

Availability and Accessibility of Educational Information to High School Learners in the Eastern Cape Province, South Africa

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Abstract

Despite recent achievements by the South African government in enhancing the provision of access to education, the quality of educational information access with regards to the provision of learning resources to high school learners by the government in one of the country's most impoverished provinces, was the focus of this study. The study was an attempt to establish the reality of the availability and accessibility of educational information available to students, especially those in Grade 12 preparing for their Matric examination. Ribot and Peluso's theory of access was utilised for this study, while a survey design was adopted to answer the following research questions on data collected from Grade 12 learners, teachers and librarians: What are the types of educational information available to high school learners in the Fort Beaufort Education District in the Eastern Cape Province? To what extent is the available educational information accessible by high school learners in the Fort Beaufort Education District in the Eastern Cape Province? The results revealed accessibility constraints regarding some categories of educational information resources, including information resources on soft skills as well as information and communication technologies education (mean item scores 3.45 and 3.07 respectively). The engagement of professional librarians to facilitate robust collection development and support access to educational information is imperative and recommended.

Keywords: educational information; information access; information availability; high school learners; South Africa; availability and accessibility

Introduction

The information revolution has brought about many improvements in every aspect of human endeavour. A multiplication characterises this revolution in the quantity of information available in time and space and the possibilities of access to such information using multimedia technologies (Kadiri and Adetoro 2012; Khan and Shafique 2011). These developments have impacted all sectors of human engagements and the knowledge industry is not an exception. Information has always been vital to knowledge acquisition—and educational information especially—as it is imperative to the attainment of quality education (Makgato 2014). Without access to information, the all-round progress of humanity through discovery, acquisition, development, management, sharing, transmission and recreation of knowledge becomes a mere wish and a dream (Cleveland 1982). Adorno and Cardia (2013) assert that access to information is indispensable for the translation of citizens' legal right to living rights, of which the citizens' social inclusion and participation in the transformation of society are fundamental (Adorno and Cardia 2013). Cleveland aptly captures this by submitting that information "... is the ore, the sum total of all the facts and ideas that are available to be known by somebody at a given moment in time" (Cleveland 1982, 36). Information has become the centrepiece of economic production, innovation, political advancement and human progress. There is no controversy that information is central to education. Machlup (1962) characterises knowledge production endeavours into five categories, of which education is the first category. The other categories are research and development, media, information machines, and information services.

Acquisition of information has been through learning—formal and informal. The former is the predominant form of acquiring information and has formed the basis of the evolution and development of educational systems. Formal learning has metamorphosed from a teacher-centred form of learning to learner-centred as a result of the possibilities of access to various types of information by learners themselves, coupled with the need for learners to engage in critical thinking and experience social transformation (Mostert, Jacobs, and Chipeta 2008; Ranaweera 2008). Education quality is highly dependent on the information-rich environment and learners' ability to explore the maze of information available within and outside of their immediate learning environment (Abdollah and Barberton 2014; Ranaweera 2008). Thus, learners cannot achieve beyond their level of access to educational information.

Access to educational information is an essential ingredient without which the right to education cannot be fully exercised. Aduwa-Ogiegbaen and Iyamu (2005) opine that educational information can be construed both in a narrow and broad sense. In the narrow sense, educational information could mean the information required to attain learning outcomes at a predetermined level of formal education. In the broad sense, it could mean information needed by any category of learners to acquire a useful and

living knowledge of the world, of other people and themselves. Educational information, in this sense, empowers learners to make advancement in knowledge, contribute to the transformation of society and experience an improved lifestyle.

As part of the move to address past inequalities in the South African nation, access to information has become a constitutional right that has been enshrined in the South African Constitution since 1996: South African Schools Act No 84, 1996 (South African Government Gazette 1996). This right of access gives room for people to have access to any information held by government agencies, corporate bodies or institutions which may be useful or required for their wellbeing (South African Government Gazette 1996). Section 32(1) of the Bill of Rights stipulates that “everyone has the right of access to information held by the state and any information that is held by another person and that is required for exercise or protection of any right.” Thus, access to information is of paramount importance as a requirement for the exercise of other fundamental human rights, including the “right to education,” which is also enshrined in the South African Constitution (South African Constitution 1996).

