

**RHODES UNIVERSITY
EDUCATION DEPARTMENT**

**RESEARCH PORTFOLIO
PRESENTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE**

**MASTER OF EDUCATION
(GENERAL EDUCATION THEORY AND PRACTICE)**

CANDIDATE:

YVONNE BOOIS

STUDENT NUMBER:

602B2885

SUPERVISORS:

U. VAN HARMELLEN

W. HUGO

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PERSONAL PROFILE

Personal Profile: Yvonne Boois

BACKGROUND

I am a teacher by profession and I have taught for ten (10) years, followed by my appointment as an Education Officer in the Ministry of Basic Education, Sport and Culture, Directorate – Namibia Library and Information Service. I hold a Primary Teachers Certificate and a Bachelor of Arts Degree. In 1997 I obtained a Post-Graduate Diploma in Education Management at the Brunel University in the United Kingdom. Currently I am registered at the Rhodes University for a Masters in Education (GETP).

MY CAREER/WORK EXPERIENCE

I started to teach in 1981 at a primary school in Arandis, 70km outside Swakopmund. In 1984 I was promoted to a Senior Teacher (M1) and transferred to Windhoek, the capital city of Namibia. I taught at Augeikhas Primary School and was once again promoted to a Senior Teacher (M2). In June 1992 after the completion of my BA degree I was promoted to an Education Officer to work in the Directorate: Namibia Library and Information Service. Shortly afterwards I was seconded to the READ Educational Trust Project as a National Coordinator for the Project. My main task was the compilation of the project proposal and the implementation of the project. The main objective of the project was to promote reading and writing skills of learners in ten (10) pilot schools.

During 1996 I left office for further studies in the United Kingdom. I completed a Post-Graduate Diploma in Education Management. I returned home in 1997 and was promoted to Senior Education Officer.

In 1998 I wrote a project proposal with the main aim to rectify the imbalances of the distribution of library resources in Namibian schools. As Namibia inherited a system that was fragmented and divided, resources were distributed unfairly, with no genuine efforts at developing and expanding library services for the majority of the population. This project aimed at rectifying this situation. The project would strive to ensure that each school in the country would have at least one library book per learner by the year 2003.

During the same period the Swedish International Development Agency (SIDA) invited project proposals, which are aimed at the formerly disadvantaged groups, from the Ministry of Basic Education, Sport and Culture. My project proposal was accepted by the Education Library Service Management and forwarded via the Directorate: Namibia Library and Archives Service to the Swedish International Development Agency (SIDA). I am proud to say that my proposal was, together with the proposal "Housing for rural teachers", selected for funding.

Career objectives

I have been in the field of Education for the past twenty(20) years and believe that I can contribute towards a better education for all Namibians by helping to diminish illiteracy in our country and in Africa as a whole. **My career objective is to use my personal and professional abilities, skills and capabilities to improve the quality of life of people in my community and my country.**

Academic strengths and challenges

I have a good command of the following computer programs: Microsoft Word and Microsoft Excel. However, as computers are becoming general management tools, I took up the challenge to equip myself to pass on the knowledge to the teachers I train. Presently, I am upgrading my computer skills. I am registered for the following computer programs: Microsoft Office '97 Proficient user, Microsoft Excell Proficient user, UNIX SVR 4 System Administration fundamentals and How to use the Internet most proficiently.

I am very hard-working, well organised and I have strong leadership skills. I am motivated, dependable and can work well under pressure. Currently, I am Acting Head of the sub-division Education Library Service, supervising two Education Officers, four Library Assistants, one Record Clerk, one Technical Clerk, three processors and two cleaners.

My next biggest challenge is to complete a Masters Degree in Education. This I believe will enable me to address the humanitarian needs of my countrymen and the world at large.

CURRICULUM VITAE – YVONNE BOOIS

PERSONAL INFORMATION

- Nationality: Namibian
- Age: 40
- Place of Birth: Windhoek, Namibia
- Date of Birth: 17 January 1963

PROFESSIONAL AND TECHNICAL QUALIFICATIONS

1996 – 1997

Post-Graduate Diploma in Education Management

Brunel University – United Kingdom

1989 – 1991

Bachelor of Arts (BA Degree)

University of South Africa – South Africa

1980 – 1981

Primary Teachers' Certificate

Academy of Tertiary Education – Namibia

- **FACILITATION AND MODERATION**

Presentation Skills and techniques

DACUM Facilitator

Power-Point presentations

Teacher Training in Library Management

Teacher Training in Basic Information Science

INVOLVEMENT IN FURTHER STUDIES

2002-2003 Masters degree in Education (General Education: Theory and Practice)

Rhodes University – Grahamstown – Republic of South Africa

Second and final year, degree to be completed in October 2003.

PROFESSIONAL EXPERIENCE:

June 1992 – to date

▪ Ministry of Basic Education, Sport and Culture

Senior Education Officer (Acting Head: Education Library Service)

The execution of curriculum a.o. education related research; the development of curricula and materials; the rendering of liaison services; the planning of physical facilities; the processing and interpreting of data and making it accessible; the in-service training of principals and teachers; and the conducting of inspections. Teacher Training in the use and management school libraries and the establishment of libraries in all schools.

January 1981 – May 1992

Ministry of Basic Education, Sports and Culture

Primary School Augeikhas

Teacher (M2)

January 1983 – December 1984 (Part-time)

Namibia College of Open Learning

Arandis Primary School Centre

Business Economics Teacher (Grade 10)

August to October 1991 (Part-time)

National Planning Commission

National Housing Census

Chief Enumerator – Training of Enumerators

January 1995 – December 1996 (Part-time)

Namibia College of Open Learning

Suiderhof Army Base Centre

Head of Centre

January 1988 - December 1990 (Part-time)

Lintas Namibia

Market Researcher/Supervisor

April 1989 – June 1989 (Part-time)

Arnold Bergstaesser Institute

1989 Independence Elections of Namibia

Researcher/Supervisor

September 1989 – November 2000 (Part-time)

Elections Commission

National Elections

Returning Officer

March 2000 – November 2000 (Part-time)

Polytechnic of Namibia
School of Communications, Legal and Secretarial Studies
Part-time Lecturer (Office Administration)

PARTICIPATION IN NATIONAL EVENTS

April 1989 – June 1989 (Part-time)

Arnold Bergstraesser Institute
1989 Independence Elections of Namibia
Researcher/Supervisor

August to October 1991 (Part-time)

National Planning Commission - National Housing Census
Chief Enumerator – Training of Enumerators

September 1989 – November 1989 (Part-time)

Elections Commission
National Elections
Returning Officer

11 July 1998 – 19 July 1998

Namibia Team – First World Youth Games
Moscow - Russia
Chaperone

ORGANISATIONAL MEMBERSHIP

January 1986 - December 1989

Young Woman Christian Association
Secretary

March 1990 – March 1993

Black Africa Sport Club (Organising Committee)
Secretary

February 1992 – November 1993

Ministry of Basic Education, Sport and Culture
Curriculum Coordinating Committee (CCC)
Secretary

April 1994 – November 1996

Namibia Language and Cultural Resource Centre
Member of Board of Directors

May 2002 –

International Association of School Librarians

Member

SKILLS

Computer literate: Microsoft Office/ Microsoft Excel/Windows 98/ PowerPoint

Interests: Reading, Travelling and Tennis

AREAS OF STRENGTH

- Project development, management, supervision, monitoring and evaluation.
- Conference facilitation, training, dispute mediation and conflict resolution
- Good presenter, have very good skills in power point presentations and a well developed moderator
- Committed to community development and upliftment of the formerly disadvantaged Namibians
- Expert in all aspects of setting up and using school libraries
- The ability to inspire teachers and colleagues

CONTEXTUAL ANALYSIS

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1. INTRODUCTION

The way in which a society is politically and economically structured will to a great extent determine its educational system. In Namibia before 1990, educational structures were the direct results of a political economy structure that favoured the ruling minority and grossly neglected the majority. Proclamation AG 8 established eleven separate authorities on an ethnical basis. Development of school libraries and the accompanying teaching of Book Education then became the responsibility of the authority concerned, where its successful implementation was mostly determined by:

- availability /lack of finances and other resources;
- the level of expertise of the staff, and
- most importantly: the level of priority afforded to these aspects of education.

The fact that each authority was responsible for policies regarding academic development, resulted in the discrepancies in the quality of education for the various racial groups. The provision for school libraries within these respective authorities also reflects the fragmented nature of the educational system.

The subject Book Education was regarded as a very low priority subject in the ten educational authorities for blacks, as opposed to the authority for whites, as it was thought that black education should provide a 'schooling in inferiority which would help to prepare black students for the subordinate positions which they would occupy in society' (Fredericks 1993:34).

The authority for whites commanded the largest revenue by way of taxation and almost every one of the 64 schools of this authority had school libraries, which had been developed into fully fledged libraries or media centers. The subject Book Education was rated very highly in those schools.

In the large majority of schools, nothing at all was done to develop school libraries and to teach the subject Book Education. As said above, because of the belief that black students should be educated for subordinate positions, a subject like Book Education would definitely not be rated high on the list of priorities in these schools. Research done by the University of Namibia under the leadership of Prof. A Töttemeyer showed that in 1988-1989 only 20% of all school going children had any access whatsoever to any form of library materials. Book Education was limited to fewer than 100 schools out of 1257 schools.

At Independence, the education system was characterized by five key features (NDP 1):

- Fragmentation along racial and ethnic lines.
- Unequal access to education and training at all levels of the system.
- Inefficiency in terms of low progression and achievement rates and high wastage rates.
- Irrelevance of the curriculum and teacher education programmes to the needs and aspirations of individuals and the nation.
- Lack of democratic participation within the education and training system.

The eleven different pre-Independence education authorities were abolished and seven education regions were established within one Ministry of Education.

In March 1995 the one Ministry was split into two separate Ministries:

- The Ministry of Basic Education, Sport and Culture (MBESC)and
- The Ministry of Higher Education, Vocational Training, Science and Technology.

Within the Government, the Ministry of Basic Education and Culture is a major provider of library and information services to Namibians. It strives to do this within the National objectives, and its vision is built upon the cornerstones of:

- access
- equity
- quality and
- democracy

The independent government that came to power in 1990 abolished the segregation in education and introduced a paradigm shift away from rote learning to learner centered education where a learner is also a participant. The Cambridge system, which is grounded on resource-based teaching and learning, was introduced to support learner-centered education.

Education Library Service, a sub-division of the Namibia Library and Information Service, is responsible for the curriculum development and implementation of the subject Basic Information Science as well as library development in all schools in the country.

2. METHODOLOGY

There are many well-established styles of research, but here the ‘case study’ has been selected, because this study is an inquiry around an instance, in this case, the curriculum of Basic Information Science.

The ‘case-study’ approach is particularly appropriate for individual researchers because it gives an opportunity for one aspect of a problem to be studied in some depth within a limited time scale’ (Bell 1989: 6). It is an investigation to assess current perceptions of the Basic Information Science curriculum through:

- a critical analysis of the Basic Information Science curriculum
- a socio-historic and economic analysis of the context in which the BIS curriculum has been designed
- an analysis of the learners for whom the BIS curriculum is designed
- an analysis of the learning environment in which the BIS curriculum is presented.

Since the evaluation is made in the context of the educational reform process, issues like how the curriculum addresses issues related to democracy, equity, access, etc. will receive prominence. The epistemology of the curriculum and the extent to which curriculum provides opportunities for learner-centered education, will be looked into.

2.1 Data collection

Basic Education in the formal school system of Namibia spans ten years, and consists of three phases:

Lower Primary, Grades 1-4

Upper Primary, Grades 5-7

Junior Secondary, Grades 8-10

The Basic Information Science curriculum comprises two syllabuses, one for Grades 4-7 and one for Grades 8-10. The study will cover two phases of the Basic Education system - the lower and upper primary phases. That means the investigation will only target the syllabus for Grades 4-7.

2.2 Research instruments

The means of data collection will be a desktop study and document analysis of the following policy documents:

- Towards Education for All,
- Pilot Curriculum guide for Formal Basic Education,
- The Presidential Commission on Education, Culture and Training,
- EMIS Statistical Yearbook (2002),
- MBESC Strategic Plan 2000-2005
- The Namibian Reform Forum, and the
- Basic Information Science Syllabus.

Another means of data collection will be the semi-structured interviews with colleagues and other stakeholders. However, the majority of the work will be based on the researcher's own observations. Semi-structured interviews were chosen because questions are asked in a structured order, and it increases the comparability of the data. 'If concrete statements about an issue are the aim of the data collection, a semi-structured interview is the more economic way' (Flick 1998:95).

Issues that will be covered are as follows:

A critical look at what happened in the past (Historical background), the rationale for Basic Information Science, the Basic Information Science Syllabus, the importance of Basic Information Science, the implementation of Basic Information Science in schools, a critical look at the link between Basic Information Science and resource-based learning, the Broad Curriculum and finally a summary of the findings.

Semi-structured interviews were planned with five colleagues. However, due to unforeseen circumstances, only three interviews could be executed.

3. ANALYSIS

3.1 Historical background

The concept of education as understood in the Namibian society was centred on the classroom, that is: the teacher, the blackboard, the chalk, the textbooks, and the learners. The teacher was the authority of education and wisdom, the one who consults the textbooks and passes on the knowledge through the blackboard onto the learners. Education was segregated, unequal, irrelevant, not accessible, undemocratic and of a very low quality.

Namibia gained its independence on 21 March 1990. The education system was not adequate to meet the demands that society placed on it. One of the biggest challenges at Independence was the reform of curricula, which was highly irrelevant to the changing needs of the Namibian society. The National Institute for Educational Development

(NIED) was established in 1990 to develop and design curricula for formal education. Syllabi in most school subjects were changed to make it more suitable to Namibian circumstances. The syllabi in two or more subjects were completely rewritten and one of them was Basic Information Science.

In the past, information skills were taught through what was known as Book Education and the prerequisite for teaching this subject was a library. At that stage only a few schools in Namibia possessed libraries, which would have meant that thousands of Namibian children would not have been in a position to acquire these skills.

Learners therefore had no access to any form of resources like: fiction books, encyclopedias, and subject related books. In some cases most of the books purchased for the few schools with libraries was also irrelevant and therefore denied learners access to information, as they were simply not read.

After independence the subject Basic Information Science was developed to take the place of former 'Book Education'. It was structured in such a way to address the need for information skills at library-deprived schools as well as in information - rich environments. The syllabus strength is the fact that information skills can be taught without libraries and books, which means that the emphasis is now being placed on other sources of information.

Information can be found everywhere and this caused a stir in international library circles, as Namibia is not the only country facing this dilemma. However, the fact that Basic Information Science was a brand new subject did not motivate the teachers enough to ensure that the subject got its rightful place in all schools. The fact that libraries are very few in the country still plays a decisive role, as many teachers still believe that a library is a pre-requisite for the teaching of the subject.

The following is a brief account of the state of affairs of libraries in Namibian schools. Due to the fact that the EMIS Statistical Yearbook has only been available since 1992, no statistics are available on the total number of libraries prior to independence.

