraduates training to become healthcare professionals, was examined – but this time in situ – from the department library where the materials were kept.

In addition to these data, assorted texts documenting a workshop event on ESP needs analysis at one of the learning institutions were collected. These documents include a workshop plan, lesson samples for participant observation purposes (i.e. the trainers cum course designers co-taught with teachers in order to collect data for analysing the ESP needs in the context. The texts were supplemented with a few newspaper articles, personal communication and informal conversations to add an element of other people's viewpoints as contextualised in the curriculum process.

4.3.2.4 Data for ICT Integration to Scaffold Academic Literacies Acquisition

The aim here is to examine how technology has been integrated by tertiary learning institutions in order to support the acquisition of academic literacies in undergraduate study. Since different aspects of ICT integration were to be investigated, different methods of data collection needed to be employed. The use of policy and curriculum documents as a source of data described in 4.3.2.2 and 4.3.2.3 above also concerns this part of the study. Apart from the general macro policy documents that articulate policy on ICT in education, such as Rwanda Vision 2020 and Rwanda Economic Development and Poverty Reduction Strategy plans, macro policy documents specifically articulating policy and planning for ICT integration into education were collected, and they include: the National Information and Communications Infrastructure (NICI) plans; and the ICT in Education Policy. Policy documents at the meso level were also investigated to find out how public tertiary learning institutions articulated the integration of ICT in teaching and learning; KIST, NUR and KHI were used as representative examples of institutions where the ICT policy is established. In addition to these policy documents, curricular provisions of ICT training in the three institutions were examined, as ICT education is crucially integral to ICT awareness, acceptance and integration (Venkatesh, et al., 2003).

In order to examine ICT awareness at micro level, the textual data described above were supplemented with data from two questionnaire mini-surveys, conducted in four separate institutions at different times. In 2006 a total of six teachers (T) and a total of 20 students (S) from three different institutions (TLIs) participated in a questionnaire mini-survey. Initially, the survey had a focus particularly on reading and writing as academic literacy with a small component on the use of ICT, so there is much of the data that cannot fit with the revised research aim and question in focus. For that reason only the most relevant questionnaire items have been considered for analysis in the present thesis. It was a self-completion questionnaire, so the participants were asked to tick from a list of items representing technologies (e.g. internet, computer, video, etc) that they used in teaching or learning how to read and write in English. In addition, in an open question they were asked to list down any other technologies they might have been using but were not on the questionnaire list.

In a separate but related questionnaire survey one year later (see Appendix II). Due to the fact that the third aim and research question of the present study focus especially on macro and meso levels of ICT-oriented scaffolding, on some of the data this survey have been used in this thesis (see 7.4). The focus on the 2007 survey was especially on academic reading and writing among students in healthcare training. So, data collection was carried out in only one learning institution from the three which had participated in 2006. The purpose was to investigate teachers' and students' awareness of ICT as well as their access to it and use of it

in the context of ESP for the medical/healthcare career, with a special focus on reading and writing. A total of ten teachers (T10) and a total of 20 students (20S) participated in the survey. As far as ICT awareness is concerned, respondents were asked an open question which went like this: "For you, what is ICT?" In order to find out about the issue of teachers' and students' access and use of ICT, the same questionnaire asked the same respondents to choose from six items that described their use of the internet. Next, the respondents were asked (in an open question) which online facilities they had been utilizing particularly for reading and writing in English for Specific Purposes (ESP). After these questions the respondents were asked an open question, "If there are other purposes for which you use the Internet, describe briefly below which online facilities you have been utilizing for reading/writing."

As far as structure and procedure are concerned, the first and second questionnaire surveys were similar in many respects, except that they were conducted in a slightly different environment and on different subjects. Respondents were English language teachers and students in a healthcare training context. The questionnaire began with a general instruction guiding respondents how to fill it out and ended with my address. Two types of questionnaires were designed – one for English language teachers and another for students. The questionnaires look almost similar, differing only in the verb 'to teach' or 'to learn'. After going through the routine protocol with the institutional administration, I personally visited the English department (as the programme coordinating department) in each of the institutions where I could meet my informants. Normally the department head or any deputised staff member would take me through the procedures of getting introduced to both teachers and students. It is during the introductions that I would explain to the audience my purpose and what the survey was all about, and invite them to ask questions about what they could not understand from the questionnaires. In the three institutions, I distributed the teachers' questionnaire to all the concerned teachers I could get on spot and requested the department head to distribute other questionnaires to teachers who were absent. The head or his/her deputy would then take me to classrooms so that I meet students. I would then ask volunteers to come forward and pick the questionnaire. Usually I would allow the respondents a few days (up to about one week) to fill out the questionnaires and return them to me through the class leader (in case of students) or through the department head (in case of teachers or sometimes in the case of both teachers and students). Then, I would personally collect the questionnaire. All the questionnaires were returned. The questionnaires were anonymous, but when I distributed them I asked respondents to indicate their institution's as well as their name and year of study. All the questionnaires were returned in both mini-surveys.

4.3.3 Data Analysis

The data analysis processes elaborated in this subsection concern primarily the data derived from official documents described in the previous section. In addition, the analysis procedures concerning data derived from questionnaires are described. A content analysis approach based on inductive data moves from the specific to the general, so that particular instances are observed and then combined into a larger whole or general statement (Chinn and Kramer, 1999). The content analysis process involves three phases: preparation, organisation (i.e. inductive/open coding) and reporting of the results.

4.3.3.1 Data Derived from Documents: Qualitative Content Analysis

Usually, the preparation phase in inductive content analysis starts with selecting the unit of analysis (McCain, 1988; Cavanagh, 1997; Guthrie, et al., 2004), which can be a word or a theme (Polit and Beck, 2004), a sentence or portion of pages (Robson, 1993; Polit and Beck, 2004), or a larger portion of text that can be used as a context for meaning unit during the analysis process (Graneheim and Lundman, 2004). Deciding on what to analyse in what detail and sampling considerations are important factors before selecting the unit of analysis (Cavanagh, 1997), and when starting the analysis the researcher must also decide whether to analyse only the manifest content or the latent content as well. The second, 'organisation', phase includes open coding, as contrasted with developing structured analysis matrices in deductive coding (Elo and Kyngas, 2008). It also involves creating categories and abstraction.

After the initial collection in 2004, the documents were pooled together, sorted and assigned to groups from (a) onwards, as shown in Table 4.2. The labels put on these groups are close to the generic names normally attributed to the document types, e.g. *policy document*, or *curriculum plan*, and so forth. Then, they were filed according to the assigned group codes. As more and more documents emerged afterwards, they were slotted into the existing group files up to the end of data collection. If the emerging documents did not fit in any of the existing group files, a new group was formed and a new file was opened for them. Thus, by the end of the data collection exercise seve group files were in place for this purpose. The group file names are presented in italics in Table 4.2, and each group has been given a code. Besides using the file codes, the types and group labels plus titles of the documents contained in each of the files were all recorded on the computer (i.e. as MS Word documents) for easy retrieval. However, documents were so many that not all of them could be analysed for the results presented in the present thesis. This called for preliminary analyses of what was to be finally analysed for inclusion in the results.

So, in an attempt to wisely select documents that could yield data relevant to my study in an organized and systematic manner, I frequently went back to my research aims and questions, and then re-examined the documents in light of which aim to achieve and which question to address. For example, my first question (which tallies with my first aim) guided me to decide that policy discourse from the macro-level and meso-level stakeholders articulated academic or workplace requirements and demands that necessitated graduates to possess certain literacies. Therefore, by re-examining the documents, I managed to select and reorganize them into more elaborate groups and subgroups using the criteria of (1) level of the setting from which they were collected; (2) type of documents they were (e.g. policy documents from government, or curriculum documents or private documents); and (3) the individuality of each document as a unit of analysis. Besides, one other aspect of coding the documents was to upgrade them to citable documents for both in-text and references section citation. For that purpose they have been accordingly dated as they appear in the lists in Table 4.2.

The analysis process proceeded according to which research question and aim was being addressed, and it involved reading through the texts several times and trying to make sense of the data and to learn what is going on (Morse and Field, 1995), as well as to obtain a sense of the whole (Tesch, 1990). As far as identifying the academic literacies requested of undergraduates is concerned, certain constituent parts of the 'policy documents' referred to earlier were focused. These included document titles (in which the overarching topic or theme is represented explicitly or implicitly), tables of contents (from which relevant portions

of the whole documents could be selected), headings and subheadings, prefaces or executive summaries, and so forth. A case in point regards the policy documents from the National Council for Higher Education (NCHE), whose titles and in-text contents frequently spell out the skills, competences and attributes currently demanded of on-going tertiary students and graduates – although these hardly come in the form of straightforward academic literacy categories corresponding to the broad typology discussed in 2.4. Another example is the Government's vision, aspirations, goals and plans for development which position tertiary students and graduates as knowledgeable or skilled human resource. This also applied to the textual data based on policy documents which was used to inductively create thematic labels for the part of the study dealing with ICT integration. However, while it has been fairly easy to locate words, phrases, sentences and larger texts for units of meaning and analysis, it has been quite difficult to do so in some cases.

One example is the term 'academic literacy'. Neither this word group nor the single word 'literacy' alone is explicitly written in the policy documents. So, when the documents were thoroughly read, parts of the texts were selected if they stated meaning that could be assigned or related to an identified category/type of literacy. However, it is difficult to glean such inferences by randomly and intensively reading every programme or module plan. So, the main constituent parts of the plans provided a helpful framework for analysis of the requested types of academic and professional language. An example is when curriculum plans were the data derived from language and literacy course and module plans or their parts to be able to explore the approaches and strategies adopted by tertiary learning institutions for academic literacies education. It is especially from their salient constituent parts that thematic labels reflecting the approaches/strategies were drawn. These programme or module parts include: (i) description (e.g. title, level of instruction, structure, length and pacing/sequencing), (ii) instructional aims, (iii) targeted outcomes, (iv) indicative content (e.g. subject matter planned to be covered; planned learning, teaching and assessment activities/tasks). The empirical chapters in the thesis elucidate how new thematic labels were created inductively.

Regarding the analysis of data derived from instructional materials, which are another type of curriculum documents, the materials (e.g. ESP course books and other textbooks used in the course or programme) were selected, and focus was put on analysing such features as the title of the book, target audience, instructional purpose, language or literacy focus and indicative content (e.g. planned learning activities).

The selected text parts of policy and curriculum documents were marked using a highlighter, and words or phrases (in the form of headings or subheadings) referring or relating to the emerging subthemes were written down in the margins to describe the aspects of the content (Burnard, 1991, 1996; Hsieh and Shannon, 2005). The headings and subheadings collected from the margins were used to generate categories. From this stage, the category lists were grouped under higher order headings (e.g. main theme or category). An example of a main theme is 'academic language literacy'. This can subsume several generic themes such as 'academic writing', 'academic reading', and so on. Then, each of these generic categories can in turn subsume several subcategories such as 'essay writing', 'dissertation writing', 'report writing', and so forth – in the case of academic writing. The aim of grouping these categories was twofold: (i) to reduce the number of categories by collapsing those that are similar or dissimilar into broader categories (Burnard, 1992; Dey, 1993); and (ii) to classify data as belonging to a particular group, which implies a comparison between these data and other observations that do not belong to the same category (Dey, 1993). This also involved coming to a decision, through interpretation, as to which things to put in the same category (Dey,

1993). From this stage, the categories were used to formulate a general description of the research topic represented in each research question and aim.

A characteristic pattern of incorporating original texts into the thesis chapters have been: (a) transforming them into my own text while retaining as much of their original messages as possible through synthesis, paraphrasing and summarizing; (b) outlining their meanings by non-linearly representing them using tables and figures; and (c) copying verbatim selected texts into my own text so as to add authors' 'voice' and thus validate my interpretations. For relatively long texts ranging from few lines to paragraphs or paragraph segments, I have preferred to use a different font type (Courier New, size 10) from that used in the main thesis text (Times New Roman, size 12) in order to distinguish the data texts from ordinary quotations (Times New Roman, size 11). The latter are either quoted inside the main thesis text with inverted commas (if they are short) and as reduced and indented font (if they are longer that one sentence). According to Berg (2001), when the voice of the authors of the texts is included in the results, the perspectives of the producers of the texts can be better understood.

4.3.3.2 Data Derived from Questionnaires

As pointed out earlier in the data collection section above, some data from two questionnaire mini-surveys conducted at different times were incorporated into the study's mainstream data (i.e. textual data) to enhance the construction and elaboration of themes describing the situation of ICT integration into tertiary education for supporting academic literacies development (see Appendix II). As soon as the self-administered questionnaires were returned, they were first grouped and filed as students' and teachers' questionnaires before they were assigned codes. A simple coding system was used since the respondents were relatively few and thus the data were not extensive. Each institution was assigned a letter code thus: A, B, C, and so on. Then, each questionnaire was assigned a sample name using further letter codes – i.e. SS to denote 'student sample' and TS to denote 'teacher's sample'. Then, parts of the questionnaire responses were selected for analysis on the basis of which theme in the results was being reinforced. It is from these main codes that assigning codes to individual respondents moved on. For example, a respondent coded as QICTS2M would be easily identified during analysis, whereby the letter 'Q' stands for 'questionnaire data', ICT is self-explanatory, the letter 'S' denotes 'student', figure/number '2' means the students' serial number on my list, and letter 'M' stands for 'male' – as compared to 'female' (F) used elsewhere employed in this context. .

The analysed data from questionnaires were both qualitative and quantitative. The qualitative data were generated from open questions, while the quantitative data were statistically prepared (using tables) from closed questions. Both the quantitative and qualitative data were qualitatively analysed in line with the research aim and question. Therefore, they were used to elaborate the relationship between ICT awareness and ICT integration, and to relate students' and teachers' access to and use of ICT with learners' acquisition of academic literacies.

4.4 ETHICAL CONSIDERATIONS

According to Bryman (2004), ethical issues can arise at a variety of stages in the course of conducting research. The major sources of data used for generating results in the present thesis were readily available texts some of which were availed for public consumption on

institutional web sites, in the media or otherwise accessible for physical collection by visiting the setting. The only private texts were e-mails from two teachers. Other data collection activities that involved participants were the questionnaire mini-surveys. In the case of such documents as the ones collected for this my research, it is widely believed that ethical issues are not likely to arise because the researcher does not deal with other human beings. For example, citing Max Weber's research conducted in 1946, Silverman (2001:54) claims that "Weber was fortunate in that much of his empirical research was based on documents and texts that were already in the public sphere." However, even in such a research method as qualitative content analysis at least the broad ethical concerns and principles that guide research must be taken into consideration.

To begin with, as I embarked on the research process the research literature on ethical principles in social research (e.g. Bryman, 2004; Kvale, 1996; Mason, 1996; Merriam, 1998; Silverman, 2001) was reviewed. Also the Swedish Council for Research in the Humanities and Social Sciences (HSFR) [1990] was consulted. It is true that regarding the collection and use of textual data collected or sent to me electronically I did not have to personally meet the people I collected the documents from. Typically in the case of downloading documents online I did not have to meet any of the documents' authors. Nevertheless, I had to first consider the purpose of my study (which was purely educational) and the individuals who are likely to be interested or affected by my research results (Mason, 1996). When I exchanged e-mail communication with my correspondents I had to explain the purpose of my need for the solicited information and of my research, as well as the restricted and confidential use of the participants' identity. I have kept my promise by keeping confidential the identities of students and teachers who participated in the questionnaire mini-surveys used in this study.
Also, in this context I have used masking (with 'XXX') to hide the identity of a third party referred to by a correspondent in written personal communication. As regards identities of institutions which were visited or from which data were collected, it has been inevitable to disclose their identity particularly because the research method used necessitates the disclosure of sources both inside the main thesis text and in the 'references' section. Apart from the aforementioned, most other ethical principles applied in my research process, especially where I had to interact with people. They are explained below.

Voluntary participation and informed consent: In all cases of my data collection which entailed contact (including electronic) with people, the latter were adults and of sound mind. More importantly, I explained to them the purpose of my research and what participating in it entailed. During the first phase of my fieldwork, my entry would be preceded by a letter soliciting consented participation from potential informants (e.g. students and teachers) (see Appendix I). I would take the letter in person and distribute it to the targeted participants – often through the departmental administration.

Ethical approval and negotiation of entry: Before I embarked on my field work I had to get official permission from management at my teaching institution. Upon arrival at the setting to be investigated, I could go through the formalities of contacting the institutional authorities such as the Office of the Rector or Vice-Rector, the dean's or department head's office before I could be allowed to access curriculum documents or meet staff and students. The institutional authorities could then give me written permission to freely interact with the participants, although in some institutions I did not have to go through much protocol. The aforementioned was followed up with verbal interaction with the participants wherever it was possible. On such occasions, then, I would explain to them the purpose of my study and ask for their cooperation.

4.5 QUALITY CONSIDERATIONS

Whereas validity, reliability and objectivity are criteria used to evaluate the quality of quantitative research, qualitative content analysis as an interpretive method differs from the positivist tradition in its fundamental assumptions, research purposes, inference processes, and so on, thus making the conventional quantitative criteria unsuitable for judging its research results (Bradley, 1993). Apparently in recognition of this rift Lincoln and Guba (1985) proposed the four criteria of: credibility, transferability, dependability and confirmability. It is these criteria that I use to gauge the trustworthiness of my research below, particularly in relation to qualitative content analysis as the primary methodology for this study.

Credibility: Credibility stresses multiple accounts of social reality, so the level of credibility in a researcher's account in relation to other accounts will determine how acceptable it is going to be to other people in the same discourse community. Bradley (1993:436) refers to credibility as "adequate representation of the constructions of the social world under study." In order to improve the credibility of my findings I have (a) used a variety of documentary data and supplemented them with questionnaire data and personal communication (hence triangulation), (b) been informed by data from various spatial and temporal settings over a relatively long period of time (c) often checked my interpretations against raw data.

Transferability: Transferability which is being compared to generalizability or external validity in quantitative research has to do with rendering the research results applicable to another context. Since the latter may be enabled by a detailed description of the research process, I believe I have met this criterion in my thesis. Moreover, based on how much I know about the social situation under study the social reality my results are able to portray is generally applicable to most, if not all, tertiary learning institutions in Rwanda.

Dependability: Bradley (1993:437) refers to dependability as "the coherence of the internal process and the way the researcher accounts for changing conditions in the phenomena." This criterion of trustworthiness demands ensuring that complete records are kept for all phases of the research process in an accessible manner. These include problem formulation, selection of participants and setting, fieldwork notes, interview or video transcripts, and data analysis decisions. Since my research has more to do with documents, dependability is almost guaranteed because the files where I have been keeping these documents are intact. Furthermore, many of the documents can be retrieved both physically and electronically from their original sources.

Confirmability: This is concerned with ensuring that, while recognising that complete objectivity is impossible in social research, it should be apparent that the researcher has not overtly allowed personal values or theoretical inclinations to manifestly govern how the research was conducted and findings have derived from it. Therefore, the results should be confirmable by other researchers and others who read or review the research results. Although I have not been able to use the 'confirmability audit' technique – as recommended by Lincolns and Guba (1985) – the detailed documentation of my data handling can provide the means for confirmability checking.

4.6 METHODOLOGICAL REFLECTIONS

In spite of a generally successful research process, from my point of view, there were some challenges to contend with. One of them has to do with authorial bias. As Bryman (2004:387) says, caution is necessary in attempting to treat some documents as depictions of reality, as "[p]eople who write documents are likely to have a particular point of view that they want to get across." Therefore, documents cannot be regarded as providing objective accounts of a state of affairs. This implies that they need to be interrogated and examined in the context of other sources of data. This may be considered as a limitation to my study because my circumstances could not allow me to use as many other data sources as might be desirable. Besides, documents can give less accounts of the reality. For instance, some of the curriculum plans used in the study might have told much less on paper than what was really happening in the teaching-learning context.

Another challenge is about the educational context of the study which is in flux. The changes in Rwandan tertiary education for the past half a decade or so have been so fast that keeping good track of them at times necessitated me to revise and re-focus my research direction. This can be frustrating especially when substantial data are overtaken by events and become outdated within a short time.

A sticky issue for me in the whole research process was distancing myself from the context I was all too familiar with and keeping the problem of personal bias to the minimum. As described earlier, I have been a teacher in the educational context where I conducted my research. So, it is very easy to get 'fossilised' perceptions of realities in a setting one has stayed in for a relatively long time. There are certain things you grow not to see and others you see through perspectives skewed by personal biases developed over time. In order to contain these issues so that they did not pollute my research significantly I used two strategies. One, after some preliminary data collection at my institution during the first panel wave (i.e. 2004-2006) I decided to get away from my institution as much as possible. Thus, I got interested in documentary and other data from other tertiary learning institutions. In fact, during the second phase much of the data I collected on curriculum discourses were from other institutions distances away from my own. So, while I was conducting research in other contexts than my own immediate institution I would adopt an etic (i.e. outsider) perspective. Two, I used what I may call a 'blind spot strategy', that is, keeping myself as ignorant as possible of my experiential knowledge about the social context and the phenomenon of my investigation until analysis time.

Chapter 5 ACADEMIC LITERACIES REQUESTED IN RWANDAN TERTIARY EDUCATION

5.1 INTRODUCTION

A particular concern in this chapter is with the academic literacy needs of undergraduate students in Rwandan tertiary learning institutions. Typically, these students' oral proficiency in *English as a Second/Foreign Language* (ESL/EFL) has developed satisfactorily to enable them to cope with the day-to-day requirements of 'getting around' and surviving in campus life, but they continue to grapple with the foreign language and literacy demands of academic study across the tertiary curriculum. The majority of students entering Rwandan tertiary today are young adults who represent a rather heterogeneous group, as far as language background is concerned. The historical, political and social events that led to Rwanda's adoption of English as another foreign language (besides French) and later as the exclusive medium of instruction and official communication have been explained in detail in Chapter 1. It is against this background that some students come from family and school settings where either French or English has been the dominant foreign language. Besides, most teachers at all levels of education in the country are Francophones and so can teach in English problematically. Hence, clearly French has far deeper roots in the socio-linguistic environment than English. Nonetheless, before the students enter tertiary education the students are exposed to English as a curriculum subject from the Elementary level through to high school, and some of them specialise in language and arts subjects before enrolling in tertiary education.

The demands that students who are both learners of a foreign language and users of the language for learning face are not unique to the Rwandan context but universal if considered under similar circumstances, and these have long been acknowledged (e.g. Cummins, 2000; Gibbons, 2002). However, with the establishment of the National Council for Higher Education (NCHE) in 2006 and the subsequent reform policies in Rwanda's tertiary education subsystem, the students' new English language needs are subsumed under the umbrella of broader concerns with 'academic literacies' education (Lea, 2006; Lea and Street, 1998, 2006; The New London Group, 1996) demanded by the 'new' learning articulated in the reform policies.

The broad aim in this chapter is to articulate and promote an enhanced understanding of the academic literacies requested of students undertaking undergraduate study in Rwandan tertiary institutions, which is in keeping with my first research question "What academic literacies are requested in undergraduate study over time, and what reasons are behind this?" In order to achieve this aim, the chapter also aims to achieve the following objectives:

- Explain how national development goals, aspirations and priorities have influenced change in macro and meso educational policies over time, leading to the changing requirements and demands for academic literacies in undergraduate study;
- Critically analyse key policy reforms in Rwandan tertiary education that are related to the academic literacies requested of undergraduate students; and
- Examine policy changes in tertiary language-in-education policy and their implications for new English language literacy curricula and pedagogy.

Data have been drawn from written policies, plans and reports articulating national development aspirations, goals and priorities, which include official documents from the Government, the Ministry of Education (MINEDUC) and the National Council for Higher Education (NCHE).

5.2 REFORM POLICIES AND TRANSFERABLE ACADEMIC LITERACIES

5.2.1 Policy Reform between 1995 and 2007

The focus of Rwanda's higher education during the period between 1995 and 2007 was not only the reconstruction and expansion of the tertiary education infrastructure but also on redressing the previously existing policies which limited access to higher education. One of these policies was the quota system based on ethnic or regional affiliation, which led to tertiary education being a privilege of the few elite. As a result, enrolment rates had been low. Furthermore, few female students went up to tertiary level. Moreover, modelled on colonial higher education, Rwanda's tertiary education was still dominated by an arts and social sciences curriculum, with poor enrolments in the hard sciences and an exclusively theoretical focus (Rwanda MINEDUC, 2008b). This study outlines the focal point of the policies as follows:

- Increased access;
- Promotion of female students' education;
- Promotion of science and technology education, with a special emphasis on ICT;
- Investment in the quantity and quality of teachers, classrooms and teaching/learning resources; and
- Commitment to international development targets in education, e.g. UN Millennium Goals (UNMDGs), Education for All (EFA).

The policies mentioned above were influenced by macro development policies and strategies at the national level. A quick review of Rwanda's roadmap to national development, the Vision 2020, reveals a rather ambitious development plan. By the year 2020, Rwanda hopes to: be a middle-income country (i.e. per capita GDP of USD 900); develop a knowledge-based economy with a strong base of industry and services; reduce the country's reliance on foreign aid; and dramatically lower the poverty line. One of the vision's pillars is human resource development, and it targets science and technology (especially ICT) as the engine that will accelerate economic growth and development. The implications the vision has for tertiary education is that if Rwanda has to achieve these goals, a dramatic increase in the number of Rwandans who are trained professionals is required. Therefore, with full political will and commitment as well as policy support on the part of the Government of Rwanda and her development partners, Rwanda has embarked on a major effort to develop its human capital through education. One of a number of ways towards that effort is Rwanda's increased focus on developing her intellectual capital by improving the quantity and quality of tertiary education.

The new concern with 'science and technological education' implies a focus on new literacies, foregrounding the importance of technological and information literacies and signalling a move towards integrating technical and vocational elements into tertiary education. The policy reform also highlights the need for an output-oriented approach to tertiary education that was bound to bring a shift in the demands for tertiary academic

literacies. Therefore, in its Education Sector Policy of 2003, Rwanda's Ministry of Education (MINEDUC) observes that "There is an urgent need to balance access, quality and relevance with a special emphasis on a curriculum which is output oriented and offering skills and values necessary for development [underlining mine for emphasis]" (Rwanda MINEDUC, 2003:8). In its Education Sector Strategic Plan of 2006, the MINEDUC states the overall objective of higher education as being "To develop the higher education sector in order to meet manpower needs for social and economic development [underlining mine for emphasis] (Rwanda MINEDUC, 2006b:72). The above quotations reflect the human resource development ambition of Rwanda's Vision 2020 and the policy reform period from 1995 to the mid-2000s which focused on such issues as access to education by all citizens without discrimination, the role of education being to train skilled manpower especially to address the skilled labour force issue in post-genocide Rwanda. The stress on an output oriented curriculum, skills and values foreshadows the adoption of the Bologna Process and related reform policies introduced by the National Council for Higher Education in 2007.

5.2.2 Policy Reform from 2007

As elaborated in Chapter 1, much was achieved by Rwanda's higher education during the first post-genocide decade, e.g. increased enrolments and a number of new tertiary learning institutions. But with the formulation of a policy specific to higher education in 2008, the first one of its kind in the country, there was a slight change in focus, as the then Minister of Education states in the foreword section of the 2008 policy document: "Since 1994…[m]uch has been achieved but now we have to focus on establishing quality within our education system. We must produce graduates that are fit for purpose and internationally credible" (Rwanda MINEDUC, 2008b:2). The minister's statement clearly echoes not only the values of the Bologna Process, but a general globalising and internationalising movement in higher education the world over. The movement's particular focus on skills training for the labour market has enhanced the demand for the 21st century literacies (NCREL-Metiri Group, 2003; PPRC, 2010; Scottish Government, 2009; Yorke, 2005; Yorke and Knight, 2006). The international credibility aspect in the statement foregrounds the pressure on Rwandan tertiary education to become part of the internationalization of higher education campaign of the 21st Century.

Before the Rwandan *Higher Education Policy* came into being and before NCHE's policies and initiatives came into force, policy on higher education could only be articulated indirectly through the overall Ministry of Education sector policies and strategic plans. It is due to this reason that not much which implies tertiary academic literacy needs can be gleaned out of the available documents prior to the NCHE policies and Higher Education Policy. Linking itself to Vision 2020, the new policy articulates that human resource development and a knowledge-based economy:

> … requires a higher education system that produces graduates that are creative, eager to continually absorb new knowledge and learn new skills, and are equipped to achieve their potential in a continuingly changing world and are confident to do so. It also requires graduates that have enterprising skills and are entrepreneurial and are able to take on new challenges and seize new opportunities [underlining mine for emphasis] (Rwanda MINEDUC, 2008b:9).

By articulating the underlined words, the policy clearly aligns academic literacy needs in Rwanda's tertiary education with the 21st century literacies. In the same vein, the vision for higher education is stated in the new policy as being:

> To build a world class, higher education system underpinning Vision 2020 by supporting the development of a dynamic, entrepreneurial and internationally competitive Rwanda, through the production of a skilled and educated graduate workforce and the carrying out of research, innovation and knowledge transfer to meet the needs of the economy and enhance the quality of life for all [underlining mine for emphasis] (Rwanda MINEDUC, 2008b:17).

The wording of higher education's mission is not very different from that of its vision. The 'vision' and 'mission' of higher education expressed thus articulates well the subsector's role in the process of making Rwanda's Vision 2020 materialise. Also, the new output-oriented curricular and pedagogical foci of Rwandan tertiary education (see the underlined words in the quotations) are clearly to produce graduates who are not only highly skilled as an end in itself but who are employable, professionally competent, entrepreneurially competitive and capable of life-long learning. This correspondingly requires students' development of academic literacies related to being a graduate, employable, and enterprising (Cottrell, 2001; Hillage and Pollard, 1998; King's-Warwick Project, 2010).

Still at the macro level, the call for attention to academic literacies education is more explicit in the *Education Sector Strategic Plan 2010-2015* (Rwanda MINEDUC, 2010a:26). In recognition that discrepancies exist between local graduates' employability skills and the employers' requirements as well as the challenging demands of the world of work, the Ministry of Education draws on evidence from its studies carried out in 2009 and from the experiences of other contexts to remark that "employers value highly good skills in communication, problem solving, teamwork, creative and critical thinking, and an understanding of how businesses work". To this list 'independent thinking', which is close to 'autonomy', is added, and the following terms are used to describe these literacies: 'generic skills', 'generic/general business skills', 'transferable skills', 'skills for employment', and 'catalytic skills'. The plan proposes that these skills may be learnt during general education (for example, in Upper-secondary schools) or as a key component of the tertiary curriculum.