Problem Statement

Research has shown that although the enrolment rate into schools has increased, an aftermath of the legislation that makes it a criminal offense to keep children out of school (Organisation for Economic Co-operation and Development 2013; South African Constitution 1996), there are still issues to be addressed with regard to quality education in South Africa (Abdollah and Barberton 2014; Department of Basic Education (DBE) 2013). The issue of the suitability of the school environment for learning has not yet been fully resolved (Mojapelo and Dube 2014a, 2014b; Paton-Ash and Wilmot 2015; Shandu, Evans, and Mostert 2014); information literacy education has not yet received the required attention by the government (Hart 2014; Mojapelo 2015); inadequate provision of learning resources in schools (Paton-Ash and Wilmot 2015) and a lack of access to educational information by learners (Mojapelo and Dube 2014a, 2014b) remain intimidating to the quality of education in South Africa.

Attendance in school is not all that is required for being educated. Education is not just school attendance. The quality of education that an individual has received is a function of his literacy level, which is further a function of his level of access to educational information. It is the possession of literacy skills that differentiates an educated person from an uneducated person, otherwise known as an illiterate. It is absurd to expect the attainment of a literate citizenry without a policy provision for information literacy education; without the availability of qualified personnel that would help impact the knowledge. It is essential to enhance the environmental suitability of schools for learning and, of course, promoting the availability and accessibility of comprehensive educational information in the schools.

In a demonstration of commitment to improving the quality of education in South Africa, the Department of Basic Education in 2011 developed an “Action plan to 2014”

(Department of Basic Education [DBE] 2013). The plan was aimed at identifying the various challenges confronting the education system and discovering solutions that have worked in South Africa and other countries. For a nation that has suffered deprivation of information (educational information in particular), but now has come under a regime that supports the freedom of access to education, we ask ourselves: What progress has been made to ensure that the citizens have access to this basic instrument of transformation and progress? Exploring this issue is a worthwhile intellectual endeavour that can impact positively on policy evaluation and development. It is, therefore, essential to assess the availability and the level of access to educational information by learners in the country. Hence, this study is concerned with answering the question related to types of educational information available to the Fort Beaufort Education District high school learners. However, beyond availability, it is also pertinent to inquire about accessibility. Hence, the objectives of this study are to discover the types of educational information available and accessible to the Fort Beaufort Education District high school learners.

Research Objectives

The aim of this study was to evaluate the provision of and access to educational information resources by the government to high school learners in the Eastern Cape Province of South Africa. The specific objectives of the study were to:

1. Ascertain the types of educational information available to high school learners in the Fort Beaufort Education District in the Eastern Cape Province.
2. Establish the level of accessibility to educational information available to high school learners in the Fort Beaufort Education District in the Eastern Cape Province.

Research Questions

In order to achieve the objectives of this study, the following research questions have been raised:

1. What are the types of educational information available to high school learners in the Fort Beaufort Education District in the Eastern Cape Province?
2. To what extent is the available educational information accessible by high school learners in the Fort Beaufort Education District in the Eastern Cape Province?

Access to Educational Information: Theoretical and Empirical Review

Oltmann (2009) observed that the search for a fundamental theoretical explication of access to information could be found in the jurisprudential theories of freedom of speech. The work of Ribot and Peluso (2003) on access is a veritable underpinning theory on which this study finds its root. The jurisprudential theory (by proposing

freedom of speech), puts information as a commodity that must be available freely to the citizens as part of their rights (Ribot and Peluso 2003). Such rights have received worldwide acceptance through conventions and charters of the United Nations, and South Africa is one of the signatories to these conventions. The Bill of Rights in the South African Constitution (South African Constitution 1996) stipulates that “everyone has the right to a basic education including adult basic education and further education, which the state, through reasonable measures must make progressively available and accessible.” This statement implies that education at the basic or higher level is a constitutional right of every South African. The state must, therefore, ensure that the necessary structures are put in place to facilitate learning at the basic education level. In addition, going by the stipulation of the Bill of Rights, the South African government is under obligation to make education accessible to learners at all level of education.