According to the fifteenth school-day statistics of 2002, there are 1508 schools in the country, distributed per region as follows:

Education region	Number of schools (1992)	Number of libraries (1992)	Number of schools (2002)	Number of libraries (2002)
Katima	96	9	93	22
Rundu	301	12	306	33
Ond. East	352	13	352	40
Ond. West	374	15	380	72
Khorixas	106	38	106	54
Windhoek	154	83	158	111
Keetmanshoop	105	57	105	72
Special Schools	8	7	8	5
Totals	1496	234	1508	409

Table 1 – Total number of schools and libraries in Namibian schools (1999-2002)
(EMIS – Education statistics 2002)

As can be seen from the above table, since 1992 the total number of libraries in all the regions has been growing in a slow but satisfactory manner. According to the MBESC Strategic Plan 2001-2005 the Ministry will build twenty-five (25) libraries per year in the next five years, for schools with junior and senior secondary levels.

3.2 The Rationale for the Basic Information Science Syllabus

The Curriculum Guide for Formal Basic Education acknowledges that the ability to recognize, access, use and generate relevant information is essential to develop a learner's ability to learn. 'Information is the major requirement for development, whether the development is personal, social, religious, economic, political or educational.' (Basic Information Science Syllabus, 1997). If information is the major requirement for development, Namibia as a developing country certainly should place Basic Information Science very high on its priority list. The support that the Education Library Service receives from the Namibian Government through the Ministry of Basic Education, Sport and Culture, is proof that information is regarded as very important.

The BIS syllabus is the answer to bring schools in developing communities into the picture and to make learners aware of the value of books and other sources of information. Information can be found everywhere – we need to teach the children how to find it, as they cannot cope in this modern world without knowing where to find information and how to use it. Basic skills, which form the foundation of all learning and development, are covered fully by the Basic Information Science Syllabus. The subject also aims in developing an enquiring mind and that is what each learner needs to become independent learners.

The most basic source of information is in every home, in every community, no matter how remote and deprived it may be. ‘Locke’s central thesis therefore is that all our knowledge is derived from experience’ (Aspin 1995:24). However, if the learner is unable to recognize the source that is around it will be of no good. Learners must develop certain skills like retrieving and using information. There are people around us, and all people are willing to share their experiences and knowledge with others. As people share their knowledge, learners should be able to generate their own information.

No person, however deprived, especially no learner, is ever completely devoid of this most basic source of information. But the learner must be taught how to find, evaluate and use this information. The Basic Information teacher should build on what the child already knows and just expand on it. There are textbooks in the schools, Bibles and religious books are to be found in every village, if not in every home; many information brochures, pamphlets and magazines, and even newspapers find their way to the remotest little villages. Radios, often with cassette deck, abound all over Namibia, meaning that materials for teaching many retrieval skills and almost all aspects of Basic Information Science are available.

The most dramatic change the old school had to accept and adapt to, was a change of emphasis: instead of emphasizing books or all other media and how they are organized in libraries, the new Basic Information Science Syllabus starts by asking: Where do we find information? Having identified some sources, how do we retrieve the information? And then, what do we do with it?

3.3 The Basic Information Science Syllabus

The aims of the Basic Information Science Syllabus are to:

- gain knowledge of sources of information;
- develop the skills needed to retrieve and use the information
- generate new information (BIS syllabus: 1997)

Much literature on the subject have one important thing in common: they all started with or presumed a knowledge of or access to a library. In the past, teaching information skills meant teaching learners how to use the library. If a library is available, then we can teach children all about fiction and non-fiction, about newspapers and magazines, about encyclopedias and reference works, about pictures and our own collection of cuttings and pamphlets, and so on. The problem with the Namibian context is that libraries are not so easily accessible to all learners. In fact libraries are quite unknown and inaccessible to most learners.

The question was whether all those well-organized libraries are the only sources of information accessible to children? The answer was a definite no, as any learning can take place without sophisticated, well-organized sources. The most basic source of information is in every home, in every community: there are always people around us.

'If the theory on which the curriculum operates is inaccessible, in this case because it is not understood, then the teaching/learning situation is likely to be determined by 'that which we know best' (Core Text 1: 8). The BIS syllabus is inaccessible as most of the teachers are not properly qualified to teach the subject and many of them got through the school system without the subject.

The subject is not understood and therefore not given the attention it should get. It is common practice and belief that the subject can only be taught in schools with a library. Hence, as the theory is not supported by evidence to the contrary, there is a total breakdown. The theory is not supported because there is a total lack of libraries in the schools throughout the country. Because of the lack of libraries in many schools in the country and due to the belief in the theory that Basic Information Science can only be

taught in schools with libraries, the majority of the schools just ignore the subject. The subject is on the timetable and there is a teacher assigned to it, or in most cases many teachers teach it. However, that is only a 'supposed to' as the teachers do not really teach the subject. Theory is not rejected; it cannot be put into practice because of the content in which it operates.

4. The importance of Basic Information Science

One of the aims of education is to prepare learners for the outside world. Literacy no longer implies merely being able to read and write, it is more than that, and it means that one should be information literate. This means that one should know where to find information, be able to find information, be able to access it and also be able to generate new information.

As the world is developing, information is increasing on a daily basis, it is simply not possible to keep all facts in the heads. Therefore, learners should be able to retrieve, sort, analyze and be able to use information for different purposes and in a variety of situations. This implies that learners should be equipped with the skills to explore the whole world of information.

According to Lenox and Walker (1993) information literate people are those who are able to find, evaluate, use and subsequently communicate information effectively to solve problems or to make decisions. In order to be truly information literate, these skills have to be practiced on a continuous basis and that is why Basic Information Science is very important for schools.

4.1 The implementation of the Basic Information Science Syllabus

The Syllabi for Basic Information Science were developed and implemented in Primary schools in 1997. The formal teaching of Basic Information Science is from Grade 4 through to Grade 7; there is one compulsory period per week and Basic Information Science is also indicated for cross-curriculum presentation.

The implementation of the Syllabus was not without any problems. Teachers are still considering access to a library as a prerequisite for teaching learners about things that traditionally have to do with or are found in libraries. Teachers in schools with well-equipped libraries and many years of teaching experience in the teaching of Book Education, found the new syllabus much too comprehensive. Many teachers do not have any background or training in library Science, especially teachers from the former National Education System and they just ignored the system.

The syllabus for Basic Information Science is divided into 15 modules. This division and the order in which the modules are arranged, is an indication of the various kinds of sources for information as well as the order in which a learner is likely to encounter these resources. This does not mean that the syllabus prescribes any particular order of presentation. The teacher should decide according to the level and the sources available, in which order to introduce the modules to the learners.

Information skills cannot be taught in isolation. In order for these skills to be meaningful and essential, they will have to be applied and practised across the curriculum. In other words, these skills will have to be integrated into a broader curriculum where they are taught in a subject-related manner.

4.2 Basic Information Science and resource-based learning

The main goal of resource-based learning is to provide the opportunity for all learners to develop independent learning skills, in conjunction with the acquisition of a basic body of knowledge, which will enable them to become life-long learners. (Campbell 1992).

Resource-based learning demands information skills. Skills to identify various sources of information, reference skills, note taking skills, skills involved in compiling a project, etc. and these are best taught in BIS in primary school. The implementation of these skills takes place in the Primary Schools and application thereof takes place in the Junior and Senior Secondary schools. According to Lenox and Walker (1993) 'resource-based learning is an instructional concept based on the integration and use of information resources as the core of the instructional process' (Lenox & Walker, 1993: 318).

The ultimate aim of BIS is to equip learners with the necessary research skills that they can apply in other subjects and in adult life. The available resources have to be made available and accessible for all subjects and users. Learning becomes learner-centered; learners are actively involved in the learning process. The teacher becomes a facilitator of learning and not the source of all the learning.

The advantages of resource-based learning. (Campbell 1992):

- It is learner-centered, learners take responsibility for their own learning. They are actively involved in the learning process and gain confidence in their own abilities.
- Learners use resources both within and outside the school and thus are introduced to the whole world of information.
- Learners develop information skills. They become information literate; they acquire the skills to become independent lifelong learners.
- Individuals work at their own pace and select their own working methods.

To ensure a successful implementation of resource-based learning and teaching, a rethinking of traditional practices will be required. Emphasis on memorization and retrieval needs to shift towards inquiry and application. Curriculum and teaching will have to shift its emphasis from the myth of the correct answer to the how and why.

4.3 The Pilot Broad Curriculum guide for Formal Basic Education

Namibia, at present is in a period of transition. Thus, while the past system still exists very strongly and pervades current conditions and practices, in slow but noticeable moves the framework for a transformed education system is being set in place. We cannot consider new options for the provision of learning resources in isolation of these fundamental changes.

The new education paradigm

The Broad Curriculum guide was developed by the National Institute for Educational Development (NIED) in 1996. All stakeholders in the Education sector were part of the process. The global information revolution which views information as strategic resource

for development and a central feature of the education process, is consistent with the principle underpinning the new paradigm reflected in the Broad Curriculum.

This paradigm is a fundamental departure from the past educational system in that it is informed by:

- a different set of values and principles;
- a philosophy that education must ensure the all-round development of the learner and to equip them for life (Life long learning);
- social transformation, which must meet the needs and facilitate the participation of all our people 'Education for All' (MBEC: 1996)

The Broad Curriculum guide is a 'statement of the goals and aims of Basic Education, what areas of learning and subjects are to be studied and how teaching and assessment are to be done' (MBEC 1996: 2). In the next session I will look at what is working in the Broad Curriculum.

4.4 What works in the new policy?

According to (MBEC 1996: 5) the aims of the Broad Curriculum is to 'describe what learning processes are intended in Basic Education to ensure the all-round development of the learner and to equip them for life'. The continual explosion of the amount of information compels learners to adapt to practices of lifelong learning and critical thinking in line with the Broad Curriculum.

The subject Basic Information Science is according to one of the respondents, very suitable to the development of critical and independent thought. The syllabus has been tailored to promote this at all levels. 'Information skills are basic; they form the foundation for all learning and development; they are indispensable elements of child-centred education; and they become the main elements of a life-long attitude of learning and personal growth' (Basic Information Science Syllabus 1997: 1). Unfortunately, according to the second respondent, very few teachers are qualified enough in the subject to realize the importance of the subject.

Life skills competencies as stated in the policy are adhered to as learners are encouraged to ask questions, observe, investigate and comprehend in order to construct their own learning. According to the three respondents Basic Information Science is enhancing and installing better reading habits in learners, it also unlocks a new world to them in terms of information. ‘...learners are always engaged in the process of learning, for they are always gathering information, trying to understand it and then putting the newly found knowledge into practice’ (Basic Information Science Syllabus 1997: 2).

As Basic Information Science is not a promotional subject, the method of assessment is informal as the teacher throughout the lessons, through structured observations and other methods, measures the learner’s progress. The approach to teaching and learning is learner-centred as each learner has to find information for assignments by looking up the information first by finding the relevant books, by selecting relevant books, then by drawing out the information to be used and presenting it on its own. Even during group-work learners are encouraged to give as much input as possible and the teacher mostly serves as a facilitator in the whole process.

While facilitating the process the teachers should lead the learners to acquire these skills and then they should be encouraged to practice as much as possible to help them to develop and improve the skills. As stated in the Basic Information Science Syllabus, the ‘Mastery of the skills acquired in this subject should serve to make the study of every subject and the participation in every extra-curriculum activity easier and more meaningful and rewarding’ (Basic Information Science Syllabus 1997: 2). The integration of Basic Information Science into other subjects is high on the priority list of all Basic Information Science teachers, as information skills cannot be taught in isolation.

4.5 Limitations of the policy

Access to a wide range of learning resources is a critical and essential component of the new education paradigm as stipulated in the Broad Curriculum and not an optional luxury. Learning resources and the curriculum are two sides of the same teaching and learning coin. While the Broad Curriculum sets out the principle and framework for systematic transformation within the new paradigm it does not refer directly to the role of the school libraries. That, I would say, is the major shortcoming of the policy.

According to Totemeyer (1992) more than a third of the respondents in her study on the state of school libraries in Namibia, indicated that the library is sometimes never opened due to circumstances. The situation has not changed for the better. This is supported by the Education Officers of Education Library Service school visit reports, which indicate that the situation is still the same.

Information skills are defined as the ability to recognize the need for information: to find, organize, evaluate and use such information for effective decision-making or problem solving and to apply these skills to independent life-long learning (Irving 1985). The Broad Curriculum does not refer to this skill directly, however, it encapsulates key skills under basic competencies like: investigating, interpreting, applying knowledge and skills, communicating, valuing and participating. These skills, I would argue are the closest that we get to information skills. Competencies play a very important role in the Broad Curriculum as competencies are described as what a learner should be able to do as an outcome of teaching and learning.

However, as most libraries are not functional, access to information and especially access to additional resources are very limited. The irony is that the resources are available, however, they are not accessible or easily accessible as there is no one to take responsibility for the resources. In contrast to this the Broad Curriculum implies that the outcomes of teaching and learning should be 'that every learner becomes a competent and productive member of society, performing well in all spheres of life, private life, public life, work, and further learning (MBEC 1996: 9). However, learning can only be effective if learners are competent in information skills. Therefore, the lack of direct reference to information skills in the Broad Curriculum is not in line with the Broad Curriculum's emphasis on life-long learning.

The effect of the 'information explosion' as viewed by Irving (1985) is that much of what 11 year olds are presented with (taught) will be outdated and meaningless by the time they leave school. For this very reason it is not good for schools to just part subject knowledge. Schools as change agents should provide and armed learners with the skills needed to find, process and present information in an effective manner.

5. SYNTHESIS

Since Namibian independence a lot has been done to redress the educational disparities of the past in an effort to rationalize the education system, broaden access and improve the quality of education. New syllabi, based on modern educational principles have been introduced in all grades. The implementation of these new curricula however, has implications for the information provision to Namibian schools.

In the Ministry of Basic Education, Sport and Culture's strategic plan for 2002 – 2005 the following goals that have a bearing on the development of school libraries and Basic Information Science have been identified:

- Introduce new and maintain existing programmes to empower Namibians to contribute to their own well-being...by 2005;
- Ensure that learners and school communities have access to and use modern Information and Communication Technology (ITC) and relevant sources of information, from 2001;
- Ensure that all teaching takes place in a safe and supportive environment;
- Provide and maintain the necessary physical facilities that will create a conducive environment for learning, by 2005;
- Ensure that adequate, appropriate and relevant information sources are available to learners through the country.

The Ministry of Basic Education, Sport and Culture's strategic plan for 2002 – 2005 is stating the above and the Basic Information Science Syllabus is geared towards the education of all its people in information Science. It recognizes that education and development are dependent on information and on the capacity of the individual to find and effectively use the information, which is available. The inherited fragmented school library structures in Namibia are the products of many years and therefore not easily rectifiable. Most learners in Namibian schools have been, up until quite recently, and in some cases still unable to identify, retrieve and use information effectively.

The challenge, which was posed to the teachers and learners in schools, is huge as the new Basic Information Science Syllabus aims at equipping learners with the knowledge of and skills to use information in all its possible forms. Ultimately learners should develop an understanding of the world of information, develop an enquiring mind and a research attitude. Learners should become actively involved in the learning process and come to understand the interrelated nature of all areas of knowledge.

In order to realize this approach, skills acquired need to be systematically applied, practised and consolidated in all other subjects taught at schools. In the same process the learners are encouraged to generate their own relevant information. However, the old belief that libraries are a pre-requisite for the teaching of Basic Information Science is still a hampering factor.

6. CONCLUSION

Syllabi for information skills that primarily catered for the formerly privileged, was not suitable for the use in Namibian schools. Information skills syllabi had to acknowledge the socio-political realities of our country and was designed accordingly. The Basic Information Science Syllabus was developed to cater for all circumstances. In the absence of equipped libraries, the use of alternative information sources is emphasized. We live in a world where there are information sources in abundance that are waiting to be discovered and generated into new information. Teachers need to recognize the information environment and equip learners with skills to access information sources in all their possible formats. In order to be truly information literate learners should be able to locate and use information in any system to enable them to explore their information environment optimally.