The key policy objectives of higher education reflect the vision and corresponding strategies to achieve them, and these are reflected in the policy discourses of individual public tertiary learning institutions as well as in NCHE policies discussed below. A good example of a tertiary learning institution which has transformed its visions and missions to align with those of the higher education sector is the National University of Rwanda (NUR). So, whereas NUR's vision of 2004 stated that the institution wanted "to become a bilingual and regional University of excellence based on solid IT supported education and problem-oriented research leading the peaceful, democratic and gender-balanced transformation of urban and rural society [underlining mine for emphasis]" (National University of Rwanda (NUR), 2004a:23), its vision of late 2007 was written in the language close to that of the Higher Education Policy thus: "To become an innovative, world class and self sustainable university that is responsive to national, regional and global challenges [underlining mine for emphasis]" (NUR, 2007b:12).

The NUR's mission similarly changed from:

> … a commitment to Teaching, Research, and Community Service…committed to bringing about a knowledgeable and gender-balanced society built on sound citizenship and life-long learning skills; building a comprehensive research capacity and promoting knowledge generation; and developing strong community-oriented academic research programs in all fields of study [underlining mine for emphasis] (NUR, 2004a:24)

to:

> To generate and disseminate high-quality, multidisciplinary knowledge and promote effective research, skills training and community service for national competitiveness and sustainable socio-economic development [underlining mine for emphasis]" (NUR, 2007b:12).

Thus, NUR's policy focus relates to the national policy focus during the period from the late 1990s to the mid-2000s which was characterised by Rwanda's focus on social, economic and political policy reform to address such pressing issues as national reconciliation, unity and reconstruction, peace and democracy; bilingualism; ICT integration for development; rural-urban divide; and gender disparity. Inspired by the Bologna Process, the policy direction from 2007 towards the present has, on the other hand, ushered in new emphases on such priorities as globalisation and internationalisation of higher education, innovativeness, regional and international socio-economic integration, and skills training for the world of work (as contrasted with the earlier emphasis on knowledge transmission). Implicitly, the priorities on globalization, internationalisation and regional integration have increased the demand for English language literacies, especially in its relation to learning in the disciplines (Gottlieb, 2005; ICAS, 2003). However, stress on relevance to community development and information literacy seems to be sustained.

Other examples include policy discourses from the Kigali Health Institute (KHI) and the Kigali Institute of Science and Technology (KIST). The 2007 vision of KHI was "To be a centre of excellence in training and development of health professionals [underlining mine for emphasis]" (KHI), 2007a:15), and the one of KIST as of 2009 was:

> To be an internationally renowned, regionally-engaged African University delivering programmes of academic learning to the highest international standards, engaged in world class fundamental, strategic and applied research and providing services to the community and business whilst remaining true to our commitment to be responsive to the needs of Rwanda [underlining mine for emphasis] (KIST, 2009:online).

While policy alignment on the part of the tertiary learning institutions may be seen on the surface as their loyalty pledge to the government, the institutions' agenda seems to be deeper than that. They want to be relevant and responsive to the societal needs (e.g. a national skilled human resource), committed to society's transformation and the changes that this demands, and committed to translating government policy into curricular and pedagogical change commensurate with the emergent national, regional and international demands and challenges – especially after Rwanda joined the East African Community and the Commonwealth, as well as after subscribing to the European oriented Bologna Process. Aligning itself with the national Economic Development and Poverty Reduction Strategy 2008-2012, the Higher Education Policy states that:

> The Higher Education policy is designed to support the delivery of the strategy through widening access to higher education and ensuring that higher education graduates have the necessary knowledge and skills to support social and economic development strategies [underlining mine for emphasis] (Rwanda MINEDUC, 2008b:9).

According to the 2008 Higher Education Policy (Rwanda MINEDUC, 2008b), the higher education was going to achieve the above strategy by:

- Matching higher education courses to the needs of the labour market

- Using ICT to enable open and distance modes of learning
- Expanding the range and diversity of study programmes
- Improving the quality of education so that graduates have requisite knowledge and transferable skills to support social and economic development and to ensure that graduates' skills meet labour demands
- Having academic staff transform their teaching methods and approaches to be consistent with a more student-centred, practically-oriented philosophy

The rhetoric represented in the above outline implies the acquisition of new academic literacies on the part of tertiary students. For instance, the 'needs of the labour market' and 'graduate skills' highlight the importance of employability skills, competences and attributes. Using 'ICT' and learning through 'open and distance modes' demands new study skills, assessment skills, time management skills, learning autonomy, etc, in addition to mastery of at least basic technological skills and achieving a good level of information literacy. The 'range and diversity' of tertiary study programmes is likely to involve interdisciplinary learning, which is a relatively new phenomenon in 21st century undergraduate study (King's-Warwick Project, 2010; Klen, 1993; Lea and Stierer, 2000). Also, 'student-centred' and 'practically-oriented' learning imply that students in the context adjust from the erstwhile teacher-centred, knowledge-based, learning paradigm. This is likely to entail the learning of new transferable generic and discipline-specific study skills and related literacies.

5.2.3 Policy on Transferable Academic Literacies before 2007

A general reform in Rwandan education system can be contextualised in the general political and social changes in the country from the post-genocide period beginning in 1995 when a new government had been established and higher learning institutions, including the National University of Rwanda, reopened their doors. However, in the higher education subsector a turning point in the reform process occurred in the year 2007 when the National Council for Higher Education (NCHE) issued out a number of new reform policies. Before the NCHE policies of 2007 and the Higher Education Policy of 2008, no 'higher education policy' or 'policy on higher education' in Rwanda clearly spelt out other transferable literacies demanded of tertiary students than foreign language literacy and technological literacy. Yet, even the 2008 Higher Education Policy indirectly suggests the change in academic literacy requirements and demands by pointing out challenges and constraints facing the higher education subsector as of 2008 (Rwanda MINEDUC, 2008b:13-15). Thus, it is through the highlighted challenges that insight into the new need for transferable academic literacies can be gleaned. The following challenges highlighted by the Higher Education Policy (Rwanda MINEDUC, 2008b) can be linked to the need for transferable academic literacies:

- Theory-oriented educational philosophy, hence students' knowledge reproduction rather than knowledge production
- Teacher-centred teaching, described as "mainly didactic and often [relying] on outdated material" (Rwanda MINEDUC, 2008b:15)
- Academic under-preparedness of school leavers entering tertiary education
- Limited access to continuing education
- Limited responsiveness to the needs of the labour market.

The aforementioned challenges accord well with the elements which characterised Rwanda's tertiary education during the post-Independence period – explained in 1.2.1, 1.2.2 and 1.2.3.

Prior to the aforementioned challenges and the birth of Rwanda's National Council for Higher Education in 2006 that ushered in the modular system, almost all tertiary learning institutions in the country were following a traditional, discipline-based course system. That is, for example, each degree programme consisted of a group of courses which were allocated a number of teacher-fronted classroom hours and were graded according to the level/year in which they were covered. While this issue is taken up later in this section, it is noteworthy that one of the weaknesses of this course system that has been pointed out by NCHE is high-stakes assessment practices and instruments (e.g. excessive use of formal examinations even for short courses) which measure students' academic achievement primarily in terms of marks/grades rather than what students can do with the acquired knowledge and skills in working life (Rwanda NCHE, 2007e:3-4). The NCHE has also criticised the old system for leaving little allowance for learners to work autonomously and independently.

5.2.4 NCHE's Reform Policies and Initiatives from 2007 onwards and their Implications for Transferable Academic Competences

As indicated earlier, NCHE has introduced a number of policies and policy initiatives that have a strong bearing upon policy making, planning as well as pedagogical and management practices in institutions of higher learning, but the policies selected for the present category of findings are only those which lend themselves to literacies required of undergraduate students in their daily learning and related academic activities and tasks. It is also most likely that there are several other new learning and related competences students need to acquire but which fall outside NCHE's policy framework, but this study is interested in only those brought out in NCHE's official policy discourses.

5.2.4.1 The National Qualifications Framework for Higher Education Institutions (NQFHEI)

Introduced in early 2007, the qualifications framework sets out the requirements for the awards of tertiary learning institutions in Rwanda. The core of the system implied by the framework is a Credit Accumulation Modular Scheme (CAMS). The framework aims at enabling awards to be benchmarked to internationally recognised standards, and to be able to achieve this, the setting up of academic quality assurance systems was envisaged to ensure that all academic programmes are developed and delivered in conformity with this framework. The framework was partly modelled on the Bologna Process framework. Other sources indicated are the UK, South Africa and East Africa. The framework "is designed to enable employers and learners to understand what can be expected in terms of employability competences from a holder of qualifications at different levels [underlining mine for emphasis]" (Rwanda NCHE, 2007a:2). Apparently these 'expectations' from students, their training institutions and potential employers translate into competences or skills (or literacies) that are required to enter tertiary education and are demanded to successfully complete it and become ready for employment. Hence, there is a demand for academic literacies that are relevant to and appropriate for new teaching, learning and assessing methods, as well as undergraduate exit behaviour that is attuned to the 21st century literacies dominant in the world of work today.

The central concept in the Bologna Process framework, by which the NQFHEI was influenced, is educational competence or educational attainment linked to employment and oriented to the current knowledge economy and knowledge society (Brine, 2008). Students are expected to acquire a set of cycle-specific core competences in the areas of knowledge and understanding and its application, making judgements, communicating and learning

skills, irrespective of their disciplinary subjects (Brine, 2008:349). Apart from the first area, the rest are transferable generic skills and/or attributes.

Countries and education systems differ in their approaches to defining their academic and professional qualifications on the basis of knowledge, skills and attributes that are valued. Until recently, the operational qualifications framework in Rwanda was the one used by the Ministry of Labour, here referred to as MINFOTRA, its French acronym. In this framework the highest undergraduate qualification was A0 or *licence*, which is equivalent to bachelor's degree without the 'ordinary-honours' difference. According to the MINFOTRA system, what distinguished a bachelor's degree from another was the degree class with which the student passed – that is, *très grande distinction* (with highest distinction), *grande distinction* (with high distinction), *distinction* (distinction) and *passable* (pass). Since the introduction of Rwanda's Higher Education Qualifications Framework (RHEQF) in 2007, things have changed. Table 5.1 below shows the new Higher Education Qualification grading as compared to the grading of qualifications by Rwanda's Ministry of Labour before 2007. The blank spaces at Level 6 and Level 7 under the MINFOTRA grading imply that until recently the highest local degree qualification in Rwanda's higher education subsystem was bachelors. Postgraduate qualifications were trained for and obtained outside the local framework.

Table 5.1: Grading of qualifications in Rwandan higher education

RHEQF Level	***Higher Education Qualification***	***MINFOTRA Grading***
7	Doctorate	
6	Masters Post Graduate Diploma Post Graduate Certificate	
5	Bachelor Degree with Honours	A0
4	Ordinary Degree	Advanced A1
3	Advanced Diploma of Higher Education	Advanced A1
2	Diploma of Higher Education	A1
1	Certificate of Higher Education	A2

Source: NCHE (n.d.) "Understanding Qualifications: A Guide to the Rwandan Higher Education Qualifications Framework for Employers"

Two measures are used to locate qualifications within the new framework, that is, (i) the level of learning outcomes to be achieved and (ii) the volume of the programmes in terms of student credits. The framework is built on a seven-level system as shown in Table 5.1 above, from Level 1, where a Certificate in Higher Education is awarded after one year of instruction in a tertiary learning institution to Level 7 where the student is awarded a PhD/doctorate. The levels that are of most relevance to my study are those that culminate in the bachelor's degree award without honours, also known as *ordinary degree* (that is Level 4) or with honours, also known as *honours degree* (that is, Level 5). Level 1 corresponds to the first year of a full-time undergraduate course, Level 2 to the second year, Level 3 to the third year, Level 4 to the fourth year, and Level 5 to the fifth year. The fourth year is the final year in an ordinary degree programme, whereas the fifth year is the final year in an honours degree programme.

A full-time student is expected to devote around 40 hours a week to learning in order to learn 1,200 hours per year for a length not less than 30 weeks per year, and to be in paid employment for not more than 18 hours a week. Part-time honours degrees can be offered over 45 weeks a year (i.e. three semesters) and it would take five years to complete an honours degree programme. However, some undergraduate programmes, such as medicine

and surgery, may last longer than four years full-time and require the study of more than 480 credits. Their final taught year is at Level 5, and the validated programme document specifies how the remaining credits are to be divided between the years of the degree and on what basis the honours classification is to be calculated. Interacting study with work (i.e. part-time employment and part-time study) encourages lifelong learning but carries with it peculiar academic demands on the learner. For example, it requires synthesising information, managing time and stress, being technologically and information literate, and being self-regulating (NCREL-Metiri Group, 2003; PPRC, 2010; Wingate, 2006).

The Higher Education Qualifications Framework for Rwanda sets out generic learning outcomes, known as *descriptors*, for awards at each level. In other words, the descriptors are literacies subsumed under broad literacy clusters. Tables 5.2 (a) & (b) below show levels 4 and 5 descriptors, respectively. These tables have been extracted from a complete table (NCHE, 2007a:18-22) which shows descriptors for Level 1 to Level 7. This study's focus is on the highest bachelor's qualifications.

Table 5.2 (a) Rwanda's Higher Education Qualifications Framework: Level 4 Descriptors

HE Level 4 (Ordinary Degree)

Knowledge and understanding	**Practice: applied knowledge and understanding**	**Generic cognitive skills**	**Communication, ICT and numeracy skills**	**Autonomy, responsibility and working with others**
Demonstrate: *a broad and integrated understanding of the well-established principles of their area(s) of study *the ability to evaluate a selection of the principles, concepts and terminology of their area(s) of study, including some advanced aspects *knowledge that is detailed in some areas and/or informed by developments at the forefront *knowledge of routine methods of enquiry	Use of a selection of the principle skills, techniques, practices and/or materials associated with the subject(s) Use of a few skills that are specialised or advanced Practice appropriate routine methods of enquiry to solve problems in their area of study Practice in a range of professional level contexts which include a degree of unpredictability	Identify and analyse routine professional problems and issues An understanding of the limits of knowledge and an ability to evaluate knowledge Draw on a range of sources in making judgements	Effectively communicate information, arguments and analysis in a variety of forms to specialist and non- specialist audiences Deploy the key techniques of the discipline/subject with confidence Use a range of IT skills to support and enhance work Use and evaluate numerical and graphical data	Exercise autonomy and initiative in some activities at a professional level Practice in ways which take account of own and other's roles and responsibilities Work under guidance with qualified practitioners Take responsibility for own work and manage the work of others

Source: Rwanda NCHE (2007a)

The descriptors set out the characteristic generic outcomes of each level. They are intended to provide a generic shared understanding, so not every programme of study is expected to

exhibit all the characteristics. According to the NCHE (Rwanda NCHE, 2007a:3), changes in level are marked by changes in factors such as:

- Knowledge and understanding – complexity and depth;
- Professional practice (the range and sophistication of applied knowledge and understanding and the extent to which it can be applied in unfamiliar circumstances);
- Generic cognitive skills – e.g. analysis, evaluation and critical skills;
- Communication, numeracy and IT skills;
- Autonomy, self-reliance, the ability to take responsibility, the ability to work with others, and the ability to judge and take action to further one's learning needs.

Table 5.2 (b): Rwanda's Higher Education Qualifications Framework: Level 5 Descriptors

HE Level 5 (Degree with Honours)

Knowledge and understanding	**Practice: applied knowledge and understanding**	**Generic cognitive skills**	**Communication, ICT and numeracy skills**	**Autonomy, responsibility and working with others**
Demonstrate: *a systematic understanding of key aspects of their field of study *a critical understanding of the principal theories and concepts *a coherent and detailed knowledge of some areas that are at the forefront of knowledge in the subject(s) *knowledge and understanding of a range of established techniques of enquiry or research methods	Use a range of methods and techniques including some that are specialised, advanced and/or at the forefront of the subject/discipline Be able to transfer knowledge to unfamiliar contexts Carry out a defined research project	An appreciation of the uncertainty, ambiguity and limits of knowledge The ability to identify and solve professional level problems in familiar and unfamiliar contexts The ability to make judgements where data/information is limited and/or comes from a range of sources Evaluate and consolidate knowledge, skills and thinking in a subject/discipline	Communicate information, ideas, problems and solutions in a variety of formats to both specialist and non-specialist audiences Use a range of software solutions to support and enhance work Interpret, use and evaluate a range of numerical and graphical data	Take personal responsibility for decision making Act autonomously in professional/equivalent activities Work with others to bring about change, development and/or new thinking Reflect on own learning needs and take responsibility for gaining the necessary knowledge and/or skills

Source: Rwanda NCHE (2007a:20)

Reflections on the framework

The first two clusters on the left, 'knowledge and skills' and 'practice', represent the 'content area literacies' or 'disciplinary understanding' category elucidated in 2.4.1, but this category is outside my study's scope. However, 'professional practice' in the second cluster also implies addition to the stock of employability skills a number of competences and attributes referred to as '21st century skills' or 'soft skills' (Yorke, 2005; Yorke and Knight). As explained earlier, these soft skills might be in higher demand in some occupational or

professional contexts, and they include those described in the last three columns in Tables 5.1 (a) and 5.1b under the cluster labels 'generic cognitive skills', 'communication. IT and numeracy skills' and 'autonomy, responsibility and working with others'. All these literacies are expected to be transferred from one level of study to another and from study to work. Much as the descriptors for the Ordinary Degree (OD) and the Honours Degree (HD) may look similar on the surface, there are some significant differences which point to the fact that the higher you go in degree level, the higher the level of competences/skills you are expected to transfer from the learning context to further learning contexts and the workplace. I outline those differences below, with particular emphasis on the 'soft' literacies.

(a) Generic Cognitive Skills: Whereas OD students are required to 'identify and analyse routine' professional problems and issues, HD students are expected to go further than this and exhibit an 'appreciation of the uncertainty, ambiguity and limits of knowledge'. Ordinary degree students are expected to show an 'understanding of knowledge' and an 'ability to evaluate' it, but HD students are expected to go beyond that and demonstrate an 'ability to identify and solve professional-level problems' in familiar and unfamiliar contexts. Ordinary degree students are required to 'draw on a range of sources' in making judgements, while HD students are required to 'be able to make judgements where data/information is limited' and/or comes from a range of sources. Honours degree students are, furthermore, required to evaluate and consolidate knowledge, skills and thinking in their disciplines – a requirement that is not emphasised regarding OD students.

(b) Communication, ICT and Numeracy Skills: Whereas OD students are required to effectively communicate 'information, arguments and analysis' in a variety of forms to specialist and non-specialist audiences, HD students are required to communicate 'information, ideas, problems and solutions' in a variety of formats to both specialist and non-specialist audiences. Ordinary students are also required to 'deploy the key techniques of their disciplines' with confidence and 'use a range of IT skills' to support and enhance work, but HD students are required to go beyond that and 'use a range of software solutions' to support and enhance work. Ordinary students are expected to 'use and evaluate' numerical and graphical data, while HD students are required to go deeper than that and 'interpret, use and evaluate' a range of numerical and graphical data.

(c) Autonomy, Responsibility and Working with Others: Ordinary degree students are required to 'exercise autonomy and initiative' in some activities at professional level, whereas HD students are required to also 'take responsibility for decision making'. Ordinary degree students are supposed to practise in ways which 'take account of own and others' roles and responsibilities', while HD students are required to 'act autonomously' in professional/equivalent activities'. Moreover, OD students are expected to 'work under guidance' with qualified professionals, while HD students are required to 'work with others' to bring about change, development and/or new thinking. Lastly, OD students are required to 'take responsibility for own work' and 'manage the work of others', while HD students are expected to have reached a level where they can 'reflect on their own learning needs and take responsibility for gaining the necessary knowledge and/or skills'.

Therefore, from the above analysis it is concluded that studying up to HD level demands academic literacies that are of a slightly higher sophistication level. What is not clear, though, is the difference in employability and remuneration levels once the OD and HD graduates find themselves together in the world of work – which falls outside this study. The qualifications framework is very central to the modular scheme, the learning, teaching and

assessment policy and personal development planning (PDP), all of which are new phenomena in Rwandan tertiary education.

5.2.4.2 The Credit Accumulation and Modular Scheme (CAMS)

The Credit Accumulation and Modular Scheme (CAMS) curriculum was introduced to Rwandan tertiary learning between 2007 and 2008 as part of changes in global higher education which place emphasis on outcome-based curricula. In the case of Rwanda, this focus was informed by national and international contextual realities of tertiary education elaborated in Chapter 1. From a global perspective, the new role of higher education is to offer programmes of study that are responsive to society's needs, as well as to produce graduates who have the required knowledge and skills to apply in their work life. Thus, education is seen not as an end in itself but as a means to attaining society's targeted development levels (Light and Cox, 2001; Delanty, 2001). This shift in the role of tertiary education has emanated from two main determining factors, that is, globalization and expansion of access to tertiary education, which emphasize a knowledge-based economy or a knowledge-society (Naidoo, 2003; Currie, 2003; D'Andrea, 2005).

In subsection 5.2.3 some criticisms against the old tertiary education subsystem in Rwanda were described. The subsystem has also been criticised for "having many courses of which some were no longer relevant to the needs of society" (Mugisha, 2010:29). Some of the shortcomings of the old system were: limited transferability of students, restricted multiple entries and exits of students, difficulties in comparability of students from the same education system, and reluctance of acceptability of graduates from the Rwandan system into regional and international education systems (Mugisha, 2010).

Hence, the higher education policy objectives which signal change from the old paradigm and can be linked to the demand for academic literacies in tertiary learning institutions were stated in the Education Sector Strategic Plan 2006-2010 (Rwanda MINEDUC, 2006b:12) as follows (underlining mine for emphasis):

- To develop effective systems of <u>continuing education</u> within the HEIs;
- To provide <u>high quality</u> <u>relevant</u> higher education for <u>national development</u>;
- To ensure high level <u>theoretical and</u> <u>practical training</u> being undertaken in Rwanda's HEIs; and
- To establish <u>links with HEIs in other countries</u>.

From an analytical point of view, the above objectives foreshadow the tertiary educational reform that was formally instituted from 2007. The first objective foregrounds lifelong learning, with its demand for pertinent literacies for academic progress and success explained earlier. The second objective re-affirms the role of higher education in producing a skilled national human resource which is in line with Rwanda's Vision 2020 and EDPRS. 'Skilled human resource' is a broad notion that implies the need to develop a broad range of literacies during undergraduate education – most of which have been pointed out earlier in the context of the national qualifications framework for higher education. The core clusters which this study is concerned with are the ones known as transferable 'soft' skills and attributes. This also applies to 'theoretical and practical training' in the third objective above. The last objective in the above list signals the need for making Rwanda's higher education a member of the international community of higher education.

In the 2008 policy statement, Rwanda's Ministry of Education redefined the role of higher education as follows:

> To provide quality higher education programmes that match the labour market and development needs of Rwanda for graduates who are capable of contributing to national economic and social needs, and who can compete on the international labour market, [which] promotes lifelong learning, research, innovation and knowledge transfer [underlining mine for emphasis] (Rwanda MINEDUC, 2008b:17).

The analysis of the above text shows that Rwanda's higher education's redefinition of the goals and mission clearly shifts the emphasis to an outcome-based curriculum (evident in the underlined words and phrases in the quotation above). In practical terms, this shift manifests itself in various ways in the new CAMS:

(a) From content knowledge specification to learning outcomes: The outcomes and credits are specified at each study level as a way of facilitating flexibility for learning. In the modular system students enter tertiary education and may exit at any point and be awarded an academic qualification after completing a defined number of credits. When the CAMS was introduced, this was a new element in Rwanda's tertiary education. If 'exit at any point' suggests 'going to work any time', then, this calls for student development of academic literacies related to employability throughout the lifetime of a cohort's degree programme. It also implies students' development of essential lifelong learning skills, as they may take a long time to complete their studies.

(b) From traditional content knowledge (i.e. subject-based courses) to integrated skills/literacies and courses: The outcome-based curricular shift has also responded to the society's needs by adopting interdisciplinary study and incorporating generic competences into the new higher education subsystem. Thus, there is a shift from the accumulation of content area knowledge to the development of academic and professional competences – a combination of content area literacies and transferable 'soft' literacies – which is in high demand in the world of work today.

Programmes and Modules in the CAMS

A programme of study consists of a set of modules which together have a defined set of learning outcomes that a student must complete to the satisfaction of a Board of Examiners in order to be eligible for the award of a qualification. In the Rwandan context, a module is defined as a coherent and identifiable unit of learning and teaching with defined learning outcomes (Rwanda NCHE, 2007d:6). Some of the essential elements of a module, normally included in a Module Description Form, are the module's level and credit value, pre-requisites and co-requisites, learning outcomes, a brief description of the content, learning and teaching strategies, key resources and forms of assessment. These are important scaffolds for students' autonomous learning, if only students are able to understand or interpret and connect them. Since this is not automatic, some pedagogical support may be necessary to enable students' autonomous learning implied in the so-called 'student hours'. From an 'academic literacies' point of view, such support is essential at the initial stage but students would be better supported if they were helped to develop autonomous and self-regulated learning practices (i.e. study skills and attributes) in their disciplinary contexts in the long-term (Lea, 2004, 2006; Street, 2003; Wingate, 2006). The level of a module is an indicator of

the relative demand on the learner, as well as of the complexity and depth of study and learner autonomy involved in the module. The learning outcomes are expressed in the terms used as descriptors in the qualifications framework (see Table 5.2 a & b). Moreover, under the modular scheme students are required to study and pass (or show evidence of knowledge of) modules that embody what has been referred to earlier as transferable 'soft' skills or literacies.

The following undergraduate modules, on which a pass is a must for progression to the next level towards graduation, are included in undergraduate programmes: (i) English language (according to needs as measured by an initial or entrance proficiency test); (ii) computing and information technology; (c) communication and study skills; and (iv) personal development planning. The fourth 'module' is a special one, as explained later in this section. These modules do not bear a credit rating and are additional to the programme's content area modules. Nonetheless, it is required that they be passed although they do not contribute to grade-point averages, distinctions or honours classifications.

Reflections on New Academic Literacies Implied by the CAMS

When the modular system was introduced into Rwanda's tertiary education system in 2007 many changes occurred, and students and lecturers, as well as their respective delivering institutions, had to make some adjustments, some of which may not have been comfortable. For students, the change generally called for learning new methods, strategies and skills of learning. It also meant them taking on new roles and responsibilities. For example, on the part of students, particularly those just entering tertiary education or still in the early stages of their study programmes, the autonomy involved in having to search for one's own learning materials in order to supplement what the lecturer has provided may not be easy for many students who are used to 'spoon feeding' from teachers [i.e. dependence] (Mbabazi, Dahlgren and Fejes, 2012). It demands advanced research skills, critical thinking and information literacy, in addition to competence in academic reading and writing.

Each component of the 'student hours' contributes towards achieving the learning objectives. 'Student hours' implies autonomous and self-regulated learning which may be supplemented by teacher-guided learning tasks; so students need to know how to manage their own learning time and make use of other study skills for autonomous learning (e.g. learning through multimedia and collaboration with their peers). Otherwise, if for them the physical absence of a lecturer means abandonment, lecturers' abdication, or free time, there is great risk that much of student time will be wasted. The repercussions of this on their learning achievement can be tremendous. Furthermore, one module is normally taught by more than two lecturers; so students need to develop flexible and adaptive learning styles in order to cope with different lecturers' teaching approaches in the same module. This also has implications for language communication, as some lecturers are foreigners (Rwanda NCHE, 2010) who must teach in English and cannot afford the code-switching practised between Rwandan Kinyarwanda- or French-speaking lecturers and students (Andersson and Rusanganwa, 2011).

The aforementioned shifts have, in turn, implications for change in teaching-learning methodology. Whereas the outgoing methodology tended towards teacher-centeredness or subject-centeredness and is actually described by the Ministry of Education as having been "mainly didactic and [relying] on outdated material," (Rwanda MINEDUC, 2008a:15), the new methodology calls for teaching methods and learning styles that especially favour a

learner-centred and output-oriented pedagogical environment. In the Rwandan context, 'didactic teaching' means teacher-centred, subject-knowledge-oriented teaching (Rwanda MINEDUC, 2008a). Important components of the 'new' learning are sets or clusters of transferrable generic skills and attributes: English language, technological literacy, information literacy, communication skills, and personal development planning. The lecturer's role shifts to that of being a guide/facilitator of student learning. Apparently, the above demand for change is consistent with changes that have occurred in teaching and learning approaches internationally as discussed by many researchers (e.g. Barnett, 2000; Bridges, 2000).

The modular system is quite in tune with the standards and expectations of Rwanda's national qualifications framework for higher education. The system is also in line with the national learning, teaching and assessment policy.

5.2.4.3 National Learning, Teaching and Assessment Policy (NALTAP)

The National Learning, Teaching and Assessment Policy was introduced by NCHE in 2007, and it provides a broad framework within which all Rwanda's tertiary learning institutions "can guide the support and continued enhancement of the learning experience they provide" (Rwanda NCHE, 2007f:1). Some key features of learning, teaching and assessment that existed before the NCHE policy have been outlined in the previous parts of the current section. Therefore, NALTAP provides new broad strategies "which will work to inform individual institutional strategies according to their priorities" (Rwanda NCHE, 2007f:1). It partly covers the support of student learning and the development of students' skills. This study is most interested in the skills students are required to develop and acquire as a result of the change in ways of learning and being assessed as stipulated in the new NALTA policy.

Policy Objectives and Strategies

The following objectives of the NALTAP have been selected and are summarised below for their relevance to this study. That is, they highlight new academic literacies that seem to be influenced by the requirements and demands of learning and being assessed in the context of the new policy. The underlining is mine for emphasis.

- To provide a framework within which Rwandan tertiary learning institutions can design their own learning, teaching and assessment strategies, procedures and methods to satisfy the learning needs of students taking their programmes;
- To maintain and enhance the quality of the student learning experience in the context of the individual institution's mission and strategic priorities;
- To equip students in Rwanda's tertiary learning institutions with the necessary subject knowledge, skills, attributes and confidence to enter employment, undertake further study and play a constructive and creative role in society throughout their lives; and
- To support and encourage a shift from didactic teaching towards methods that encourage progressive development of independent learners, with attainment standards for personal and transferable skills as well as subject knowledge

The first two objectives point to the overall provision of quality education or 'good learning' (Yorke, 2005; Yorke and Knight, 2006) and does not pinpoint any specific literacies. Since most of the literacies in the third objective have been analysed from and reflected on in the previous policy contexts, it suffices here to note that the policy closely aligns itself with the

National Qualifications Framework for Higher Education and the Modular Scheme. This explains the policy's roots, hence a similar emphasis on the content area academic knowledge and skills as well as on the transferable skills demanded in further study and employment. Thus, the policy attempts to link student training/education with the world of work. The last objective, in addition to reinforcing the expectations of the third objective, closely allies itself with personal development planning (PDP), which is a totally new aspect of learning, being assessed and building up a profile/portfolio for employability purposes in the context. The PDP is discussed independently in the next subsection.