Ribot and Peluso (2003) argue that access is beyond the right to benefit from something; therefore, access may not be guaranteed until there is an ability on the part of the actor. The “rights” embedded and enacted in laws, for example, the South African Bill of Rights, entitles the citizens of South Africa to have access to education, and by extension the resources that make education a reality. Beyond this right is the dimension of “ability” possessed by the learner. The study, leaning on these theories, holds that access to information is a function of availability plus accessibility of the required information coupled with the ability of learners to benefit from the information. This implies that if learners are to have access to educational information, relevant educational information resources must be available in schools and beyond this, be made accessible to the learners. Furthermore, the learners must possess the “ability” to benefit from the educational information provided.

Lor and Britz (2007, 390) observe that: “Information and knowledge-poor societies lack access to essential information needed to address their basic needs and to foster development and economic growth.” The World Summit on the Information Society (WSIS) emphasised the importance of access to information for human development and economic progress (International Federation of Library Associations and Institutions (IFLA, 2003). Following the principle advocated in the Society’s summit, the subject of information access—particularly educational information—should be given priority in library and information science (LIS) research.

In South Africa, like in other developing nations, the quality of education in many black constituents and according to the National Senior Certificate examination results in some provinces, remains very low (Organisation for Economic Co-operation and Development 2013; Department of Basic Education, 2013). The Organisation for Economic Co-operation and Development reported that despite the attainment of near-full enrolment in primary and secondary education, as stipulated by the South Africa School Act of 1996, Section 3(1), the majority of learners (58%) still dropped out of school without obtaining any national certificate, either the National Certificate Vocational (NCV) or National Senior Certificate (NSC) (Organisation for Economic

Co-operation and Development 2013). Prominent among the factors identified in the literature as being responsible for the poor quality of education, is a lack of investment in school infrastructures and learning materials in disadvantaged areas (Paton-Ash and Wilmot 2015; Shandu, Evans, and Mostert 2014).

The level of achievement in the Senior Certificate examination in the Fort Beaufort Education District of Eastern Cape has been worrisome. The technical report of the National Senior Certificate results (2013) revealed that Eastern Cape was the only Province with districts performing below 60% (Department of Basic Education 2014). The report from the Department of Basic Education revealed that in the last three years, Eastern Cape had recorded the lowest pass rate in the NSC examination. Furthermore, the same report indicated that the Fort Beaufort Education District, which is the area of this study, had the lowest NSC examination pass rate in 2013. The results were below the provincial and national average pass rate of 64.9% and 78.2% respectively (Department of Basic Education 2014). Availability and accessibility of educational information by high school learners in the Fort Beaufort Education District are undoubtedly factors to be considered if a positive change is to be expected.

The availability and accessibility of information have engaged the attention of researchers in different parts of the world. Ugah, in a study on the availability and accessibility of information sources and the use of library services, found that information resources were neither available nor accessible to the students; and when these resources were available, they were not accessible to the students (Ugah 2008). Also, the students affirmed that their use of information resources was greatly dependent on the availability and accessibility of information resources.

Owate and Okpa (2013) conducted an assessment of the availability and utilisation of school library resources in some selected secondary schools in Rivers State, Nigeria, and discovered that library resources were not available in most of the schools. Findings revealed that, where a school library existed, the library resources were inadequate. Seven of the eight secondary schools that were studied did not meet the minimum standard requirement for a school library. Also, none of the schools had a post for a school librarian, as the libraries were run by a library clerk or full-time teacher—especially English teachers without any library training background. The study further revealed that students had access to the library only during school hours. This was attributed to the fact that there was no qualified librarian to man the activities of the library. However, teachers and students in the studied schools affirmed that the use of a library enhances learning and the development of reading habits in learners.

Availability and access to information were reported as challenging from a study on the use of academic resources by Ishola and Obadare (2014). Challenges included library users' inability to get relevant materials; a delay in receiving requested materials; spending personal financial resources to buy substitute materials; as well as the inability to access the internet and the low speed of internet services. Furthermore, users' lack of

computer competency; frequent requests to pay for online resources; poor retrieval skills; the irrelevance of retrieved information; a shortage of time to search required information; and the belief that the library resources were obsolete, were all identified as challenges to the use of information resources by the students.