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APPENDIX

Interview schedule

Section A (General)

1. Region
-

2. Name of institution
-

3. Total number of learners in school
-

4. Total number of library books in school
-

Section B (To be answered by Basic Information Science or Library Teacher)

1. What are the implications of making Basic Information Science a compulsory subject e.g timetable, staff, training and financial implications?
2. To what extent does the curriculum make provision for democracy in issues like equity, access, efficiency and quality education? (Education Reform)
3. Why do you think the implementation of Basic Information Science is not successful in some schools?
4. As a means to bring about change, does the Basic Information Science Syllabus help to make critical thinkers, independent learners, etc.?
5. The main goal of resource-based learning is to provide the opportunity for all students to develop independent learning skills. How can Basic Information Science assist or help teachers to achieve this goal?

Section C (Comments on Basic Information Science in general)

**EPISTEMOLOGIES:
BEHAVIOURISM AND CONSTRUCTIVISM**

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ABSTRACT

This assignment looks critically at the epistemological bases of behaviourism and constructivism. Epistemology is the study of the nature of knowledge and justification of it. The assignment will explore the theory of knowledge that underpins the practice of behaviourism and constructivism. I am investigating a number of issues here. First of all, how does learning occur? John Locke was an Empiricist with views like, the mind is tabula rasa, a clean slate, ideas enter the mind through sensory experience. Behaviourism was a result of these view points. According to them one should only study observable phenomena. Furthermore, they assert that learning is the change in the form of observable behaviour. Constructivists, on the other hand, assume that learning is the creation of meaning from experience.

Secondly, I will look at the factors which influence learning. The behaviourists have the idea that environmental factors are of key importance in understanding the occurrence of learning. Constructivists believe that both the learner and the environment interact to create knowledge. The behaviourists believe that knowledge is external to human mind. The social constructivists see the mind as part of a broader context. (Ernest 1993). Cognitive development is a result of the individual's interaction with the environment. Finally I will look at how transfer takes place. The behaviourists believe that the teacher transmits the knowledge to the learner who has to memorize everything. The constructivists on the other hand say that knowledge cannot be transferred but only constructed through meaningful contexts. They believe that although we are born with some innate capacities, all higher cognitive processes originate in social interaction.

1. INTRODUCTION

The continued development in education brings about many changes. In Namibia there has been a strong paradigm shift in the theory of knowledge or a shift in thinking on how

knowledge is acquired. This essay deals with two particularly prominent approaches in the theory of learning: behaviourism and constructivism. I will attempt to address the issue by looking at the ways in which each approach attempts to explain what knowledge is and how learning occurs. Then I will look at the approaches in terms of their strengths and weaknesses. According to Hugo's lecture notes the epistemology of the modern world is behaviourism, their theory is positivism, meaning that facts are very important. Human beings have no soul or spirit, only reason. Every single person has a reason and can decide for himself. Reason is the only common medium for all of us. The epistemology of the post-modern world is constructivism, based on the critics of reason, criticism, that there is only one reason.

Some key players in the development of the behaviourist theory were Pavlov, Watson, Thorndike and Skinner. Behaviourism is a result of the view point that scientists should study only observable phenomena. We all come to learn about Pavlov one or other time. According to Ozman & Craver (1986) Pavlov is best known for his work in classical conditioning or stimulus-response theory. Familiar concepts in his experiment with the dog, bell and meat are based on concepts like, unconditioned stimulus, unconditioned response, conditioned stimulus and conditioned response. Learning is all about stimulus and response. J. B. Watson is regarded as the father of behaviourism, he became known for his S-R (Stimulus and Response) theory. This traditional behaviourist thinking has to compete with the new challenges of the constructivists.

On the contrary, the constructivists believe that learners in all situations are actively constructing their own knowledge. The philosophy of learning is found on the belief that by reflecting on our experiences, we can construct our own understanding. We use what ever means possible to make sense of what we already know in relation to what we are busy taking in. New experiences are put into context to make sense and only then we understand. Knowledge is constructed rather than discovered. Knowledge is constructed from experience and learning is therefore a personal interpretation of the world. They see learning as an active process in which meaning is developed on the basis of experience.

2. BEHAVIOURISM

2.1 Epistemological roots of behaviourism

Behaviourism as a philosophy of science has strong connections with scientific philosophical traditions such as realism, materialism and empiricism. 'Behaviourism is a philosophy of science which holds that psychology is the study of the behaviour of an individual in response to the environment' (Torsten 1985: 444). Although there are several varieties of behaviourism all share certain characteristics in common. Behaviourism is strongly deterministic: Behaviour is associated in law-like ways with environmental stimulus and reinforcements. It is also reductionistic in that it holds there is no need to invent complex mental structures to explain why behaviour happens (Schwandt 1997).

According to Funderstanding (2002) basically all behaviourists conceive learning as the act of establishing a connection between a stimulus and a response.

2.1.1 Realism and its link with behaviourism

According to Aspin (1995) the word 'empiricism' is derived from the Greek word 'empeira' meaning 'experience'. Knowledge was viewed as acquired experience. Early thinkers therefore, according to Aspin (1995), concentrated on the nature of experience itself, the way in which human beings acquire their knowledge of the world. Realism suggests that the world is out there, independently, whether we are aware of it or not. As it is out there it has effects on us, the environment is acting on us.

The behaviourist connection with realism is based on the strong emphasis that the behaviourist places on the environment as an agent to shape behaviour. As the change in behaviour plays such an important role in the acquisition of knowledge, knowing the laws of behaviour are crucial. According to Ozman & Craver (1986: 2) a central idea held by the behaviourist is 'to discern the laws of behaviour and thereby come to exercise control

over human behaviour'. If we know how the laws of human behaviour operate we will be able to control human behaviour and therefore be able to transfer knowledge more easily. This is also supported by Van Harmelen (1995) when she argues that for the behaviourist human behaviour is determined by rules which administer our direct interaction with the environment.

2.1.2 Materialism and its link with behaviourism

In contrast to the realist's belief that the environment plays a major role in the change in behaviour, the materialist claim according to Ozman and Craver (1986) is that reality can be explained by the laws of matter and motion. Only matter, which is the body, is real, they reject the mental (motion) entirely. This was refuted strongly by Cornbleth (1987) when she argued that the mind has an important role to play in the development of the child and cannot be reduced to the status of a machine.

2.1.3 Empiricists and its links to behaviourism

Empiricism generally accepts the premise that knowledge begins with sense experience. 'Empiricist is deeply concerned with the activity of how to construct concepts and theories (i.e.) explanations, predictions, out of brute data' (Schwandt 1997:37).

(a) Classical empiricism

There are aspects of both human and animal behaviour that are part of you since you were born (innate) and others that are learnt. The behaviourists once put more emphasis on the innate. Aspin (1995) stated that Empiricist wanted an account of the growth of human ideas and knowledge that was grounded only in human experience.

John Watson (1878-1958) was the first American psychologist to use Pavlov's ideas. He was originally involved in animal research, but later became involved in the study of human behaviour. Watson believed that humans are born with a few reflexes and the

emotional reactions are only guesswork as it cannot be observed and measured (Van Harmelen 1995). Hence, Pavlov's stimulus and response theory is the underlining theory for the classical empiricism. This theory deals with changes in observable behaviour and learning is nothing more than the acquisition of new behaviour.

(b) Logical empiricism

According to Van Harmelen (1995), Skinner also believed in the stimulus-response pattern of conditioned behaviour but his work differs in the sense that he studied operant conditioning, where behaviour is acting on the environment. 'Operant behaviour as identified by Skinner was the result of operant conditioning and as such was behaviour that is controlled by its consequences rather than by its antecedents' (Van Harmelen 1995: 58). Meaning that if the response to a stimulus is good it will be repeated over and over again because it brought about a desired change. The environment acted positively to the stimulus and here the logical empiricist differs from the classical empiricist.

3. THE BEHAVIOURIST VIEW OF KNOWLEDGE

In the next section I will examine the behaviourist view of knowledge;

- knowledge already exists out there and teachers should just find the knowledge, make it their own and transmit it to the learners.
- Knowing is to know facts. Once the learner memorizes all the facts it is assumed that the learner knows and has knowledge about a topic, as long as the learner can repeat the facts. 'Formerly, when knowledge was believed to be more permanent and static, education was very much a matter of imparting factual information...' (Avenstrup 2002: 11). However, knowledge is neither permanent nor static, therefore, imparting merely factual information will be meaningless.
- Throughout the years it was believed that the teacher could transfer his knowledge into the mind of the learner. However, such knowledge will then not be the

learner's knowledge and therefore will not make any sense and simply be memorized by the learner. According to 'Towards Education for ALL'(1993) rote memorization and repetition suppress curiosity, learners are not encouraged in being innovative as they get all the facts and need not look for any or more information.

The behaviourists believe that whether you understand the meaning of something or not, you just memorize it and repeat it until you know it by heart. Knowing facts is to have information on an issue but having information still does not mean that you know something. The behaviourists view as stated by Ozman & Craver (1986) knowing is a case of the environment acting on us. We perceive and know to the extent that we respond to stimuli from the environment. Ozman & Craver (1986) stress that although we think that knowing is a cognitive process, it is a behavioural and environmental issue.

4. THE BEHAVIOURIST VIEW ON HOW LEARNING IS ACQUIRED

Learning according to the behaviourists is the establishment of a connection between a stimulus and a response. It views the mind as a black box in the sense that response to stimulus can be observed. "As all that can be observed can be measured, the theory of behaviourism concentrates on the study of behaviour that can be observed and measured" (Good & Brophy 1990: 81).

The learner is mostly passive during the learning process and the teacher is the one who is active all the time. The teacher tells, does, summarizes and the learners just take in. The teacher's authority is not to be questioned by asking questions. Even if a learner does not understand something there is no room for questions. The teacher is the only source of information. However, according to Avenstrup (2002), children learn best when they are actively involved in the learning process. To be actively involved in learning means that a learner has to ask questions and even has to question the knowledge presented by the teacher.

According to Van Harmelen (1995) Pavlov identified learning as, occurring when a conditioned behaviour is substituted by an unconditioned one, meaning that if learning has taken place there will be a change in behaviour. Furthermore, learning is defined as the acquisition of new behaviour and the environment shapes the behaviour, meaning that for a learner to be successful or knowledgeable the knowledge that the learners have should be a replica or reflect the environment properly. 'Behaviourism placed the major determinates of human activity in the environment' (Gergen 1985: 269). If learning is the acquisition of new behaviour, there should be a change in the learner's behaviour, which is observable. The primary concern is how the association between the stimulus and the response is made, strengthened or maintained. Responses followed by reinforcement are more likely to occur again in the future.

5. CONSTRUCTIVISM

In this section although recognizing that constructivism has different scientific bases which I will come to later, I will first look at the key ideas of constructivism. This theory differs from the traditional view that knowledge exists independently, that the mind is a blank sheet on which anything can be painted. 'Constructivism is a philosophical perspective interested in the ways in which human beings individually and collectively interpret or construct the social and psychological world in specific linguistic, social and historical contexts' (Schwandt 1997:19).

According to Etchberger & Shaw (1992) knowledge and meaning can only exist when it is constructed by a learner when making sense of information and experience. This is strongly supported by Good & Brophy (1990) when they stated that an individual's knowledge is a function of one's prior experience, mental structure, and beliefs that are used to interpret objects and events. The constructivist strength is the view that learners actively construct their knowledge in forming new ideas.

5.1 Epistemological roots of constructivism

5.1.1 Radical constructivism

There are two general strands of constructivist thought. One strand focuses more on the individual knower and acts of cognition, known as Radical Constructivism. Ernest (1993) stated that the Radical constructivism point of view is that while the learner is constructing its own meaning, the cognition serves to organize the learners experiential world rather than to discover ontological reality.

According to Taylor (1993) and Matthews (1992) Von Glasersfeld argues that the cognition has a subjective and dynamic nature. Knowledge is the activity of making sense of experiences and therefore, very subjective (Taylor 1993). The most profound influence was Jean Piaget's cognitive structures, which define learning as a process of accommodation, assimilation and equilibration (Bodner 1986). No one can know the objective world (reality) as it really is. We look at the world through our experiences, a conceptual lens through which our experienced world is observed and interpreted (Taylor 1993). J. Piaget developed the most famous cognitive structural theory used in psychology. His theory regards cognitive development as a result of the individual interaction with the environment. Piaget views these structures as the products of a process of construction resulting from the interaction of mind and environment (Schwandt 1997).

5.1.2 Social constructivism

The second strand of constructivism focuses more on social process and interaction, known as social constructivism. Much of the reality that the radical constructivism is referred to above is shared through a process of social negotiation. The learner as part of the social set up has also to discover the world's realities and has to act accordingly. Social constructivism therefore believes that experiences are shared with others to make meaning out of the world. Taylor (1993) argues that the social principles go beyond the

individual's construction of subjective knowledge. The experiences are shared through language and they regard language as important in knowledge construction. According to Ernest (1993) the mind is seen as part of the broader context, and that context is the social context of which the child is part. This is supported by Schwandt when he proclaimed 'Constructivists hold that knowledge of the world is not a simple reflection of what there is, but a set of social artifacts, a reflection of what we make of what is there' (Schwandt 1997: 20).

5.1.3 Critical constructivism

Apart from the above discussed two general strands of Constructivist thought there is a new strand called the Critical Constructivism. 'A critical constructivist perspective combines practical and emancipatory curriculum interest, and focuses pedagogical attention on the nexus between the subjective and inter-subjective constitution of the classroom learning environment' (Taylor 1993: 14). It not only incorporates the radical and social constructivist but also looks critically into the hidden curriculum.

5.2 The Constructivists view of knowledge

- The Constructivists link knowledge to knowing. Knowledge is built by a learner and modified by his experiences. Knowledge is the construction of new ideas. The learner has to make something that he experiences his own by constructing it, only then can it become his knowledge. As argued by Good and Brophy (1990) learners construct their own reality or at least interpret it, based on their perceptions of experience. 'Piaget also argued that knowledge is constructed as the learner strives to organize his experiences in terms of pre-existing mental structures or schemes' (Bodner 1986: 873).
- The construction of the understanding of the world is mainly based on the pre-knowledge the learner has. For example a learner who grew up on a farm will know how to hunt through social interaction, where as the learner who grew up in the city might know nothing about hunting. The process of understanding is not

driven by nature, but it is the result of interaction and cooperation between people (Gergen 1985).

- The learners bring along a wealth of knowledge that is acquired through interaction with family and the community. A learner who has the facts on how to hunt, as opposed to a learner who is doing it together with the father, is better enabled to say; “I know how to hunt”.

Bodner further supported this when he stated: ‘Knowledge is good if and when it works, if and when it allows us to achieve our goals’ (Bodner 1986: 874).

- Knowledge is the construction of new ideas. While constructing these new ideas, the learner has to interact with others, only then learning becomes meaningful. ‘For enriched knowledge construction to occur, it is vital that children collaborate with others’ (Etchberger 1992: 412).

5.3 The constructivist view on how learning is acquired

In this section I will look at how learning is acquired according to the constructivist. Each learner will learn in a different way because each learner is constructing the world in its own way. Learners are trying to make meaning of the world they live in, in the learning process. This is done through reflection on their experiences. As a social being while constructing own meaning, the learner should share and compare meaning to come to socially accepted knowledge. “Whilst there is a need to let learners construct their own meanings the teacher (and peers) must interact with the learners to negotiate a passage toward socially accepted knowledge” (Ernest 1993: 4).