The overall learning strategy of the NALTA policy (NCHE, 2007f) provides that the learning opportunities made available to students should: (i) properly prepare all students to become independent and life-long learners; (ii) allow all students to develop appropriate research and academic-related skills, and (iii) offer all learners an equal opportunity to develop their potential. Becoming an independent and lifelong learner demands a set of academic competences that may be transferable from one academic setting to another, e.g. from a generic skills module to a field-specific module; from a field-specific module to a discipline-specific module; from a field/discipline to another field/discipline; from an undergraduate study programme to postgraduate study; from study to the world of work; from one workplace to another; and so forth.

Furthermore, the policy regards research and academic literacies as integral aspects of learning, so students will be provided with opportunities to develop a range of research and academic-related skills, both generic and discipline-specific. On the other hand, the discourses prevailing in official policy and curriculum documents indicate that formal research at bachelor's degree level is not a priority of the modular system. Research seems to be the preserve of postgraduate students and the academic staff both at undergraduate and postgraduate levels. Indeed, this resonates with discourses on research at the macro-level. Almost all the policy documents used in this study from that level point to the need for research on the part of the academic staff in tertiary learning institutions or, in a more collective sense, research by higher education institutions. Thus, there are no clear policy objectives for undergraduate requirements for academic research skills.

Relating Teaching to Learning

A wide range of teaching approaches and methods are recommended by the NALTA policy (Rwanda NCHE, 2007f) and, according to the policy, they include but are not limited to: (i) discovery approaches (i.e. projects; independent study; dissertation work; construction tasks such as building prototypes, writing computer programmes, creating Web pages, artistic and literary works; independent reading; case studies); (ii) participatory approaches (i.e. group work; focused group discussions; debates; seminars; conferences; panel discussions; peer tutoring and tutorials); presentation approaches (i.e. lectures; films and slide shows; video shows; performance; demonstration and exhibition); and (iv) application approaches (i.e. practical exercises; simulations; teaching practice; internship; field and community attachments; case studies of real-life problems). All these teaching approaches/methods are relatively new to a typical Rwandan student in tertiary education; or, at least a number of the teaching methods come with heavier demands than ever experienced by tertiary students before the new policy.

The aforementioned approaches/methods, which are also reflected in the Modular Scheme, demand students to be easily flexible so that they may successfully achieve the learning

outcomes of their study programmes. This requires the development of relevant learning competences and strategies that students may not have been accustomed to before the introduction of the modular system. Most of these have been explicated in 5.2.4.2, and others are explicated in 5.2.4.4 below. These include such basic academic competences that cut across the content areas such as academic reading, writing, listening and speaking, as well as critical thinking, research skills, technological and information literacy and intercultural literacy. They also include several attributes that would in combination with the aforementioned competences support students in academic progress and success in their specialized field/disciplines, as well as prepare them for further studies and the world of work.

Assessment of students

The new NALTA policy places heavier academic demands on tertiary students than they have been used to. According to NCHE, "The purposes of assessment are to help staff and students monitor and improve learning, to provide a measure of student achievement and to help assure academic quality and standards" (Rwanda NCHE, 2007d:5). The policy provides for a variety of assessment methods which are not very far from the previously existing ones but entail some new dimensions and an unprecedented vigour. This requires students to both sharpen their existing stock of assessment skills and strategies and to develop new ones in order to cope with the change. Generally speaking, the previous assessment approaches focused on student performance in summative assessment, but also incorporated some elements of formative assessment. Formal assessment instruments included tests, examinations and short written texts (with an exception of some disciplines such as the arts and literature). Some assessment methods such as oral and other non-written forms of presentation are relatively new in the subsystem.

Basically, a module is to be assessed by continuous assessment and a final examination. A student must normally gain at least 20 credits in each subject studied at each level before progressing to the next level. Coursework consists of assignments carried out during the teaching weeks, where grades and feedback are provided before the final examination. Receiving the lecturer's feedback implies that students must be in a position to understand the feedback and to be able to make it feed into further learning and future assessment tasks. A ten-credit module is normally assessed by a two-hour examination and a substantial piece of coursework (e.g. a 3,000-word essay or an assessed oral presentation). A twenty-credit module is normally assessed by a three-hour examination and two substantial pieces of coursework. According to the policy, the 'assessment burden' for modules of other lengths should be in proportion to their size.

All modules are to be taught and assessed at a single level, e.g. Level 1 or Level 2. At the end of the programme, the final grade is calculated based on continuous assessments and the final examination for each module, as well as on clinical placement assessment and projects, which are part of the final year total credits. Assessment also involves external examiners from accredited tertiary learning institutions, which is a new development as compared to the old assessment system. Assessment by examination – supplemented by assignments – is based mainly on the students' ability to read large quantities of written text and to understand the material, and on the ability to answer questions intelligibly through writing – whether in short structured or essay forms. Therefore, assessment skills expected at tertiary level are more than simply reading and writing. Furthermore, examinations are conducted under very stringent regulations where violation is likely to result in dire consequences for the violating

student. In this context, cheating, which includes plagiarism, is regarded as a serious offence which carries heavy penalties. Although factors and circumstances leading to academic dishonesty can be many, one explanation that easily comes to the surface is the student's inadequate academic literacy (Pecorari, 2008), hence their lack of confidence.

All students take a Project module (i.e. akin to a dissertation project) in the final year of an Honours Degree programme. Students on a joint or triple minor programme undertake a Project which either specialises in one of the subjects they are studying or draws on two or more of them. Projects as a form of assessment comprise of research reports for bachelor's degrees. Projects may include investigations or experiments, making some contribution of knowledge to a particular discipline which may be pertinent to the needs of the society. Projects form an integral and compulsory part of a student's programme. Bachelor's degree students are required to work on their research project and submit its report on an individual basis. In most institutions, apart from submitting a written report, which accounts for 60%, students are required to present the report orally, which accounts for 40%. Undergraduate projects in the arts, humanities and social sciences require a minimum of 12,000 words, whereas those in the sciences/engineering/mathematics domain require 6,000 words.

What is more, students who fail the project component of a programme are deemed to have failed the final year. In such an eventuality, they may be awarded an ordinary degree if this possibility is included in the validated programme specification. Therefore, both the written and oral components of the research project require the students to use high quality academic writing and speaking/presentation competences, good generic communication skills and advanced academic English competences. They are also expected to have acquired higher-order reading and listening competences as well as critical thinking and research skills.

While there are many forms of assessment that may be appropriate for different learning outcomes, a single assessment task may incorporate several functions. This places a huge demand on students to acquire and utilize a number of competences to be able to achieve the expected learning outcomes. Table 5.3 below shows some of the common forms/instruments of assessment prescribed by the NALTA policy and the required students' competences to be able to achieve the learning outcomes. The latter are implied by the corresponding competences required. Thus, for example, tests, examinations, and short written pieces are one set of assessment forms that require students to have acquired almost similar assessment competences/skills. If the form of assessment can be used to prove that the students have acquired the skills, then, the same skills are used to measure the achievement of the corresponding learning outcome.

Table 5.3: Forms of assessment and required competences (adapted from NCHE, 2007d)

Form of Assessment	*Required Competence*
Tests, examinations and short written pieces	Knowledge, understanding and the ability to describe accurately
Essays, examinations and other kinds of writing	Production of evidence and reasoned argument based on evidence
Essays and examinations	Problem analysis, diagnosis, planning of investigation, proposal of solutions
Oral and other non-written forms of presentation of arguments or results, including a role-play element	Presentation techniques
Role-plays to explore and test decision-making or group-work skills, or diagnostic ability	Decision-making, group-work skills/attributes, diagnostic ability
Performance	Making prototypes, works of art; writing computer programmes, poems; presenting music, drama
Practical tasks	Laboratory-based skills; diagnostic ability; research skills
Reports of practical tasks or visits/placements	Academic and professional writing competences – research and laboratory report writing; reflective accounting of events
Plans for practical tasks or situations	Academic and professional writing competences – proposals for research or social intervention/action or placement activity; plans for works of art or prototypes

Reflections on the teaching, learning and assessment nexus

Learning and assessment require and demand on the part of students the development and use of a repertoire of various skills, competences and attributes whose discussion cannot fit in the allocated space. However, given the growing importance of the Academic Literacies Approach (Lea and Street, 1998) to academic literacy development, a few concepts that underpin being academically literate in the context of disciplinary learning and assessment are worth reflecting on. Argumentation is a key requirement in academic writing (and oral presentations) and perhaps one of the most common genres in undergraduate writing anywhere in the world (Lea & Street, 1998; Wingate, 2011; Wu, 2006), especially in the arts, humanities and social sciences (Hewings, 2010). Analysis and diagnosis are also highly prized, and these may involve the student's demonstration of genre awareness (Belcher and Hirvela, 2005; Swales, 1990) and rhetorical competence (Connors and Mayberry, 1995), or the 'raising' of their voice and identity (Hirvela and Belcher, 2001; Ivanic, 1998; Ivanic and Camps, 2001).

An implicit element of any form of assessment is feedback to students regarding their learning. Ideally, feedback provides information about any differences between the intended learning outcome(s) and what has been achieved, and it enables students to identify any action required to manage this difference (Rwanda NCHE, 2007d:5). However, it is not obvious that all students will always understand all feedback, especially when it is written for them and they have not much opportunity to ask their lecturers or other academic support staff. In the first place, a student must be able to read and understand the feedback. Drawing on earlier studies on academic literacies (e.g. Lea and Street, 1998; Mutch, 2003), the register and discourse of feedback is not directly intelligible to students. For example, some written feedback may be too general and/or brief and full of symbols (e.g. in languages), thus making a student uncertain or confused about the meaning. After understanding the meaning of the feedback, the next step is to appreciate the comments and have the will to take notice of the

feedback as well as have the courage to go to the lecturer for any necessary clarification. In a word, dealing with various forms of feedback and feedback instruments requires students to have developed or acquired not only academic reading competence but also other transferable study skills and attributes. It is not evident from the policy discourses used in the study how feedback was handled before the current emphasis evident in the NALTA policy. However, it may be concluded that students' difficulties in understanding and utilizing teachers' feedback did exist as they do today. The difference between then and now may be that giving feedback has become a stronger imperative for teachers.

5.2.4.4 Personal Development Planning

Rationale for the PDP

Regardless of which part of the world, students are often unaware of how their learning achievements might be of value when presenting an application for a job. So, the development of students' self-awareness is part of the rationale for the introduction of Personal Development Planning (PDP). The PDP is a new ingredient in learning and evaluation in Rwandan tertiary education. However, it is not new in some contexts of the world, e.g. the UK (Yorke, 2006). Based on the country's needs for skilled manpower and in line with the philosophy and principles of Rwanda's Vision 2020 and Rwanda's EDPRS, the NCHE formulated a policy on students' personal development planning in tertiary education in 2007. From the perspective of NCHE, the target graduate for Rwanda Vision 2020 should be "graduates able to provide added value to employers in terms of having the necessary employability skills and competencies as well as academic subject knowledge and skills" [underlining mine] (Rwanda NCHE, 2007h:3). Undergraduate students are expected to engage in personal development planning to ensure that they are aware of their own strengths and be able to recognize the areas in which they can improve further. The purpose of PDP is described as follows (underlining mine):

> The primary objective for PDP is to improve the capacity of individuals to understand what and how they are learning and to review, plan and take responsibility for their own learning. It is centred on student learning and development, supporting students in strengthening, integrating and reflecting on knowledge and understanding their intellectual, personal and social development in addition to discipline-specific knowledge and skills (Rwanda NCHE, 2007h:11-12).

Therefore, the PDP generally fosters metacognition or meta-learning and relating one's learning to the world of work; independent, confident and self-directed learning; improvement of one's general skills for study and career management; articulation of personal goals and evaluation of progress towards achievement; a positive attitude to lifelong learning. The PDP enables students to set their own learning goals, reflect on their achievement and set goals within the context of the intended learning outcomes of the programme they are studying.

The Provisions, Requirements and Demands of PDP

The PDP stipulates that all undergraduate students are provided with a list of employability skills. Then, the students are required to develop a portfolio of evidence demonstrating that they have gained these skills. The policy provides that they should be introduced to the portfolio and be supported to know how to build it by an *Academic Adviser* from their

institution at the beginning of their programme. However, by the time of writing up the present thesis very little was known about what actually takes place in the tertiary learning institutions since the introduction of this policy. What is evident in policy documents, nonetheless, is that it is mandatory that students reflect on and evidence their academic achievements in the portfolio and be able to plan their further personal development. The PDP envisages the educational benefits accrued from the PDP process as follows (underlining mine):

> The process not only enables the students to reflect on what skills they have developed, raise their self-awareness and take some control of their development; it also allows them to articulate what they have achieved in a way that employers will understand (Rwanda NCHE, 2007i:5).

A closer look at the structure of the PDP reveals how students and employers might benefit from the records therein, on the one hand, but it also reveals why and how living up to the expectations of the PDP on the part of students might turn out to be a difficult literacy task to cope with, on the other hand.

There are three stages to the PDP (Rwanda NCHE, 2007:12): (i) the student understanding what he/she can do and what competencies and skills he/she needs to develop; (ii) developing these competencies and skills; and (iii) demonstrating that he/she can effectively use the competencies and skills he/she has gained. Two important components of a transcript are: (i) a record of learning and achievement; and (ii) other types of learning within the programme. In the first component examples of essential elements that evidence a students' progress are: the number of modules covered; the number and level of credits gained; and the mark/grade for each module. A completely new element in the transcript is that of showing the number of attempts to complete a module if more than one. Prior to this policy and related policies of the late 2000s, students in Rwandan learning institutions enjoyed the opportunity for examination resitting which did not lower the quality of their grades. Other types of learning in the second component listed above include (1) language competence, (2) communication skills, (3) community work experience and (4) work placement or internship. In some institutions IT skills and personal and life skills may be added to the list. From Level 2, except in cases where some students are exempted from the language requirement, a pass is required in at least four of the aforementioned types of learning, plus a pass in PDP. An overarching issue, which is taken up in the next chapter and the 'discussion' chapter, is how these 'other' types of learning are embedded or integrated into institutional mainstream curriculum.

Assessment of PDP

The PDP process is supposed to provide students with both the evidence and language to convey their achievements to their employers. Students are to be given the opportunity to engage in regular cycles of recording, reflection and planning as they progress through their degree programme. This opportunity, as a matter of policy, is supposed to be provided by the institution by allocating an Academic Advisor and having the students meet their advisor at least once each semester to discuss their progress and agree on the goals for the next semester. Students are also to be provided with a Personal Development Log, a curriculum map and an employability skills and attributes map for their programme of study. Students are expected to fulfil academic expectations of them from their study programme, which

include regular session attendance, tutorials, seminars and lab sessions. They are also expected to respond promptly to communications and advice from their Academic Advisor.

At each level students are expected to go through the three stages described above. That is, understanding, developing and effective practice. This involves assessing where they are, reflecting on what this means and what goals they want to set themselves, and then planning a route to achieving those goals. Next, students are expected to compile a record of evidence to demonstrate that they have achieved the intended learning outcomes, including the employability skills and attributes of the programme they are taking. The result of this process is a portfolio which students must submit for assessment at least four weeks prior to taking the final suite of examinations at either Level 4 or Level 5. It is an academic regulation concerning all Rwanda's public tertiary learning institutions that "Students will be permitted to take the examinations only if they have submitted a satisfactory portfolio of evidence" (Rwanda NCHE, 2007h:15).

A personal development record (PDR), which is part of the PDP procedure, specifies what evidence of learning outcomes the student has to provide in order to pass (Rwanda NCHE, 2007h), and the minimum requirements are:

- A pass on the Computer Skills module;
- The Foundation Certificate in English Language (or exemption);
- A pass on any Communication Skills module (whether credit-rated or not);
- A word-processed CV in English;
- A letter of application for a post in English; and
- Evidence of having gained skills and competencies identified on the curriculum map and employability profile for the programme enrolled in (These must include core employability competencies and skills and, for students on the pre-service programmes, of having engaged in community service, including community service to schools).

A PDP log must provide, among other details, the following (Rwanda NCHE, 2007h):

- A transferable skills self-assessment audit and a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis which students complete each year and use as a basis for prioritizing skills development;
- A learning style self-evaluation questionnaire which students complete prior to their first meeting with their Academic Advisor and discuss at the meeting;
- Support in planning revision and reflection on how to revise;
- A goal-setting and action plan proforma;
- A proforma for recording achievement;
- An evidence log;
- Tools for enabling students to assess how they are performing in their academic work and reflect on making improvements; and
- Tools for students to reflect on developing employability skills.

Reflections on the PDP-related literacies

The analysis of PDP indicates that constructing this sophisticated instrument requires students to be able to plan fruitfully and thus benefit from it. However, using the instrument

is an academic engagement that is unfamiliar to most students in the context. In my view, the PDP log is a rather too complicated a tool to handle for the students, not only because it is written in a foreign language – English – but also because it is a cognitively demanding procedure and may thus be more advanced than the student level. It may look easy to go through its first stage, but I would argue that the ability to understand what one needs to do and the competences needed to do that would be difficult for a number of students, especially those entering Level 1 or progressing through it. Moreover, the *Pedagogy for Employability Group* at the Higher Education Academy (UK) [Yorke, 2006] has argued that student awareness is central to successful PDP. Students need to be made aware of the good purposes of PDP and how it can link to employability. They need to see the significance of PDP for their personal development, rather than treat it as an externally imposed requirement. The group proposes that "the introduction of PDP may well involve some development of the 'learning culture' in which the students find themselves, such that the connection between PDP and the subject discipline is established" (Yorke, 2006:16). Therefore, in the Rwandan context, there is a need for the academic advisor or whoever else is concerned to scaffold students who are at difficulty. To conclude, the PDP is a new set of academic literacies to develop.

5.3 ENGLISH LANGUAGE-EDUCATION POLICY

As explained earlier, English language proficiency is one of the requirements for admission to tertiary education. Under the terms of NCHE's *National Policy on Language Teaching in Higher Education* (NPLTHE), students who don't pass the entrance language test qualify for further mandatory language instruction, and satisfactorily passing further tests determines their promotion to the next programme level. At the same time, English language competence in an academic context requires more knowledge and skills in the foreign language that go deeper and beyond mere proficiency. The rest of this section examines how changes in Rwanda's language-in-education policy (described in 1.2.5) have shaped the need for certain English language competences.

5.3.1 Expected General Outcomes of NCHE's Policy: Focus on EAP/ESP

The 2007 *National Policy on Language Teaching in Higher Education* (NPLTHE) policy states that (underlining mine):

> Because all public-sector Rwandan HEIs teach in both French and English it is important that every student swiftly brings his or her grasp of these languages up to the level where they can participate in academic activities and learn from lectures. It is also important that graduates can be relied on to be at least competent at writing, reading and speaking both French and English when they take up employment (Rwanda NCHE, 2007g:1).

In the above statement French is included because it was used as an optional foreign language of instruction until the new government policy of 2008 that legislated English as the exclusive medium of instruction. The idea of 'swiftly' bringing the student's grasp of language to the level of unproblematically using it in content area academic activities suggests an easy transition from general language proficiency to academic and professional English, which has been extensively in Second Language Acquisition (SLA), English Language Teaching (ELT), and English for Academic/Specific Purposes (EAP/ESP), (e.g. Cummins, 1991, 1994, 2000; Echevaria and Short, 2002; Gottlieb, 2005; Turner, 2004). The idea of unproblematic transition from general language proficiency to academic language

competence fits well in the 'study skills' perspective on academic literacy development (Lea and Street, 1998). Setting 'competence' in the principal language skills of writing, reading and speaking as the benchmark can be related to Canale and Swain's (1980) perspective on 'communicative competence', although these authors go deeper and beyond fluency in the above-stated skills and foreground grammatical, sociolinguistic, discourse and strategic competences. The students' use of English as a Second or Foreign Language (ESL/EFL) "when they take up employment" implies a demand for work-related ESP, which is based on the fields and disciplines students specialise in while they are still on their undergraduate programmes.

With the assumption that at least some students acquire English proficiency through primary and secondary education, the policy seems to downplay the importance of General English as a foundation for the development of academic and work-related English. However, this is in contrast with Turner's (2004) view that proficiency in a language used as a medium of instruction is as important as competence in content-area subjects. The policy, instead, stresses the importance of academic and professional/occupational English (underlining mine):

> At the same time we do not want to extend an already full timetable beyond what is needed for this purpose; it may be assumed that some students achieve this goal through language teaching in primary and secondary schools, so that their time would be better spent focusing on their academic subjects and developing their skills in language for academic and specific purposes during their degrees, rather than on language acquisition *per se* (Rwanda NCHE, 2007g:1).

The underlined words and phrases bring to the surface a few issues which are taken up in the 'discussion' part of the present thesis. One of them is the time constraint (i.e. "an already full timetable", hence the preference for "better" spending it on academic subjects and EAP/ESP, rather than on General English. The other is the 'assumption' that students have developed a sufficient base in English proficiency before entering higher education. Another issue that is interesting for 'academic literacies' research is how "developing their skills in language for academic and specific purposes during their degrees" is embedded into or otherwise linked to the content areas. This second issue is explored in some detail in the next chapter.

Nonetheless, in the following statement the policy seems to be negotiating a balance between exclusive delivery of ESP and neglect of General English:

> [The policy] aims to ensure that students gain language skills they need and that [language is] taught in the context of the academic disciplines and in parallel with subject study. At the same time it aims to ensure that students' language proficiency level is not a barrier to their studies and to assist students who have a weak language base. (Rwanda NCHE, 2007g:1)

The idea of learning English "in the context of academic disciplines and in parallel with subject study" seems to resonate with the 'academic literacies' model for the embedment of academic literacies into the mainstream curriculum with its various versions of embedment (Lea, 2004; Lea and Street, 2006; Wingate, 2006; Yorke and Knight, 2006). Nevertheless, the policy lays down minimum requirements for English language teaching across the public-sector tertiary learning institutions. Private institutions have the liberty to adopt or adapt the generalized NCHE curriculum or design and develop their own English language programmes and courses.

Under the provisions of the new national language policy for higher education which privileges English, students sit for a locally prepared national English language test upon entering tertiary education. Depending on their performance levels, they are assigned to one of these three broad categories:

- Beginners (scoring less than 60% and requiring 8-10 hours per week of language instruction thereafter);
- Intermediate (scoring 60-70% and requiring 4-8 hours per week of language instruction thereafter); and
- Advanced (scoring 80% or more and not requiring further instruction thereafter).

There are a couple of issues to note here. The test measures mostly General English proficiency, and considers some elements of generic academic English (i.e. EGAP). However, the new policy's emphasis is on the acquisition of EAP/ESP. It would be understandable if the results of the test were used as a criterion for further instruction in either General English for low scorers or in EAP/ESP for high scorers. Moreover, EAP/ESP pedagogy is clearly foregrounded in the previous excerpt from the language teaching policy. Besides, passing the entrance test, from the perspective of the policy makers and designers of the test, means sufficient language competences to enable the student to proceed into the content-area and failing it means a little more language instruction. Therefore, how this type of measurement and no or limited follow-up language instruction fit with the policy outcome raises some curiosity. However, what becomes tricky to understand is the link between ESP pedagogy within the content areas (i.e. running concurrently with subject teaching) and "not requiring further [language] instruction. The end of English language instruction at the beginning of undergraduate programmes is further confirmed by the modular scheme and Personal Development Planning, both of which require that students pass and/or get certified as possessing 'foundation' English language skills. Therefore, the question is, is EAP/ESP pedagogy integrated within the disciplines such that it is not referred to as 'language instruction'? This question is further explored below and revisited in the 'discussion' chapter.

5.3.2 Level-specific Policy Objectives and Learning Outcomes

The policy generally conforms to the standards and expectations of the National Qualifications Framework by drawing up policy provisions modelled on a three-level system: Level 1, Level 2 and Level 3. This study outlines below the objectives of the language policy and the competences expected of students by the end of language instruction (Rwanda NCHE, 2007g:2-4).

1. Provisions for Level 1

Students in the first year are expected to pursue an English course if they did not pass the language entrance test upon admission. So, they are primarily instructed in proficiency-oriented English. According to the policy, the English language module each institution adopts at Level 1 (i.e. first year) is expected to support its students in developing the following abilities or competences (underlining mine):

- Basic language structure, so as to be able to understand spoken and written discourses
- Use of English in a variety of situations inside and outside the classroom
- Reading of simple, general and field-specific texts and coping with the writing of assignments (also examinations and other forms of assessment/evaluation)

- Use of conventions in academic writing and related requirements
- Employment of research skills (e.g. paraphrasing, synthesizing, quoting, referencing and note-taking)

The aspect of developing "basic language structure", "use of English in a variety of situations" and "conventions of academic writing" is theoretically partly supported by the Academic Literacies Approach, which recognises the interaction between the 'study skills' model, the 'academic socialisation' model and the 'academic literacies' model (Lea and Street, 1998a). The approach also foregrounds contextualized social development and practice of language, with a special focus on academic writing (Lea, 2004, 2006; Lea and Street, 2006; Wingate, 2006). However, Lea and Street (2006) urge literacy educators to move away from exclusive attention on 'essay' writing as a form of examination or assessment to considering alternative forms of academic writing at university. The inclusion of library-oriented "research skills" in academic English development is also in tune with more recent attention to other literacies that are important in academic literacy practices than writing (Gunn, Hearne and Sibthorpe, 2011; Lea, 2004, 2006; Lea and Street, 2006; Wingate, 2006).

2. Provisions for Level 2

Students who do not achieve an 'advanced' rating in the language course/module in Level 1 are permitted to proceed to Level 2 (i.e. year 2) but are required to improve their language competence by the end of the level. So, they are re-tested where the required proficiency level was not attained. It is further provided that (underlining mine):

> There will be no formal language courses in Level 2, but an Effective Learning Service (ELS)…will be provided. Lecturers will be scheduled to attend at regular intervals (at least fortnightly) to assist students with the necessary remedial practice and advise on sources of tuition (Rwanda NCHE, 2007g:3).

In the above excerpt the issue of superimposing the need for instruction and its withdrawal pointed out earlier is put into a clearer perspective, but it is still problematic to comprehend. The underpinning assumption in the entire procedure is that students who pass the language test on tertiary entry are sufficiently equipped with language proficiency to support them in their subsequent academic study, work-related training and beyond. They are automatically awarded a *Foundation Certificate in English Language* and are exempted from further language instruction (Rwanda NCHE, 2007g & h). Students who do not pass the language test are put on the Level 1 (i.e. first-year) English course and have to retake the test. Those who do not reach at least an 'advanced' level by the end of Level 2 are not permitted to progress to Level 3 until they have done so and are awarded a certificate. The approach used to assist failing students is remedial practice – which is regarded "as a kind of pathology" by the Academic Literacies Approach (Street, 2009:348) and is closely related to the 'study skills' and 'deficit' models (Lea and Street, 1998). Another strategy used to support the failing students is to advise them "on sources of tuition" (Rwanda NCHE, 2007g:3), which implies 'guided' autonomous language learning. An English language certificate is an important criterion for promotion beyond second-year. Besides, the certificate is an integral part of a student's portfolio within the Personal Development Planning (PDP) framework.

3. Provisions for Level 3

There is no further formal teaching or assessment of language after Level 2, but students are required to demonstrate their ability to answer questions in English during their final year presentation of research projects. However, institutions may choose to offer courses in communication skills and/or language for academic purposes. The latter provision empowers individual institutions – and perhaps university faculties, departments, centres and schools – to independently develop their own language courses beyond the benchmark depending on their specific needs. Apart from this being a democratic stance, it is in tune with the principles of *needs analysis* in ESP curriculum and pedagogy (Belcher, 2006; Cowling, 2007; Johns, 1991; Peck, 1991; Richterich and Chancerel, 1987; Robinson, 1991).

5.3.3 Implications of the Policy: Student Learning and Assessment, and Academic Staff

After the Rwandan education system switched to an English-only language-in-education policy, French became irrelevant as an official language of instruction – although in practice the language is still in use, albeit in a limited manner. So, a given module is normally taught and assessed in English. Where this is not the case, say when a lecturer is not fluent in English, it is provided that a validation process will have to occur in which the institution ensures that internal and external moderation can be carried out in French and English. Some learning institutions have been running English courses for their staff, including content area lecturers, but it is not known how such courses have succeeded in equipping the staff with English skills that are enough to support their English-medium teaching, assessment and research-oriented supervision. In any case, all academic staff are expected to have mastered enough English proficiency to support their students by both using English when teaching and assisting students with language problems when they are stuck. Academic staff are actually not allowed to use other languages than English (Rwanda NCHE, 2007g).

5.4 ANALYSIS SUMMARY

In response to the changing macro policies on national economic and social development, macro educational policies in Rwandan tertiary education have correspondingly changed over time. In turn, tertiary learning institutions have been required to adjust their policies and curricula to fit with the change. Data analyses have shown evidence that meso level policy and planning discourses that articulate requirements and demands for academic literacies on the part of undergraduate students – while still on their study programmes and upon graduation – resonate with the policy discourses at the macro level (i.e. the NCHE, Ministry of Education and the State). Thus, it is a vertical, top-down policy alignment process.

The focus of this chapter is on what academic literacies are requested by the new educational policies as compared to the situation before 2007. In retrospection, it was discovered that during the period between the mid-1990 and 2007 – the year when a number of NCHE reform policies were put down on paper – the requested academic literacies were closely associated with students' knowledge of the foreign language – French and/or English – and hence a theoretical and conceptual alliance with the 'autonomous', 'deficit' and 'study skills' models (Lea and Street, 1998; Street, 1984, 1988, 1995, 2003). This literacy approach also fits well into the broader teaching-learning paradigm dominating during that time, which was knowledge-oriented and teacher-centred. Besides, during that period the range of non-linguistic generic transferable literacies considered to be important for undergraduate study

hardly went beyond the 'conventional' literacies discussed in 2.4.5 – with an exception of computing skills which have been consistently emphasized up to the present, the difference being that recently other aspects of computer-based technology have been incorporated, e.g. information literacy.

The post-2007 outcomes-oriented system of tertiary education, with its attendant policies, requires a range of transferable academic literacies which are meant to empower undergraduate students for academic achievement and success as well as for initial employability, professional competence in working life, lifelong learning and competitive entrepreneurship. In this context, analyses revealed that more recent Ministry of Education and NCHE policies echo, to a large extent, the 21st century literacies explored earlier in Chapter 2, although even the more 'conventional' literacies seem to be still valued. This might explain what appears to be the desire or an aspiration to subscribe to the notions of multiliteracies and the 'academic literacies' approach to literacy development that is juxtaposed with the struggle to move away from the autonomous/deficit model to the ideological/academic socialisation model.