The findings of Adeoye and Popoola (2011) revealed results similar to those of Ishola and Obadare (2014). The researchers reported a high level of availability and accessibility of information resources in the schools studied, and a high level of use of the information resources. Although Adeoye and Popoola (2011) were not particular about students in the study, they could not hide their disappointment at some observations during the course of the research. It was observed that some information resources (in some of the libraries) were kept from the reach of students, while they were made available and accessible to teachers. This was seen as an aberration in library practice, as everyone should be entitled to access all available information resources in the library. Their study also reported that each of the three variables (availability, accessibility and use of library information resources) had a significant positive correlation with the effectiveness of the teaching staff. Invariably, the availability of relevant educational information and proper accessibility of such information by learners would encourage improved performances among learners.

All categories of learners need educational information to achieve their educational goals and aspiration. It is, therefore, essential for learners to be aware of their information needs, to know how to locate information, and to be able to access such information in any format that it is presented. Accessing information in various formats also requires that the learners should have the means of access to both print and electronic-based information (Moyo 2014). Such means may include the school library or media centre, information and communication technology tools, and information literacy skills. Though many agencies are usually involved in developing an information environment for society, the library remains the historical or cultural institution generally recognised as a purveyor of educational information to learners. Adeoye and Popoola (2011), however, reported that some of the nursing school libraries examined were underdeveloped regarding the facilities available in the library and the arrangement of materials within the library (Adeoye and Popoola 2011).

Research Methodology

In exploring the issues related to access to educational information, this quantitative study adopted an *ex-post-facto* epistemological perspective in utilising a survey research design. This methodology has been promoted in the literature (De Leeuw, Hox, and Dillman 2008). Research instruments, including questionnaires for learners and educators, were used in collecting data from the respondents. In order to ensure the validity of the instrument used in this study, the questions were subjected to expert scrutiny, particularly experts in library and information science. In order to ensure reliability of the quantitative instrument, a pilot survey, that involved administering a questionnaire on thirty (30) sampled Grade 12 learners outside the area of study, was

carried out. Also, the questionnaire designed for educators was administered to three subject teachers. Creswell (2008) is of the opinion that researchers should look for high coefficients of 0.60 or above. The Cronbach alpha coefficients obtained for the questionnaire was 0.71.

The multistage sampling procedure was adopted in the selection of the sample for the study. The sampling technique involved division of the population into four clusters. One school was chosen from each cluster. The study population is the Fort Beaufort Education District Grade 12 learners. The estimated population size from the Eastern Cape Department of Education for the Grade 12 learners was 1 905. The sample size was calculated using the “Raosoft” sample size calculator, with an error margin of 5%. A confidence level of 95% and an estimated population of 1 905 Grade 12 learners yielded a minimum representative sample size of 320 learners. The 320 minimum representative sample size was exceeded during data collection in order not to have a shortfall below this minimum value due to response error from the study. As more survey instruments were handed out above the minimum representative sample size, data were collected from 331 Grade 12 learners. A purposive sampling technique was adopted in the selection of 29 educators. Data collected were analysed using the statistical package for social science (SPSS) to answer the research questions.

Presentation of Findings, Analysis and Discussion

The respondents comprised 331 learners and 29 teachers. 158 (48%) of the learners were males and 173 (52%) were females, while the non-learner respondents were 9 (29%) males and 20 (71%) females. Against the background of multilingualism regarding the language of educational instruction in South Africa (Makgato 2014), it is also significant to note that a majority (318, 96.1%) of the learners prefer to access information in the English language, as opposed to their indigenous languages. Data regarding the availability of educational information within the school were collected from the educators, while the learners were requested to indicate the accessibility of the listed educational information within their school.

Availability of Educational Information in Fort Beaufort Education District

Availability of educational information has been used as a measure of the provisions of basic educational information resources, which are meant to satisfy the “rights” dimension of the theory of access. Table 1 below displays the findings of the survey. The table gives the overall mean for the items as well as the decomposed values according to the four schools that were involved in the sample.