The teacher makes use of the learner’s prior knowledge and builds on it in the process, because what the learner already knows determines what the learner will learn. ‘Information processing constructivism recognizes that knowing involves active processing, that it is individual and personal and that it is based on previously acquired

knowledge' (Ernest1993: 2). The memorization of facts are less important than understanding, everything that a learner is trying to learn should become meaningful as the learner is trying to make meaning out of it.

According to Bodner (1986) learners should not be allowed to use words or equations without explaining them. In the learning process the learners must ensure they understand the concepts, as they will be asked to explain them and not merely memorize them. 'Knowledge will become fully meaningful if it is the knowledge a learner is genuinely seeking at that time, what s/he is ready to learn, and what s/he needs to know from their point of view' (Avenstrup 2002: 9).

The learner is responsible for his own learning. The teacher is no longer the transmitter of facts. The learner acquired knowledge by finding it him/herself or making meaning of it in its own way. According to Taylor, the learner's knowledge also constitutes a conceptual lens through which they observe and interpret their experienced world.

6. THE WEAKNESS AND STRENGTH OF BEHAVIOURISM

6.1 Weaknesses

According to Spady and Marchal the main weakness is that the Behaviourist trivialized knowledge and reduced it to small factual information. This reduces the learners to objects that must simply absorb ideas spoken to them and repeat them afterwards; learners are denied access and opportunities for critical thinking. According to them the knowledge is already out there and the teacher just has to find it and transfer it to the mind of the learner. This is manipulation and learners are indoctrinated rather than learning.

Furthermore, the Behaviourist believes there is only one truth, only one correct answer to each question. The environment shapes behaviour and learning is nothing more than the acquisition of new behaviour. It makes use of operant conditioning by using

reinforcement. Rote learning which is meaningless is believed to be knowledge. A learner has to memorize facts and then the learner knows. The above means that learners do not have control over choosing their learning activities. They are requested to do the same activity as the rest of the class and are punished if they dare to do otherwise. The whole learning process is teacher-centred and teacher directed.

6.2 Strength

Memorization is needed in some instances of learning and there are certain facts that have to be memorized. 'Rote learning, drill and practices, and passive listening to lectures can, as they always have, give rise to learning.' (Ernest 1993: 6). Teachers can easily monitor the learning process, as all learners have to be asked the same questions and respond in the same way. The teacher is in charge of the learner's learning and control the whole process.

7. THE WEAKNESSES AND STRENGTH OF CONSTRUCTIVISM

7.1 Strength

Learners are seen as being able to invent their own ideas; they assimilate new information and modify their understanding. Learning is constructed in the mind of the learner by the learner self, therefore, the learner is actively involved in the learning process. Learners do not transfer the knowledge from the external world but they interpret the world according to their understanding. The Constructivist accepts that there are many ways in which the world can be constructed, therefore there is no correct meaning to strive for.

Learning is not a passive shaping of behaviour, culture and context are seen as important in forming understanding. Learning is seen as a search for meaning which requires understanding, not only of parts but also of wholes.

7.2 Weaknesses

Currently, because constructivism is such a new movement, much of the criticism is on radical constructivism. The major criticism is that the radical constructivists place too much emphasis on the learner, a kind of sentimental view of the child. Ernest (1993) supported this view when he stated that it can lead to a overly child-centred approach. However, schooling is a social issue and interactions amongst individuals are as much part of the system as the learner is. Too much emphasis on the individual can harm the schooling process. Furthermore, not all learners are capable of learning in a constructivist way, mainly because they cannot handle the responsibility. The child has to take responsibility for its own learning and if the support system is not strong enough, not all learners will be able to cope. There is a general feeling among teachers that they are losing out, as they have to give up their authority.

8. CONCLUSION

The Behaviourist learning theory centered on that which is observable, not considering that there was anything occurring inside the mind.

They put too much emphasis on rote learning and memorization, understanding is of less importance and if learning is a search for meaning it also goes with the fact that meaning requires understanding. The purpose of learning is to make sense, meaning out of the world we live in, therefore, I would argue that Constructivism has the better epistemology because according to them learning is a search for meaning, while searching for meaning they have to construct their own worlds. Each learner according to the constructivist can construct its own world, as there is no one correct meaning to strive for.

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1. INTRODUCTION

Information literacy is a necessary prerequisite for successful participation in the global information society. The Pilot Broad Curriculum for primary schools explicitly lists information skills as a crucial outcome of schooling. Only a small minority of Namibian schools have qualified librarians or libraries and the development of information literacy depends on Basic Information Science teachers - "The basic aim of the subject Basic Information Science is to develop certain skills and attitudes that will enable learners to become effective seekers and users of information" (BIS Syllabus 1997: 5). It is therefore necessary to investigate the learner's ability to find information. The research question basically focuses on how grade 7 learners find information.

When we are talking about information skills there are three main issues: accessing of information, assimilation of information and application of information. The development of information skills should be supported or enhanced by the use of community information resources, the environment itself, local institutions and local leaders (Marais, 1996). When learners are given homework or asked to complete an assignment, there are questions at the end and the learners are asked to answer the questions in their own words. What really happens here is that the learners are asked to locate, access, engage, extract, organize and present information at the same time. The problem with that is that if the answer is wrong one will not know if the problem was in locating the information, or in understanding the content or in writing the answer. Therefore, it is imperative that all capabilities like locating, accessing, engaging, extracting, organizing and presenting should each be dealt with on their own.

The very basic one would be for the learners to be able to locate and access information. The focus of this research will be on the ability of learners in our schools to locate and access information.

During the child's school years of formal education the child is constantly in the process of studying. Historically, the framework for teaching information skills has been defined within

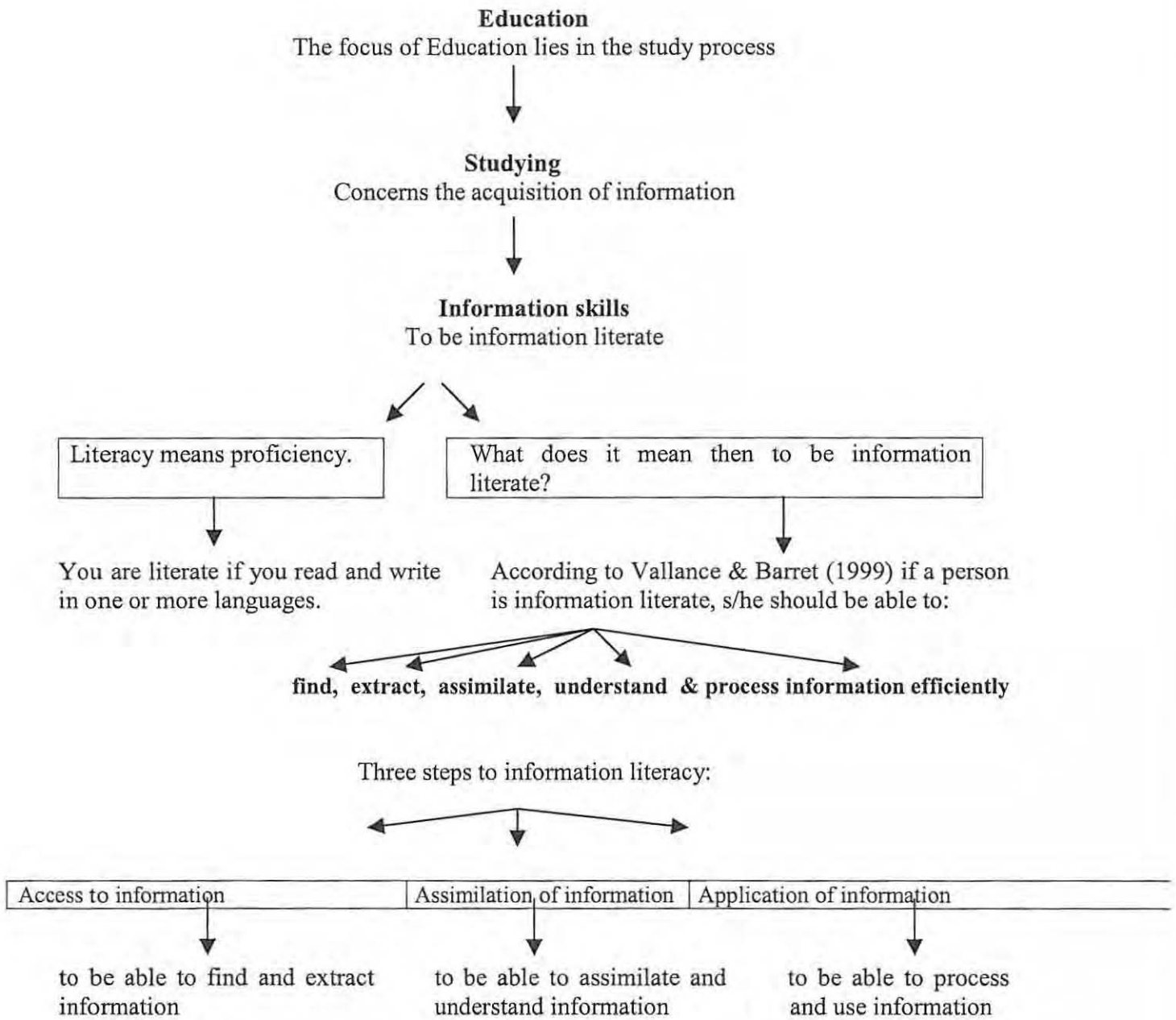
the broader context of education. The whole focus of education lies in the study process. Studying may be simply defined as the acquisition of information. To have access to information one should be information literate. Literacy means proficiency. One is literate if one reads and writes in one or more languages. According to Vallance and Barret (1999) if you are information literate, you should be able to find, extract, assimilate, understand and process information efficiently.

Information literacy is at present a neglected area. As information is a major requirement of development, a developing country like Namibia should put more emphasis on the development of information skills. Access, assimilation and application are major requirements for information handling. Accessing information means being able to find and extract the required information. Assimilation means being able to assimilate and understand information. Application of information means being able to process information and make sense of it. The emphasis is on accessing information because if you cannot access information you will not be able to proceed to the next stage of assimilation and application.

Living in an information society implies dealing with different sources of information on a daily basis. According to Kuhlthau (1987: 5) "our success and survival depend upon abilities to locate, analyze, and use information skills fully and appropriately".

Fig. 1. further shows the development and process of information skills.

Fig. 1. Development and process of information skills (Information literacy)



The focus point of this research will be access to information. This is very important because one needs to be able to access information to assimilate and apply it. Access to information plays an important role in the development of the learner and will help to ensure that a learner becomes an independent learner.

2. EDUCATION

Education has to fulfill the needs of the society. There are many definitions for the word education, as it means different things to different societies. Because societies are different, what each society wants from education will differ. According to Irving (1985) because of the different understandings of education, it is impossible to be prescriptive about what to learn and what to teach, and on how these activities might be practised. However, educators choose what methods to use in the teaching process. The school curriculum has to serve many diverse groups and it is only through flexibility allowed to the learner that fundamental development is possible.

According to Hancock (1993), educators come into contact with a variety of literacy categories such as: basic-, information-, print-, visuals-, cultural-, scientific-, computer-, etc. Their importance to the child's education can be affirmed. However, information literacy is a potential tool of empowerment for all learners in all fields of study, when dealing with the acquisition of knowledge.

Töttemeyer (1999: 21) proclaims that "people are confronted by all kinds of information which they have to retrieve, sort, analyze and use for different purposes and in a variety of situations". This poses a great challenge for society and specifically for education.

Supporting the view of Totemeyer, Irving (1985) argues that education is concerned with the acquisition of knowledge, concepts, attitudes and skills. The post-modern world puts more emphasis on the acquisition of skills and the purposes they serve. It is not what you know that counts but whether you know where to find the information that counts. Irving (1985: 4) emphasized that "knowledge is simply a vehicle for acquiring skills". The acquiring of skills is only possible if a person is information literate. However, because Basic Information Science is a non-promotional subject, this might be the reason that many parents and even educators do not realize the importance of the subject. This view is supported by Bucher (2000) when he states that because students do not receive a grade in information literacy, it is assumed that the content of the information skills curriculum cannot be important.

The assumption is, however, far away from any truth, as schooling cannot be expected to provide students with all the facts they need throughout their lives. Students are expected to know how to identify a need for information, to locate, gather, and select relevant information, and to apply it to solve a particular issue under question. The implication is that information skills are not only limited to the time the learners are in school; it should rather be seen as a way of life.

In our context, Namibian Broad Curriculum requires that Basic Information Science be taught in grades 4-7 for the equivalent of one period of instruction per week. This context supports the thinking that "Education systems and institutions must take seriously the challenges of the Information Age. This includes restructuring the learning process to reflect the use of information in the real world, changing the role of the teacher from presenter of prefabricated facts to facilitator of active learning" (Hancock 1993:1). It is imperative to note that Namibia as a developing country did take up this challenge and made the subject Basic Information Science compulsory from grades 4-7 in all schools in the country. There is a realization that information literacy is an important vehicle to life-long learning. Lifelong learning assumes that a person has to gain knowledge constantly, to gain knowledge one has to study.

3. STUDYING

Irving (1985) defines studying as the acquisition of information. According to Irving (1985) the difference between good and poor learners depends on the learning of skills or acquisition of information. Learning to study and to handle information is not an issue belonging to one subject, it is central to all school subjects. Ultimately, information literate people are those who have learned how to use information through the process of learning. They know how to learn because they know how knowledge is organized as a vehicle to find information.

4. INFORMATION

As studying is acquiring information, the question of how information is perceived needs to be addressed. According to Vallance and Barrett (1999:2) "Information refers to all that is shared between and among people through speech, action, object and writing. Information gives us an understanding of, and a meaning to, the world and the things we find in it".

Information is all around us and in many forms. The ever-changing technologies bring about many changes. Information is in abundance and poses new challenges for individuals in accessing, evaluating and understanding it. Information literacy can form the basis for lifelong learning. It is common to all disciplines, to all learning environments, and to all kinds of education. Learners, when information literate, will become more self-directed, and assume greater control over their own learning. This is very important for a country like Namibia where so much emphasis is put on learner-centred education, resource-based teaching and learning where self-directed learning is the norm.

The effect of the information explosion as viewed by Irving (1985) is that much of what is presented/taught (the subject knowledge) to eleven year olds will be outdated and meaningless by the time they leave school. For this very reason it is not good for schools to just provide subject knowledge. Schools as change agents should provide and arm learners with the skills needed to find information, process information and present information in an effective manner. The teaching process of 'how' must take priority over the teaching process of 'what'. As stated by Irving (1985) under these circumstances teachers cannot continue to teach what they think is required. Teachers should rather strive to encourage learners to develop the skills of acquisition of mainly conceptual skills relating to the gathering, selecting, processing and usage of information.

According to Langford (1998), information was perceived in the past as knowledge and knowledge was seen as power and, this led to a creation of an elite group of literacy experts in society. As times changed and societies evolved, literacy became a universal right.

The end result was that the critical skill of coping with the information age has little to do with handling data and everything to do with knowledge (Albrecht 2001).

It is also recognized that access to information is an important factor in the sustainable development of any society and that it “reduces uncertainty, and enhances awareness of possible actions to take to solve problems” (Mchombu 1998: 124).