A considerable amount of nomenclature has emerged from the data to describe the literacies needed by undergraduates to be able to study and be assessed at university, to achieve, progress and succeed academically, as well as to prepare for postgraduate study, working life and lifelong learning. The terms used to conceptualise the multiple literacies are amply reflected in the literature reviewed in Chapter 2, concerning the 'multiliterate' nature of academic literacy (Barton, 1994; Gee, 1990; O'Rourke, 2005; Street, 1984; The New London Group, 1996) and an 'academic literacies' approach to literacy development (Lea and Street, 1998).

The nomenclature also reflects the typological frameworks discussed in section 2.4, foregrounding English language literacies, conventional study and related skills as well as the 21st century transferable literacies requested in 21st century learning, and working. Terms such as *graduate skills*, *employability*, *entrepreneurship*, *lifelong learning* and *generic transferable skills* feature prominently both in the sector-level and NCHE reform policy discourses from 2007 onwards. However, this study found that the Rwandan higher education context is an entity in its own right, which needs to be treated as such, taking into account its specific historical, social, economic, political and ecological setting. But this should not prejudice the subsystem's right and responsibility to be a legitimate participant in the increasingly globalized and internationalised higher education system. More importantly, the specific population in focus 'undergraduate students', particularly those attending public institutions. There are chances that their cohorts in private institutions have different pressing literacy needs and priorities. Furthermore, postgraduate students in the same tertiary educational context might have different literacy needs altogether. To this end, the literacies articulated by policies across time and macro and meso layers of Rwandan tertiary education have been collated and then conflated into three clusters as shown in Figure 5.1 below.

English Language Literacies	*Literacies for Academic Progress and Success*	*Employability Literacies*
General Proficiency in English as a Second/Foreign Language (ESL/EFL): listening, speaking, reading, writing, grammar & vocabulary	*Generic Study Skills*: Becoming a student at university; campus academic culture; participating in seminars and tutorials; presenting in seminars & workshops; team working; problem solving; critical, analytical & inventive thinking; research and referencing skills; examination & other assessment skills; time management; stress management	*Generic Effective Communication Skills*: competence in ESL/EFL and other functional languages (e.g. French, Kinyarwanda, Swahili); listening to others; clarity in oral, written and electronic messages passed across to an audience)
ESP Competence: academic listening, speaking, reading, writing, syntax & lexis in EGAP, ESAP 1 & 2, EWOW 1, 2 & 3, and EOSP contexts	*Generic Numeracy*: competence and understanding of numerical data, statistics and graphs	*Generic Numeracy*: competence and understanding of numerical data, statistics and graphs
	Information, media and technological competences (i.e. ICT and more)	Information, media and technological competences (i.e. ICT and more)
	Commitment to further education	Commitment to lifelong learning
	Social and cross-cultural skills (e.g. being an international student)	*Interpersonal skills*: teamwork; leadership and responsibility; networking; cross-cultural competence
	Autonomy, independence and self-regulation	Autonomy, independence and self-regulation
	Field- or discipline-specific study skills, competences & attributes	Specific work-related skills, competences & attributes

Figure 5.1: Literacies requested in Rwanda's undergraduate education

The literacies consist of both 'conventional' and 21st century skills, competences and attributes. The frequent usage of the terms 'skills', 'competences' and 'attributes' as different types of literacies in research and socially-oriented literature has been maintained in Fugure 5.1. The literacies featured in the table exclude content area literacies because this category falls outside this study. Where space allows, sub-literacies (i.e. constituent skills, competences and attributes subsumed under broader literacy categories) have been listed as illustrative examples. However, such examples are not provided in the case of literacies

which are meant to support learning and professional preparation in specific subject areas. Practically, these are too diverse and many to research on in a single study of this kind, let alone fit in the available space.

In the English language literacies cluster two categories are subsumed. Despite the controversial and conflicting theoretical perspectives on the terms 'proficiency' and 'competence' as applied to second or foreign language learning, they are used in this cluster to draw a line between *General English Proficiency* category (i.e. fluency and accuracy and use of a variety of discourse strategies, etc) and the *ESP Competence* category (i.e. system of linguistic knowledge encompassing proficiency and more). Canale and Swain's (1980) conception of 'communicative competence' might help to elucidate what would be entailed in ESP competence. In both General English and ESP care has been taken to include all the main language skills, including grammar/syntax and vocabulary/lexis. In the ESP category, different varieties are represented and they reflect those outlined earlier in Table 2.1. New abbreviations are EWOW and EOSP, which stand for *English for the World of Work* and *English for Other Specific Purposes*, respectively. The EWOW variety is subcategorised as English for general or generic work purposes (EWOW1) which cuts across all the professional/occupational fields and disciplines (e.g. CV writing, job application letter writing, etc), English used in broad fields of specialisations (EWOW 2) such as a medicine, applied sciences, humanities, etc, and English used in more specific disciplinary areas subsumed under the broader fields (EWOW 3) such as orthopaedics, computer science, economics, etc.

The assumption underpinning categorisation in the second and third column is that both generic and field-or discipline-specific literacies are 'transferable'. This is so in four senses that do not easily come out graphically, especially when the figure presents them as being enclosed inside impermeable walls. This is not the case, as the borderlines are in real life extremely porous. First, generic transferable literacies requested both in study and work have a lot in common. Second, literacies requested in specialised academic settings are often similar to those requested in the world of work if the graduates are to work in the same specialised areas as they have been trained in. Three, the clusters or categories and subsumed subcategories have natural affinities and relations. This is so much so that it becomes difficult to conceptually disentangle them, e.g. language and communication, information and technology, on-going study and future study, and so forth. Four, the literacies can be transferred from one educational level to another, and from one context to another (e.g. from study to work and vice-versa). Having said that, the interchangeable usage of both conventional and the more trendy terms presents a conceptual problem that can negatively impact upon how curriculum developers and teachers are to prioritise and embed the literacies into the curriculum. This issue is discussed in Chapter 8.

The adoption of English as the only official language of instruction in Rwanda has stimulated an increased demand for English language and language-based literacies at all levels of education, including tertiary education. That is, henceforth, educational success in undergraduate study, which is mainly based on disciplinary literacy, is likely to be greatly influenced by the student's ability to competently communicate in English for current academic purposes as well as for future professional and occupational purposes in the world of work. Furthermore, even the acquisition of non-linguistic literacies necessary in today's academia, e.g. research skills, information/digital literacy, critical literacy, and so on, are by and large mediated through a language like English as a means of verbal and written communication. However, the language-in-education policy was formulated within the

context of bilingual education when French was still used as an alternative language of instruction. The analysis of the aforementioned language policy document has indicated that there are some issues emerging from the policy's discourse regarding ways and means institutions are to implement the policy in order to cater for their students' language needs. This issue needs further investigation and discussion.

As the NUR Strategic Plan and Business Plan (NUR, 2007b) puts it, the transition from making a plan to implementing it is difficult. Furthermore, it is not easy to move from a conceptual framework of mission and vision statements to the creation of realistic and viable/feasible projects. This is what is explored in the next chapter.

Chapter 6 SCAFFOLDING ACADEMIC LITERACIES ACQUISITION WITH THE CURRICULUM

6.1 INTRODUCTION

Tertiary education and working life in the twenty-first demand tertiary curricula and pedagogies that focus on more advanced academic literacies, and higher learning institutions in different locations of the world have been trying to meet this demand in diverse ways. By virtue of its nature, an academic literacies curriculum contextualized in tertiary formal learning at different levels (e.g. programme, module, and session) does not exist independently, but rather in relation to the so-called 'mainstream curriculum' within which academic and/or professional and occupational disciplines reside. The three globally practiced broad approaches highlighted in section 3.3 are: through the whole curriculum, within the core curriculum and freestanding literacy and/or related courses. The choice of which way to embed academic literacies pedagogy in the mainstream curriculum depends on a number of factors whose discussion is out of scope, but two of the main ones are (i) how the concerned stakeholders (i.e. expert designers, lecturers, institutional managers, students, employers, etc) understand the range of literacies, often couched in not-so-easy-to-understand terminology (Chanock, 2003; Thies, 2012; Moore, 2004); and (ii) which of the literacies are more or less valued by the stakeholders (Thies, 2012). These will generally be weaved into student learning activities and experiences that are weaved into curriculum designing, planning and progressive development (Thies, 2010; Willison and O'Regan, 2007; Yorke and Knight, 2006). However, the choice of curriculum approach is also likely to be influenced by academic activities prevalent in the mainstream curriculum, e.g. teaching-learning approaches and assessment methods (Yorke and Knight, 2006).

In this chapter, the principal aim is to explore approaches and strategies used over time to embed curricula for supporting the acquisition of the academic literacies identified in Chapter 5 (see Figure 5.1). Where possible, the theoretical/conceptual frames underpinning these approaches and strategies are commented on. In order to achieve this aim, empirical data were obtained mainly by investigating curriculum discourses from programme and course plans, which are occasionally supported by data from macro policy documents. These are supplemented by some data from other curriculum documents such as instructional materials and personal communication.

6.2 BACKGOUND AND RATIONALE FOR AN ACADEMIC LITERACIES CURRICULUM

The first and foremost rationale for an academic literacies curriculum is the range of academic literacies requested in current Rwandan undergraduate education (see Fig. 5.1). Particularly, the post-2007 outcomes-oriented system of tertiary education demands a range of transferable academic literacies which are meant to support students' academic progress and success, and to prepare them for postgraduate study, employability and entrepreneurship upon graduation. In addition to this broad need, both academic preparedness at the point of students' tertiary entry and professional preparedness at the point of their exit from undergraduate study are publicly contested as not measuring up to expectations.

6.2.1 Academic Preparedness

One area that seems to have eluded stakeholders in Rwandan tertiary education over the years, save the academic staff who whisper about it in informal discourse, is the complex nature of the transition from school to tertiary education and the quality of tertiary entrants. Regarding quality, the centre of interest to date is the required average pass mark (or points) on the students' high school certificate and more administrative criteria while admitting regular students. Since the inception of National Council for Higher Education's (NCHE's) language policy, an exception has been the requirement that students pass an entrance language test as a measurement of language proficiency, hence the determinant for further or no further language instruction.

The very first candid disclosure from official circles was a statement made in the 2008 *Higher Education Policy*. The statement sub-headed 'Quality of entrants to higher education' is one among many in a list of challenges/constraints recognised by the Ministry of Education as facing the tertiary education subsector. The statement includes the following:

> Many entrants to higher education are poorly prepared…The challenge is to work with the school system to ensure that secondary school leavers are adequately prepared for higher education… (Rwanda MINEDUC, 2008b:14).

In addition, official recognition of this issue may be gleaned from the goals of the *National Student Support and Guidance Policy* (Rwanda NCHE, 2007i:1) that was made one year before. Those that allude to students' need for transitional academic support, or academic enculturation, are copied verbatim below:

- To ensure that students are supported in their transition to higher education and are enabled to acquire the necessary study skills.
- To ensure a systematic, coherent, structured and consistent approach to the 'First Year Experience' to maximise retention and progression.
- To provide a coherent range of guidance and learning support mechanisms…
- To provide specific support in the learning of languages and computer skills.
- To facilitate students' awareness of and control over the graduate skills they acquire during the degree and to help them document and demonstrate these.

Academic under-preparedness has been defined by Tritelli (2003) as lacking basic skills in at least one of the three basic areas of reading, writing or mathematics. But it can also mean social belonging to the university community in all its ecological layers, both inside and outside the classroom. Academic under-preparedness can transform into academic attrition (Cuseo, 2012) and, eventually, academic failure, repetition of years or dropping out. The academic under-preparedness of university entrants in the Rwandan context may also be understood as a legacy from school where there are scarcely any well-defined academic literacy training programmes. Besides, several constraints which abound in the school system do not make it easy for students to acquire the literacies necessary for their tertiary learning. These include:

- Learning and having to work with English which is a relatively new language for many and is not widely used outside the classroom;

- The rural-urban and private-public school status, which leads to inequitable distribution of qualified and experienced staff and material resources – disadvantaging the majority who happen to come from rural schools;
- Low ICT penetration/integration, especially in the countryside schools, hence a digital divide between rural and urban schools;
- A high student-teacher ratio;
- Lack of qualified teachers in some subject areas; and
- Weak literacy practices (e.g. reading culture) right from home to the wider social environment, including high school.

It is likely that if the situation is not rectified during tertiary education, academic under-preparedness will transfer into professional under-preparedness. Therefore, the situation calls for institution-supported students' enculturation into their tertiary learning community (Penrose, 2000). One effective approach to facing this challenge is for each tertiary learning institution to enhance existing literacies programmes or to create a well thought out academic literacies curriculum, whereby the current one-week induction, guidance and counselling programmes would play a supplementary role.

6.2.2 Professional Preparedness

Unlike academic under-preparedness, professional incompetence, referred to here as 'professional under-preparedness', of graduates from Rwandan tertiary institutions, has been voiced frequently, loud and clear, in different corners, from street gossip to the media to high ranks in the political hierarchy. Discourse on the topic is characterized on the whole by a hierarchy of blame: big shots and employers blame the entire education sector, especially lecturers; the sector blames institutions; institutions blame teachers; and teachers blame everybody else up in the hierarchy apart from themselves. Many reasons have been advanced to explain why tertiary training is not producing the graduate quality demanded in the world of work, and they include:

- Scarcity and poor quality of infrastructure and resources;
- Outdated curricula;
- Traditional teaching methodology, e.g. teacher-centeredness;
- Lack of highly qualified academic staff;
- A high student-lecturer ratio;
- Limited ICT integration into teaching and learning; and
- Soaring student enrolments that are not proportional to the expansion and standardisation of physical facilities.

In the meantime, the Ministry of Labour (MIFOTRA), in conjunction with the Human Capital and Institutional Development (HCID), released a National Skills Audit Report in 2009. The report's indication that there were structural imbalances in all sectors and a general "acute shortage of human capital" (GOR, 2009c) was like pointing an accusing finger at the tertiary education subsector for failure to fulfil its role of producing the skilled human resources demanded at national level. For instance, there had been a shortage of scientific and professional skills to the extent that the country had to expensively employ a good number of expatriates.

At the same time, current political discourse in the country, aired especially through the media, is calling upon graduates to enter into entrepreneurial ventures in order to create employment for themselves and others. A recent news report from a local tabloid ran this heading: *Mismatch between education and labour market 'a challenge'* (New Times [Rwanda], 08/06/2012). The lead sentence in the report, which was narrating the proceedings of a just ended conference, reads: "Low proficiency among graduates in Rwanda has been highlighted as one of the serious challenges still affecting the labour market in the country." In the report, the head of HCID and other experts on the topic highlighted the mismatch in the academic qualifications obtained from local institutions and urged the private sector particularly to participate in the development of tertiary curricula so that the latter could be tailored to the employability skills needed in the labour market.

Taking up the issue of professional incompetence earlier, the Ministry of Education criticised the relevance of the higher education provision in the country in its *Higher Education Policy*: "Higher education provision is not well matched to the development needs of the country or ensuring that graduates have the skills and competences sought by employers" (Rwanda MINEDUC, 2008b:14). In its sector strategic plan for the period 2010-2015 (Rwanda MINEDUC, 2010a:33), the Ministry of Education also questioned the relevance of tertiary educational provision, revealing that around half of all university-level graduates in the workplace were employed by the public sector. The ministry suggested that this might be an indicator that the skills currently acquired through tertiary education were more relevant for the public sector than for private sector employment. This means that the graduates cannot adequately compete for the better paying but highly professionalised jobs in the private sector. Moreover, a World Bank funded study conducted in 2009 showed that the existing tertiary provision in Rwanda had "weak linkages to the labour market with low employability of its graduates and incompatibility with employers' needs" (Rwanda MINEDUC, 2010a:26). Being weary of increased competition from other members of the East African Community, the Ministry of Education has called for urgent attention to this issue (Rwanda MINEDUC, 2010a:26). Apparently in response to the problem, the ministry's policy objective # 1 of the Higher Education Policy seems to suggest some general curriculum reform. The objective is stated, in part, thus: "To provide programmes of high education that are matched to the labour market and development needs of Rwanda…" (Rwanda MINEDUC, 2008b:17). In the context of this study, it is assumed that an academic literacies curriculum is one aspect of the signalled curriculum change.

Two of the strategies through which the above objective is to be achieved, according to the ministry, were: (i) ensuring that there is a flexible range of provision to meet the needs of a range of learners and the labour market; and (ii) permitting a variety of patterns of attendance to study for qualifications, e.g. part-time (day, evening, weekend sessions), open learning, supported/unsupported distance learning and work-based learning. Understandably, introducing a range of provision and a variety of attendance patterns would demand new literacies to support content area knowledge and skills acquisition.

6.3 THE ACADEMIC LITERACIES CURRICULUM BEFORE 2007

As indicated earlier, tertiary academic literacy education has often been embedded in foreign language teaching, in the case of a country like Rwanda. For example, up to the early 2000s some departments at the National University of Rwanda (NUR) had integrated ESP courses in their mainstream curricula. These courses gradually disappeared to give way to the new English courses which were introduced in the mid-1990s after the university re-opened

following closure due to war and genocide in the country. It is the latter type of courses that are featured in this section.

In tandem with the shifts of focus in language-in-education policy in Rwanda, tertiary learning institutions have adjusted their language programmes. For almost all the public tertiary learning institutions the focus of language pedagogy during the period between the late 1990s and 2008 was French-English bilingualism. Instruction in each of the foreign languages, therefore, emphasized the development of general language proficiency. However, there was no uniformity or coherence between one institutional language programme and another. The curriculum samples from three public learning institutions discussed in the following subsections testify to this curricular heterogeneity. Only the essential parts that describe what the programme was like have been selected, and it will be noted that plans are more or less informative in terms of describing what the programmes are like. Where necessary, some descriptive details have been paraphrased and presented as outlines.

6.3.1 The English Programme at NUR

6.3.1.1 The Bilingual Programme

The language programme was run between 1996 and the mid-2000s by the School of Modern Languages, popularly known by its French abbreviation, EPLM (Ecole Pratique des Langues Modernes). It was a one-year intensive general language course taught in foundation year. After this programme students who passed a locally prepared test proceeded to their faculties at Level 1 and were taught another course, which is discussed in the next section.

The general objectives of the bilingual programme are stated (verbatim) as shown below:

> At the end of EPLM programme, students will:
>
> - Be bilingual;
> - Acquire competence and proficiency that will allow him to express himself and conceptualize in the target language: French and English;
> - Give a linguistic tool that enables him to follow courses language [sic] in his Faculty, taught in the target language, have access to bibliography and scientific research in the same language. [underlining mine]

Source: National University of Rwanda (NUR, 1998)

The bilingual focus is explicit from the phrase "Be bilingual". Also, the underlined words in the second objective show the pedagogical emphasis on language proficiency and competence, whereby the purpose was to enable each student to "express himself" – apparently when socially communicating with other speakers of French or English. 'Conceptualizing' in the target language (in the second objective) can be interpreted as 'thinking', 'abstracting', 'reasoning' or 'working out' cognitively oriented issues. The second objective is quite consistent with the 'deficit' and 'study skills' perspectives on literacy development and sits in behaviourist psychology (Lea and Street, 1998). Having roots in behaviourism, the 'study skills' model sees developing generic and often surface language skills as a sufficient tool or medium through which a student will comfortably access learning in the disciplines. It is assumed that once the student is instructed at the beginning of the

university programme the language proficiency acquired at this level will be easily transferred to other levels of study – and even to working life.

It can also be interpreted that terms like "give" and "taught" reflect that the designers' understanding of learning and teaching is rooted in teacher-centred methodology. That is, the teacher owns the linguistic knowledge and 'gives' it to the learner who is 'lacking' in the knowledge. The grammatical errors and the use of the gendered pronoun are the responsibility of the author and they outside the focus of this study. However, it may be noted that given the prevailing transition from French to French-English bilingualism at that time, it is likely that the author translated from French.

6.3.1.2 The New Cambridge English Course (NCEC)

Since the above objectives were meant for a bilingual programme, the objectives for French and English were independently developed. In the case of English, the bulk of the programme planning and content was the New Cambridge English Course (NCEC), a commercial English as a Second Language (ESL) course package published by Cambridge University Press (Walter and O'Sullivan, 1994). The NCEC is a four-level course package with was run as the sole general English course during the period in question. Upper-Intermediate is the highest proficiency level. The focus on general English proficiency was to be realized through rigorously teaching the course in one year – the foundation year – after which the school awarded a language certificate upon successful completion.

No sooner had NUR embraced the New Cambridge English Course (NCEC) than other institutions in the country, including private institutions, did similarly albeit with some variation. That is, some selected only parts of the programme that could fit into an intensive course running for a period of between three weeks and one term/semester, with no further language instruction. Yet others selected only parts of the package to improve on the students' general and basic language skills as a preparation for more content area focused ESP. The course components in the form of course books and audio-visual materials make up the course content. The main features and components of the course are analysed below:

- A multi-syllabus approach, which integrates work on all the vital aspects of language study: grammar, vocabulary, pronunciation; plus language skills, notions and functions
- Content that provides constant variety
- Topics which engage the interest of a wide age-range, from young adults to adults
- A supportive and comprehensive Teacher's Book; extra free downloadable teachers' resources now available online
- Each course level is designed to provide at least 72 hours of classwork using the Student's Book, with additional self-study material provided in the Practice Book
- Each book is accompanied by an audiocassette set

The key features of the course described above place it as an international course suitable for a range of ESL/EFL environments whereby students and other interested groups can have their general English language needs met. The rich content implied in the four-level course has the potential to enable students to develop the Upper-intermediate language proficiency sufficient for generally using ESL as a language of instruction. Each book level is subdivided into units, and these units are distributed over the whole course period, depending on each institution's sequencing and pacing pattern. For instance, some institutions may decide to

teach the course intensively in one term or semester, whereas others may adopt a slower pace, covering a whole academic year (i.e. equivalent to 3 terms or 2 semesters).

Based on the analysis of the NCEC materials, it has been established that in spite of the package primarily focusing on general English proficiency it, nonetheless, contains some elements of General English for Academic Purposes (GEAP), English for General Academic Purposes (EGAP) and academic literacies per se. On that basis, the language and literacy skills covered by the materials are summarised in Table 6.1 below.

Table 6.1: Language and literacy skills covered by the New Cambridge English Course

Level	Reading	Writing	Vocabulary Target	Adaptable Purpose
1	Reading for specific information	Spelling and counting; planning; writing longer sentences, paragraphs, informal and formal letters; note-taking & note-making; filling in forms	Total of 900 or more words and expressions	General Academic
2	Reading for specific information	Writing simple connected prose (expository, descriptive, narrative and persuasive); writing simple business letters	Revision of vocabulary learnt at Level 1; 900 or more new words and expressions	General Academic
3	Reading for gist; scanning; skimming; reading for specific information; guessing unknown words; using dictionaries; extracting the main ideas from a text; reading for detail	Constructing narrative; note-taking; writing simple reports; writing personal letters	Revision of vocabulary learnt earlier; 900 or more new words and expressions	General Academic
4	Scanning a text for specific information; reading for gist; reading for overall meaning; reading for main ideas; guessing words from context; using dictionaries efficiently; summarizing; paraphrasing; reacting to literary texts	Writing personal and formal letters; writing reports; writing economically; connecting sentences into text; summarizing; paraphrasing; giving written physical descriptions; note taking; expanding text from notes; using lexical and syntactic devices to improve a written draft	Revision of vocabulary learnt earlier; 900 or more new words and expressions	General Academic

Source: The New Cambridge English Course, Cambridge University Press (online)

Levels 1-4 in the first column correspond with the book/course levels. Columns 2, 3 and 4 describe each level's focus on the three language skills of reading, writing and vocabulary, respectively. In addition to the original data on the course content elements, the fourth column, 'adaptable purpose' shows that each of the content items (reading, writing and vocabulary) can be adapted to the students' general academic purposes. However, counting as a basic literacy skill is covered in the 'writing' part of level/book 1, and vocabulary acquisition and usage are further developed in the 'reading' activities designed in level 3 (i.e. 'using dictionaries') and level 4 (i.e. 'guessing words from context' and 'using dictionaries efficiently').

A closer examination of the course's content summary reveals that some elements of genre awareness, as an important aspect of academic literacy, are embedded in the reading and writing activities, although these elements are of a generic nature and so are not selectively focused on the target students' content areas except in one case: 'reacting to literary texts' in level 4, second column. Reading activities in level 4 also cover the genre of 'summary', while writing activities cover the following genres: the plan (level 1); the letter (levels 1, 2, 3); notes (levels 1, 3, 4); filling in forms (level 1); prose (level 2); the narrative (level 3); and the report (levels 3, 4).

However, as expected of a course oriented as the NCEC is, many essential higher-order reading and writing sub-skills as well as study skills and other academic literacies are missing from the course content. This implies that if ESP proper is to be taught in the place of general English, then this limitation in the NCEC material will need to be addressed through alternatives. It is to be noted that the NCEC is still a course of choice for English language and some forms of English-medium literacy teaching even after the 2007 policy changes. In the meantime, teachers address the NCEC's limitation – on an individual basis – by supplementing the course content with materials from a variety of sources, as Gaspard (not real name), a teacher from the context, confided to me through e-mail correspondence:

> There is a time we held a workshop and we teachers wanted to do something that we thought could further support our students but our plans were never brought to the surface. However, this didn't stop us from finding our own resources to supplement our lesson content with grammar and some other things we feel are important for the students (Personal communication, 22/10/2009).

Apparently, it is with this need in focus that in some institutions language instruction was continued after the foundation year/semester through different English language programmes that focused more on EAP/ESP. A case in point is French-named *Techniques d'Expression Orale et Ecrite* (TEOE), which can be loosely translated as *English for Speaking & Writing Purposes* (ESWP). This course is elaborated below.

6.3.1.3 The English for Speaking and Writing Purposes (ESWP) Course

Mainly based on students' perceived academic language needs as speaking and writing, the English for Speaking and Writing Purposes (ESWP) course was initially designed at NUR in 1998 as a follow-up course meant to improve the language skills acquired in the NCEC programme and to inculcate students into their respective discourse communities. Therefore, it was made a mandatory course after the Foundation year for all first year students but those from the departments of linguistics and literature. A couple of years later the course was wholly adopted by at least one private institution as a standalone intensive language training

course with no prior or further campus-based language instruction until the students graduated.

By virtue of their autonomy in designing and developing courses, and given the diversity characterizing the disciplinary orientation of each of the departments at NUR, it would appear that the departments took the liberty to tailor an ESWP course deemed as best for their students. In addition, individual English lecturers significantly influenced course development, granted the amount of latitude they were allowed in developing or influencing design without much control from above. For example, they could 'adapt' (to use a popular term in their context) the content of a course by reducing it or adding elements to it without seeking authorization or validation. As a result, there was much diversity in both the objectives and content of the ESWP course across faculties over the years. The aforementioned diversity is generally reflected in other public institutions in the country. All ESWP courses put together (at least at NUR) focused their pedagogy on such academic English skills as discourse competence, genre awareness, study skills, and language awareness contextualised in spoken/written texts or speaking and writing activities, depending on which language skills were privileged across time and space. Come the NCHE's language policy of 2007, things have changed, with some faculties abandoning the course and sticking to the new language programme and others adapting the ESWP course to fit into the transferable skills module suitable for their students' field or discipline. Good examples are the Faculty of Law and the Faculty of Medicine at NUR.

According to the Academic Literacies Approach (Lea and Street, 1998), the ESWP course can be interpreted as having been oscillating between the 'study skills' model and the 'academic socialisation' model, focusing on generic linguistic skills for use in the disciplines across the curriculum and on linguistic skills for use in specialised fields, respectively. Overall, one issue facing all ESWP courses across the faculties is their exclusive focus on speaking and writing skills at the expense of the receptive language skills of listening and reading as well as the language structure (i.e. grammar and vocabulary). Besides, many study skills are neglected. Therefore, the assumption that only the ESWP course will adequately support the acquisition of academic literacies required in the 21st century Rwandan tertiary education, which are amply underscored in the NCHE's new policies, is an issue to ponder on.

6.3.2 The language Programme at KHI

The language programme was run by the institute's Language Centre from the creation of institution in 1996. The intensive general language course was taught in the foundation semester at Level 1. Then, students who passed a locally prepared course based on it were exposed to a short language course that incorporated elements of English for Academic Purposes (EAP) in the general field of healthcare. The programme's general objectives are stated as focusing on the following (list made with key wording from original prose text):

- Implementing the Government policy of bilingualism;
- Equipping students with skills that would help them meet language demands in content area courses/programmes;
- Helping students develop the communication skills required to converse with healthcare or medical personnel as well as other students.

The focus on implementing the bilingual education fits well in the general language-in-education policy at that time. The assumption in the second objective, as in the previous case at NUR, is that general English would empower students to access discipline-based meaning-making and to communicate that meaning to/with 'insiders' and peers in the healthcare discourse community. This is typically a 'study skills' perspective on academic literacy development (Lea and Street, 1998). However, the course is two-staged, beginning with intensive instruction in general English and then fading this into a more discipline-oriented EAP short course. Since the latter course addresses the communication needs of the institution-wide academy, it forges alliance with the 'academic socialisation' perspective on academic literacy (Lea and Street, 1998). On the other hand, given the fact that the healthcare field is vast, such a course serves to acculturate students into the 'culture' of the broad academy (Haneda, 2009) but is not likely to enable students to automatically gain access and achieve full membership in all the branches of the field (Lea, 2006; Lea and Street, 1998). For example, the course is not likely to address the deep language, literacy and discourse issues involved in knowledge production in all the specialised healthcare branches (Street, 2009). This is notwithstanding the programme's position that instruction from it would support students' academic activities:

> The objective of the courses offered in the department is to bring students to a level where they can follow courses taught in French and English and have an acceptable performance in all academic activities related to those courses. This implies the acquisition of all the linguistic and communicative skills required in academic environment.

During my visits to the institution in 2006 and afterwards, I learnt that the bulk of the intensive general language course had also been based on the NCEC. The pile of NCEC textbooks in the main library bore testimony to this fact. However, keeping the course books in the main library – instead of the language department library – revealed to me that the course was no longer the main curricular content of the English language programme. I was informed by the insiders (department head, teachers and students) that only selected parts of the course were taught in a short general English course after which students were taught an EAP course. According to the teachers, a variety of ESP materials were selected or developed from diverse sources. Yet, even in the KHI context up to 2007 there was no clear policy on focusing on the transferable skills demanded by the NCHE policies shortly afterwards.