As indicated in table 1, the types of educational information listed in the survey instrument were said to be available to the educators. The educators were assumed to know better than the learners. However, it was indicated that information on soft skills and information and communication technologies (ICTs) education was rarely available (mean item scores 3.45 and 3.07 respectively). The undesirable state of the pedagogical

application of ICTs in high schools has been reported in previous studies (Machumu, Rabieli, and Almasi, 2018; Ndlovu and Lawrence 2012; Ojo and Adu, 2018).

Table 1: Availability of educational information as indicated by Educators (N=29)

Educational information available	Overall Mean item score (MIS)	Mean Item score for the schools			
		Schools			
		A	B	C	D
Information on classroom assignments and homework	4.07	4.17	4.00	4.25	3.71
Information on requirements for admission to universities for further studies	3.93	4.00	3.50	4.13	3.71
Guidance/counselling information e.g. career guidance	3.79	4.00	2.00	4.25	3.43
Information on all the subjects taught at school	3.76	4.42	4.00	2.88	3.57
Information on sex education	3.76	3.83	2.50	3.88	3.86
Information on skills and vocational education	3.66	3.83	1.50	4.00	3.57
Information on reading culture	3.52	3.50	2.50	4.00	3.29
Information on developing literacy skills	3.52	3.50	2.00	4.13	3.29
Information on soft skills e.g. leadership skills, communication skills, confidence skills.	3.45	3.58	2.00	4.00	3.00
Information and Communication Technologies education	3.07	3.08	1.50	2.63	4.00
Pooled Average	3.65	3.79	2.55	3.82	3.54

5=Readily available; 4=Available ; 3=Rarely available; 2=Not available; 1= Not available at all

The researcher further requested an indication of the medium through which the different categories of educational information were made available at school. The findings are presented in table 2.

Table 2: Medium of availability of educational information in the schools as indicated by educators (N=29)

Educational Information	Medium of Availability								
	Print		Electronic		Verbal		Others		Total F (%)
	F	%	F	%	F	%	F	%	
Guidance and counselling information: such as choice of career in tertiary institution	15	51.7	2	6.9	18	62.1	-	-	35 (120.7)
Information on all the subjects taught at school	20	69	6	20.7	12	41.4	2	6.9	40 (137.9)
Information on requirements for admission to universities for further studies	19	65.5	5	17.2	10	34.5	1	3.4	35 (120.7)
Information on classroom assignments and homework	20	69	3	10.3	14	48.3	1	3.4	38 (131.0)
Information and communication technology education	12	41.4	4	13.8	11	37.9	4	13.8	31 (106.9)
Information on sex education	16	55.2	2	6.9	17	58.6	2	6.9	37 (127.6)
Information on life skills and vocational education	14	48.3	3	10.3	15	51.7	5	17.2	37 (127.6)
Information on soft skills e.g., leadership skills, communication skills, confidence skills,	14	48.3	17	58.6	1	3.4	-	-	32 (110.3)
Information on reading culture	16	55.2	4	13.8	14	48.3	3	10.3	37 (127.6)
Information on developing literacy skills	15	51.7	4	13.8	15	51.7	2	6.9	36 (124.1)

*(The percentage added up to more than 100 per cent because the educator could choose more than one option)

Table 2 reveals that guidance and counselling information, information on sex education, as well as information on life skills and vocational education, were mainly available to the learners verbally. Additionally, information on all the subjects taught at school; information on requirements for admission to universities for further studies; information on classroom assignments and homework; ICT education and information on reading culture, were mostly available in the print medium, while information on soft skills was available electronically. Information on developing literacy skills was available through print and verbal channels on an equal scale. It was further revealed that electronic channels were not so much utilised, while the verbal and the print media were mostly the format of available educational information. This is consistent with the discovery about the state of ICT education in the schools, as indicated in table 1. Scholars have advocated the need for redress in ICT education in high schools (Ndlovu and Lawrence 2012; Ng 2012).

In line with the theoretical framework of this study, which stated that access is a function of availability, accessibility, and ability, the researcher sought to find out the accessibility of available educational information to learners. The learners were requested to rate their access to the 10 categories of educational information at school. The results are presented in table 3.