5. INFORMATION LITERACY

“Access to and critical use of information is absolutely vital to lifelong learning, and accordingly no graduate – indeed no person – can be judged educated unless he or she is information literate” Candy, et al. – as quoted in Information literacy standards (2001: 6).

According to Behrens (1991) an information literate person must recognize when information is needed and be able to find it, assimilate it and make meaning out of it, not only for the sake of finding it but to solve a particular problem or to make a decision supported by the information - ‘Information literacy is required because of proliferating information access and resources. Individuals are faced with diverse, abundant information choices’ (Information literacy standards 2001: 2).

Furthermore, Hancock (1993) clarifies this by briefly defining information literacy as the individuals ability to:

- recognize a need for information sources;
- identify and locate appropriate information sources;
- know how to gain access to the information contained in those sources;
- evaluate the quality of information obtained;
- organize the information; and
- use the information effectively.

Furthermore, information literacy programmes encourage shifts in roles of teachers and learners. Such changes are essential to prepare learners to live and work successfully in an information-centred society. Importantly, according to Hancock (1993: 2) “teachers trying to create an information literacy for their students have given up the view that teaching is telling, that learning is absorbing, and that knowledge is static.” Teaching involves the learner actively, learning means finding and assimilating information or building on it as knowledge is anything but static.

Information literacy should form the basis of all schooling. Töttemeyer (1999) proclaims that almost 37% of teachers who were responsible for the information collection in the schools did not know why learners should become information literate. However, 52,6% of the respondents in her study indicate that they perceive information literacy as very important for the following reasons:

- to teach learners how to find and use information independently;
- to assist learners with their school work;
- to prepare learners for tertiary studies and adult life;
- learner-centred education requires the ability to use a variety of information sources;
- learners should be able to use a library; and
- to develop a good general knowledge.

Kuhlthau (1987) argues that to be information literate is not just to recognize when information was required. It also involves the ability to construct one’s own knowledge through a process that gives meaning to the notion of learning. Breivik as quoted by Langford (1998:15) states that “literacy is to be able to function well in a society, which entails the ability to read, use numbers and to find information and use it appropriately”.

The importance of having information literate learners is supported by Irving (1985) when he states that information skills are those skills inherently assumed in most assignments and future decision-making outside and after school. Here Irving emphasizes the fact that information literacy is not confined to the period the learner is in the school but it also has

relevance outside and after school - "Information literacy is a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information" (Information literacy standards: 2001).

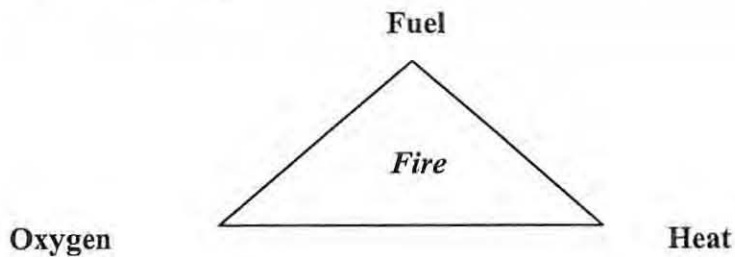
It is apparent that, like the elephant in the Indian parable about the blind men, various schools of thought define information literacy differently. According to Eisenberg and Berkowitz (1990) information literacy is not library skills, nor is it a computer skill or information-solving skills, all of the above enhance information literacy. Judging by the variations in definitions, information literacy appears to be defined according to what part of the elephant one is experiencing.

In a study done by Töttemeyer (1999), findings showed that 95,8% of principals interviewed thought that information skills were important. But she questioned this high percentage as only 54,2% of school libraries were used and in only 60,4% of the schools was the subject Basic Information Science taught. This is clearly an indication that although the realization of the importance of information skills is there, there is no proper support for the development of the subject. Without proper support the development of information literacy will just remain lip service. The following diagram adapted from 'Call to action: Getting serious about libraries and information in education' (Eisenberg & Lowe 1999) will show how important it is that there is proper support for literacy development skills.



The fire triangle is used to illustrate the importance of information literacy.

Diagram adapted from 'Call to action: Getting serious about libraries and information in education' (1999).



Fuel - Content

Evaluated and organized materials

Provided by library/Media specialist

Content (fuel): Materials to support life-long learning



Oxygen

Carefully planned instructional experiences provided by Basic Information Science teachers with classroom teachers

Instructional experiences (oxygen): Basic Information Science syllabus to be implemented by the teacher.

The oxygen in the fire triangle is the spark to start the fire.

Heat

the commitment and energy to make things happen provided by school management

Commitment (heat): Support to be provided by the school management.

To keep the fire burning fuel, oxygen and heat are needed. To keep the fire of lifelong learning burning, the content (fuel), instructional experience (oxygen) and commitment (heat) are needed in equal proportions.

Langford (1995: 13) stated that “we talk about information literacy but it is a sad indictment that it is not an embedded practice in our learning institutions”. By this he means that there is always commitment to the importance of information literacy however much instructional experiences are lacking. This is a big drawback for the learner as these are skills used whenever students are in a situation, academic or personal, which requires information to solve a problem, make a decision or complete a task.

5.1 Different steps in Information literacy

- According to Vallance and Barrett (1999) information literacy begins with access to information. Through access it is meant that a person has to know where to look for information.
- Once a person has access to the information, and would like to use the information, the next step is assimilation. According to Vallance and Barrett (1999) assimilation is collecting, sorting, storing, understanding and analyzing information - “Gathering, or collecting information is an important part of information empowerment” (Vallance and Barrett 1999: 29).
- The final step in information literacy is applying information. As pointed out by Vallance and Barrett (1999) the application of information is the bringing together of all information found and assimilated. It addresses issues such as analyzing, interpreting and writing up.

5.2 Resources for information literacy

“Information literacy thrives in a resource-based learning environment” (Hancock 1993: 2). Many educational literature still portray a well-stocked school library as a prerequisite for the information literacy skill development.

However, as many schools in the country do not have libraries, information skills development has to take place in a context different from those described in much of the international literature. As stated by Marais (1996) the Basic Information Science syllabus contends that information literacy can be developed in disadvantaged schools through the use of community resources such as local leaders and institutions.

The above is further supported by Hancock (1993) when he highlights the fact that in addition to the traditional print resources and technological resources, learners also go beyond the classroom walls into the local community for information provided by businesses, social services, citizen groups and public and university libraries. Anderson (1999) agrees when he states that students learning can take place anywhere, any time and as a student one can move beyond the classroom and media center to the learning community.

5.3 Benefits of information literacy

Information literacy counteracts the information dependency created by traditional schooling where students rely solely on the teacher to dispense information. For this reason it requires active learning. The child gets involved in his learning and takes responsibility for it. The teacher becomes a facilitator in the learning process. Hancock (1993) argues that information literacy creates independent learners as they do not need to read the same materials when they are doing research. Learners are encouraged to take responsibility and most importantly they retain more of the information they have gathered as they have ownership over it.

Even more importantly, Bucher states that information literacy is a process that learners can use as they mature and as their future jobs and careers require them to use information to solve increasingly complex problems. Hancock (1993) contends that information literate students are more effective consumers of information resources, they recognize that information is packed in a variety of ways, that the packages use a variety of techniques to serve a variety of interests and that it contains a variety of value messages. Furthermore, the benefits of information literacy skills are that it helps “ students develop cognitive skills,

improve lifelong learning skills, learn democratic values, and demonstrate their ethical behavior” (Bucher, 2000: 3).

Poor performance in finding and using information has been attributed to a lack of explicit classroom attention to the cognitive aspects of the task (Irving 1985; Kuhlthau 1987). Unlike in the past where it was only expected that the most able students be critical thinkers, learner-centered education suggests that all learners should be encouraged to be critical thinkers. Moore (2000) agrees that presently educators are now required to help their least able students to solve information problems effectively.

6. BASIC INFORMATION SCIENCE SYLLABUS

The syllabus for Basic Information Science grades 4-7 was implemented in 1997 in Namibian schools. Unfortunately shortly before that, in 1996, Basic Information Science was removed from the official timetable of the Junior Secondary Schools. This means that the development of information skills through the subject Basic Information Science will take place from grades 4-7 and then be left to the discretion of the principal as the Junior Secondary school principals had to decide whether to offer the subject or not.

Tötemeyer (1999) argues that the termination of information skills in Junior Secondary schools will deprive the learners of the opportunity to become independent learners, thinkers and information retrievers. Another shocking revelation is made by Tötemeyer (1999) when she revealed that 0,74% of primary school learners receive Basic Information Science instruction. She concludes that this is totally unacceptable in a country like Namibia where the majority of learners are information illiterate. According to Hubbard (1987: 3) “helping students to gain information literacy also means helping students to learn to think. Learning to question, to weigh alternatives, to interpret inferences, and to seek further data can only help individuals to cope with continuously increasing wealth of information, and to survive in a world growing ever more complex”.

7. THE IMPLEMENTATION OF THE BASIC INFORMATION SCIENCE SYLLABUS

According to a study by Töttemeyer (1999) more than 50% (52,6%) of the nineteen teachers interviewed indicated that they have problems in implementing the subject.

The following reasons were stated:

- Teachers do not feel qualified to teach the subject and felt that they needed training in order to be able to teach it;

This study was done in Junior Secondary schools in which more qualified teachers are teaching as opposed to primary schools. In 2001 Namibia had 18 117 teachers in the schools, only an average of 40% of teachers teaching in primary schools were qualified to teach (Education for all – National Plan of Action 2002).

- They did not have a school library;

This is clearly an indication that many teachers (52,6%) were still under the impression that one needs a school library to teach the Basic Information Science syllabus meaning that the development of information skills can only occur if a school has a proper library.

- They do not have the time to teach Basic Information Science since they are given so many other subjects to teach;

This is clearly an indication that Basic Information Science is not deemed important simply because it is not a promotional subject.

- There were no official times on the school's timetable allocated to the subject;

This is not relevant in the case of primary schools as Basic Information Science is a compulsory subject for grades 4-7.

- The learners found Basic Information Science difficult;

This can be linked to the teacher's capability to teach the subject. It is the duty of the teacher to make the subject easy and understandable for the learners. If learners are made aware of the importance of the information skills they will do more to understand the 'difficult' subject.

8. SCHOOL LIBRARIES

The most commonly known information institutional sources are public and school libraries. As Irving (1985) stated, 'school libraries are the most immediately accessible sources of information. Much literature on school libraries (Irving 1985; Töttemeyer 1992) stated that a well-stocked library plays an important role and that progress of information skills is associated with improving resources. However, Lance (2001: 4) proclaims that "when it was found that higher library media expenditure correlated with higher test scores, it was easy to explain away this relationship, by attributing the test scores to higher school expenditures in general".

A study by Töttemeyer (1992: 35) highlights that more than three quarters of Namibian schools have no school libraries. The schools which do have some information sources are, with the exception of 63 former white schools and a few other mainly coloured schools, in an appalling state as far as stock, facilities, staffing, management, book education and use are concerned. This is alarming if we take in to count the fact the country has more than 1500 schools.

However, this should not discourage the Basic Information Science teacher as stated by Anderson (1999) students' learning and especially information skills can take place anywhere, anytime as student learning has moved beyond the classroom and media center to

the learning environment. The fact that there are no libraries in the majority of schools in the country should not be a hampering factor for the development of information literacy. Anderson (1999) argues that media programs are no longer measured by the number of books in the media center but by the information literacy level of the students.

9. CONCLUSION

Experts in the field of education claimed that a person without information is without knowledge and therefore such a person can be deemed to be illiterate. This suggestion illustrates the importance of information literacy both in the time past and the modern world.

Literacy in the field of accessing, assimilating and comprehending information has re-emerged as a kind of new culture not only in Namibia, but globally as well. But for a young country like Namibia it is even more urgent to take note of this new development in order to move on with the rest of the world.

The world has now moved into what is termed the 'information age' and it is imperative that Namibia position itself strategically to gain benefits for its information givers and takers, and orchestrates in order to integrate the process of information literacy to serve the process of information technology. This could well lead to the new process of 'an information society' whereby the whole society will benefit in the 'information age' and information literacy revolution.

In conclusion Langford (1998: 14) stated, "We know that lifelong learning is more than a lofty ideal; it is the outcome of an information-literate society. However, the very people responsible for empowering students to become lifelong learners appear not to understand the information process, let alone information literacy, well enough to be truly effective learners themselves. We need to understand why this is and how we can change existing practices".

The investigation in this study will try to establish whether the learners in our country are capable of accessing information and how they cope with it.

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RESEARCH PROPOSAL

**RHODES UNIVERSITY
DEPARTMENT OF EDUCATION**

RESEARCH PROPOSAL

Presented in partial fulfillment of the requirements for the degree
MASTER OF EDUCATION
(GENERAL EDUCATION THEORY & PRACTICE)

CANDIDATE: Y. BOOIS
STUDENT NO.: 602B2885

SUPERVISOR: U. VAN HARMELEN
W. HUGO

PROVISIONAL TITLE:

An analysis of how grade 7 learners in Namibian schools are able to access information:
A case study in two schools

FIELD OF RESEARCH

Master of Education: General Education Theory and Practice (GETP)

PROVISIONAL TITLE

An analysis of how grade 7 learners in Namibian schools are able to access information:
A case study in two schools

Context

“The basic aim of the subject Basic Information Science (BIS) is to develop certain skills and attitudes that will enable learners to become effective seekers and users of information”(BIS Syllabus 1997:5). It is therefore necessary to investigate the capability of learners in finding information. Langford (1998: 13) stated “we talk about information literacy but it is a sad indictment that it is not an embedded practice in our learning institutions.” In the learning process there is always a need to execute successfully an information search and use process. There are different information literacy process models and they are referred to by a number of different names.

Some examples include:

- information problem-solving model (Eisenberg and Berkowitz, 1990);
- information seeking process model (Kuhlthau, 1993);
- information skills model (Irving, 1986; Marland, 1981);
- information metacourse (Bjorner, 1991).

The information-solving model of Eisenberg and Berkowitz (1990) has five stages: task definition, information seeking strategies, location and access, use of information and synthesis. The concept of information literacy has received increasing emphasis in recent times. It is defined by Vallence and Barret (1999) as the ability to find, extract, assimilate, understand and use information effectively. The emphasis of this study will be on the location and access of information.

Information literacy is a necessary prerequisite for successful participation in the global information society. Namibia’s Broad Curriculum explicitly lists information skills as a crucial outcome of schooling. Only a small minority of Namibian schools has qualified librarians or libraries (Totemeyer 1999), therefore the development of information literacy depends on the BIS teachers. The BIS Syllabus was drawn up in such a way that one actually does not need a library to teach information skills.

Due to the fact that most schools in the country do not have school libraries, information skills are, however, neglected. The main reason for this is the fact that literature dealing with information skills puts libraries forward as a prerequisite for information literacy. I believe it is for this reason that the development of information skills are neglected in our

schools because most teachers still believe that access to a library is a prerequisite for the development of information skills. However, more recent literature on the subject (Moore, 2002; Hart, 2000) and even older literature (Kulthau 1987; Irving 1985) proclaims that although information rich environments will enhance the development of information literacy it does not depend on it.

When we are dealing with information skills there are three main issues: accessing of information, assimilation of information and application of information. The focal point of this research will be the access to information. According to Kulthau (1987: 5) “our success and survival depends upon abilities to locate, analyze and use information skills fully and appropriately.” This is supported by Vallance and Barret (1999: 6) when they stated that: “you are information literate if you are able to find, extract, assimilate, understand and process information efficiently”.