6.3.3 The Language Programme at KIST

At KIST the language programme was run from 1997 by the School of Language Studies (SOLAS). The programme objectives are articulated in a fairly long prose text which cannot be reproduced in this space. Therefore, as many of the key words used in the text as possible were selected to arrive at the outline below:

- To respond to Government bilingual policy;
- To bring to the high level of proficiency all students originating from a French linguistic programme;
- To enable students to follow instruction gradually in English;
- To offer English language classes concurrently with the content area courses so as to help students improve their language skills and develop their study skills, thus enabling them to manage the linguistic and academic demands of content area education;

- To assist in widening students' opportunities by preparing them for employment or for postgraduate studies locally, regionally and internationally; and
- To develop and enhance students' critical thinking and analytic skills.

Like the NUR's and KHI's programmes, the KIST language programme demonstrates its commitment to implementing the bilingual education policy. Likewise, it stresses the importance of language proficiency and of using the foreign language to access academic learning. Unlike the other two institutions, however, there are significant ways in which the KIST programme distinguishes itself from the other two. One, among the three institutions it is the only one that mentions (in the plan) the ideas of 'study skills' and 'critical thinking and analytic skills'. The focus here is explicitly on EGAP, but the programme plan goes beyond this to signal a methodological framework expressed in the fourth objective in the above list. From a methodological perspective, the idea of offering "English language classes concurrently with the content area courses so as to help students improve their language skills and develop their study skills, thus enabling them to manage their linguistic and academic demands of content area education" represents a Content-Based Approach to language pedagogy.

Another exceptional feature is that of preparing students for postgraduate study and working life, which is a focus ahead of the NCHE policies that emphasise the same. In order to achieve the listed objectives, KIST embarked on an extensive and graded (i.e. calibrated) programme that was spread over three years and comprised (i) General English I (in the foundation semester); General English II (at Level 1, both semesters); General English III (at Level 2, semester 1); English for Specific Purposes (Level 2, semester 2); and English for Standard International Tests (Level 3). Another special element that is featured in the programme plan is that of preparing students at Level 3 to write their research projects when they get to Level 4 and/or 5. The literacy embedment approach adopted by KIST exemplifies an incremental ESP pedagogical process, where students are supported to acquire general English skills at the beginning, are then gradually inculcated into the generic discourses of the academy, culminating in discipline-specific language use to support the acquisition of content area literacies and employability skills.

6.3.4 Reflections on Curricular Provisions Before 2007

In all cases featured in the data covering the period between the mid-1990s and 2006, the approach adopted to embed academic literacies can be interpreted from two major perspectives: (i) the positioning of the provision in relation to the mainstream subject areas; and (ii) the instructional content the programmes or courses have planned to offer students. All the literacy or literacy-related programmes/courses featured were freestanding provisions embedded within the mainstream curriculum in a variety of ways. Programmes or parts of them were positioned at the foundation level or in year-one, with no further instruction beyond this level. This approach is what Cottrell (2001) has called the *remedial approach*, and Bennet et al. (2006) have termed the *bolt-on approach*. Alternatively, language/literacy programmes start with a general English course at the beginning of the university programme and thereafter follow through with ESP courses that run concurrently with content area studies. Research on academic literacies which maintains a critical perspective on literacy development sees either way as still being an 'extra-curricular' or a 'co-curricular approach' to embedding the tertiary academic literacy curriculum (e.g. Cottrell, 2001; Drummond, et al.,1998; Wingate, 2006). From the second perspective, all the programmes and courses again primarily focused on bilingualism and foreign language development as a medium through

which students become members of the academy. This approach is interpreted to ally with the autonomous, deficit or study skills models (Lea and Street, 1998; Street, 1984, 1988, 1995, 2003). The autonomous model closely links academic literacy development to language proficiency.

However, some programmes or freestanding courses attempted to connect general English proficiency to disciplinary learning through EAP/ESP instruction, e.g. the ESP courses at NUR before they were scrapped and the ESWP course that replaced them, the follow-up EAP course for healthcare trainees at KHI and the gradually staged/calibrated ESP programme at KIST. The emphasis of these curricular provisions was generally 'ideological' in nature and valued the acquisition of technical academic literacy skills that comfortably empower students to enter and integrate into the academic culture of their institutions. By doing this the approach positioned its allegiance between the study skills model and the academic socialisation model (Lea and Street, 1998). The academic socialisation model focuses on inducting students into the academy through a selected content area and assumes that they will gain access to all layers of the entire tertiary discourse community. The model is related to the 'ideological' model which stresses the conventions of the academy. That is, if students cannot 'do it right' according to the set rules of the academy, then, they do not belong.

What appears on paper or on the screen as planning for academic literacies instruction can deny the analyst or any other interested person many details. Moreover, many plans are brief and tend to rhetorically highlight the messages designers want readers do receive. Therefore, one of the issues that needs attention is what learning activities and tasks are represented in the planned course content and to what extent these articulate the acquisition of academic literacies. Within the framework of Academic Literacies Approach, a 'study skills' model would be interested in what technical skills are to be 'taught' (assuming these will be symmetrically 'learnt'). An 'academic socialisation' model would focus on how the acquired literacies would inculcate students into the academy. An 'academic literacies' model would want to go deep into relating the technical skills taught and how they are socially constructed and interconnected in disciplinary learning and intellectual integration, as well as what all this means to the power relations between students and the more experienced members of the academy and the former's own identity.

One of the unobtrusive sources of data that can illuminate the literacy activities articulated in a course is instructional materials. In this section, for example, the NCEC materials have been used to analyse course content that can potentially promote the acquisition of academic literacies. The analysis has identified the content provision of the NCEC as 'rich' particularly for the acquisition of proficiency in English as a Second Language (ESL). On the other hand, the course package lacks many elements of ESP and most of the literacies listed in Figure 5.1. This is understandable because the course was designed for a purpose that is being slowly replaced by different purposes.

6.4 THE ACADEMIC LITERACIES CURRICULUM AFTER 2007

With the introduction of the reform policies by NCHE in 2007, one big change has been limitation of latitude on the part of learning institutions in terms of curriculum development. While earlier on the institutions could independently develop their language and literacy curricula as they deemed fit for their respective contexts, this time around they had to do so in conformity to a policy framework that offered certain curricular specifications. Another vitally important change is the new policy focus on undergraduate education, lifelong

learning (including wider participation of students from unconventional paths), employability, entrepreneurship and multimodal learning especially through ICT. It is against this backdrop that a set of modules have been set to drive the acquisition of the academic literacies outlined in Table 5.1. The Credit Accumulation and Modular Scheme [CAMS] (Rwanda NCHE, 2007d) requires that all public tertiary learning institutions establish provision for undergraduate transferable skills modules as follows: (i) English language, (ii) skills in computer-based technology, and information and communication competence, (iii) study skills, and (iv) personal development planning (PDP). An integral part of PDP (Rwanda NCHE, 2007h) is for students to be able show that they have successfully passed instruction in computer skills, English and communication skills at the end of their undergraduate programme. Therefore, by the time data collection for this study was winding up, learning institutions were grappling with the transition from the foreign language-oriented academic literacy instruction to the 'new order'. This is illustrated by three case studies selected from the public institutions: National University of Rwanda (NUR), Kigali Health Institute (KHI) and Kigali Institute of Science and Technology (KIST) (see Table 1.1a).

6.4.1 Programmes at NUR

6.4.1.1 The English Language Programme

At NUR the first change came in July 2007 shortly after the NCHE released its policy on language teaching in higher education. The very first step was to adopt a language policy modelled on the NCHE language-in-education policy (Rwanda NCHE, 2007g). The foundation year programme was abandoned, so students were to do their language course alongside content area instruction. After English was declared the exclusive language of instruction in 2008, the language of NUR's content area teaching was switched to suit the new policy. Thus, it is stated in a document titled 'Draft Policy on Language Teaching for the National University of Rwanda' (NUR, 2007c;1) that:

> This Policy replaces the one accepted by Senate in 2007 and reflects the national policy that all education shall move towards English as the primary medium of instruction. Beginning immediately, English shall be the sole language of teaching and assessment…, except for those disciplines which focus on French or African language and/or literature or on subjects such as Law where the ability to read and comment on documents in French and Kinyarwanda is an essential skill.

By the year 2010, the former School of Modern Languages had changed its name to *School for Foundation Language Skills*, and its mission and objectives seem to have been slightly transformed. Keeping as close as possible to the meaning of the original text, which is fairly long, the new objectives are outlined below:

- To assist the government in implementing the new language policy;
- To help students to effectively follow their academic programmes without any impediments; and
- To help students achieve an advanced level of English language proficiency in both oral and written expression.

Based on the text above, it can be interpreted that the NUR English programme is still committed to three things: (1) implementing the national language-in-education policy, (2) developing high levels of language 'proficiency' among students, and (3) empowering

students to use 'English language proficiency' as a medium through which to access content area knowledge. However, this stance does not seem to rhyme so well with NCHE's shift of emphasis from general English to ESP (Rwanda NCHE, 2007g). Besides, as noted in the previous section, this stance is identified with the 'autonomous', 'deficit' and 'study skills' models of academic literacies development (Lea and Street, 1998; Street, 2003). This stance is further emphasised by the "foundation language skills" label in the new school's name.
The name suggests that the school's preoccupation will be only 'foundational' skills (usually requested of university entrants rather than on-going students) as contrasted with progressive high-order linguistic and other skills embedded within specific content area learning. This might explain why the foundation English provision is followed up with instruction in the so-called 'new skills'.

6.4.1.2 The 'New Skills' Programme

1. Study and Research Skills: Module I

In a circular e-mailed to 'all staff' at the end of 2007, a top official in the institution's management called on lecturers to register for paid teaching of "the new skills module" meant for all first year students. The module (which is coded *Module I* in this study) is officially titled 'Study Skills and Research'. The first part of the plan reads as follows:

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Module Title: Study Skills and Research
Level: Year 1
Length: 180 hours + 20 hours for revision and examination
Credits: 20
First year of presentation: 2008 (semester 1)
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Source: Study Skills and Research module, NUR, 2009

The title puts explicit focus on study skills and research skills. The assessment requirement of "20 hours for revision and examination" highlights the importance of assessment, hence an implicit requirement for assessment skills on the part of students. However, this does not indicate that students will necessarily be taught how to be assessed. Combining the skills in one module instead of teaching them as separate skills is a most welcome move, from the 'academic literacies' perspective to literacy development (Lillis, 2001; Wingate, 2006)

In order to identify what the module intended students to achieve in terms of particular transferable skills analyses focused on other constituent parts from which information could be gleaned. The ones selected for this purpose are: (1) module aims, (2) expected or intended learning outcomes, (3) 'indicative content' outline, and (4) activities/tasks and materials. The module aims read as follows (verbatim):

Aims

- To help first year students integrate [into] the university community by providing them with some learning strategies
- To enable students to develop their familiarity with [the] computer as a tool for processing various kinds of data, doing research, and presenting written information

[underlining mine]

Source: Study Skills and Research module, NUR, 2009

The first underlined phrase in the first aim shows that one of the overarching aims of the module is scaffolding students entering tertiary education to be able to be inculcated into the tertiary community. This resonates with the 'academic socialisation' model (Lea and Street, 1998). Providing students with 'learning strategies' sounds as if these strategies were ready-made artefacts to be handed to them, but it is likely that the author wanted to mean that students were to be 'equipped' or, simply, to be 'taught' some learning strategies. This can be interpreted as behaviouristic teacher-centred, although this is juxtaposed with a more facilitative teacher-directed knowledge acquisition process in the expression "to enable students". Either way, the conceptual underpinning represented here can be located within the 'deficit' and 'study skills' model (Lea and Street, 1998), where literacies are viewed pathologically as technical skills students 'lack' and must be 'given' to fit in the academy. Furthermore, the use of the term 'strategies' in the context raises a theoretical issue about the distinction between 'learning strategy' and 'study skill', the latter being the one signposted in the module title. But, it is likely that the terms are used interchangeably in the context. The ability to use the "computer as a tool" foregrounds both technological and information literacy, not as an end in itself but as a means to developing other literacies – i.e. processing data, doing research, writing and presenting. In this respect, the aim subscribes to the 'academic literacies' model (Lea and Street, 1998), which foreground the integration of multiliteracies development within disciplinary learning (Lillis, 2001; Wingate, 2006).

The outcomes are outlined verbatim below. They are grouped under four major headings corresponding with the terms used to label the descriptors in the national qualifications framework for Rwandan higher education (see Tables 5.2 a & b):

Outcomes

Knowledge and understanding

Having successfully completed the module, students should be able to demonstrate knowledge and understanding of:

1. Reading with a purpose, note-taking techniques, time and stress management techniques as well as examination strategies
2. Working with a computer and other ICT tools: Windows operating system, word processing, spreadsheets, PowerPoint, and the Internet
3. Academic Research: characteristics and purposes; types of research, qualitative vs quantitative research approaches, data collection techniques and tools, documenting sources used in a written task.

Cognitive/Intellectual Skills/Application of Knowledge

4. Manage their time appropriately so as to avoid last minute stress
5. Read efficiently so as to complete many assignments within a limited time
6. Take notes during lecture time and after the lecture, prepare and write their exams successfully
7. Browse the Internet and use the library catalogue to look for any relevant information/documentation that may be needed to carry out different tasks
8. Use the computer
9. Appropriately document the sources used in written tasks according to a given referencing system

Communication/ICT/Numeracy/Analytic techniques/Practical Skills

10. Produce and present in groups or individually the summary of the readings made about a given research topic (Alternatively, this can be done orally by means of PowerPoint presentation, tables and/or graphics)

General transferable skills

11. Work independently with minimal supervision
12. Work on different tasks in groups, with no teacher supervision but with one student acting as a chairperson/reporter
13. Present one's own written work

Source: Study Skills and Research module, NUR, 2009

There are several study skills and other literacies articulated in the above outcomes. For this reason, they are summarized and then outlined in Table 6.2, where the first column indicates the type of skill or strategy to be learnt and the second column shows the serial number of the specific outcome from the above list from which the skill has been derived. For example, if the skill known as 'information literacy' is stated explicitly or is alluded to by other words (e.g. library and computer in separate aims 1, 2, 3, 4) the column indicates the corresponding outcome number against the skill. However, item numbers overlap in many instances, as one outcome states different skills to be learnt, e.g. in outcome # 1 the skills of reading, writing (i.e. 'note-taking'), time management, stress management and examination strategies are all to be learnt.This overlapping is expected because the nature and function of the skills themselves is such that they frequently overlap. A good example is where one has to read or listen to be able to take or make notes. Another example is practising a skill such as information literacy which involves a number of skills being in operation at a go: reading, writing, listening, speaking, thinking critically, managing time, manipulating technologies, and so on.

As shown in Table 6.2 below, a number of skills have been gleaned from the targeted instructional outcomes. Then, the skills are grouped into broad literacy categories (see column 1) for legibility purposes. Since the list of outcomes can be read clearly from the excerpt above, only instances where one skill is not explicitly stated but naturally embedded in another skill are elaborated further.

Table 6.2: Transferable Skills to be covered in Module I

Skill to be learnt	***Instructional outcome***
Reading	1, 5, 6, 7, 8, 9, 10
Writing	1, 2, 6, 8, 9, 10
Speaking	10, 12, 13
Assessment/examination	1, 6
Technological & information literacy	2, 7, 8, 9
Time management	1, 4
Stress management	1, 4
Academic research	3, 9

Reading skills: Reading seems to be dominating the skills as it crosses the borders of other skills so frequently. Outcome # 6 'taking notes after a lecture' implies note-making which involves the student in extensive or intensive reading and synthesizing what he/she has read and summarizing it in a much smaller text than the read text. Note-taking, on the other hand, involves copying verbatim or through 'shorthand' form from a spoken text (e.g. a lecture) or from a written text (e.g. lecture notes written on the board, PowerPoint slides, overhead transparencies, etc.). In outcome # 7 the information searching activities involved depend on the reading skill. The same case applies to computer use in outcomes # 8 and 9. In Outcome # 10 'summarizing of readings' analytical and synthetic reading are definitely required.

Writing skills: The writing skill is also implied in many other skills. Although outcomes # 2 and 8 are generally about "working with the computer and other ICT tools", word processing has much to do with the writing skill. In outcome # 9 "documenting the sources in written tasks" entails some writing.

Speaking skills: Speaking is hardly mentioned in the aims but this skill is inevitable in outcomes # 10 and 12 where 'working in groups' naturally involves verbal exchange. In outcome # 13 'presentation' of one's own work involves mainly the speaking skill, although other skills such as ICT literacy and writing are involved, e.g. PowerPoint or poster presentation accompanying oral classroom or seminar/workshop presentation.

Assessment/examination skills: The outcomes that focus on these skills are # 1 (examination strategies) and # 6 (preparing for and writing examinations).

Technological/information literacy: Technological and information literacy are often inseparable as the computer and internet seem to have replaced other ways and means of dealing with information. Hence, in outcomes # 2, 7 explicit wording used and 8 to foreground information and technology. Outcome # 9 too, which seems to focus on library research, involves the use of information and technology.

Time and stress management: Time management and stress management are juxtaposed on the list (i.e. "time and stress management"), although they are different types of skills. While time pressure or poor time management can lead to stress, as "manage their time to avoid last minute stress" suggests in outcomes # 4, stress can be a result of a multitude of factors that are far removed from being related to time.

Academic research skills: The term 'academic research' needs some clarification. Looking at it in the context of other words used to describe the instructional aims, e.g. 'processing data' and 'doing research', the surface meaning is that the research being referred to here is the scientific type of research related to 'research methods/methodology' courses usually taught in tertiary education. However, based on the details from the targeted outcome # 9, analysis shows that the type of research referred to in this context is on online-based library research. On the other hand, outcome # 3 does not fit into this purpose, as it focuses on scientific research methodology – hence a mismatch and the lack of linkage between the two aims. That is, the targeted aim is for students to gain the 'theoretical knowledge' of scientific research methodology, but gain the 'applied knowledge' of how to research using library resources specifically. Therefore, there is likely to be a misinterpretation of the term 'research' by the designers. This and related issues are taken up in the 'discussion' chapter.

The 'content outline' of Module 1 is a list of general items of the subject matter that are supposed to be covered during instruction, so it is a very important part of the instructional design. The content outline is divided into 'general' and 'specific' components, each corresponding to the other. In order to align these more explicitly and also to reduce the bulk of the original text, they are presented in Table 6.3 below, while keeping their original wording but modifying the presentation format. The key words or phrases that are commented on immediately after the table are in italicised bold type for emphasis.

Table 6.3: Indicative Content for Module I

General Content	Specific Content
Setting the context of the ***new pedagogy*** and ***self-directed activity***	Personal and social ***aspects of being a university student***: time and stress management techniques
Writing skills: essays, examinations, other discipline-specific forms	Efficient ways of reading
Skills of note-taking, summarizing, reading for a purpose	***Note-taking*** techniques during lecture time, after lecture, and from any other source
Skills of ***logic argument, comparing and contrasting, evaluation***	***Examination preparation*** strategies
Information retrieval (1) – library use ***Information retrieval (2)*** – the University web page, searching the web, INASP-PERI, evaluating sources of information ***Information retrieval (3)*** – discipline-specific sources	Introduction to ***computer and Windows*** operating system Some essential ***IT applications***: MS Word, MS Excel, MS PowerPoint, and the Internet
Simple computing – file management, Word (including tables and graphs), Excel	Same as above
PowerPoint and structuring and delivering a ***presentation***	Same as above
No 'content' item indicated by the original module plan (document)	***Academic research:*** characteristics and purposes; types of research – qualitative vs quantitative research approaches; data collection techniques and tools; documenting the sources used in a written task using a given referencing system

Source: NUR, Study and Research Skills module, NUR, 2008

Generally speaking, the content outline reflects the aims, so in terms of the transferable skills planned to be learnt the outline can be a useful scaffold for the lecturers who will teach the module or even for the students who are motivated and are able to study autonomously. The selected key words and phrases (in bold type in Table 6.3) such as 'writing skills', 'note-taking', 'examination preparation', 'computing/computer' and 'presentation' are used also in stating the outcomes and skills to be learnt. 'Setting the context of the new pedagogy' appearing in the first item in the left-hand column (see Table 6.3) can be interpreted as referring to inducting new students into the new teaching and learning methods prescribed by

the National Learning, Teaching and Assessment Policy (NALTAP) and related policies discussed in Chapter 5. This aligns with the idea of academic acculturation/socialisation referred to earlier. The inclusion of argument, logic, comparing and contrasting, and evaluation (see fourth item under 'general content' in Table 6.3) suggests the acquisition of academic discourse and related competences. 'Information retrieval' implies instruction in information literacy, although it might be argued that information literacy is much wider and much more sophisticated than mere 'library use'. Moreover 'evaluating sources of information' is clearly an essential function of information literacy.

Apart from the content outline, the module outline also contains the major teaching-learning activities that were planned. The instructional process was to be scaffolded with various activities. The main activities which were planned to make up the instructional process have been analysed and are therefore presented in the list below. The materials or resources to support the process are embedded in the activities.

- Reading texts and other course materials were to be prepared well in advance and given to students;
- Students would be asked to locate areas of difficulty in the materials and thereafter meet their teachers in the classroom for discussion, explanation and clarification;
- Students were to be given home assignments in order to enhance their understanding and to help measure individual students' efforts;
- Students were to be given assessment tasks that required them to do the following: (i) draw personal time tables for time and stress management; (ii) read texts applying different strategies before class presentations; (iii) attend seminars where they would take notes and make summaries of main points; (iv) be guided in finding appropriate documentation for research topics using library catalogues and/or the Internet before they present a word processed summary of the main points; and (v) be given a referencing system on the basis of which they would be asked to correct badly referenced research work.
- Feedback and student support during module: Guidance and assistance was to be provided in the course of classroom-based group work, and in addition to feedback given on each assigned work students were welcome to go to the teacher for consultations in case they had problems with the module and needed further support.

The above list of activities exemplifies how scaffolding academic literacies development can be done through the 'designed-in' approach (Hammond and Gibbons, 2005; Sharpe, 2001, 2006).

The module elaborated above was supposed to be taught in 2008. However, according to one teacher at the institution who was programmed to teach at least one of the module components, the module failed to take off as planned. The following is an excerpt from his e-mail in response to my inquiry about the module:

> To the best of my knowledge, the module was once proposed… From the way it was designed, it was a conconction [sic] from the former Computer Course, Introduction to Research and English Writing I. The module was supposed to be offered to all first year students.
> Some trials have been made in some Faculties by the folks from…but it seems the output was not exactly the one sought after. I don't know for sure the current situation. [underlining mine] (Personal communication, November 26, 2009)

The use of the term 'concoction' in the excerpt above suggests that the module was a hybrid from previously existing courses. In the context in question, the three modules are taught at Level 1, and this situates the 'academic research' component in Module 1 in its right place – the 'Introduction to Research' module.

2. Study Skills and ICT: Module II

Since Module I did not materialise, another module was designed to replace it. As in Module I, the module plan is used here as a source of data is coded *Module II*. The first part of the module plan reads:

```
Module Title: General Study Skills & ICT
Level: 1
Length: 180 hours + 20 hours for revision and examination
Credits: 20
First year of presentation: 2008 (semester 1)
```

Source: Study Skills and ICT module, NUR, 2009

Whereas in Module I the module title highlighted study skills and research, the Module II title omitted the 'research' component and replaced it with ICT. However, the research component re-surfaces in the 'content' part of the plan as elaborated later in this subsection.

Aims

- Students should know how to use Windows Explorer, MS Word, Excel, Access and PowerPoint, Introduction to Internet Explorer.
- Students should work with matrices, function, graph components in MATLAB/Simulink and Matcad.
- Students should communicate effectively in a specific academic environment and acquire research skills. [underlining mine]

Source: Study Skills and ICT module, NUR, 2009

The first thing to note is that the language has changed as compared to the previous module. So, instead of 'helping students to …' and 'enabling them to …' (by the teacher), this time they 'should know…', 'work with…' and 'communicate…'. This is interpreted as a paradigmatic shift from teacher-centred to learner-centred teaching where student activity is pointed out in all formulations. The first two aims list a number of technical skills to develop and use with regard to ICT literacy but in the third aim the students are expected to use these skills to "communicate effectively" within their specialised disciplines. It is rather difficult to know from this excerpt whether or not the designers expected automatic and unproblematic transfer of the ICT skills to disciplinary knowledge acquisition after instruction, in which case they would be subscribing to the 'study skills' model (Lea and Street, 1998). However, the aspect of students learning both the study skills and ICT skills in an integrated way is an 'academic literacies' stance (Lea, 2004, 2006; Street, 2006, 2009; Wingate, 2006).

The content outline for the ICT part in Module I is very similar, except in detail, to learning outcomes # 1-6 in Module II, so it is not repeated here. The 'outcomes' part labelled 'communicating effectively in a specific academic environment', which tallies with the third aim above, is outlined as follows (verbatim):

Outcomes

Communicating effectively in a specific academic environment

- Listening, speaking, writing and reading activities using online materials to develop communication skills
- Personal and social aspects of being a university student: time and stress management techniques
- Efficient ways of reading
- Note-taking techniques during lecture time, after the lecture, and from any other source
- Examination preparation strategies
- Reach out and effectively communicate with the international academia
- Efficiently pursue further studies

Source: Study Skills and ICT, NUR, 2009

Unlike the previous module plan, Module II explicitly recognises that language-based study skills encompass all the main skills of listening, speaking, writing and reading, which is a perspective grounded in the New Literacy Studies (Gee, 1991; Street, 1984, 1995; The New London Group, 1996). In addition, non-linguistic study skills (e.g. assessment and time and stress management) come back in Module II. New skills in Module II are (a) reaching out and effectively communicating with international academia, and (b) pursuing further studies. Communicating with international academia expands the notion of 'academic socialisation' based on the institution where one is enrolled, and it attunes well to the 21st century perspective on academic literacy, e.g. effective communication, and multicultural and global awareness.

In the original module plan, an explicit but generalized set of teacher-led scaffolding strategies for students are outlined under the heading 'Strategy for feedback and student support during module', and they are copied verbatim below:

- Consultation hours to see the students in the office.
- Two meetings with the students during semester to discuss their problems (if any).
- Analysing the results of the tests to reach possible problems and take measures to solve them.

Source: Study Skills and ICT, NUR, 2009

This is in consistence with the policies on student support and guidance as well as Personal Development Planning (PDP) which were discussed earlier in Chapter 5. Furthermore, students were to be supported with 'lecture notes'. The 'research skills' component in Module I was expanded in Module II, broadening the perspective on research needs in undergraduate study, but the issues raised about this component in Module I also apply to Module II. The content outline for research skills is copied verbatim below:

Research Methodology

- Introduction to research methods: definitions, classification and problem identification.
- Research or project proposal: finding topic, Literature review, Hypothesis, objectives, streamlining the general subject to a specific topic, methodology and planning/scheduling.
- Data collection: Sources of data, Design of experiment, Design of questionnaire, sample design, use of computers and appropriate software.

- Data analysis: Use of statistics in research, computer applications, interpretation and report writing, layout of the research report, conclusion on the results.

Source: Study Skills and ICT, NUR, 2009

However, since a mandatory institution-wide 'research methodology' module was already in place at the institution (and in all other higher learning institutions in the country), it is not clear whether the research component of Module II was to replace or supplement the module. In the meantime, according to the same teacher with whom I had corresponded earlier by email, Module II was taught in 2009 but it was only the computer/ICT component that was covered, perhaps due to a lack of lecturers to teach the language/study skills and research components of the module. The e-mail partly reads:

> I'm afraid I could not gather as much information about the module as you may expect. Most of the students I managed to contact told me that they were taught by XXXX, and that he just provided them with some hand outs photocopied from ICT textbooks without even a description [syllabus]. The students expressed dissatisfaction with the module because they said they were unmotivated by its very nature (Personal communication, 01/12/2009).

The problematic implementation of the 'new skills' module as an institution-wide provision suggests that there are certain constraints and barriers which stand in the way. As it is not easy to identify them using the data available in the plans, this would better be achieved through different methods from those employed in this study.

6.4.2 Programmes at KHI

6.4.2.1 The English Language Programme

Nothing much seems to have changed in the language programme at KHI, as the institution still maintains its mission for bilingualism, although the focus on the English language cannot escape the eye. The programme plan from the KHI language centre states, in part:

The Language Center's mission is to transform KHI students and staff into true bilingual speakers, with a particular focus on the English language.

Source: Programme Plan, KHI Language Centre, 2009 & 2010

However, a slight curriculum adjustment gleaned from the plan is that some attention is now paid to staff language training, in order to enable Francophone staff to teach and assess in English, and presumably to promote staff's English language input for students (Krashen, 1985). Although general language is, from a global point of view, still regarded as essential at KHI, the need to align with NCHE's language policy shift towards ESP is evident in the following objective.

To bring KHI students and staff to a level of proficiency where they can operate in English and have acceptable performance in all the academic and administrative activities in which they are involved. This implies the teaching of all the necessary academic and professional communication skills.

Source: programme Plan, KHI Language Centre, 2009 & 2010

In order to implement the programme, the centre runs two courses for students. The *Language Intensive Course* (which uses mostly the NCEC materials referred to earlier in the case of the language programme at NUR) is a two-month course that aims at upgrading first year students' proficiency level in English and French (notice that French is still taught in this context). Students who successfully complete this course then proceed with the next course, which is called *English for Medical Professionals*. Actually, this is not a course but a unit of an 100-hour umbrella module known as *Communication Skills*. This unit is taught at Level 1 and it accounts for four credits (i.e. 40 hours). It focuses on English for Medical Professionals. However, although KHI is running the Communication Skills module, there is no evidence of planning to teach the transferable academic skills – apart from English language skills – requested by NCHE policy. These might be embedded in the intensive English part of the module or the ESP component but this is a question further enquiry.

6.4.2.2 English for Specific Academic Purposes and for the World of Work (ESAP/EWOW)

Until 2007/2008, the KHI English language programme was mainly based on the New Cambridge English Course (NCEC), but with the advent of NCHE's new language policy for higher education, the language programme has been undergoing significant revisions to incorporate general and content area ESP elements. By the end of 2009 most of the newly designed *English for Medical and Health Sciences* (EMHS) modules were still at trialling stage, but the entire language programme is to date structured and sequenced as it was before 2007. Students entering KHI are first instructed in an intensive General English course – known as 'the intensive' in KHI popular discourse. Then, this is followed up with a short EAP course that addresses English language use in the broad area of healthcare.

The General English unit of the Communication Skills module is an institution-wide pre-course taught intensively over a seven-week period before newly admitted students begin their respective content area studies. The EAP unit of the module, in addition to a focus on healthcare related English communication, incorporates some study skills elements. When data was collected in 2009, only *English for Environmental Health Officers*, a four-credit unit of the module, was taught, while the other two units were undergoing design and planning. The field orientation module was taught at Level 1.