Table 3: Types of educational information accessible by learners (N=331)

Educational information accessible	Overall MIS	Mean item score for the schools			
		Schools			
		A	B	C	D
Information on classroom assignments and homework	3.92	4.04	3.90	3.87	3.77
Information on all subject taught at school	3.71	3.73	3.74	3.58	3.82
Information on developing literacy skills	3.64	3.61	3.64	3.49	3.98
Information on life skills and vocational education	3.56	3.82	3.38	3.66	3.30
Information on soft skills e.g., leadership skills, confidence.	3.54	3.54	3.45	3.49	3.89
Information on reading culture	3.51	3.62	3.58	3.44	3.18
Guidance and counselling information e.g., career guidance	3.36	3.77	3.04	3.38	3.30
Information on admission to universities	3.29	3.65	3.18	2.92	3.50
Information and communication technologies (ICTs) education	2.98	3.34	2.54	3.13	3.11
Information on sex education	2.94	3.37	2.97	2.48	2.80
Pooled Average	3.45	3.65	3.34	3.29	3.87

5=Easily Accessible; 4=Accessible; 3=Not Sure; 2=Not Accessible; 1= Not Accessible at all

Judging from the overall mean item score in table 3, the respondents indicated that six out of the 10 categories of educational information listed in the survey were accessible. However, learners were not sure of the accessibility of guidance and counselling information, e.g., career guidance, information on admission to universities, ICTs education, and information on sex education.

Availability is a matter of right. This underscores the need to examine the degree of availability of the educational information that is available to the learners and the ease of access to such information. Weiler (2004) observes that no matter how straight to the point any information is, if accessing it proves difficult, it may reduce its worth to the information users. Access equation becomes balanced on the pivots of availability and accessibility to the desired educational information.

Furthermore, educators claimed that all 10 types of information that were available, are impaired by the learners' unawareness of the availability of such information in their

schools. The ease of access to available information to learners should be accorded the same priority as the provision of the information itself. Weiler (2004) points out that the present generation of learners is more concerned with the ease of access than the accuracy of the information. Naturally, users would prefer easily accessible information to that which requires considerable effort to access. This underscores the need to create awareness of the available information.

Information on soft skills and ICTs education was rarely available in the schools. The use of electronic resources was grossly inadequate in the schools. This reiterates the need for the integration and application of ICT in the education of high school learners, as widely advocated in the literature (Machumu, Rabel, and Almasi, 2018; Ndlovu and Lawrence 2012; Ng 2012; Ojo and Adu, 2018).

The outcome of the study further points to the importance of information-based guidance and counselling in areas of career guidance, admission to universities, and sex education, among others. It has been affirmed that the lack of career guidance and counselling in high schools is a major reason for the difficulties that learners face in their transition from high school to college and other institutions of higher learning (Dabula and Makura 2013; Mochizuki 2011; Oye et al. 2012).

Conclusions and Recommendations

Beyond the heightened efforts in increasing school enrolment in South Africa, there is the need to ensure adequate provision for and access to educational information by learners in schools, if quality education is to be attained. The availability of educational information in high schools impacts the quality outcome of learners' education. While accessibility is complementary to availability, learners' use of educational information is contingent on availability and accessibility. Consequently, it is pivotal to ensure that available educational information is accessible to learners.

Educational information availability and accessibility issues have not been adequately addressed in South African high schools, especially in formerly disadvantaged areas. Despite the Bill of Rights in the South African Constitution (1996), which stipulates that "everyone has the right to a basic education which the State through reasonable measures must make progressively available and accessible," there is a relative lack of access to educational information by high school learners, as revealed in this study.

Based on the findings from the study, the following recommendations are made in line with the conclusions from the research:

- The South African government must ensure learners' access to educational information that can serve as an impetus to quality education and learning.
- It is recommended that the untapped potential of electronic information should be explored in South Africa's less-resourced high schools, as the government

prioritises availability, accessibility and utilisation of electronic media resources in every school.

- Education authorities should admit and ensure access to educational information as a legitimate right of all South African children.
- In order to ensure adequate access to and provision of educational information, the engagement of librarians to facilitate robust collection development and support access to the educational information, is highly essential.

Suggestions for Further Research

As this study focused on just one province, which is designated as economically poor judging by the indices from the South African government, a comparative study on the availability and accessibility of educational information between richer provinces like Gauteng or the Western Cape would be interesting to further understand if this is a provincial limitation or a national challenge.

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