The reason I decided to explore the development of information skills in Namibian schools is:

- information is a major requirement for development, be it social, personal, economic or global;
- information literacy forms the foundation for life-long learning;
- information literacy is at present a neglected area in Namibia;
- Namibia as a developing country should put much emphasis on the development of information skills;
- ‘information literacy is required because of proliferating information access and resources. Individuals are faced with diverse, abundant information choices’ (Information literacy standards – 2001:2)

The importance of having information literate learners is supported by (Irving 1985; Eisenberg and Berkowitz 1990; Kuhlthau 1993; Vallance 1999) when they stated that information skills are those skills inherently assumed in most assignments and future decision-making outside and after school. Irving emphasizes the fact that information literacy is not confined to the period the learner is in the school but that it also has relevance outside and after school. “Information literacy is a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information” (Information Literacy Standards: 2001: 2).

Due to our past educational system, learners are solely dependent on teachers to find information for them and to provide it to them in ready to use parcels. It created a dependency of the learner on the teacher. This dependency can no longer be tolerated in our schools as we move towards a learner centered, resource-based learning system in our country.

Information literacy counteracts the information dependency created by traditional schooling where students rely solely on the teacher to dispense information.

The child is involved in his learning and takes responsibility for it. The teacher becomes a facilitator in the learning process. Hancock (1993) argues that information literacy creates independent learners, as they do not need to read the same materials. When they are doing research, learners are encouraged to take responsibility and most importantly they retain more of the information they have gathered as they have ownership over it. This should be the ideal that each teacher strives for in Namibian schools.

Through this research, it will be shown how strong or weak the learners in the two selected schools are as far as accessing information. The BIS Syllabus was implemented in 1997 and it is five years later. The assumption is that learners will be effective seekers and users of information by their seventh grade, as in grade seven they are at the end of their primary school career. In grade eight teachers will expect them to realize when information is needed, to be able to find and use it effectively. Finally, attention will be drawn to the capability of BIS teachers to support the learners in their search for information.

The specific goal of the study will be to show how capable learners in the selected two schools are in accessing information.

Research goal

The goals of this research are:

- to establish the capabilities of grade seven learners in finding information;
- to establish reasons why learners are using certain sources and not others;
- to establish how teachers are coping in assisting learners in their search for information;
- to explore ways in which we can support teachers to make access to information more viable.

With the view to:

- improve the learners' ability in finding information;
- improve the teachers' ability to support the learners in information searching strategies;
- make recommendations on the kind of support teachers require to make information more accessible to learners;
- share the findings and recommendations with the Ministry of Basic Education, Sport and Culture.

RESEARCH METHODOLOGY

Method

The method of the study will be a case study, because it allows in-depth search of events and the collection of data in context-specific situations as stated by Adler and Adler (1987).

Data collection techniques

A questionnaire will be used to collect data from the learners. The questionnaires will be group administered. According to Oppenheim (1992: 103) "group administered questionnaires ensure that all participants answer the questions in the same order and that they all have the same amount of time to do so". In addition to the questionnaires, classroom observations will be conducted during the Basic Information Science periods where learners would be expected to search for information on given topics. As interviews allow greater depth into motivation and reasons for responses it would be used to give more evidence of the abilities of the learners and how teachers are supporting learners in their search for information.

Research process

1. A questionnaire will be pilot tested with ten learners from both schools;
2. The interview schedule will be pilot tested with three (3) Education Officers serving on the Basic Information Science Curriculum Panel;
3. Appointments will be set up with the four Basic Information Science teachers for classroom observations;
4. Data will be collected early in the second term of the school year;
5. Permission to enter schools will be sought from the Permanent Secretary;
6. Meetings will be set up with the principals and teachers to discuss the research process;
7. Data collection will be conducted during a two week period;
8. The final phase will be the analysis and writing up of the data.

Data collection

Data will be collected in the beginning of the second term.

Data analysis

Learners' questionnaires will be analyzed to develop an initial picture of their ability to find information. Classroom observations will be used to back up the data collected through the questionnaires. The standardized open-ended interviews will be used for the teachers because according to Maxwell (1996) it increases the comparability of responses as the respondents answer the same questions. It also facilitates organization of the data and reduces effects of bias.

Sampling

Two primary schools will be selected and two (2) grade seven classes in each school will be used for the data collection.

Ethical issues

A letter of permission to gain entrance in schools will be sent to the Permanent Secretary of the Ministry of Basic Education, Sport and Culture. Upon receipt of permission from the Permanent Secretary, another letter will be sent to the principals of the two (2) schools. There will be negotiation with the two (2) BIS teachers to set up a time schedule, which will suit the teachers' teaching schedules.

Participants' confidentiality will be observed in the study.

Validity

As much of the research will be descriptive, according to Maxwell (1996) the main validity threat will be inaccurate data. This is more probable because data will mainly be collected from children. Because of the researcher's involvement in the field as the acting head of Education Library Service, responsible for the development of information literacy in schools, it is necessary to guard against imposing one's own views on the data.

Significance of the study

Breivik as quoted by Langford (1998: 15) states that "literacy is to be able to function well in a society, which entails the ability to read, use numbers and to find information and use it appropriately." The significance of this study will be that learner's ability to find information will be established and actions can be put into place to remedy the situation. Attention will also be drawn to the BIS teachers' ability to support the learners in their search for information, which can be a stepping-stone for further research.

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EMPIRICAL STUDY

ABSTRACT

This study looks at the ability of grade 7 learners in two Namibian schools to access information. It explores the conceptual framework of information literacy as a prerequisite for life-long learning. Information literacy is divided into four stages: preparation for research, accessing resources, processing information and transfer of learning. Because information literacy is such a broad field the major focus of this study is the access to resources. Access to resources comprises four sections called: location, selection, gathering and collaboration of resources. The study was conducted to gain some ideas of the grade 7 learners ability in accessing information. A questionnaire, interviews and classroom observation were used to collect data. One hundred and forty-one learners and two teachers of two primary schools were used in this study. Analysis revealed that a great majority of the learners are not capable of accessing information, but more importantly the teachers' realization of the importance of information literacy and the need that it should be taught explicitly. Furthermore, ways into which the development of information literacy be secured in all schools needs to be explored in future research.

1. INTRODUCTION

Information literacy is a necessary prerequisite for successful participation in the global information society. Pilot Broad Curriculum for Primary Schools (1996) explicitly lists information skills as a crucial outcome of schooling. Only a small minority of Namibian schools have qualified librarians or libraries Töttemeyer (1999) therefore the development of information literacy depends on the Basic Information Science (BIS) teachers. When dealing with information skills there are three main issues: accessing of information, assimilation of information, and application of information.

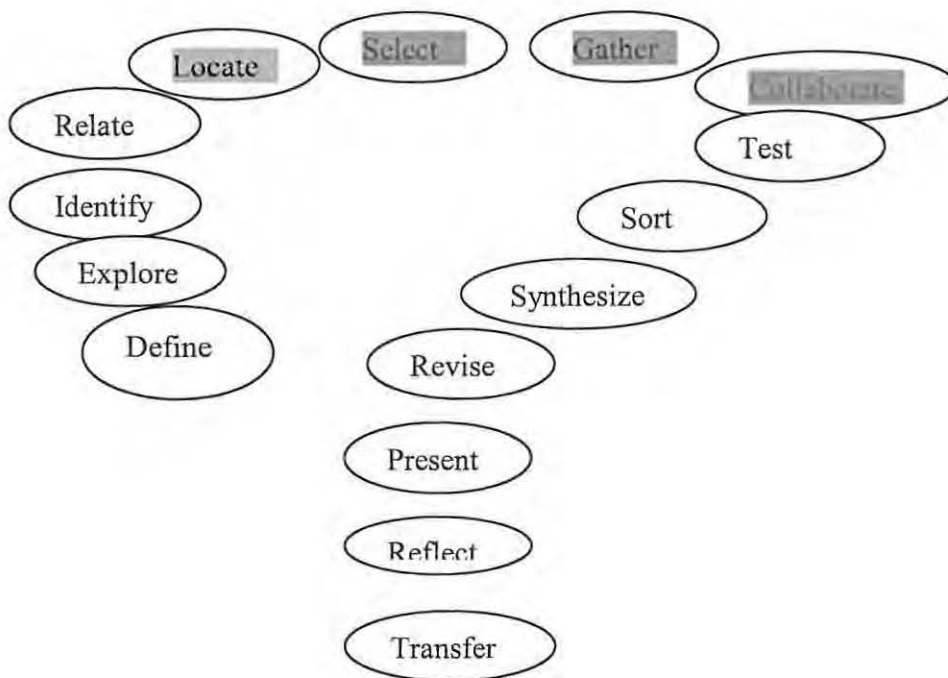
2. CONTEXT

According to Kulthau (1987: 5) “our success and survival depend upon abilities to locate, analyze and use information skills fully and appropriately”. It is supported by Vallance & Barret (1999) when they state that you are information literate if you are able to find, extract, assimilate, understand and process information efficiently. This is furthermore divided into four stages:

- stage one: preparing for research,
- stage two: accessing resources,
- stage three: processing information,
- stage four: transferring learning.

The importance of having information literate learners is supported by (Irving 1985; Eisenberg and Berkowitz 1990; Kuhltau 1993; Vallance & Barrett 1999) when they stated that information skills are those skills inherently assumed in most assignments and future decision-making outside and after school. This study deals with grade seven learners in two primary schools and their ability to access information. Therefore, the focal point of this research will be the accessing of information, which includes the ability to:

- locate,
- select,
- gather and collaborate information.



Adapted from:

D Wray (1985) *On your own: a practical guide to research, writing and information literacy*.

When learners are given class-work, homework or asked to complete an assignment, there are questions at the end and the learners are asked to answer the questions in their own words. What really happens here is that learners are asked to locate, access, engage, extract, organize and present information at the same time. The problem with that is that if the answer is wrong, how will one know if the problem was in locating the information, or in understanding the content or in writing the answer. Therefore, it is imperative that all capabilities like locate, access, engage, extract, organize and present should be dealt with on its own. The very basic one would be for the learners to be able to locate and access information. Thus, the focus of this research will then be on the ability of learners in two primary schools to locate, identify, access and use information efficiently.

Information literacy is at present seen as a very important but neglected area. As the field of information literacy is very broad, the emphasis for this study is on accessing of information, because if you cannot access information you will not be able to assimilate and apply it. According to Behrens (1991) an information literate person must recognize when information is needed and be able to find it, assimilate it and make meaning out of it, not only for the sake of finding it, but to solve a particular problem or to make a decision supported by the information.

The importance of having information literate learners was highlighted by Irving (1985) when he stated that information skills are those skills inherently assumed in most assignments and future decision-making outside and after school. As stated by Marais (1996) the Basic Information Science syllabus contends that information literacy can be developed in disadvantaged schools through the use of community resources such as local leaders and institutions. The above is further supported by Hancock (1993) when he highlights the fact that in addition to the traditional print resources and technological resources, learners also go beyond the classroom walls into the local community for information provided by businesses, social services, citizen groups and public and university libraries. Anderson (1999) agrees when he stated that students learning can take place anywhere, any time as students have moved beyond the classroom and media center to the learning community.

3. RESEARCH METHODOLOGY

3.1 Goal

The purpose of the study was to show how capable learners in the selected two schools are in accessing information, which is one stage of information literacy.

The research question guiding this study was 'how do grade 7 learners in two Namibian schools access information?' To investigate this question, the study was framed around five sub-questions:

- Do learners know how to access information?
- Do learners use different sources to access information?
- Which methods do the learners use in finding information?
- What is the learner's perspective of the importance of libraries? and
- What is the teacher's perception of the learners' ability in finding information?

The method of the research is a small-scale case study, because it allows an in-depth search of events and the collection of data in context-specific situation (Adler and Adler 1987). The questionnaire, interviews and classroom observations were used to collect the data from the learners and teachers. In a questionnaire the content and procedures are organized in advance and therefore minimize the issue of subjectivity and bias from the side of the researcher. As interviews allow greater depth into motivation and reasons for response by asking and probing than questionnaires, they were used with the teachers to give a better perspective on the responses of the learners gathered through the questionnaires. Although the questionnaire and the interviews were the main methods used for data collection, classroom observation also took place.

Data was collected early in the second term of the school year. Permission to enter schools was sought from the Permanent Secretary of the Ministry of Basic Education, Sport and Culture and permission was granted to do the research in the two schools. As much of the research will be descriptive according to Maxwell (1996) the main validity threat will be that of inaccurate data because data will mainly be collected from children. To validate their answers it will be cross-referenced with the teacher's interviews and the classroom observations.

Two schools in the Windhoek educational region were used in this study. Ideally, schools included in a sample for a study of this nature would be selected on a random, stratified, or quota basis. However, because this is a small-scale research only two schools were used. One of the selected two schools was a formerly disadvantaged school with a total number of 1160 learners and a total number of 1319 library books, meaning 1,1 library book per learner.

The teacher is not a qualified librarian but was tasked to take the responsibility of the school library and the subject Basic Information Science (BIS). The second school is a formerly advantaged school with a total number of 1056 learners and a total number of 5054 library books, meaning 5 library books per learner. The teacher responsible for the library is also not a qualified librarian. The total number of learners and the qualifications of the teachers in both schools are the same. The only major difference between the two schools is the total number of library books per learner.

Two grade seven classes in each school were used for data collection. One hundred and forty-four questionnaires were sent out to the two schools. One hundred and forty-one were returned blank due to learner's absenteeism. Two of the returned questionnaires could not be used, as they were incomplete. A total number of one hundred and thirty-nine questionnaires were used for the data collection. It is also worth pointing out that the results of the study are not generalizable because of the small number of participating schools in the study.

Data collected in the questionnaires were validated with data collected through the interviews and classroom observations. The questionnaires for the learners were group administered questionnaires. The teachers responsible for the library were tasked to administer the questionnaire in the presence of the researcher. This was done because the learners are more at ease in the presence of their own teachers. Through the use of the group-administered questionnaire, the researcher eliminated the many disadvantages of postal questionnaires of which one is the low return rate. According to Oppenheim (1992: 103) "group administered questionnaires ensures that all participants answer the questions in the same order and that they all have the same amount of time to do so."

However, data collected is only as good as the instruments used to collect the data. Therefore, validation of the tools was very important. After the questionnaire and interview schedule were compiled, it was put through a set of questions to ensure that it is understood in the same manner by different people. The preliminary draft was given out to four teachers offering them the opportunity for comments and criticism.

As a result of their suggestions the framing and wording of a number of questions and statements were changed.

According to Cox (1996) 'Good' in this context means the instrument must measure what is intended to be measured; they must measure accurately: and they must measure consistently. The questionnaire contained seven questions and ten statements derived from current literature, measuring the learners' abilities to access information. Instructions were clearly typed at the head of the questionnaire. It was suggested that the whole exercise could be completed within thirty-five minutes to allow learners to complete the questionnaires in the given time span of one class period. Anticipating that open-ended questions are too demanding and very difficult to ascertain what exactly a response means, only two such questions were included in the questionnaire.

Data collected from the two schools include the following:

- Their knowledge of sources of information: where to find it and how to access it;
- The importance of the school library and the subject Basic Information Science;
- The availability and accessibility of resources;
- The learners' capability in finding information;
- Teachers' perceptions of the learners' capabilities in finding information.

Data analysis

The questionnaires were analyzed in terms of the learners' perceptions on their capabilities to access information. The interviews were analyzed in terms of the teachers' perceptions on their learners' capabilities to access information. The classroom observations were used as the main tool for the collection of data on the learners' actual information finding skills. This is so because both the questionnaires and the interviews merely reflect perceptions and therefore classroom observations were used to verify the information collected from the learners' questionnaires and teachers' interviews.