At the time print-based data was last collected in 2009, only *English for Medical Professions*, a unit of the *Communication Skills* module, was operational. Each of the content area ESP courses was broken down into topics/themes that address the general or specific content area communication needs, with a view to scaffolding academic literacies acquisition among students at various levels. It is around these topics that instruction in language structure, language skills and literacy skills was organized. The Communication Skills module is a good example of an integrated curriculum approach (Wingate, 2006), as it combines elements of field-specific and work-related English, thus supporting students in their current study and preparing them for their future working life. Two unit samples from the *Communication Skills* module were examined to illustrate this point, and the findings are outlined in Table 6.4. The first unit was taught in 2008 at Level 2 (i.e. year-two).

Table 6.4: A summary of a unit sample of the Communication Skills module offered at KHI

Target Language/Literacy Skill	Language/Literacy Skill Acquisition Activity	Content Area Topic
1. Vocabulary building 2. Listening comprehension	- Introduction to content & vocabulary + pronunciation - Video viewing - Post-viewing questions	Common Infectious Diseases: Trachoma
Interpreting graphs & charts	- T. presents basic information for presenting charts & graphs - Interpretation of Rwanda Country Profile for TB - Ss construct graph/chart based on other statistics	TB Statistics for Rwanda
Use of online dictionaries & context clues	- Illustrative example of Tanzania's treatment campaign (as support to get Rwanda's information) - Use of online medical dictionaries + pronunciation (lecture, handouts, web surfing) - Use of contextual clues (lecture, handouts)	Management of Malaria using ACT
Use of online resources	T. provides online reading materials, or refers Ss to relevant web sites for self-access	New Ideas for Global Health, e.g. - Lab in a Box - Mosquito Time Bomb - Mosquito *Olfacticides* - Dried Vaccines – without refrigeration or needles
Internet-based presentations	Short videos of innovations for developing countries, e.g. - Roller drum for carrying 20 gal. water - Life Straw drinking filter - Water pump and irrigation hose	Designs that Solve Problems for the World's Poor
1. The research report 2. Oral presentation	Oral presentation assignment: - Review assignment - Resources on the Internet - Evaluate Internet web sites - Take reading notes - Summarize and paraphrase - Organize a Report-Write matrix - T. critique of students' matrices - Ss rehearse/revise oral reports: pairs submit outline of presentation; pairs present their findings and rehearse oral report - Ss present report orally	Open
Paragraph writing	Instruction on writing paragraphs: - Pre-writing strategies - Topic sentence and controlling ideas	Open
Reading (intermediate to advanced levels)	- T. simplifies/abridges the article in *New England Journal of Medicine*. April 5, 2007 - Pre-reading questions and vocabulary - Ss read the article - Post-reading questions and short writing assignment (homework)	Making Motherhood safe in Developing Countries (abridged journal article)
	- T. simplifies the article in *New England Journal of Medicine*. September 15, 2005 - Pre-reading: introduction and discussion questions - Summary of article - Post-reading discussion/quiz	White Coat, Mood Indigo (abridged journal article)
Additional readings (intermediate to advanced levels)		

1. Africa: Land of Hope (article on Rwanda, July 5, 2007. New York Times, p A.15 2. The Basics of HIV/AIDS: Prevention, Counseling, Testing, and Post Test Counseling in the US 3. Global Fund to Fight AIDS, TB and Malaria (report) 4. Vitamins and Perinatal Outcomes among HIV-Negative Women in Tanzania, NEJM. April 5, 2007
Supplementary video content Video segment suitable for English lessons: Island Hospital (featuring patient intake and laboratories)
Student-led discussions on topics of current interest These can be scheduled on a weekly basis. Each student or pair of students could conduct and summarize a discussion and be graded.
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Source: Communication Skills module unit plan, KHI Language Centre, 2009

From the above outline, it is evident (see first column to the left) that most of the key language skills (listening, speaking, reading, writing, vocabulary) are covered. As far as grammar is concerned, it can be inferred that the latter is embedded in the listening, speaking, reading and writing materials and activities in the second column. The latter column also integrates a few generic academic literacy skills such as: technological information & library-oriented research literacy (i.e. interpreting graphs & charts; using online resources; internet-based presentations); oral presentations; genre awareness/competence (e.g. the journal article and the research report). The middle column is devoted to the scaffolding strategies/activities and tools, especially led, facilitated or provided by the teacher. The following teacher-facilitated scaffolding activities are featured in the second column: introductions, pre-listening vocabulary and pronunciation support; pre-reading questions and vocabulary support; post-viewing questions; post-reading questions and short writing assignment; post-reading discussion/quiz; provision of basic information; illustrative examples; reviews; teacher's critique of student work; students' rehearsals/revisions; pre-writing strategies; and teacher's simplification/summarization of difficult and long articles.

Furthermore, referring students to relevant web sites for self-access is a way of training them to learn autonomously, in addition to their acquisition of technological literacy as they work with the computer, the internet and www. The student-led discussions on topics of current interest suggested at the end of the course plan are invaluable for the students' demonstration of their level of knowledge acquisition and autonomy, hence a vital evaluation tool for the teacher to determine if the students need further support or are ready to move on with further/higher/deeper instruction. Furthermore, several scaffolding tools are also highlighted in the second column. They include: video materials; charts & graphs; print course handouts and articles; and online resources such as dictionaries and other web-based materials.

The content area texts and topics were strategically selected to both cut across the healthcare sciences curriculum (i.e. wide-angle approach) and address current issues in branch-specific healthcare discourse (i.e. narrow-angle approach). For instance, the topics (designed to be read in the form of articles) on 'Common Infectious Diseases', 'TB Statistics for Rwanda', and 'Management of Malaria Using ACT' are crosscutting. However, while the topic on 'New Ideas for Global Health' could be of interest to a wide audience in the healthcare sciences it is especially useful to students' training to become lab technicians. Similarly, 'Designs that Solve Problems for the World's Poor' is a topic that appears to be particularly suitable for students in the Environmental Health Sciences department, much as students in the other programmes may find it relevant. The topic on 'White Collar, Mood Indigo' and the one on 'The Basics of HIV/AIDS Prevention…" are relevant to the Nursing Sciences faculty, but they are most suitable for students in the Mental Health department because they discuss

mental health issues. In the same vein, the topic on 'Making Motherhood Safe in Developing Countries' is most relevant to students in the midwifery programme as compared to the other students in the nursing faculty. In addition to this discipline specificity, the selected texts offer a wide range of topics that are relevant to students during their academic life and most likely even afterwards in their work life. Such texts can also be used as tools for training the students for research writing especially after their graduation.

Integrating multiliteracies in one unit and embedding language learning into content area knowledge construction, at least in this respect, moves on from the 'study skills' and 'academic socialisation' models towards an 'academic socialisation' model. This kind of progression is quite within the norms of the Academic Literacies Approach to literacies development (Lea, 2004, 2006; Lea and Street, 1998, 2006; Street, 2003, 2009). The second course sample (presented here as Figure 6.1 below) was a pilot segment of a broader course in the making at the time of data collection. It was piloted at Level 1 (as of 2008).

Target Language/Literacy Skill	**Language/Literacy Skill Acquisition Activity**	**Content Area Topic**
Writing	- Sentence structure	1. The Skeletal System
	- Types of sentences	2. The Muscular System
	- Paragraph structure	3. Microorganisms
	- Descriptive writing	4. The Circulatory System
	- Narrative writing	5. The Respiratory System
	- Argumentative writing	6. The Digestive System
Language structure	Review of:	7. Asepsis
	- Tenses	8. The Integumentary System
	- Reported speech	9. Basic Nutrition
	- Voices (active + passive)	10. General Safety
	- Modals	11. Therapeutic Diets
	- Adverbs	12. Vital Signs
Writing	Letter writing	13. Blood Pressure
Writing	Essay writing	14. First Aid
Group presentation	Oral presentations	

Figure 6.1: The ESP curriculum at KHI – a pilot unit segment

Source: Communication Skills module segment, KHI Language Center, 2008

The sample covers the language skills of writing and speaking (implied in 'group presentation') and leaves out the other main language skills, namely reading and listening. However, it can be inferred that these skills also are embedded in the enactment of reading the indicated texts, listening to the teacher and tapes (if the tapes were going to be used). Instruction in language structure is implied by the review of grammar (i.e. tenses, reported speech, active and passive voice, modals and adverbs). The writing activity focuses on generic text types (i.e. genres), which is typical of ESP pedagogy (Dudley-Evans, 2001; Hyland, 2002; Orr, 2001). Thus, academic literacy skills are implied in the following genre awareness/competence activities: descriptive writing; narrative writing; argumentative writing; letter writing; essay writing; oral presentations. The segment foregrounds academic writing as a central literacy of the academy, and has resonance with the 'academic literacies' research (e.g. Lea, 2004, 2006; Lea and Street, 1998, 2006; Wingate, 2006).

The middle column in Figure 6.1 shows the activities that would scaffold the acquisition of content area literacy through the writing sub-skills and genres, as well as through reviewing language structure. These can be interpreted as constituting 'designed-in', teacher-facilitated scaffolding (Hammond and Gibbons, 2005; Sharpe, 2001, 2006). Furthermore, the segment covers a range of topics that cut across the healthcare sciences. The topics are potentially interesting and appealing to a wide student audience across the KHI curriculum, and thus suitable for both a wide-angle approach and a narrow-angle approach to learning ESP. However, based on the above examples, several essential literacy skills such as study skills, research skills, examination skills, and so on are lacking – may be because this is only a segment under trialling.

6.4.3 The English Language Programme at KIST

Like the NUR centre, the language centre at KIST has changed its name to 'KIST Language Centre' (KLC). Still regarded as a support centre to the institute, the KLC offers full-time language courses to KIST students and part-time courses to both insiders and outsiders. The language programme structure has not really changed from what it was like before 2007. The two departments of French and English still co-exist, and the centre has the ambition of incorporating the teaching of German, Swahili and Chinese. On the English side of the programme, KIST has maintained its focus, structure, pacing and sequencing of the modules:

- Developing appropriate level language skills: speaking, listening, reading and writing
- Language for academic and professional purposes: study skills; English for Science and Technology; English for Academic Purposes, aimed mainly at helping students prepare for writing their research papers

Furthermore, toward the final year of undergraduate study there is the *English for International Communication* (EIC) course on offer. The course targets KIST students, staff and people from outside the institution who are interested in earning an international certificate in English, which is often a requirement for studies in native English-speaking countries.

6.4.4 Reflections on Curricular Provisions after 2007

The introduction of the so-called 'new skills' into undergraduate education by the National Council for Higher Education (NCHE) in 2007 has given impetus to curricular change in academic literacies education. This has been complemented by the introduction of a policy on language teaching and the legislation of an English-only language-in-education policy. Therefore, whereas the vehicle for academic literacy education before 2007 was mainly general French and/or English language proficiency, the policy emphasis on English for Specific Purposes (ESP) and the requirement to teach 'new skills' provided a framework for new forms of academic literacy curricula across public tertiary learning institutions. Overall, the global approach has not been different from the one dominant before 2007. That is, institutions have consistently continued to teach language and the 'new skills' courses as freestanding provisions, running language and skills courses separately from the disciplines. However, a wide gap exists between specific approaches adopted to embed academic literacy pedagogy into mainstream curricula at institutional level. For instance, some institutions run a foundation level proficiency-oriented English course and follow this up with a skills module at Level 1, while others run a multi-staged module that integrates components of General English, ESP and the skills (information and communication technology, basic computing,

study skills). One institution, KIST, has distinguished itself by providing a comprehensive English language programme, which starts with General English during the early stage of undergraduate degree programme and progressively moves on to English for Academic/Specific Purposes.

In spite of the differences in approaching academic curricular embedment, the institutions seem to share some theoretical/conceptual dispositions that ultimately underpin their curricular design trends. Based on the textual data in the programme and module plans, it can be interpreted that the institutions subscribe to the deficit and study skills models (Johl, 2002; Lea, 1998; Warren, 2002). They do this by emphasising the notion that students' acquisition of literacies as technical skills they lack will automatically enable them to fit into the academy and participate in it fully. Some results show a transition from the study skills model to the academic socialisation model and some attempts towards the academic literacies model – at least in some respects. This is not very different from the trends shown by curriculum practices before 2007, though. What the study has identified as the most distinguishing feature, as far as literacies curriculum embedment is concerned, is that more recent literacy programmes are embracing an integrative approach where different literacies are taught/learnt in a single module or part of it, rather than teaching the literacies as separate entities. In this respect, such an approach is more allied to the academic literacies model (Wingate, 2006; Lillis, 2001). There is also a general tendency towards the multimodal approach to academic literacies acquisition where conventional media and modes of meaning-making are no longer solely based on the written or oral text but incorporate new ICTs to support and enhance academic literacy practices (Archer, 2006; Lea, 2004, 2006; Gunn, Hearne and Sibthorpe, 2011; Lea and Street, 2006; Street, 2003; 2009).

One question that the study leaves hanging – particularly because it is outside the study's scope – is which approach to academic literacies curricular embedment is best for Rwandan undergraduate education. Although there is no fit-all model or approach, the 'discussion' chapter takes up this question. A somewhat related issue that has been raised in the concluding part of Chapter 5 is a conceptual one. It appears that how designers and their institutional contexts understand especially the 'new skills' greatly influences the choices they make when developing the literacy curricula, e.g. prioritising or emphasising certain literacies but not others, integrating skills and sub-skills, deciding upon programme structure, sequencing and pacing, and so on.

6.5 CONCLUSION

The chapter aimed at exploring how tertiary learning institutions have approached the development of curricula intended to support the acquisition of academic literacies in undergraduate study, in response to the changing policy-driven literacy requirements and demands over the past one and a half decades. Findings have shown that even before the new NCHE policy reforms came into being academic literacy training had been going on across Rwandan tertiary learning institutions. However, until recently institutional curricula did not explicitly focus on academic literacies pedagogy, but rather on proficiency development in foreign language. It was assumed that language proficiency would be easily transferred to academic language and other academic literacies across the mainstream curriculum and within discipline-specific content areas. Hence, as a dominant approach to embedding the academic literacies curriculum, freestanding language curricular was largely founded on the 'autonomous' model and it exhibited stances oriented towards the 'deficit' and 'study skills' models as well.

The results have also shown that by the time data collection for this study ended in 2010 a number of institutions were still grappling with interpreting the new policy reforms and translating them into curriculum renewal and design – hence the apparent tentativeness, ambivalence and trialling. In fact, some of the curriculum plan samples used in this study were from courses or course units being piloted. Consequently, the autonomous-study skills stance can still be detected in the rhetorical negotiations of what literacies are to be learnt. This stance can also be interpreted from the way the language/literacy courses are structured, sequenced and paced.

On the other hand, some programme and course plans made during the period after 2007 have incorporated elements of the ideological model, academic socialisation model and academic literacies model. Therefore, it is a mix of approaches that makes it difficult to draw a strict line between the theoretically-based approaches and models. The attempts of the post-2007 curricular to move towards the Academic Literacies Approach (Lea and Street, 1998) – with its emphasis on the development of multiliteracies as a social practice embedded within the disciplines – can be linked to the increasing demand for transferable academic support skills critically required to prepare undergraduates for further education, employability, professional competence and entrepreneurship. This is especially so against the backdrop of a mass of academically underprepared students entering tertiary education and a serious skills gap in the labour market. Therefore, some curricular embedment responses have been manifested in the emphasis on ESP pedagogy and the design of the so-called 'new skill' modules. However, institutions vary widely in these responses. The issues raised in the analyses above are taken up in the 'discussion' chapter.

Chapter 7 SCAFFOLDING ACADEMIC LITERACIES ACQUISITION WITH ICT

7.1 INTRODUCTION

Rwanda's general educational ICT policy and practices are well situated in the international movement for ICT for development which can be traced back to the *United Nations Millennium Development Goals* (UNMDGs) that were officially established following the Millennium Summit in 2000, where all world leaders present adopted the United Nations Millennium Declaration. From this point, an Information and Communication for Development movement was set in motion. Tertiary learning institutions have been among the major actors in implementing the global ICT for development and ICT in education policies (Colle and Roman, 2003; Tinio, 2003).

While a national ICT policy in Rwanda has been consistent for the past decade, a well-defined ICT in education policy came into operation in late 2008. Until then, the education-oriented ICT policy had been sustained through the government's policy initiatives and strategic plans, on the basis of which the Rwanda Ministry of Education (Rwanda MINEDUC) had been spelling out its ICT policies and plans. Beyond policy formulation and planning, so much has been achieved and still there is much that needs to be achieved at different levels.

The major aim in this chapter is to examine how ICT has been integrated at the macro and meso levels, and how it has been embedded into the tertiary curriculum to support the acquisition of academic literacies. The chapter also looks at how teachers and students are aware of ICT and how this awareness might impact on their acceptance, access and utilisation of ICT tools and resources – hence technology integration at the micro level. The study being a qualitative one, the chapter seeks to answer the following question: How is ICT integration likely to scaffold the acquisition of academic literacies? Data were obtained mainly from official documents and information obtained from institutional websites, so they were subjected to qualitative content and inter-textual analyses. Results for the micro level are based on data derived from a questionnaire mini-survey.

7.2 SCAFFOLDING ICT INTEGRATION

This section is based on the premise that, in the study's context, supporting the integration, growth and development of ICT at different levels would serve two purposes: (i) to provide an infrastructural framework for the acquisition of ICT literacy, which is one of the core literacies required for academic achievement and success in the 21st century university; (ii) to support the acquisition of other academic literacies with ICT literacy and infrastructure. Scaffolding ICT at the macro and meso levels is characterised by policy and political support, on which developments in physical or 'hard' infrastructure is based. Although the macro level in this particular context primarily refers to the national level, the latter level of ICT development has to some degree depended on the international policy context. So, this is what is elaborated below.

7.2.1 ICT Policy and Political Support

7.2.1.1 The International Context

Rwanda's adoption of an ICT policy is in line with the United Nations Millennium Development Goal (UNMDG) # 8 which is to develop a global partnership for development. The target in the UNMDGs relevant to ICT is # 8F which is to ensure that the benefits of new technologies, especially ICTs, are made available to all. There are three indicators to measure the achievement of this target: telephone lines and cellular subscribers, personal computers (PCs) in use as well as internet users per 100 persons (MDG Monitor: Goal # 8). The goal is to develop a global partnership for development. ICT for development (popularly referred to as ICT4D) has become a worldwide movement. One of the most revealing indicators is the programme for the 2003/2005 World Summit on the Information Society (WSIS) (Colle and Roman, 2003) whose agenda included the importance of using information technologies to help reach the UNMDGs. One of the major aims of the WSIS was to understand the implications of what has become known as *the Information Society*.

Likewise, the creation of various groups such as the U.N. ICT Task Force and several organisations promoting ICT access for girls and women (Johnson, 2003) indicates serious interest in, and hope for, a significant contribution of ICTs in a wide range of development challenges. Whereas the ICT4D movement recognises that the computer and the internet are good indicators of the information revolution, it also recognises that conventional media are still part of the ICT family, especially as applied to less developed countries (Colle and Roman, 2003; Tinio, 2003). These include the radio, TV, print media, telephone.

The *UN Economic Commission for Africa* (UNECA) produced an Action Plan in 1995, whose "overriding goal is to realise the *African Information Society Initiative* (AISI) for a sustainable information society by 2010" (Mansell and Wehn, 1999:113). The AISI vision included several expectations, e.g. access to information and knowledge resources by all and the availability of African information resources that reflect the needs of various sectors (Colle and Roman, 2003). UNECA has also created an Information Policy Development and Implementation (IPDI) unit that assists member states in the development of regional, national, sectoral and village policies, plans and strategies related to ICT. An *Information and Technology Centre for Africa* (ITCA) demonstrates to African policy makers and planners the value of ICT for development. So, guided by the AISI vision, African countries including Rwanda have embarked on their National Information and Communication Infrastructure (NICI) strategic plans.

7.2.1.2 The National Level

Since the inception of Rwanda's Vision 2020 (the long-term national development roadmap) twelve years ago, the Government of Rwanda's policy on ICT has been felt everywhere to the extent that it has even penetrated household discourse in rural areas. ICT is central to the Vision since it is believed that technology will transform Rwanda's economy and society and take the country to heights of prosperity. The Vision considers human resources as "what constitutes Rwanda's principal asset" (GOR, 2000a:4), so the importance of ICT is linked to making Rwanda a knowledge-based economy and society through equipping her citizenry with "a competitive stock of skills" (GOR, 2000a:12), with a view to making the services sector "the most important engine of Rwanda's economy" (GOR, 2000a:13). Thus, as human

resource development and a knowledge-based economy are regarded as pillars of Vision 2020, ICT is seen as a crosscutting aspect of the Vision.

Rwanda's Economic Development and Poverty Reduction Strategy (Rwanda EDPRS) papers/plans provide a medium-term (five-year) framework for achieving the country's long-term development aspirations embodied in Rwanda's Vision 2020 and Rwanda's Millennium Development Goals (Rwanda MDGs). Covering the period 2002 to 2005, Rwanda's first EDPRS plan primarily focused on managing the transitional period of rehabilitation and reconstruction. So, the ICT focus was overshadowed by the prevailing exigencies of the time. In the country's objectives, priorities and major policies set out by the second EDPRS plan for the next five years (2008-2012), ICT is one of the subsectors targeted by the plan for the allocation of public spending (GOR, 2007:i). In the plan's focus for the tertiary education subsector ICT is regarded as an important input for increasing enrolment and improving the quality of education, with a particular focus on open and distance learning modes. One of the specific aims of Rwanda's tertiary education is to achieve the EDPRS priorities is "building ICT capacity" (GOR, 2007:58). Part of implementing Rwanda's ICT policy has been to institutionalise it, thus setting up a 'soft' infrastructure system. Rwanda promulgated its national ICT policy in 2000, and the policy has been implemented in 5-year rolling plans, which are referred to as the *National Information and Communications Infrastructure* (NICI) plans.

ICT adoption in Rwanda has enjoyed tremendous political support, starting with the nation's President. In this way, the support has found its way down to local administration and management in tertiary learning institutions. This culminated in the creation of a Ministry of ICT in the Office of the President in 2005, although it has lately (April 2012) been merged with the Youth Ministry to form the Ministry of Youth and Information & Communication Technology. The President's Office still maintains an ICT component in the form of a Commission for Science and Technology (*The New Times* [Rwanda], April 13, 2012). Recognising the potential of the youth in national development, the new ministry's mission is to "[a]ddress national priorities for economic growth and poverty reduction through the development and coordination of national Information & Communication Technology policies & programmes; and through youth empowerment" (Rwanda Ministry of Youth & ICT, 2012, 'Mission', para. 1).

7.2.1.3 The Sector Level

ICT in education policy, along with detailed implementation strategies, are defined in each of the quinquennial NICI plans for action by the Ministry of Education – supported and monitored by the national facilitating agencies described above. The sub-plan for education in NICI-2010 sets out a number of policy action items and associated planned actions that include time frames, budget estimates and expected benefits. Only the planned actions relevant to this study, with leadership assigned to the Ministry of Education (sometimes in collaboration with other agencies), are listed below. While some of these were new as of 2010, others relate to planned actions in NICI-2005 that have been revised and updated. Others have been rolled forward from NICI-2005 plan into the NICI-2010, as implementation is on-going.

- Establish a national library - with public access to computers and the internet and resources based on these, e.g. electronic books, journals, newspapers, etc;
- Develop new e-learning content;

- Implement an educational management system;
- Develop programmes to promote the acquisition of computer equipment by educational institutions;
- Develop a comprehensive policy on computer education for students;
- Train a critical mass of computer literate teachers;
- Develop a national programme to speed up the deployment and use of ICTs in higher education institutions (A specific component is the establishment of a Rwandan Academic Research Network that will link all institutions and provide a gateway to the Internet.);
- Develop a national electronic distance education and training programme that supplements and complements campus-based education, facilitates lifelong learning, and encourages in-service training; and
- Establish a regional information technology training and research institute to serve Rwanda and the sub-region.

The implementation of the above plans has led to two important things. They are the basis on which the education sector has been planning and formulating its policies for ICT in learning institutions at all levels. They have also been blueprints on the basis of which the deployment of ICT infrastructure and resources to learning institutions has been conducted.

In addition to the reiteration of its commitment to the national general ICT policy and the ICT in education policy in all its policy documents (e.g. Rwanda MINEDUC, 2002, 2003, 2006a,b,c, 2008a,b,c), the Ministry of Education has been working on many of the aforementioned plans. In its 2008 *Higher Education Policy* the ministry reaffirms its stand on ICT integration by saying that "Higher education institutions will play a key role in training the workforce to deliver [the government's integrated ICT-led socio-economic development policy and plan]" (Rwanda MINEDUC, 2008b:10). Furthermore, "[promoting] effective learning systems that exploit the potential of using ICT" is one of the ministry's key policy objectives (Rwanda MINEDUC, 2008:17). This objective was to be achieved by developing "learning centres within higher education institutions, including ICT learning centres, to provide short courses for business and the community more generally" (Rwanda MINEDUC, 2008:18). The consistent policy support for ICT integration in education by the ministry culminated in the formulation of an *ICT in Education Policy* which was released in December 2008.

The inception of the ICT in Education Policy was motivated by "an absence of a policy for ICT in education that regulates, governs, and shapes the interventions and initiatives that are taking place and for those needed in this sector" (Rwanda MINEDUC, 2008b:13). The ICT sub-sector's vision is "[a] nurturing, effective teaching and learning environment to build human capacity and produce well rounded exposed critically thinking Rwandans, leveraging innovation for a knowledge-based economy" (Rwanda MINEDUC, 2008b:17). Its mission is "[c]reating a shared understanding for integrating ICT at all educational levels, to support the development of better teaching and learning to equip students and learners [sic] with 21st skills [sic]" (Rwanda MINEDUC, 2008:17-18). The ICT in education policy has identified four areas of focus:

- Developing an understanding within the system of the value of technology and the need for investment in it;
- Developing procurement and installation strategies;

- Implementing Educational Management Information Systems (EMIS); and
- Developing and managing content and integrating it into the mainstream curriculum.

The first area deals, in the first place, with ICT awareness which would lead to technology integration within the sector from ministerial level to the level of schools and universities. 'Investment' in ICT is related to sensitising and mobilising stakeholders such as the government, national and international organisations, and so on, for them to fund ICT projects in the ministry. This feeds into the second and third areas, as procurement and installation of ICT infrastructure requires sufficient funding and technical expertise. Once the infrastructure is in place, a management mechanism needs to be devised to be able to adopt, maintain and sustain the technology (Colle and Roman, 2003; Oye, Iahad and Rabin, 2011; Tinio, 2003).

7.2.1.4 The Institutional Level

Despite the variety in emphasis, almost every institutional document related to policy and planning must be seen to contain an ICT element. This also goes for curriculum plans, as teachers and students must be seen to use ICT tools and resources in instructional processes in all disciplines. Some institutions explicitly foreground their ICT policy support through their strategic plans. For example, in its *Action Plan July 2011-June 2012* the Kigali Institute of Science & Technology (KIST) aims at ensuring student access to ICT services, generally and, particularly, at teaching with open source learning (e.g. Modular Object-Oriented Dynamic Learning Environment [MOODLE]), increase student training in software applications, and support students in their access and use of ICT tools for learning (KIST, 2010).

One of the National University of Rwanda's strategic goals covering the period 2008-2012 is building ICT capacity (Goal # 9) (NUR, 2007b), and this was going to be achieved through such strategies as upgrading ICT infrastructure, equipment and software, as well as staff training. The Kigali Health Institute (KHI) says in its strategic plan (2007-2011) that one of its mandates and functions is to promote technology in the health sciences field (KHI, 2007a). Computerizing library services, developing an information service database, increasing internet access for staff and students, using ICTs in teaching and establishing Management Information Systems were some of the strategies KHI planned for the expansion and improvement of the ICT infrastructure.

7.2.1.5 Reflections on the ICT Policy and Planning Frameworks

Evidence from policy and planning documents shows seriousness and commitment on the part of major stakeholders – the government, the Ministry of Education and tertiary learning institutions. It is useful to have a policy framework that can serve as support and reinforcement for political leaders and institutional managers (Oye, Iahad and Rabin, 2011). This is because their endorsement is likely to be critical to the mobilisation of government officials, non-governmental organisations, business groups, institutional administrators, as well as important resources to ultimately support ICT integration at the institutional and classroom levels. Appropriate policy and implementation structures (e.g. a regulatory body) are important preconditions for successful and sustainable ICT integration (Colle and Roman, 2003; Oye, Iahad and Rabin, 2011; Tinio, 2003). Nonetheless, the support of international development partners in a context such as Rwanda is useful in developing decision-makers' awareness of the need to adopt policies that promote the building of an information society.

The policy and planning also has implications for the embedment of ICT into the tertiary curriculum, especially when it comes to public learning institutions whose funding and management is under the State. That is, what is planned at the macro level determines to a large extent what is planned and enacted at the meso (institutional) level and ultimately at the classroom level. Therefore, it is through the macro policies and plans that computer and information literacy as well as the integration of ICT in learning and teaching have occupied an important place in Rwanda's education system today. This is further elaborated below by looking at the scaffolding aspect in terms of infrastructure at the national and institutional levels.

7.2.2 ICT Infrastructure

7.2.2.1 The National Level

Infrastructure, basic physical and organisational structures needed for the operation of a society or an enterprise (*Online Compact Oxford English Dictionary*), may be classified as 'hard' infrastructure (i.e. large physical networks necessary for the functioning of a modern industrial nation) and 'soft' infrastructure (i.e. organizational structures, e.g. laws, regulations, plans, institutions and other structures). As pointed out in the previous subsection, the establishment of NICI plans marked the beginning of the ICT institutionalisation process in Rwanda. The first phase began in 2001 and concluded in 2005. As suggested in the first row and second column of Table 7.1 below, this phase focused on the creation of a fertile, enabling environment in Rwanda for ICT initiatives to take hold. The environment was to be created by formulating sector policies and strategic plans and by forming regulatory structures (i.e. 'soft' infrastructure), while embarking on some basic 'hard' infrastructure projects such as securing reliable telecommunication services, establishing community telecentres and building up of electronic networks in government institutions including learning institutions.

Table 7.1: Rwanda's ICT Integration – planning level

Phase	***Period***	***Action Focus***	***Indicators***
I	2001- 2005	*Soft infrastructure:* - Policy formulation - Laws and regulations - Strategies - Structures *Basic hard infrastructure projects*	- NICI-2005 plan - Creation of NITC - Creation of RITA
II	2006 - 2010	*Hard infrastructure* - laying of fibre optic cables	NICI-2010 plan
III	2011 - 2015	- Consolidation - Further development - Use of services	NICI-2015 Plan

The structures to develop and monitor the NICI plans were established in Phase I, and these included the National Information Technology Commission (NITC) and the Rwanda Information Technology Authority (RITA). The first NITC's mission was to lead the process

of creating the Rwandan information society and economy in line with the Vision 2020 aspirations. It was also responsible for policy and programme monitoring and evaluation. RITA is an autonomous agency under the direct supervision of NITC, and the former is the main body in charge of implementing ICT policies and all of the associated projects and programmes – including human development. It also acts as the secretariat for NITC and has administrative links and working relations with the Office of the President, the Prime Minister's Office, and the Ministry of Public Works, Transport and Communications. RITA's primary role is to enhance public awareness about ICT and, through its National Computing Centre, provide consulting services to the government and to public and other sector organisations. RITA implements its mandate through a series of strategies that relate to each of the three NICI plans (RITA, 2007).

Launched in 2006, the second phase (NICI-2010) was structured into sub-plans, each representing one of the ten pillars (GOR, 2006b) among which ICT in education is # 1. This phase placed emphasis on the development of key ICT infrastructure such as the laying of fibre optic cables. Another facet of the national facilitating structures is the Rwanda Development Gateway Group (RDGG). This is a group of three *ICT for Development* (ICT4D) initiatives under the Ministry of Education being funded by the government. They include the following:

- The *Rwanda Development Gateway* (RDG), hosted by the National University of Rwanda, which has established a national portal to provide one-stop shopping (i.e. access to all essential information at one place) for information on Rwanda and has been the country's Web interface to the rest of the world;
- The *Centre for Geographic Information Systems and Remote Sensing* (CGISRS), also hosted by the National University of Rwanda; and
- The *Regional ICT Training and Research Centre* (RITC), hosted by the Kigali Institute of Science and Technology, which provides ICT training for government staff, teachers, school leavers and staff from other tertiary learning institutions.

The third phase, NICI-2015, puts emphasis on the development and use of new services that were made possible by the first two phases. It is a consolidation phase that is set to soar to further heights. Building on insights gained from the pitfalls of implementing the first two phases, according to Rwanda Telecenter Network (2011), the third phase has been broadly divided into five areas: (i) ICT skills development; (ii) private sector development; (iii) ICT for community development; (iv) e-government; and (v) cyber security.

Creating access to ICT infrastructure is at the heart of Vision 2020 (GOR, 2000a). As far as 'hard' infrastructure is concerned at the national level, it is hard to account for all the work done for more than a decade. In terms of computer installations and connection to the internet as well as the related hardware technology, Rwanda is widely recognised and applauded for her achievements since the promulgation of the government ICT policy and plans. Major achievements in this area, particularly those that have impacted (or are likely to impact) upon ICT integration in public tertiary learning institutions, are outlined below:

- Securing of national telecommunication service provider companies: mostly private with some government shares (e.g. RWANDATEL, MTN, and TIGO);
- Internet access/connectivity in most parts of the country;
- Stepping up of electricity supply, especially in rural and semi-urban areas;

- A state-of-the-art fibre optic network project – connecting schools and other learning institutions, hospitals and other government services in districts across the country, and government buildings in the capital;
- Working on the Karisimbi Project (named after Mount Karisimbi on which it is being developed) – aiming at providing high quality communications navigation surveillance, telecommunications, FM radio and TV coverage; and
- Creating ICT centres in and distributing computers to schools and tertiary learning institutions.

The aforementioned achievements are supplemented by a network of community telecentres and cybercafés, although the latter tend to belong to the private sector and are thus commercially oriented. In any case, these facilities are frequently accessed by campus communities near them when the latter cannot have on-campus access to the internet, word processing, printing, photocopying, and other ICT-related services.

7.2.2.3 The Institutional Level

The evidence based on information accessed on institutional websites shows that variety characterises ICT provision and adoption among public tertiary learning institutions in Rwanda. Implicitly this variety means a digital divide that makes it hard to generalize or portray a representative picture of the ICT situation. Older and larger institutions tend to be better equipped (Farrell, 2007; Rwanda NCHE, 2010). Nevertheless, given the Rwandan Government's ICT policy described earlier, all public universities benefit from government support either through direct funding or channelled funding from development partners. On average, the following technological provisions may be seen to represent the situation fairly. It is to be noted that some of the listed technological facilities are used as standard criteria to 'measure' the eligibility of an institution for accreditation particularly in the private sector.

1. *Library services*: While Rwandan campus libraries are generally underequipped and understocked (especially due an un-proportionally large student population), a few institutions such as the National University of Rwanda (NUR), Kigali Institute of Education (KIE), Kigali Institute of Science and Technology (KIST) and Kigali Health Institute (KHI) have managed to digitalise their libraries. For example NUR's main library has access to 33,000 electronic journals and 28 print journals, while KIE accesses more than 50 e-journals and databases and about 100 e-books. In addition, NUR library services extend to all its faculties, schools and some of the centres. NUR has also digitalised its cataloguing system and has acquired an Electronic Information Navigation (ELIN) system that helps users to search within databases NUR subscribes to. Furthermore, it runs an ICT department which offers services such as a help desk, web site development and database management.

2. *Computer installation and equipment and internet connection*: All the tertiary learning institutions (including the college-level institutions) have computers and an internet connection, and most of them have established a web site. Since it is mandatory that all institutions train their students in ICT literacy, all have at least one computer room designated as a computer lab.

3. *ICT centre*: Some institutions have established an ICT centre, whose main function and role is to run student and staff training as well as to manage technical issues pertaining to installation, maintenance and management of ICT infrastructure. Some institutions such as NUR, KIST, KIE and Umutara Polytechnic (UP) offer specialist ICT programmes, so having

an ICT centre becomes a natural necessity. For example, the NUR ICT centre maintains and manages the entire campus area network, the centralised database systems and computer and other electronic equipment for the departments, staff and students. The KIST ICT centre takes care of the institution's ICT infrastructure and conducts ICT professional training for students, staff and government employees from ministries and other services. NUR runs an additional Centre for Instructional Technology which focuses on training in and management of educational technology for NUR's academic staff. Two training programmes that have been run by the centre are: (i) audio-visual/multimedia education (dealing with establishment and maintenance of audio-visual labs; design, production and delivery of educational materials; and designing and managing digital smart classrooms); and (ii) instructional technology (dealing with MOODLE, which enables lecturers to infuse web technology in their modular courses, deliver online modules, and supplement conventional face-to-face with web-based methodology).

4. *Open, distance and e-learning (ODeL)*: Although NUR has established a Department of Open Learning and KIST runs e-learning programmes, the KIE's Centre for Open, Distance and E-Learning seems to be offering the most comprehensive approach of the three. The centre runs two core programmes: distance training, including training secondary school teachers who are unable to attend conventional programmes at university, and tele-Education which provides distance learning through V-SAT technology. The latter programme is meant for students pursuing postgraduate studies in Indian universities through the Pan African e-Network.

5. The language lab/multimedia centre: Although the language lab is generally no longer seen as essential for language acquisition – through which most academic literacies are acquired – it is still relevant to talk about the technological tools that make up the lab and can now be used innovatively in other environments. One such environment is the language multimedia centre/lab. It is hard to find language laboratories in the local TLIs, but some of the institutions have in their strategic plans to establish a language multimedia centre or something of the kind. In a selected few HEIs there has been some activity in this direction being supported by the American Corner project or by the British Council (e.g. at KIST and NUR), but the success of these projects needs some research investigation. In spite of all this, language students usually use the general computer labs used by other students when they are attending some computer or internet language supported sessions – which are uncommon.

7.2.2.1 Reflections on the ICT Infrastructure

In the context in question the adoption of technology for formal teaching and learning purposes at the classroom level heavily depends on the provision afforded by the institutional level. As public universities and similar institutions in Rwanda are funded mainly by the State, they too have to depend on the technological facilities the government (usually through the Ministry of Education) affords them. However, it is not unusual for individual institutions to forge cooperation and partnerships with national and international organisations. Therefore, while the classroom ICT infrastructure depends on the broader institutional infrastructure the latter depends on the national technological infrastructure including telecommunication systems, internet connectivity, ICT installations, and so forth (Colle and Roman, 2003; Tinio, 2003).

Infrastructure oriented towards ICT, including ICT software such as programmes and textual content, may all be viewed as playing a macro-scaffolding role for learning in general and for

academic literacy acquisition in particular (Azevedo, 2004; Brush and Saye, 2002; Puntambekar and Hubscher, 2005). The more multimedia (i.e. several media) and multimodal (i.e. several modes of use) these ICTs are, the more they are likely to support the development of multiliteracies beyond traditional textuality (Cope and Kalantzis, 2000; Kern, 2006 Kress, 2003). Also, if these technologies are utilized well they can afford teachers and students participation as members of multiliterate and multicultural communities across the globe (Archer, 2006; Cope and Kalantzis, 2000; Kern, 2006 Kress, 2003; Lea, 2004). However, in the context of tertiary education, this is best done when the technologies are embedded into the curriculum. One way is to empower the learners with the technical and intellectual knowledge of ICT. Another is to use the ICT knowledge to support the development and acquisition of other literacies. This is further elaborated in the next section.

7.3 ICT EMBEDMENT INTO THE CURRICULUM

There are three dimensions of what has come to be popularly known as *ICT literacy*: the technical know-how or knowing about ICT in its various hardware and software forms; the ability to use it critically and meaningfully, selecting what to use, why and when; and the use of it as support for constructing other forms of knowledge (O'Rourke, 2005; Tinio, 2003). Based on curriculum plans and supplementary information extracted from institutional websites, the study found that across the public tertiary learning institutions in Rwanda there are three broad approaches used to embed ICT into the curriculum. The first approach is to train students who specialise in computer science, the second is to train students in the basics of computing and the internet, and the third is to train students in knowing and using ICT in day-to-day academic activities (e.g. writing assignments, research, communicating with other members of a learning group, etc). Although the first approach would be an asset for the acquisition of academic literacies, this study is more interested in the second and third approach. While part of the data was used in Chapter 6 (see 6.4) to refer to computer skills and related courses or ICT knowledge components embedded in the Communication Skills module, the embedment of ICT literacy into the mainstream curriculum is further elaborated below.

7.3.1 ICT Skills Training: Approach I and II

The first approach can be exemplified with ICT specialist programmes offered in some Rwandan tertiary institutions such as KIST, NUR and Umutara Polytechnic. These are academic undergraduate or postgraduate diploma, BSc or MSc programmes. The academic unit in charge of training in such a programme depends on the organisational structure of the institution. At KIST, for instance, computer engineering is taught in the engineering faculty as a degree course, whereas ICT diploma courses for internal and external staff are taught by the ICT Centre. While Umutara Polytechnic runs an ICT Centre, it also has a Faculty of ICT. NUR's ICT Centre trains staff and students for their ICT literacy needs but the unit in charge of offering degree courses is the Faculty of Applied Science. The degree programme trains students in both theory and advanced skills of computer and related science.

The second approach involves training students (and other concerned members of the institution such as academic staff) in basic computing and internet skills. There is a compulsory information technology (IT) course that students must take at Level 1 if they are not studying in the computer science discipline. With the Rwanda Government's ICT policy and NICI plans in place since about a decade ago, tertiary learning institutions have been asked (through the Ministry of Education) to teach their students ICT skills. The most

spontaneous response was for the institutions to design and deliver basic computing skills courses or modules (from 2007). Typically, these would include: fundamentals such as basic terms, concepts and operations; use of the keyboard and mouse; use of productivity tools such as word processing, spread sheets, database and graphics programmes; and basic skills in using programming and authoring applications. The pedagogical focus is primarily students' knowledge about computer and internet skills – hence computer and internet literacy. However, other ICT knowledge components have gradually been incorporated into 'new skills' modules, in recognition of the need for students to use both computer and internet skills and resources for learning other literacies than ICT itself. These include the use of research and collaboration tools (e.g. search engines and e-mail), developing an awareness of the social impact of technological change, and internet ethics/etiquette.

7.3.2 Scaffolding other Academic Literacies with ICT: Approach III

In this approach, students who are not familiar with ICT skills get an opportunity to learn them. Those who already have a foundation in computing skills and internet use move on to knowing how to use the skills, tools and resources in day-to-day academic activities in their disciplines. Depending on the institution's curricular orientation and the designers' pedagogical priorities, some modules focus on how ICT should be the means to the learning end across the curriculum. These modules emphasise the practice of ICT skills and tools and resources as students study their disciplines of specialization. These include: presentation, demonstration, and the manipulation of data using productivity tools; use of field-or discipline-specific applications types (e.g. educational games, drill and practice, simulations, tutorials, virtual laboratories, visualizations and graphic representations of abstract concepts, musical composition, and expert systems); and use of information and resources on CD-ROM or online (e.g. encyclopaedia, interactive maps and atlases, electronic journals and other references). Thus, the third approach combines the first two approaches.

The approach engages students in learning the technologies during the time they are learning other literacies. This is evident especially in the module the examples of module plans presented in Chapter 6. For example, in Modules 1 and 2 the ICT content is part of what is supposed to be communication skills which include language, study skills, research skills, and so forth. By covering the ICT content students learn ICT knowledge and skills primarily, but at the same time they are taught how to use the same knowledge and skills in studying or being assessed and processing feedback in their subject areas. Besides, they are taught how to use the skills to self-access open online or offline resources.

7.3.3 Reflections on the Curricular Embedment of ICT

Information and Communications Technology is becoming a vital academic literacy that needs to be acquired, hence the need for training in not only access skills but also meaningful and purposeful use of it, which entails evaluative information literacy. Therefore, using ICT for supporting other literacies of necessity requires the user's technical access skills as well as information selection/evaluation skills. An IT or ICT course that focuses on the acquisition of technical skills of being able to use the computer and internet as an end in itself can be interpreted as sitting comfortably in the 'study skills' camp (Lea and Street, 1998). A course which focuses on the technical skills and, in addition, trains students how to use these skills for generic academic purposes is viewed as aligning with the 'academic socialisation' model (Lea and Street, 1998, 2006). Such a course takes for granted that students will automatically transfer the skills and be able to apply them in their specialised disciplines without any

problem. However, from an 'academic literacies' perspective, the course needs to go beyond and deeper than imparting technical skills and how to use these skills in a generic academic context. Although the technical skills are essential for technological accessibility, they should not take centre-stage and thus overshadow more fundamental literacy issues (Ivanic and Lea, 2006). Already being academically literate in an institutional context is complex, so technological integration aspects – such as rapidly changing multimedia, multimodality of texts, changing discourses and relationships based on authority and identity, having to deal with multicultural environments, and so forth – makes the situation even more complex (Goodfellow and Lea, 2005; Lea, 2004; Lea and Goodfellow, 2007; Lea and Street, 2006; Street, 2009).

7.4 ICT ACCESS, USE AND AWARENESS AT THE MICRO LEVEL

7.4.1 ICT Access and Use by Lecturers and Students

Apart from accessing the ICTs provided by their institutions, which are always under pressure due to high demand, students and teachers have a number of ways and strategies of getting around their technology access. In a questionnaire mini-survey conducted in three tertiary learning institutions in 2006 six teachers and 20 students from the institutions were asked to tick from a list of items representing technologies (e.g. internet, computer, video, etc) that they used in their teaching or learning of how to read and write in English. In addition, in an open question they were asked to list down any other technologies they had been using but were not listed in the questionnaire list. Table 7.2 shows the results.

Table 7.2: ICT access for tertiary students and teachers

Teachers	*Teachers %*	*Students %*
Internet & WWW	50	20
Computer without Internet connection	16.7	45
CDs	16.7	05
Video/DVD	16.7	20
Textbooks & other print materials	100	100

As Table 7.2 shows, teachers had better access than students, although the former's access was also limited, with only half of the language teachers being able to access the Internet/WWW. Out of the students who had access to a computer, only 20% could access the internet and WWW.

In an attempt to find out if the trend had changed, in the following year (2007) another questionnaire mini-survey was conducted at only one institution regarding what technologies were used by teachers (10) and students (20) to support literacy acquisition in a medical/healthcare ESP setting. This time around the research interest was directed at internet access and focused on three specific things regarding access: (i) access spaces (i.e. places where informants got access); (ii) access frequency (i.e. how many times per week they accessed the Internet), and (iii) types of activities in which the internet was used. The results showed that most students (82%) accessed the Internet on campus which is more than they accessed it in commercial cybercafés (65%). A few of them accessed it at friends', and no one accessed it at home. All the teachers accessed it on campus, and half of them accessed it at commercial cybercafés. While most teachers were able to visit the Internet more than twice

a week, less than 25% visited it between two times and three times a week. Further results are presented in Table 7.3 below.

Table 7.3: Internet use in medical/healthcare ESP

	Students	***Teachers***
E- mail	83%	100%
Information search/research	76%	75%
Reading newspapers	12%	75%
Discussion forums	0%	0%
Teaching/learning medical English	0%	0%
Playing games	0%	0%

As the table above shows, e-mailing is the most dominant activity invested in by both students (83%) and teachers (100%). The next important activity for them is information search. However, it is not clear whether or not the informants, most of whom have a Francophone background, mistook the word 'information' for its French false friend 'information' which means 'news' in English. For the teachers, reading online newspapers is important, as 75% of them did so as compared to the students (only 12%).

In Table 7.3 statistics indicate that neither the teachers nor the students use the internet for teaching and learning medical ESP, respectively. However, in the same questionnaire, I asked the students to briefly describe which online facilities they had been utilizing to learn reading and writing in medical ESP. While one student admitted "I learn medical English with books only" (QICTS2M, 2007), two of his colleagues claimed that they used the Internet to learn academic reading and writing in medical ESP at http://www.eslgold.com/ (QICTS4M & QICTS10M, 2007). However, my visit to the website revealed that this site offers links to resources for only general English, business English and TOEFL/TOEIC. One other student claimed that he used 'Google' to access medical English resources. This is what he wrote:

> Google is the one which facilitates me to learn it [medical ESP]. I can learn ADAM site which helps us in studying many things concerned with human body and so on. (QICTS3M, 2007)

On searching for the ADAM site through 'Google', I discovered that the site was located at http://health.allrefer.com/pictures-images/, which contains more than 2,500 medical illustrations, pictures, animations and diagrams, featuring a range of health-related topics that are arranged alphabetically. Potentially this is a rich pool of resources for both content area literacy and medical English. The conflicting accounts of how students learn medical ESP with the support of the internet may be interpreted to mean at least three things: (i) that the students learn medical English online independently, either in self-access modes or by attending privately instructed online language courses outside their institutional context; (ii) that the students used the internet for learning other things but not reading/writing in medical ESP; and (iii) that the students did not get the questions clearly. Moreover, the teachers, too, suggest in another questionnaire item that they use the internet for teaching purposes. Other uses of the Internet for both students and teachers that came from the data are summarized in Table 7.4 below.

Table 7.4: Other Uses of the Internet

Students	Teachers
- World news ('actuality') - Scanning photographs - Listening to music - Watching movies, music and news	- Getting materials to use in teaching - Communicating information with the institutional management

As table 7.4 shows, most of other internet uses are personal or social in nature, and they range from reading world news, to scanning sending/exchanging photos, to listening to or watching music and movies. But some of the teachers said they used the Internet to retrieve teaching materials, when actually 0% in Table 7.3 said they used the internet for teaching medical ESP. One teacher (QICT2TM) who was among those who indicated that they did not use the Internet for ESP teaching turned around and added, as a by the way, that some of the online resources he used in teaching medical English were downloaded from the VOA website. This can be interpreted to mean that he did not believe he used the Internet for teaching language courses as long as he did not teach online.

Furthermore, it appears that the informants – both teachers and students – either did not use, did not realize they used, or did not value the use of most other technologies that are accessible offline than the computer, which is often used offline particularly for word processing. In their responses to the question asking them which offline technologies they used, only a couple of students indicated the use of PowerPoint presentations and an offline electronic dictionary. Teachers, however, introduced some variety in the pool of technological items listed, as one of them said he used a projector (unspecified), printer and photocopying machine.

7.4.2 The Meaning of ICT

I have always found ICT awareness on the part of the ICT user an interesting issue because the user's understanding might have impact on what to select, adopt/adapt and how to utilize it. In a 2007 survey report on ICT and education in Rwanda, lack of awareness of ICT generally is identified as one of the factors that constrain the integration of ICT in education (Farrell, 2007). Also, in its 2008 *ICT in Education Policy* (Rwanda MINEDUC, 2008c) Rwanda's Ministry of Education pointed out that there was "[n]o clear understanding of what ICT in education is" (Rwanda MINEDUC, 2008c:15). Due to this reason, "[b]uilding a common shared understanding for what ICT in education means among all stakeholders" was the education sector's # 1 ICT policy objective (Rwanda MINEDUC, 2008c:17).

In a 2007 questionnaire mini-survey mentioned earlier, informants (teachers and students) were asked to write what they made of the term ICT. The open question asked "For you, what is ICT?" (see Appendix II). Space was provided to allow respondents write their views. The aim was not to check if they could get right the full wording of the abbreviation but to know what ICT meant to them in a more personalized way. The students' responses were fairly varied but also similar in terms of concepts represented by the words used to define ICT. For example, some students said ICT means performing different tasks by means of a computer, using a computer, searching/checking and using information on the Internet and WWW. One

student said “ICT is a science to help us to be informed and to keep our documents” (QICTS14F, 2007). Another one said it means “to study the computer, its use and functions, and to use it” (QICTS6M, 2007), while another said it is “the spread of information all over the world by using computers and the Internet” (QICT10F, 2007).

Only one among the 20 student respondents used the term ‘technology’ in general terms, without specifically referring to the computer or internet. He said “ICT is the skill of communication/information which depends on technology” (QICT3M, 2007). The responses show that ICT is predominantly perceived as the computer and internet plus the tools and resources they offer. Thus, ICT is a tool or set of tools that are used as a means or method to perform various tasks. These tasks are meaningful and purposeful because the respondents need to search, access, use and be able to store and retrieve or manage information (i.e. “to keep our documents”). It is also a tool that supports or enables them to communicate and “perform tasks”. At the same time, ICT is seen as both knowledge (i.e. “a science” and “a study”) and a skill or a literacy (denoted by the word ‘skill’ and the phrases ‘how to use’, ‘to study’, ‘techniques of using’).

Responses from 10 teachers like the ones from students revolved around the computer and internet. However, one teacher went further and said in a more technical way that “ICT is a way of using electronic materials and equipment in searching and giving information” QICTT4M, 2007). Another teacher said that ICT is “a device that enables you to have instant access to a wide variety of information” (QICTT8M, 2007). Yet another one said ICT involves “the use of technology in sharing information with the Internet, computers, radios, television, etc” (QICTT3F, 2007). So, according to the teachers, ICT is not just the computer and internet but ‘electronic’ resources/tools classified into software (i.e. ‘materials) and hardware (i.e. ‘equipment’). The purpose of ICT is not only searching and accessing information but also ‘giving’ and ‘sharing’ it. Also, ICT is empowerment (i.e. ‘enables you’) for instant access not just to information but a ‘variety’ of it.

ICT awareness does not stop at being able to articulate the meaning of ICT. The awareness can be manifested in what the ICT users do or plan to do with various ICTs and how. So, in another question in the same questionnaire (2007) the informants were asked to suggest which technologies would be useful for their future use in learning/teaching medical ESP. The question asked: “If you have NOT been using ICT in your classes, which technologies… do you think are suitable for [learning/teaching]…List them down below” (see Appendix II). Even though the learning-teaching context was ESP in healthcare, the responses do not limit themselves to this context. The following is a summary of students’ suggestions.

- discussion forums
- research community sites
- newspapers
- electronic textbooks
- study skills sites/resources (e.g. note-taking, revision)
- the radio
- TV

The teachers’ responses were not significantly different from the students’, but one teacher suggested “videos of medical settings with English subtitles” and “programmes with medical English where students can read and answer questions on the computer” (QICTT8M, 2007). On the whole, both teachers and students have sufficient awareness, which should feed into their purpose to access the ICTs at their disposal.

7.4.3 Reflections on ICT Awareness, Access and Use

The results based on data from the questionnaire survey show that there is a relatively high level of ICT awareness among students and teachers, although this awareness is likely to be closely related to the uses the technologies are put to in either case. For undergraduate students, they may see that they have more to gain by 'receiving' than 'giving'. Teachers seem to have a slightly different view, as they highlight 'giving' and 'sharing' information. This can be associated with the nature of their job – teaching. The respondents' answers can also be related to the divide existing in their access, with the teachers tending to have easier accessibility and access to a variety of technologies. Therefore, the technologies and their uses cited by the respondents reflect the access they have to the technologies. Furthermore, students include social uses of the internet, whereas teachers only respond about job-related uses. The views about ICT awareness represented in the data in question are situated in a historical moment in time that reflects available technologies and prevalent practices. However, this is all set to change, with the advent of the so-called 'mobile technology', which shifts attention from computers and wired internet access to 'mobile devices' such as wireless tablet computers, ipods, smartphones and so forth. As the dominant use of these technologies is social in nature, the on-going ICT revolution may well be led by social uses of technology rather than its uses in a learning context.

The situation of access and use seems to have improved after 2007 when the questionnaire survey was conducted. This is testified to by observing more and more students, for example, moving with and using lap tops around campus spaces including lecture rooms/halls. Also, tertiary learning institutions are providing more student and teacher access to the internet as the institutions increase their ICT capacities. However, some institutions are better off in this regard than others, one reason being that the institutions are independently connected to the internet in various ways, e.g. fibre optic cable, wireless broadband (Wi-Fi), leased lines, and Very Small Aperture Terminals (VSATs). Besides, there is no direct inter-institutional connectivity. According to the 2010 *Statistical Information on Higher Learning Institutions in Rwanda* report (Rwanda NCHE, 2010), three public institutions were identified as most computer equipped of all in the country, although this overall impression does not guarantee students' and teachers' access for academic purposes. Moreover, the average computer to student ratio was only1:12 in all institutions in 2010 (Rwanda NCHE, 2010:39), which shows there is still some way to go in having institutions sufficiently equipped with computers. In the meantime, nonetheless, the ICT integration situation seems to be improving every coming year.

7.5 CONCLUSION

There is strong political commitment and policy support at macro and meso levels for ICT embedment into the curriculum. In tertiary learning institutions much progress has been made in the use of technology. However, the dynamic character of ICT use in education, especially at the level of individual students and teachers, is such that it is difficult to track changes and provide an up-to-date, representative picture of the situation on the ground. For example, the situation prevailing in 2010 is likely to have changed significantly in 2012. At institutional level, the pro-ICT policies are being enacted in different forms, but principally as institutional ICT policies and plans, and as integral components of the curriculum. The study has identified three dominant approaches in current Rwandan tertiary education: learning about ICT, learning through ICT and learning with ICT.

As Tinio (2003) posits, ICT literacy is required for learning with technology to be possible. This means that for learners to be able to actually use ICT for learning they need to understand and practice ICT. The study has found that pedagogically in the Rwandan context, this implies a two-step process: learning about ICT first then learning how to use ICT for learning and processing knowledge mainly in academic activities within the disciplines or other courses on the undergraduate programme, e.g. language courses and the 'new skills' modules. Some institutions may integrate the two approaches and thus engage students in acquiring both technological and information literacy. This pedagogical regime is a vitally important for furthering ICT-supported acquisition of other academic literacies than ICT literacy at students' individual and collective level. However, as pointed out in the reflections above (see 7.4.3), students' learning how to use ICTs is in a more general sense is achieved through their access and use of the technologies in recreational and other social practices, which may be transferred to their study-related practices in a variety of ways.

Apart from embedding ICT knowledge and practical use in module content, some teaching methods enhanced or supported by ICT (e.g. MOODLE) are likely to foster and promote learner-centred and autonomous learning since they support students to learn on their own and at their own pace. These plus open, distance and e-learning also have the potential to encourage peer interaction and collaborative learning, e.g. forming and working in small task-groups, planning and preparing for common assessment. However, even when such a curriculum provision has been carried out one potential barrier concerns the level of acceptance on the part of students and their teachers. This is likely to be exacerbated by limited access to the technology both at institutional and individual level.

Chapter 8 REFLECTIONS AND DISCUSSION

8.1 INTRODUCTION

The main aim in this chapter is to further discuss the key issues emerging from the findings in Chapters 5, 6 and 7. These issues have to do with the academic literacies requested in undergraduate study, how they are conceptualized by stakeholders, and how they are prioritized leading to embedding them into the curriculum. The chapter also takes up the issue of embedding ICT into the curriculum with a view to scaffolding the acquisition of other academic literacies than ICT literacy.

8.2 CURRICULUM CHANGE IN A LARGER CONTEXT OF CHANGE

Change in the Rwandan tertiary academic literacies curriculum, including the foreign language curriculum, may be viewed as occurring in three contexts: (i) the broader educational and tertiary education mainstream curricular reforms in the country, (ii) the social, economic and political policy reforms at national level, and (iii) the attempts of Rwanda to become a legitimate and active participant in the 21st century changes at sub-regional (East Africa), regional (Africa) and global levels. The results have shown some differences in policy and curriculum planning between the period leading to the year 2007 and the one after that year. One of the things to note about the change process in the context is the important role played by the National Council for Higher Education (NCHE) in both influencing and supporting curriculum change in the subsector. Its policies do not only provide a spur to the literacies curricula but also provide a new framework on which basis to review and renew existing programmes as well as design new ones. The responsibility to meet the academic literacy requirements is primarily placed on students, but their learning institutions are providing more support from staff to embed the requirements in the formal and co-curriculum and assist students in meeting them. One of the functions of the staff that is evident in the data is their indispensable role in designing/developing the literacy courses even before they actually enact them in the classroom.

As it happens in every context of educational change, the institutions focused on in the study face a number of common challenges during the curricular reforms. Perhaps the most outstanding challenge that has been of interest for the study is the sudden adoption of English as the language of instruction, with its multiple and collateral challenges. This has happened in a situation where there were already other big challenges, which include swelling student populations in relation to available resources, lack of teachers who are able to teach on institution-wide literacy programmes, and so on. A special challenge that is not written in black and white in the textual data used in the study is the diversity characterizing teachers' conceptions of the literacies that are to be learnt and taught.