Significance of the study

Breivik, as quoted in Langford (1998:15) states that “literacy is to be able to function well in a society, which entails the ability to read, use numbers and to find information and use it appropriately.” The significance of this study will be that learners’ ability to find information will be established and actions can be put into place to remedy the situation if necessary. Attention will also be drawn to the BIS teacher’s ability to support the learners in their search for information, which can be a stepping-stone for further research.

4. RESULTS OF STUDY/DISCUSSION

4.1 Background

“Access to and critical use of information is absolutely vital to lifelong learning, and accordingly no graduate – indeed no person – can be judged educated unless he or she is information literate” (Candy, et al.– as quoted in Information literacy standards 2001:2). This very powerful statement made by Candy, et al. stating that no person can be judged educated unless he or she is information literate is the driving force behind this whole study. We are educators responsible for the education of the whole nation and, if we are serious about what is required from us, we have to pay attention to the above statement. Moore (2002) highlighted that although information skills are used in our daily lives, the problem is that information literacy is taken for granted in most cases. If one looks at the statement made by Candy, et al. in (Information literacy standards 2001) information literacy cannot be taken for granted if it is deemed absolutely vital to lifelong learning.

Realizing the importance of this very crucial skill, the Pilot Broad Curriculum for Primary Schools (1996) built in the subject Basic Information Science to be taught in grades 4-7 for the development of information literacy.

This context supports the thinking that “Education systems and institutions must take seriously the challenges of the Information Age”. This includes restructuring the learning process to reflect the use of information in the real world, changing the role of the teacher from presenter of established facts to facilitator of active learning” (Hancock 1993:1) It is imperative to note that Namibia as a developing country did take up this challenge and made the subject Basic Information Science compulsory from grades 4-7 in all schools in the country. There is a realization that information literacy is an important vehicle to life-long learning.

During the child’s school years, which are provided through formal education, the child is constantly in the process of studying. Historically, the framework for teaching information skills has been defined within the broader context of education. The whole focus of education lies in the study process. Studying is defined as the acquisition of information. The acquisition of information is only possible if you have access to information and to have access to information one should be information literate.

4.2 The use of different sources for access to information

It was observed during the classroom observations that although the learners did not mention other sources than textbooks during their search for information on their questionnaires, learners were using encyclopedias, dictionaries and atlases. The one concern is that once learners choose a book they find it difficult to look at another book. It is as if they are stuck to this one source. Learners did not show full awareness of the fact that they have to use index pages and the table of contents to ease their searches. Most of the time between 50 and 60 percent of learners only just flick through the pages.

During the observations it became clear that the learners still depend very strongly on the teacher as the source of information. In the follow-up discussions with teachers they all agreed that this dependency can be reduced with time if all teachers assist in guiding the learners to become information literate.

The following questions were asked to find out how capable learners are in using different sources for access to information:

	YES	NO	No response
Do you use information sources other than your textbook for your schoolwork and assignments?	57,6%	42,4%	-

Table 1.

The summary of the results in table 1 reveals that although the Basic Information Science syllabus contends that information literacy can be developed in disadvantaged schools through the use of community resources, environment, internet, community members, etc. in a question: "Do you use information sources other than your text book for your school work and assignment?" 57, 9% answered in the positive, 42, 4% of the learners said that they use only the textbook. It is a worrying factor that a 42, 4% of the learners in grade 7 still only rely on the textbook as a source of information. Grade 7 learners are at the end of their primary school year and will graduate to the secondary schools where teachers will expect them to use supplementary sources in their school work and assignments. Moore (2002: 27) stressed that "just as coherence and continuity of information literacy development are desirable across primary school years, they are also needed across the divides of primary, intermediate, secondary and tertiary educational settings, not to mention the workplace."

The follow-up question was: "If yes, please specify." Although the Basic Information Science (BIS) syllabus clearly states that information is everywhere around us, none of the 57, 6% of learners who answered in the positive referred to other sources except library books. Namibia is a developing country with limited resources, but not enough emphasis is put on the fact that one can find information sources everywhere and not only in the library and library books. What becomes evident is that, although the BIS syllabus advocates the fact that information literacy can be developed without a library, that message is not clearly carried over to the learners in the schools. Hence the learners believe that information can only be found in textbooks, libraries or library books.

During the interviews with the teachers they also supported this view that the learners are relying only on the textbooks or library books for their information search. However, there is a realization amongst some learners that sources like dictionaries, atlases and encyclopedias can be used to support the information presented in textbooks. Teachers were positive that learners, with the necessary support, could become information literate and become independent learners.

When learners were asked to specify methods that they would use to find information, the responses were as follows:

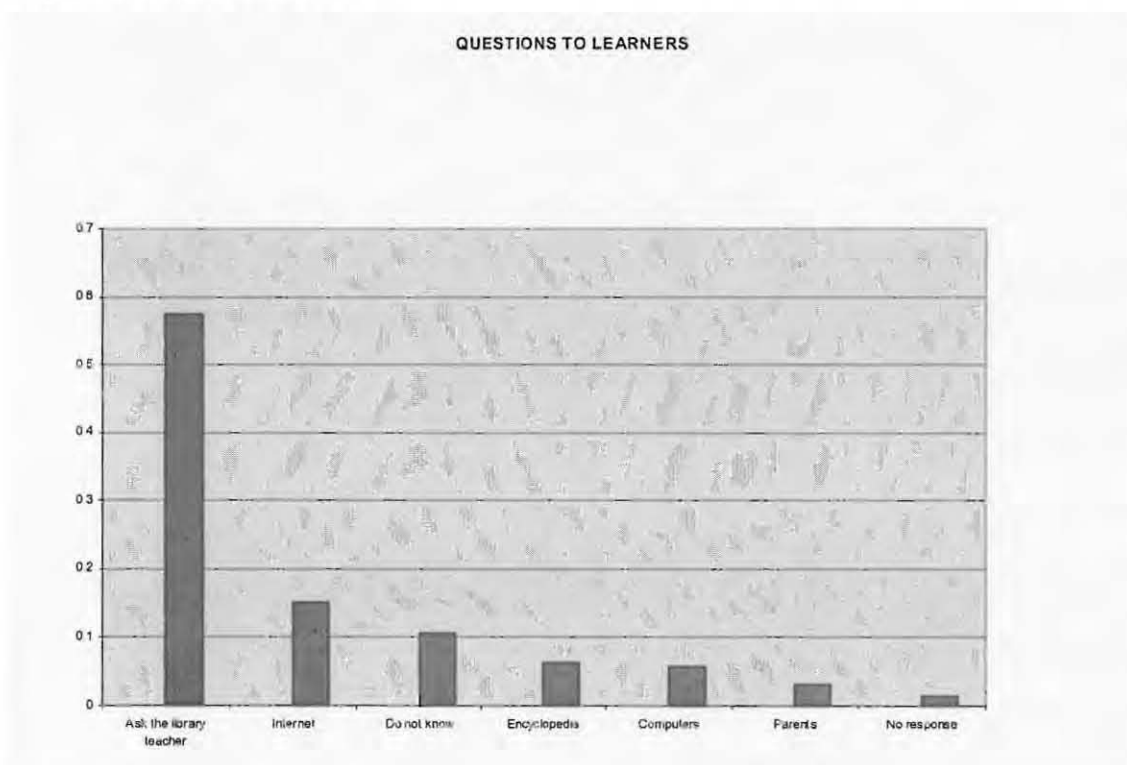


Diagram 1

When faced with an information search, diagram 1 shows that 57, 5% of the learners will go to the library teacher to find information, 15, 1% will use the internet, 6, 4% will use the encyclopedias, 5, 7% will use the computer, 3, 5% will ask their parents and 1, 4% did not respond. Although the majority of the learners (57, 5%) see the library as the first place to go if they need to find out more about a topic, there is a realization that one can use sources other than the library.

During the interviews the teachers raised the concern that most of the learners cannot find anything in the library without help. Although 57% of the learners will go to the teacher for assistance in their search the rest will try other means for their information search. At times however, the task seems too much for them as remarks like:

- I can not read it all;
- The encyclopaedia set is very complicated;
- I cannot find what I am looking for, etc. could be heard during the classroom observations.

4.3 Access to information sources in libraries

The classroom observations took place during a Basic Information Science period. In both school libraries there was an organized clean inviting environment. The learners were actively engaged with the task at hand. The teachers were interacting with learners. The teachers explained the concept of 'index' to the classes in previous lessons. During one of the observation lessons, which were a rounding off of three weeks of consecutive lessons of dealing with 'indexes', it was required from them to find information on turtles.

Only a very small number of learners knew that they had to look at the catalogue card or indexes in books to speed up their search. During the lesson, while the learners were busy the teachers asked them individually what they were busy doing. It was obvious from the interaction that learners realized that using indexes saves time and effort. More than 40% of the learners could not find anything by the end of the period. This is more in agreement with the results of the questionnaires than that of the interviews with the teachers.

On a question in the questionnaire: Do you know how to find information in your school library or any other library, the responses were as follows:

	Yes	No	No responses
Do you know how to find information in your school library or any other library?	62,9%	35,9%	1,2%

Table 2.

As shown in table 2, on a question: “Do you know how to find information in your school library or any other library?” 62, 9% answered in the positive, but worrying is the fact that 35, 9% of learners do not know how to find information in a library.

The teachers agreed that the learners are having problems in finding information but they stated that they are just lazy and if pushed to make more effort they do get the required information. When asked which percentage they will give of the number of learners not able to find information in the school library, in contrast to the learners’ 35,9% the teachers stated only 15-20%.

4.4 The importance of the school library and Basic Information Science (BIS)

The following questions were asked to judge the learners views on the importance of the library and the subject Basic Information Science:

	YES	NO	No response
Do you think a school library is important?	95,7%	4,3%	-
Do you like being in the school library?	80,9%	19,1%	-
Do you like the subject Basic Information Science?	87,7%	10,7%	1,6%

Table 3

As illustrated in table 3, on a question, do you think a school library is important?” 95, 9% of the learners answered in the positive, while only 4, 3% answered in the negative. Reasons why learners considered the school library as important were: we gain more knowledge; we can find more information, we can read and learn more about other school subjects.

In the next question: “Do you like being in the school library?” While 80, 9% answered in the positive, a 19, 1% answered in the negative. The findings showed that 95, 7% of the learners think a school library is important, in contrast to that, 80, 9% like being in the library. This is clearly an indication that although the realization of the importance of library is there, there are other factors hindering the learners from wanting to be in the library. It is insufficient to know that a school library exists and that it is important, one must also know what resources they contain and how to access them.

In contrast to the high rate of learners seeing the library as very important the teachers both agreed that the use of library is mainly limited to the BIS periods. Teachers in the schools do not support and use the library for their own purposes. In reply to the question: “Do you like the subject Basic Information Science (BIS)?” 87, 7% of the learners answered in the positive while 10, 7% answered in the negative.

The teachers stated that the subject BIS is important as it has to acquaint learners with handling and caring of books and to become information literate. However, one of the teachers still experiences problems in the implementation of the subject as only one period is allocated to each class per week.

Eisenberg and Berkowitz (1990) stated that indexes are key in effective and efficient information searching. The learners were asked whether they know how to use indexes?

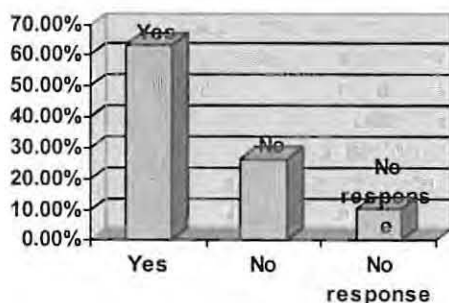


Diagram 2

A summary of the results in diagram 2 reveals that on the question: “Indexes are the key to effective and efficient information searching – Do you know how to use indexes?” 63, 3% answered in the positive and 26, 5% answered in the negative. However, this high response is questionable as in a previous question dealing with finding information indexes were not even mentioned by one learner. Eisenberg and Berkowitz (1990: 33) contended, “indexes are the key to effective and efficient information searching.”

Therefore, when we are dealing with information literacy it cannot be done without the learners being taught about the importance of indexes. Only if information literacy is dealt with explicitly will teachers get the opportunity to teach this very important attribute, otherwise it will remain hidden in the fact that the learners are able to find information and not with the issue of how they found it.

During the interviews teachers said that some of the learners are able to ‘use’ indexes but cannot find the information on the page. As one teacher stated ‘learners can get so much out of the subject only if more time can be allocated to the subject.’ In the classroom observation it became apparent that when learners are unable to find their own keywords in an index, instead of looking up the synonyms they just flick through the pages or simply abandon the task.

The following statements adopted from the Beginners guide to school library organization was posed for the learners to rate their views on issues concerning information literacy. One hundred and forty-one learners responded to the eight statements on the questionnaire. Respondents were asked to indicate their perceptions on the given statements. Responses were on a 3 point scale ‘excellent’, ‘satisfactory’, and ‘very poor’. Table 4 reports how these learners responded to the eight items:

Statement	Excellent	Satisfactory	Very poor
1. There are enough books in the school library for all of us in the school.	52,5%	12,9%	34,6%
2. Teachers in our school encourage us to use the school library when we are doing assignments or prepare ourselves for examinations.	37,9	8,2%	53,9
3. Learners are using the school library for a range of activities.	50,3%	17,2%	32,5%
4. I am confident in finding what I need, in selecting books and other resources in the library.	62,0%	14,3%	23,7%
5. The way in which our library is organized helps learners to make the most effective use of it.	62,5%	13,8%	23,7%
6. Indexes are the key to effective and efficient information searching.	79,9%	11,5%	8,6%
7. The school library teacher and BIS teachers offer leadership and support for the use of the school library.	70,5%	10,7%	18,8%
8. The school library teacher and BIS teacher support us in finding information.	56,1%	6,7%	37,2%

Table 4.

The indication of the summary of the results in table 4 shows that in all questions posed, more than fifty percent of the learners are positive on the issues. Attention is called to items 2, 6 and 7 in the table. Although learners felt that teachers support them enough in the use of the library and in finding information (items 6 and 7) a very small percentage of 37,9 (item 2) states that there is not enough encouragement for the use of the library.

5. ANALYSIS OF RESULTS

It is a worrying factor that 42, 4% of the learners in grade 7 still rely heavily on the textbook as a source of information. Grade 7 learners are at the end of their primary school year and will graduate to the secondary schools where teachers will expect them to use supplementary sources in their schoolwork and assignments. The picture is not too bleak though as, although they stated that they are not using other sources than textbooks, learners were using a variety of sources, as observed during the observations.

During the interviews teachers expressed the desire for more periods to be allocated to the subject. (Irving, 1985; Kuhlthau, 1987) proclaimed that poor performance in finding and using information has been attributed to a lack of explicit classroom attention to the cognitive aspects of the task. Unlike in the past where it was only expected from the most able students to be critical thinkers, learner-centered education suggests that all learners should be encouraged to be critical thinkers. Moore (2000) agrees that presently educators are now required to help their least able students to solve information problems effectively.

To be information literate one has to be able to find information, assimilate information and be able to use it effectively. If learners (35, 9%) are not able to find information, how will they be able to assimilate and use it? This indicates the learner's dependency on the teachers to find information for them. However, if we can develop their information literacy skills to such an extent that they are able to find information for themselves, we will break this circle of dependency as information literacy counteracts the information dependency created by traditional schooling where students relied solely on the teacher to dispense information. For this reason it requires active learning.