8.3 ACADEMIC LITERACIES IN TERTIARY EDUCATION

8.3.1 Conceptualizing Academic Literacies in Context

The fact that individuals and groups situated in particular contexts will differ in the way they understand concepts and theories is universal. It is, therefore, foreseeable that even lecturers teaching in the same language/literacy programme will look at the prevailing educational issues from different ideological or theoretical/conceptual lenses. In spite of this natural

diversity, there is a need to achieve a certain level of consensual understanding of concepts and theories that underpin their curricular and pedagogical practices. The findings especially in Chapter 6 showed that with the advent of new 21st century concepts about what academic literacy should be in relation to student academic development and integration into the world of work there can be a clash between what was previously conceived as 'knowing' and hence 'being able to do' as a result, and what these are conceived of currently. This transitional change of educational values has been taking place within a broader educational paradigm change both at the national and global level – i.e. the shift from a knowledge-oriented to an outcomes-oriented paradigm. At the global level, study skills rarely have had a confirmed place in universities' skills frameworks that aim at graduate or employability skills, suggesting that they are regarded as separate from skills needed in students' long-term development (Wingate, 2006). The complexity needed to carry out academic tasks does not seem to be well understood by those who think that students can acquire them outside the disciplinary area. Many disciplinary teachers would tend to associate them with school or the language department in charge of 'remedial' courses.

The advent of generic transferable skills into the Rwandan national qualifications framework (see Tables 5.2 a & b) is a relatively new phenomenon, and it is likely to take curriculum planners, teachers and institutions time to conceptually absorb it to be able to connect the descriptors with meaningful learning. However, this is not unique to Rwandan tertiary education. According to Jones (2008), often there is a gap between the rhetoric around generic skills and literacies and their enactment in teaching practice. The terms used to describe the literacies demanded in tertiary education are confusing and so not straightforward to comprehend – considering that a number of them are not necessarily observable or measurable (Jones, 2008; Thies, 2012). The integration of literacies labelled 'skills', 'competences' or 'attributes' can be problematic partly because they are conceived differently by teachers who are supposed to embed them in their teaching (Barrie 2006). It follows, therefore, that if lecturers and other teaching staff do not understand the nature of these literacies and how they are related to their teaching content they are unlikely to have the confidence to teach them. Hence, Thies argues that "Development of a shared vocabulary in the discussion around academic literacies development and some conceptual understanding of different pedagogical approaches are…important precursors to curricula development" (Thies, 2012:A-17).

According to Barrie (2006), the diversity of understandings is partly associated with particular beliefs about teaching and learning. These vary from a focus on precursor learning of foundation skills to be delivered as part of a 'remedial' curriculum to an enabling conception of attributes which provide "a framework of on-going learning of new knowledge" (Barrie, 2006:266). At the international level, there is debate about the transferable nature of generic literacies across contexts (e.g. from undergraduate to postgraduate study, and from study to employment and lifelong learning), and whether or not the notion of skills is more relevant to vocational training (Leggett, et al., 2004; Leveson, 2000; Moore and Hough, 2005; Sumsion and Goodfellow, 2004). Therefore, there is a need for a better understanding of the distinction between academic literacies development within disciplines and the embedding of generic academic literacies which are transferable across subjects (Thies, 2012). I argue that if consensual understanding of literacies among course designers (who happen to be academic staff in most cases) is problematic, then, this issue is bound to be transferred to course design and the enactment of it. I further argue that one of the most effective ways to approach this challenge is for institutions to provide professional development for the concerned staff. Thies (2012) is of the opinion that adopting institutional

policy that encourages staff to be involved in curricular renewal processes might also help, as they play a leading role in curriculum development (Handler, 2010). This is reinforced by Stigmar's (2009) and Stigmar and Karlsudd's (2010) stress on academic staff development and scholarship of teaching and learning.

8.3.2 From Policy to Design and Embedment: Prioritization and Needs Analysis

The findings show that across the institutions over time some literacies are foregrounded and privileged while others are marginalised or overlooked altogether. Prioritizing and marginalising in this sense is a quite complex issue that is intertwined with the curriculum providers' and/or beneficiaries' needs – be they ideological, educational, social, political, economic, and so forth. In order to be conducted successfully and have the desired impact and hence guide the process of curriculum design and development, a needs analysis exercise needs to be based on certain theoretical underpinnings. The rationale for a needs analysis in this study's context builds on research on *needs analysis* in the field of ESP. For example, in a curriculum where there is a focus on the acquisition of technical literacy skills for academic or professional/occupational purposes the locus of such an acquisition can be a contentious issue – as has frequently been argued by the proponents of the New Literacy Studies and Academic Literacies Approach in relation to the effectiveness of the *deficit* model and *study skills* model (Lea and Street, 1998; The London Group, 1996). Research publications in the areas of ESP and academic literacies indicate that reading and writing are still fundamental to academic literacy, but this time as 'members' of a large 'family' of literacies, some of which are even embedded within the practice of these literacies, e.g. what one is able to do with writing in a defined context. This implies that, according to the values shift, it is more important to demonstrate the outcomes of knowing the language, in contrast to demonstrating knowledge of/about it as an end in itself and not connecting this knowledge with other forms and modes of meaning-making. In the context of this study, for example, knowing English as a second/foreign language should not limit itself to being proficient in the language, but rather be transferred to competences in the use of English in academic and work-related functions and practices. Furthermore, the language needs to be used as mediating tool for acquiring various conventional and 21st century academic literacies, including ICT literacy.

The needs of students in an English-medium curriculum are defined, on the one hand, by the types of discourse communities they seek to participate in, and, on the other hand, by the discourse communities from which they come (Grey, 2008). In the broad context of wider participation that has been elaborated in Chapter 1 (see 1.2.2), students enter higher education from high school or other pathways. Once they are at university, they need to get acquainted with the academic conventions underpinning such essential aspects of academic life as assessment, plagiarism and feedback mechanisms generally and within their specific disciplines. Without this acquaintance, the students are likely to be positioned as "cultural others" (Leask, 2006:189). This calls for, for example, students' critical engagement with different genres within and between disciplines [e.g. types of texts, both spoken and written, such as student discussions, written notes, letters, academic essays, etc, with which students need support in becoming aware of the different language and semiotic practices associated with the requirements of different genres in academic contexts (Lea and Street, 2006).

The focus of analysis can be on outsiders' views (e.g. pre-experience learners and experts from outside an institution) and/or on insiders' views (e.g. students who have been on campus for some time, or company employees in the target language situation, who have expert insider knowledge) (Long, 2005). Research, especially in the social sciences, has shown that

the inadequacy of the outsider as an observer can be countered with the unique value of the intuitive knowledge of insiders as members of a community (Ramani, et al., 1988). Furthermore, the complex view of 'context' (Douglas, 2000) calls for an ethnographic approach – that is, "the kind of emic perspective gained not just through surveys, interviews, and text analysis, but also case studies and community ethnographies" (Belcher, 2006:136).

Informed by ecological approaches to language policy and planning (LPP) research (Hornberger and Johnson, 2007), some needs analysis approaches are paying more attention to gathering data ethnographically and by triangulating through different levels of the settings. The focus of analysis can also be on negotiation and agreement among the stakeholders, e.g. learners, teachers and other community members (Belcher, 2006). Two extreme approaches with which needs analysis may be conducted are the bottom-up approach exclusively relying on the micro-level setting reality (e.g. classroom, students, teachers), and a top-down approach relying on the macro-level assumptions and intuitions alone (e.g. government officials, foreign experts, academic managers). For example, most needs analysis research has been based on classroom-based investigations and has relied on data obtained from learners' or teachers' discourses or responses (e.g. interviews, written work, questionnaires, corpora, etc). On the other hand, a study like mine has focused mostly on the macro and meso levels because the bulk of data came from policy and planning, although the study has not been as critical of the policies and practices as others may turn out to be.

By and by learner data is now becoming highly prized (Read, 2008; Nunan, 1990; Shi, et al, 2001; Holme and Chalauisaeng, 2006; Savage and Storer, 1992). There is an increasing recognition that students, as reflective members of their discourse communities, should be empowered to participate in needs analysis alongside other stakeholders (Benesch, 2001; Johns, 1997; Stewart, 2007). Curriculum planning (of which needs analysis should be the first step) that integrates mutual participation and dialogue is likely to move staff and students on from seeing academic literacies as merely technical (Lea and Street, 2006; Pittam et al., 2009). An Academic Literacies Approach to curriculum embedment demands that there be an opportunity for all students and their lecturers in all disciplines at all levels to engage critically with their literacy practices in the context of their chosen study programmes. Such an approach based on student-lecturer collaboration would demonstrate the underlying pedagogical principles of student-centred learning whereby students actively participate in the development of their academic skills and understanding of content area subject matter. Furthermore, it is vitally important that academic literacy practitioners, including ESP professionals, do not work in isolation, but are informed by the perspectives of subject-area specialists (Selinker, 1979). However, there are certain constraints and barriers why these discipline-specialist teachers might not be very ready to participate in academic literacy needs analyses and curriculum development – which is one of the biggest challenges to teaching the literacies through the disciplines (Drummond et al., 1998).

8.4 EMBEDDING ACADEMIC LITERACIES ACQUISITION

8.4.1 Approaches and Strategies

As highlighted in the reflections on the dominant curriculum embedment practices in the study's context (see 6.4.4), there is no approach, strategy or model that can fit all the institutions even when they all reside in the public sector. Moreover, the heterogeneous curricular orientation elaborated in section 1.2.1 justifies this diversity. However, an institutional provision that operates within a 'scaffolding framework' would take into

consideration that, say, in an on-going English language programme students are first supported to acquire language skills so that they are able to communicate in the new language. Then, as time goes by language elements of how to learn academic subjects across the curriculum 'through' English are integrated (e.g. English-based study, assessment, research, communication skills and competences). By the time students are able to sufficiently meet the demands of their subject areas across the curriculum through English, the language proficiency input of the programme may be 'faded', giving more attention to generic academic English and gradually allowing students to autonomously 'take over' learning in their respective areas of specialisation.

According to the Academic Literacies Approach, this is where the Study Skills model (Lea and Street, 1998) is limited, whereby one course or a couple of General English and/or English for General Academic Purposes (EGAP) courses are offered and assumed to address communication and knowledge construction in the disciplines for the rest of students' academic life. Students are likely to encounter difficulties in transferring the generic academic language and other literacies to their disciplinary areas. A more 'scaffolding' approach would see to it that as the mainstream programmes progress, pedagogical support is redirected to learning through English in the specific fields and subjects, integrating more literacies such as lifelong learning, employability and entrepreneurship skills, competences and attributes. As Hammond and Gibbons (2005) argue, the emphasis on students' learning potential, and not simply on their current abilities, and the consequent raising of expectations about what is possible, seems to be especially significant for students learning through the medium of a second/foreign language. This is so particularly because in such a context cognitive and conceptual understanding of subject matter may outstrip English language development, or conversely, abilities in English may constrain subject-specific learning.

Rwandan tertiary learning institutions may draw on the potentialities afforded by the academic literacies critical perspective to inform the proposals for the strategic and pedagogic enhancement of the curriculum. In response to the complexities of communication and other literacy practices in the context of higher education, an Academic Literacies Approach engages with the complexities of the individual, disciplinary and institutional identities as the basis of all university learning. In this respect it adopts a critical and transformative rather than normative perspective towards student literacy practices in the context of the university (Lillis and Scott, 2007). The approach also sees the literacy demands of the curriculum as involving a variety of communication practices (Lea and Street, 2006). Programmes of study need to allow a dynamic and critical engagement with literacy practices in which subject knowledge and student identities are explored within the context of the discipline. However, empirical studies in 'academic literacies' research show that the embedment of academic literacies development into institutional curricula has been slow (e.g. Barrie, 2006; Einfalt and Turley, 2009; Jones, 2008; Sumsion and Goodfellow, 2004). The studies also indicate that there is a general trend for tertiary learning institutions to be slow in their transition from the 'study skills' paradigm (Wingate, 2006). Therefore, institutions in the Rwandan context are not expected to radically embrace the 'academic literacies' approach. Nonetheless, from an 'academic literacies' standpoint, the more divorced the literacies courses are from their disciplinary contexts, the severer the limitation on their effectiveness (Wingate, 2006).

8.4.2 Challenges and Barriers to Embedment

The results in Chapter 5 showed how the introduction of the modular system into Rwandan tertiary education has requested a 'revolutionary' curricular change from what existed before,

e.g. in terms of learning and teaching in the disciplines, being assessed and learning of the 'new skills' (Rwanda NCHE, 2007d). However, there are two important dimensions that exist in juxtaposition in the modular scheme, making the embedment of formal academic literacies acquisition a challenge. On the one hand, through the modular scheme there is a shift towards increasingly interdisciplinary study, which requires lecturers and their students to think about the relationship between ways of knowing in each discipline and literacy practices in more flexible and critical ways (Sommerville and Creme, 2005). However, one of the current challenges is how to embed the acquisition of the so-called generic transferable skills and competences (or 'soft' skills) especially across large, diverse student populations and flexibly structured tertiary study programmes.

On the other hand, the modular scheme policy framework allows students to accumulate credits from separate modules at different times and even be awarded for their learning achievement at any level of their study programme. This cannot accommodate 'slow learning' (Claxton, 1998), which is absolutely not associated with retarded learning or learning disabilities but is the kind of learning that may take considerably longer than a module's length to develop. According to Yorke and Knight (2006), the ability to deal with the ticklish interpersonal situations, skill in tackling complex problems, and the development of powers of critical thinking are three examples where 'slow learning' is likely to occur. Therefore, slow learning is better taught, monitored and assessed vertically across a programme rather than at the end of a short modular slot. For this reason, one of the key challenges for the modular scheme is "to anticipate and forestall possible incoherence in the curriculum as it is experienced by the student" (Yorke and Knight, 2006:19). Moreover, the literature on curriculum embedment shows that it is not sufficient to design foundation year or first-year courses with embedded generic skills because "effective learning requires practice, reinforcement and the ability to transfer skills" (Gunn, 2011:2). All this cannot realistically be achieved within one year of study. Therefore, first-year modules focused on basic skills as the foundation on which to incrementally build field-or discipline-specific modules in later years might be the way forward (Pope, 2009). Furthermore, the prospect that students will retain and transfer the generic literacies may be challenged by empirical observation (e.g. Foxlee and Green, 2009).

As observed earlier in this thesis, more recent approaches to the embedment of academic literacies acquisition for students advocate teaching the literacies within the mainstream modules by mainstream lecturers. This presents a number of problems, some of which concern the lecturers' dispositions. This is an international phenomenon, but it should be a concern for the Rwandan context too. The findings in Chapter 6 show that the first 'new skills' module (i.e. 'Module I') was designed but did not materialise as an institution-wide provision (see 6.4.1). In addition, 'Module II' was enacted problematically. While in the Rwandan context generic transferable skills are commonly associated with language teaching and learning – hence incorporated into language/literacy courses and taught by teachers from that area – many academic staff from other disciplines would be reluctant to teach them, not least because they either do not regard them as important nor do they want to concern themselves with student learning outside their areas of specialisation (Biggs, 1996) or with developing work-related skills (Drew, 1998; Bennett, et al., 2000). Embedding transferable skills into the mainstream courses needs the commitment (and cooperation) of all academic staff teaching in the disciplinary areas, and therefore requires staff consultation and staff development measures (Drummond, et al., 1998). Apart from the presumed reluctance and lack of concern, the mainstream academic staff is not trained in teaching the generic skills.

Therefore, lecturers whose academic areas of competence are not language/literacy or disciplines related to them are ill-equipped to teach the literacy courses.

On the one hand, teaching discipline-specific genres or covering work on specific disciplines on the part of language/literacy teachers can be quite daunting, if not impractical, in such a generic module as 'Module I' referred to above, unless staff from various fields or disciplines are also involved. Alternatively, from a methodological point of view, teachers may use texts or other academic literacy samples from across the curriculum without teaching them per se, which is not a solution either. Thus, these teachers need to undergo professional development for teaching the new skills. In addition, I argue that if such courses are taught to different cohorts in a progressive or staged structure, institutions with large student populations will need many teachers and resources to successfully implement even the 'bolt-on' approach, granted that some mainstream teachers from areas allied to language or literacy education will be willing to participate. This might also force learning institutions to opt for other provision modes such as online and distance learning, as often envisaged by policy makers and learning institutions in Rwanda (Rwanda MINEDUC, 2008c). However, this option has its own demands and limitations. For example, distance learning might require even more support than conventional modes, hence more labour-intensive. Of course, there are other factors that need to be taken account of with regard to teaching staff in the specialist disciplines, and these include issues of time (as lecturers are already busy with and sufficiently burdened by their courses in the department), and motivation (e.g. what incentives or rewards are available for adding an extra load to content area teaching).

8.4.3 Towards Integration

Curriculum integration in this study's context has to do with teaching the 'new skills' in combination, and teaching language literacies/skills in their full range, on the other. In a context such as Rwanda where English is used as a Second or Foreign Language and a language of instruction, this means teaching English skills: listening, speaking, reading, writing, grammar/syntax and vocabulary/lexis as they apply to their use in tertiary academic learning. A more expanded form of integration can imply embedding the 'new skills' into English language programmes or mainstream disciplines. However, given the constraints associated with the latter model – discussed above – some learning institutions may opt for the former.

In much of current English for Specific Purposes (ESP) practice a number of academic literacies are taught and learnt within the ESP curriculum. This is largely because ESP, which was originally an English Language Teaching (ELT) approach, has now expanded its scope, taking on board both language-based and non-linguistic forms of literacy. It has become common to find several transferable skills and competences embedded in ESP courses. For example, in English for Academic Purposes (EAP) courses offered during the early years of university study skills is an important component. Study skills may be conceptualized as abilities, techniques and strategies which are used for study purposes (Richards, et al., 2000). In addition, EAP designers often subsume a number of other literacies under the banner of 'study skills', e.g. assessment/examination skills, research skills, time and stress management skills, and teamwork. Recent EAP courses (e.g. those appearing on the WWW) tend to incorporate also technological literacy and information literacy. This trend is partly related to the role of English today as an international academic lingua franca (Hyland and Hamp-Lyons, 2002:5). Furthermore, 'academic literacies' as a field of research and practice is, in some sense, intricately related to ESP, as explicated in 2.5.

On the other hand, the choice concerning curricular embedment of academic literacies acquisition lies with individual policy and institutional contexts, especially based on the outstanding needs – be they student learning needs, institutional or national priorities, community or workplace demands, situational constraints, or combinations of these.

8.5 EMBEDDING ICT INTO THE CURRICULUM

8.5.1 Use and Benefits

As highlighted earlier, this study's concern in the area of ICT is with technologies based on the computer and internet. Since the beginning of the 21st century, ICTs in education have been full of promises which span time and geographical space. For developing countries in particular ICTs have the potential for increasing access to and improving the relevance and quality of education (Cole and Roman, 2003; Tinio, 2003). Generally speaking, there are three approaches to the use of computer and internet related ICTs that can be related to learning more broadly and to academic literacy acquisition particularly (Tinio, 2003). Firstly, learning *about* ICT focuses on technological literacy as the end goal. For example, the study found that before the advent of 'new skills' all public and most private tertiary learning institutions had been offering at least one course on basic computing and internet skills at the beginning of undergraduate study. This type of course is running to date. Although, it is assumed by the providers that the acquired skills will be transferred to learning and performing other academic tasks in their studies, the primary focus is on imparting technical skills.

Secondly, learning *with* ICT means focusing on how technology can be the means to learning ends across the curriculum or within specific disciplines (i.e. as a 'methodology' of teaching and learning). Thirdly, learning *through* ICT is an approach which involves learning the technological skills when the learner needs to learn them as he/she engages in a curriculum-related activity. For example, if students are required to present a report on a selected topic in the discipline or in a language or literacy class, they may first be taught how to do library research online and how to use spreadsheets and database programmes to help them organize and analyse the data they have collected. They may also be taught how to use a word processing application and a PowerPoint presentation in order to prepare their written report and orally present it in class. Modules I and II in Chapters 6 illustrate how such skills are embedded into the module plans.

Contextualised in tertiary academic literacies acquisition or education in Rwanda, there are many ways in which applications of ICTs have benefits. For example, a marked change over the last decade has been the access and use of computers and the internet among teachers and students in a variety of literacy practices, both for general purposes and academic purposes (e.g. researching, doing assignments, writing reports, communicating with all kinds of resource persons across the WWW, etc). This seems to be in agreement with proponents of the scaffolding concept regarding ICTs, which, according to them, should offer a structure and support for completing tasks (Puntambekar and Hubscher, 2005). In addition, the technologies should enable peers to support each other's learning. Technologies that scaffold academic literacies acquisition should be flexible enough to adapt to students' knowledge and skills. For instance, in the case of Rwanda, some students enter tertiary education from rural or semi-urban environments where use of contemporary ICTs is limited. They may not easily adapt to the technologies until they are fully acculturated into their tertiary community.

An academic literacies perspective on the embedment of technology into the curriculum in the first place regards ICT knowledge and meaningful use of it as a type of 'literacy' in itself – hence multimodal literacy, which involves meaning-making using the changing technologies, the impact of media as well as popular culture (Archer, 2006; Cope and Kalantzis, 2000; Kress, 2003). Technologies allow their users to participate in multicultural learning communities (Kern, 2006:195). Rapid evolution of several communication technologies is changing and enabling new forms of discourse, new forms of authorship, and new ways to create and participate in communities (Kern, 2006:183). This includes the need to be 'literate' beyond language communication, although the latter still remains central. ICTs should help students to acquire not only the technical skills (e.g. language skills, study skills, employability skills) and to get socialized into the campus community at various levels, but also provide opportunities for alternative voices to be heard.

8.5.2 Barriers to ICT Integration

The study found that there are a number of barriers that stand in the way for ICT integration to be used as scaffolding for academic literacy acquisition in tertiary education. Barriers at institutional level limit individual student and teacher access and use as may be expected, but there are also barriers that are more pertinent to individuals. Barriers at national, sector and institutional levels especially relate to the capacity to establish sufficient ICT infrastructure and to sustain it. However, one of the barriers that the study found had to do with awareness and acceptance of the technologies by different stakeholders. Although the study's scope in this respect allowed only a limited investigation of the issue, research on ICT awareness and acceptance reveals that there are numerous conditions to be met before ICT innovations can be introduced, adopted and diffused through higher education institutions (Davis, 1989; Davis, Bagozzi and Warshaw, 1989; Bagozzi, Davis and Warshaw, 1992). When users are presented with a new technology, a number of factors influence their decision about how and when they will use it, notably their perceptions – that is, *perceived usefulness*, which is the degree to which a person believes that using a particular system would enhance his/her job performance, and *perceived ease of use*, which is the degree to which a person believes that using a particular system would be free from effort (Davis, 1989). Insights into teachers' and students' conceptualisations and applications of ICTs in their day-to-day practices – both academic and social – suggest high levels of ICT awareness among them.

8.6 FURTHER RESEARCH

This study has drawn on synergies from a vast area of interdisciplinary research, which makes the choice of a particular area of focus for further research a rather difficult exercise. So, the choice of topic areas outlined below is based on three factors: (i) the broad and complex nature of my research problem which has made me unable to focus on all its facets, particularly the literacy needs as perceived and lived out by the individual students and teachers at the micro level; (ii) many unanswered theoretical and practical questions I encountered as I oscillated between data collection, analyses and literature reading; (iii) a repertoire of insights I developed during the process of weaving all the pieces of my research together into a thesis but all of which I am unable to fit into the present report. The research areas are listed below:

- Academic literacy needs requested at the micro level, from the perspective of students and teachers – particularly those that emerge from issues in the learning situation at

that level (e.g. students' proficiency difficulties, or their difficulties in coping with ESP, study skills and work-oriented competences);

- Going through the scaffolding circle: scaffolding at the classroom level within the context of academic literacies teaching and learning, including scaffolding with ICT;
- The correlations between language and academic literacy instruction and academic/success and employability: for example, do the students who get exposed to more or less such instruction become more/less successful and employable?;
- Perceptions about employability and entrepreneurship from various perspectives and data sources;
- Awareness levels of academic literacy needs in undergraduate education, among: (i) policy makers in NCHE; (ii) managers at faculty and department levels in tertiary learning institutions; (iii) teachers responsible for designing the language and literacy modules (including ICT teachers and instructors, research methodology lecturers, etc); in other words, is what is written in documents what their authors think, know and believe?
- Academic literacies pedagogy at pre-university level: What is it like?; and
- The academic literacies curriculum, including ESP programmes, in local secondary schools: What is it like and how does it feed into tertiary entrance and further ESP pedagogy on campus?

8.7 SUMMARY OF THE THESIS

In this thesis, the educational context of the study being reported on has first been extensively described. Then, literature from theoretical and empirical research relevant to the topic is reviewed before coming to describing how the process of research went on. In chapter 5 findings have shown that the academic literacies requested of students in undergraduate study are many and interrelated. While the curricula and pedagogies of the period before 2007 tended to focus on more conventional literacies, the reform policies introduced in tertiary education – and inspired by the forces of internationalization of higher education – have led to the requirements and demands for new literacies which are associated with the 21st century nature of learning and being employable. The findings in Chapter 6 provide practical insights into how tertiary institutions in Rwanda have been trying to respond to the changing requirements and demands for the aforementioned literacies in terms of embedding these into the curriculum.

Given the leveraging role of ICT, the latter offers a multitude of ways in which the acquisition of academic literacies for study and working life may be supported both in the classroom and outside it, with or without the teacher, and with or without peers. The findings in Chapter 7 reveal that in the context of this study ample policy support and political commitment exist both at national, sector and institutional levels. In terms of ICT awareness, access and use at the level of students and teachers, the results show that although there is still some way to go in integrating ICT into academic literacies acquisition and learning more broadly, the rate at which ICT-supported learning is embraced at the micro level is quite promising. The study concludes that while academic or professional under-preparedness is largely not the fault of students but a construction of the learning and social environment around them, it is imperative for tertiary learning institutions to create a suitable curricular and pedagogical environment for their students' acquisition of academic literacies. This is because being academically literate is every student's right.

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Appendices

Appendix I: Letter of Consented Participation

Linköping University

Department of Behavioural Sciences & Learning

PhD Research in Education

Dear Participant,

I am a PhD student at Linköping University, Sweden, and I am currently collecting data towards my thesis writing.

The overall aim of my study is to contribute to the improvement of academic literacies education in Rwanda's tertiary education. The focus of my investigation is on the literacies required and demanded of students while they are on their undergraduate programmes and when they pursue postgraduate education and/or employment upon graduation. The investigation will also be interested in how teaching and learning these literacies are being integrated into the mainstream curriculum at your institution.

During the data collection, you may be requested to cooperate in any of the following ways: (i) fill out questionnaires, (ii) take part in interviews or conversations, (iii) give me access to some documents, and (iv) be observed while you are teaching/learning.

Please be assured that all the information I get from you shall only be used for research purposes and that your identity shall be treated as strictly confidential. Should a need arise for your identity to be disclosed, your permission shall always be sought to that effect.

Thank you very much for your invaluable information and cooperation.

Charles Karoro Muhirwe

Researcher

Date:……

Appendix II: ICT survey questionnaire

Linköping University

Department of Behavioural Sciences & Learning

ICT Survey Questionnaire

I would be grateful for your cooperation in completing this questionnaire to assist with my research. Please return it to me immediately after completing it. Write in the provided space between the dotted lines where this is applicable. You may also write in the space on the reverse side of the printed page in case you need to write more.

Fill the details in the blank spaces below, or tick as appropriate

Your age: ----------

Your gender/sex: ----------

Institution: ----------

Faculty: ----------

Department: ----------

Area(s) of specialization: ----------

Year of Study in Medicine: ----------

Dominant linguistic background: Tick only one.

- o Francophone
- o Anglophone

Other languages spoken/used for active communication: please specify.

Your pre-university training

- o Ordinary Level
- o Advanced Level

If other forms of training, please specify here: ----------

1. Explain briefly in the blank space below. People understand ICT in different ways. For you, what is ICT?

2. Tick only ONE of the optional answers.

(a) Have you had some training in the use of the computer WITHOUT the Internet (offline)?

- o Yes o No

(b) Have you had some training in the use of the computer WITH the Internet (online)?

- o Yes o No

3. (a) If yes, how long have you been using the computer WITHOUT the Internet (offline)? Tick only ONE.

- o Less than one year
- o One year
- o Less than two years
- o Three years
- o Four years
- o More than four years

(b) If yes, how long have you been using the computer WITH the Internet (online)? Tick only ONE.

- o Less than one year
- o One year
- o Less than two years
- o Three years
- o Four years
- o More than four years

4. Tick as appropriate. Where do you access the Internet?

- o Home
- o Campus
- o Cybercafe
- o Work
- o Friend's

If there are other places where you have access, specify here: ----------
-5. Tick only ONE. How many times do you spend on the Internet/World Wide Web each **week**?

- o Once
- o Twice
- o Three times
- o Four Times
- o Five Times
- o Six times
- o Everyday

6. Tick only ONE. About how much time do you spend on the Internet/World Wide Web each **day** you have access?

- o Less than 1 hour
- o One hour
- o Two hours
- o Four hours
- o Five hours
- o Six hours
- o More than six hours

7. Tick as appropriate. What do you use the Internet for?

- o E-mail
- o Reading newspapers
- o Discussion forums
- o Learning Medical English
- o Information search/research
- o Playing games

If there are other purposes for which you use the Internet or World Wide Web, state them here:

8. (a) If you learn Medical English using the Internet, describe briefly below which online facilities you have been utilizing to learn reading.

(b) If you learn Medical English using the Internet, describe briefly below which online facilities you have been utilizing to learn writing.

9. Tick only ONE. Have you been using some English teaching technologies that are based only on the computer (offline) – e.g. CD-ROMs, DVDs, etc?

- o Yes
- o No

10. (a) If yes, briefly describe at least the main ones of such technologies which you have been using to learn reading in Medical English.

(b) If yes, briefly describe at least the main ones of such technologies which you have been using to learn writing in Medical English.

11. (a) Whether or not you have been learning with computer and Internet based technologies, do you think learning reading in Medical English using ICT as a tool is useful?

- o Yes
- o No

Please briefly give your reasons:

(b) Whether or not you have been learning with computer and Internet based technologies, do you think learning writing in Medical English using ICT as a tool is useful?

- o Yes
- o No

Please briefly give your reasons

12. (a) If you have been using ICT in your classes, which other technologies (e.g. equipment or software/programmes) do you think are suitable for learning reading in Medical English? List them down below.

(b) If you have been using ICT in your classes, which other technologies (e.g. equipment or software/programmes) do you think are suitable for learning writing in Medical English? List them down below.

13. (a) If you have NOT been using ICT in your classes, which technologies (e.g. equipment or software/programmes) do you now think are suitable for learning reading in Medical English? List them down below.

(b) If you have NOT been using ICT in your classes, which technologies (e.g. equipment or software/programmes) do you now think are suitable for learning writing in Medical English? List them down below.

Charles Karoro Muhirwe Linköping University, Department of Behavioral Sciences & Learning

Linköping, SWEDEN, E-mail: karoro99@yahoo.co.uk

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