The child should get involved in his learning and take responsibility for it. The teacher becomes a facilitator in the learning process. Hancock (1993) argues that information literacy creates independent learners as they do not need to read the same materials. When they are doing research, learners are encouraged to take responsibility and most

importantly they retain more of the information they have gathered as they have ownership over it.

Although the majority of the learners (57, 5%) see the library as the first place to go if they need to find out more about a topic, there is a realization that one can use sources other than the library. The above was supported by Hancock (1993) when he highlighted the fact that in addition to the traditional print resources and technological resources, learners also go beyond the classroom walls into the local community for information provided by businesses, social services, citizen groups and public and university libraries. Anderson (1999) agreed when he stated that students' learning can take place anywhere, any time as students move beyond the classroom and media center to the learning community. There is a realization of this amongst our learners, even if it is a small percentage of them realizing that one can go beyond the classroom and media center to find information.

The effect of the information explosion, as viewed by Irving (1985) is that much of what is presented/taught (the subject knowledge) to eleven year olds will be outdated and meaningless by the time they leave school. Schools as change agents should provide and arm learners with the skills needed to find information, process information and present information in an effective manner. The teaching process of 'how' must take priority over the teaching process of 'what'. Irving (1985) further stressed that under these circumstances teachers cannot continue to teach what they think is required. Teachers should rather strive to encourage learners to develop the skills of acquisition of mainly conceptual skills relating to the gathering, selecting, processing and usage of information.

"Information literacy thrives in a resource-based learning environment" (Hancock 1993: 2). Many articles in professional and pedagogical literature portray a well-stocked school library as a prerequisite for the information literacy skill development. However, a school library is only one such place where sources are organized to make access easier. The most commonly known information institutional sources are public and school libraries.

As Irving (1985) emphasized, school libraries are the most immediately accessible sources of information. Although not a prerequisite for the development of information literacy skills, libraries do play a major role in the process. Vallence and Barrett (1999:6) refer to school libraries as “storehouses of knowledge”. If libraries are proclaimed as storehouses of knowledge and knowledge is the key to lifelong learning one should view libraries as very important.

According to Hubbard (1987: 3) “helping students to gain information literacy also means helping students to learn to think. Learning to question, to weigh alternatives, to interpret inferences, and to seek further data can only help individuals to cope with continuously increasing wealth of information, and to survive in a world growing ever more complex”. The study reveals that learners still depend very heavily on the teachers to find or provide their information needs.

When learners were asked to specify methods that they would use to find information, the majority, about 57,5% stated that they would ask their teacher to find the information for them. This brings us to the realization that as long as they are asking their teachers to find information for them we cannot make independent lifelong learners of them. As Moore (2002: 62) argued “knowing how information is organized is crucial to information literacy.” If we would like to make our learners independent lifelong learners we need to ensure that they know how to access information for their future success in their school careers, outside the school set-up and in their work places. This would mean independent learners depending on themselves for finding information. In a set up like the Namibian one where the educational policy is resource-based teaching and learning this is very vital.

The fact that 95,9% of learners think that a school library is important but that only 80,9%, 15% less, likes being in the library is questionable. On a question posed to the two teachers, both maintained that the learners are encouraged as much as possible to use the library. In the same vein, Moore (2000:7) stated “teachers in all schools expected children to have a clear idea about the information they sought, and to seek assistance in

finding it. However, instructions and materials were not always useful.” Results in the study showed that the teachers and learners are only concerned with the location of the resources and not so much emphasis was put on the selection, gathering and collation of information.

The above indicates that there are some barriers in finding information in libraries, therefore, these attributes should be identified and removed. While doing so teachers should keep in mind that finding information is just the beginning of the stage in accessing information. Accessing information means the learners should be able to locate, select, gather and collate. Eisenberg (1990) stated that indexes are key in effective and efficient information searching. The learners were asked whether they know how to use indexes.

As stated earlier, access to information is a stage consisting of four sections. However, the two teachers concentrated mainly on the location of sources. A survey done by Moore (2002) suggested that teaching information skills addressed finding information, but not its crucial use. This also becomes apparent in this study, as none of the learners knew what to do next after finding the sources they needed. On the question: “Once you have found all the sources of the information you were looking for, what will your next step be?” The replies varied from: “I will start to study,” “I will make copies,” “I will start to read it,” or “I will start to write it down.”

Once the required information was located, the next step would be the selection of appropriate material, gathering of the appropriate material and the collation of the appropriate material. The learners do not know this, as they just want to start to use the information they accessed. If learners are not taught what to do after locating sources e.g. evaluation of the sources to be able to sort, select, gather and collate, learners will just use any information found without being critical about the source.

6. CONCLUSION

The information age requires from learners to be information literate. It is therefore imperative that teachers as leaders in education should help learners to master information skills, thus enabling them to be competent information users in the future. As grade seven is the exit grade of primary school competent use of information can make them independent learners, relying on themselves for their own information needs.

‘At present, teacher librarians are carrying most of the burden of guiding future generations to becoming lifelong learners, one accepted outcome of the process of becoming information-literate’ (Langford: 1998: 70).

From the results it became clear that there is a definite need to teach information literacy explicitly. The explicit teaching of information literacy will enhance:

- Improvement of student learning outcomes;
- Development of thinking skills and
- Practice of information skills across all areas of the curriculum.

‘Competent use of information can offer beneficial results to society at large; conversely, information illiteracy can cause real harm to individuals and society’ (Hubbard 1987:5). Although realizing the importance of information literacy teachers blame the inadequacies in learners on the fact that there is only one period allocated to the subject. However, information literacy cannot be limited to the one period assigned to the subject, it should be integrated in all subjects. How this should be done is a complex issue and requires further research.

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QUESTIONNAIRE SCHEDULE
To be completed by Grade 7 BIS learners

Section A

1. Do you use information sources other than your textbook for your school work and assignments?

Yes

No

If yes, please specify.

If no, why not?

2. What can you do or where can you go if you want to find out more about a topic for your assignment?

3. Do you know how to find information in your school library or any other library?

Yes

No

If yes, please specify.

4. Do you think a school library is important?

Yes

No

If yes, why?

If no, why?

5. Do you like being in the school library?

Yes

No

If yes, why?

If no, why?

6. Do you like the subject Basic Information Science (BIS)?

Yes

No

If yes, why?

If no, why?

7. Once you have found all the sources of the information you were looking for what will your next step be?

8. Indexes are the key to effective and efficient information searching. Do you know how to use indexes?

Yes

No

Section B. (Adopted from: Beginners guide to school library organization)

1. Please rate the following statements as follows:

1 – Excellent, 2 – Very good, 3 – Satisfactory, 4 – Average,
5 – Below average, 6 – Poor, 7 – Very poor.

1) There are enough books in the school library for all of us in the school.

1	2	3	4	5	6	7
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2) Teachers in our school encourage us to use the school library when we are doing assignments or preparing ourselves for examinations.

1	2	3	4	5	6	7
---	---	---	---	---	---	---

3) Learners are using the school library for a range of activities.

1	2	3	4	5	6	7
---	---	---	---	---	---	---

5) The library stock is available when the learners need them.

1	2	3	4	5	6	7
---	---	---	---	---	---	---

6) I am confident in finding what I need, in selecting books and other resources in the school library.

1	2	3	4	5	6	7
---	---	---	---	---	---	---

7) The way in which our library is organized helps learners to make the most effective use of it.

1	2	3	4	5	6	7
---	---	---	---	---	---	---

8) Indexes are the key to effective and efficient information searching.

1	2	3	4	5	6	7
---	---	---	---	---	---	---

9) The school library teacher and BIS teachers offer leadership and support for the use of the school library.

1	2	3	4	5	6	7
---	---	---	---	---	---	---

10) The school library teacher and BIS teachers support us in finding information.

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Thank you.

Interview schedule (teachers)

Section A

GENERAL INFORMATION

1. Education region

1.1 Name of school

1.2 Grades offered at school

1.3 Total number of learners in school

1.4 Total number of teachers in school

1.5 What are your highest qualifications?

1.6 How long have you been in this position?

1.6.1 As the library teacher

1.6.2 As the Basic Information Science teacher

Section B

2. By whom is your school library used?

- only learners
- only teachers
- learners and teachers
- learners, teachers and the community

3. Who supplies you with books and other media to stock your library?

4. What do you think is the major role of the library in the school set-up?

5. Do you offer the subject Basic Information Science (BIS)?

6. What do you think is the major objective/aim of the subject Basic Information Science (BIS)?

7. Do you think it is important for learners to be information literate?

8. Why?

9. Have you received any training in school librarianship or information skills?

10. What do you understand by integrating the school library with the teaching programme of the school?

Section C.

11. How many books do you have in your library?

12. What times is the library open for use by the users?

13. How many hours per week is the library open?

14. Do teachers in your school consider the school library as important?

15. Do learners in your school use information sources other than their textbooks for their schoolwork and assignments?

16. Please specify the different methods that learners use in their search for information.

17. Are learners in your school capable of finding information in the school library or any other library?

18. Do you think that other teachers encourage the learners enough to use the school library?

19. How capable are learners in your school in the use of indexes?

CONCLUDING STATEMENT

CONCLUDING STATEMENT
((REFLECTION ON THE PORTFOLIO))

Background

Through this reflection on my personal growth during the past two years, I would like to share with the reader how I have developed, how each step of the process impacted on my development, how I experienced the whole process and some strengths and weaknesses of the whole process.

I entered the course with determination and self-confidence. However, on the very first day of the course I started to ask myself whether I was ready to take on such an enormous challenge. A lot of emphasis was put, right from the start, on critical thinking, equal participation, sharing experiences and professional development. Coming from a background where you believe and accept everything as long as it is written down in a book or as long as it comes from your teacher/lecturer or supervisor, the mere thought that I have to challenge and question all the above critically was mind boggling.

As continuous assessment is coming more to the forefront, the portfolio has become a popular means of assessment. Perhaps, therefore the decision that the Masters in education course would be assessed through a portfolio was a wise decision as assessment by portfolios is a vertical, but meaningful learning curve for both the student and the supervisor.

I hope that my portfolio is proof of my growth and development. Developing a portfolio is like being on a journey, each piece of work has to be reworked, revisited and edited until a final piece of work is produced. This final piece of work should satisfy both the student and the supervisor. While I would like to stress that I am not at the end of the long road yet, I would emphasize that the past two years served as a revelation and a catalyst in the right direction.

During the two years we were expected to produce the following papers:

- A contextual analysis of my own institution;
- Epistemological bases of behaviourism and constructivism;
- A literature review of the field of study;
- A research proposal and;
- A research paper.

How the process improved my ability to research

I now recognize that with the first two papers I solely depended on my own knowledge of the topics, which was very narrow and subjective. Critical reading did not take center stage in my study process and therefore my presentations of the topics were very descriptive. Throughout the process I learnt that only through critical reading can one look at issues with another set of lenses. The reading of papers was not easy and caused many sleepless nights. This was because I wanted to understand a paper with the first reading attempt. Through the guidance of my supervisors I realized that academic papers need to be revised repeatedly before you can make good sense of them. That was a valuable lesson never to be taken for granted.

As we were expected to write reflections after each piece of work to be reworked, I could distinguish between my weak points and strong points. This helped me to improve on previous pieces of work as I could draw comparisons and eliminate mistakes. It also helped me make a mind shift from summative evaluation to formative evaluation and my ability to reflect meaningfully on my own learning experience also developed through this process.

During the very first paper I was confronted with my own knowledge of my institution. Being responsible for teacher education in my field, it is expected from me to be an expert in the field.

The paper was a challenge to prove not only to myself but also to my colleagues and all interested parties how well I know my institution and subject. I must admit that it was only after writing the literature review for the research process, which required a lot of reading and critically looking at underlying issues in the field, that I obtained a clearer idea of what the field is composed of. I am sure that if I had to re-do my contextual analysis paper at this stage, I definitely would produce a totally different paper. My conceptual understanding of the field has improved dramatically to the point that I am now in a better position to make links, relationships and recognize patterns in the different aspects to enable me to understand the whole, and not only some parts of the field.

By becoming a teacher at a very young age, I was aware of the expectation that my teaching should be acceptable and up to standard to be successful. The drawback of this was that, although I was aware of the fact that the learners should learn in the process, it was never the key issue.

I never questioned key issues like:

- What is knowledge?
- How does learning take place? and
- How can teachers ensure that learning takes place?

When faced with the paper dealing with epistemologies and working through carefully selected papers, I realized that it is not the fact that I am a good teacher that counts but whether any learning takes place which is the essence of the whole education process. Today I am a firm believer that the notions of reflective practice, critical practitioners, resource-based teaching and learner-centred

education will remain mere lip service if the learner is not learning with understanding.

Initially, I tackled the paper dealing with epistemologies without a firm understanding of what it actually constitutes. As this was my second paper, I knew that I had to do a lot of reading and my previously limited knowledge on the topic was expanding tremendously as I made progress in this regard. The foundation of my belief - that learners will learn because they have a good teacher - was shaken. Throughout the process the supervisors encouraged me to read more and to relate the papers to my own situation and to make links wherever possible. I realized that it is important to know how different theories interpret how learning is acquired. As a professional, my understanding was boosted and I can speak with conviction and better understanding about the reform process. I came to the conclusion that an educational system is judged by the amount of learning taking place, as education should enhance quality of life.

The literature review paper required an extensive study of the literature of my chosen topic. After numerous papers and books were selected I started with the reading process. I read as much as time would permit and it helped me to start developing analytical and theoretical frameworks. I moved from the premise that I am writing for someone without any knowledge of the subject. This helped me to understand what the key issues were, because it gave me a chance to reflect on each piece of information and to ask myself how it really fits into the whole picture.

Establishing the focus of the study was very problematic. Attending the 'Research Methods' course at Rhodes University shed some light on the problem. The research proposal was a challenge on its own, because I was forced to be very critical and open-minded about the field of my subject. I also had to focus on one specific issue, a problem which will be worth doing research in and one in which

it would be possible to make a positive contribution towards the subject. The focus of the study changed as many times as I re-read my proposal.

I planned to use the questionnaires as the main source of data collection but was advised by my supervisor that I also need to use interviews and classroom observations. Doing the classroom observations I learned more about my field of study. Posing as an uninvolved member in the field I picked up valuable information. As a novice researcher I realized that observations are valuable aids in any research as it gave me first hand insight into the situation, more than any other research instrument. During the actual research process, the collection of data was the most challenging, but not as challenging as the analysis and presentation of data. At that stage I realized that it is not merely the writing up of what I have found, but that I have to convey to the readers my empirical experiences together with my reflections.

Weaknesses

- A more clearly defined scaffolding of the requirements of the portfolios at the beginning of the course would have enhanced the students' understanding of the process;
- Students at times did not adhere to the page and time limitations during presentation, this could have negatively affected the ones who were keeping to page and time limitations;
- Although comments and recommendations were made to the actual structure and content of papers, students' weaknesses and strengths could have been pointed out more explicitly.

Strengths

- Assessment through the portfolio gave me a strong track record of work produced, my personal growth and development throughout the two years;

- Reflections after each paper resulted in evidence of growth and a deeper understanding of the paper;
- Assessment through the portfolio allowed for individual growth, as students were not compared with each other but were judged against their own strengths and weaknesses;
- The portfolio gave an insight into my progress and enabled my supervisors to judge my abilities.

In the final analysis, I hope that my small-scale research will make a positive contribution towards the subject and that it can serve as a springboard for further research.

