

**Developing Information Skills for Special Needs Learners Through project work**  
by  
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**ABSTRACT**

This paper discusses the information skills required by school librarians for the handling of special learners, otherwise called differently abled learners. These skills include knowledge of sources of information, searching techniques, accessing electronic and other multimedia resources, packaging and repackaging of information, etc. In handling those with visual challenges, the partially blind should be provided with large print and audio books; those with residual blindness should be provided with talking books and magazines, as well as with machines that will make their use possible; those with complete blindness should be provided with Braille facilities and telephone reader programs to listen to media broadcasts. It is the duty of the school librarian to teach the vision impaired pupils/students on how to use these facilities by guiding them and following up with assignments on how to independently use them. For the hearing impaired pupil/student, the school librarian will use assistive devices like listenaiders and telephone relay system, as well as visual display facilities. In developing information skills for the gifted learner, the teacher librarian will teach and demonstrate in such a way that as fast learners, their learning programmes are not boring and uninteresting. The mentally retarded require a lot of patience and time to be adequately catered for. It is a general requirement that in handling differently-abled learners, the school librarian should possess dual abilities in information management and special education.

**Introduction**

It is the fundamental human rights of every child to be offered the opportunity to be educated, whatever his/her status or physical, emotional and cognitive condition. It is probably with this background that former President George W. Bush of the United States of America had a programme titled 'Leave No Child Behind' (Hanninen, 2008). Increasingly, attention is being drawn to the education of children with special needs or differently-abled children who until recently were not given the required attention in our school system. As an integral part of the educational process/system, the school library too has to be concerned with offering services that meet the requirements of special needs learners, including developing in them information skills. This is because it is access to information that brings about education/knowledge, which is what the school system intends that pupils/students should acquire.

**Definition of Key Terms:**

Before proceeding, it is very important to define and briefly discuss certain key terms, which will help our understanding of the paper. The terms include data, information, information skills, special needs learners and project work.

**Data:** Data are facts or observations about physical phenomena or business transactions. In specific terms, data are objective measurements of the attributes or characteristics of entities such as people, places, things, events, etc.

**Information:** Information is data organized in a meaningful and useful state for an end user. Thus, information is said to be that which reduces or eradicates uncertainty, chaos, ignorance, disorder, etc. Information is the opposite of entropy, being that

entropy is equated to disorder or chaos or lack of information. Information brings about knowledge.

**Information Skills:** Information skills are the know-how, abilities, capabilities and knowledge, which the information user, handler, or manager deploys in the course of making information available for his own use or serving his clientele. These skills include knowledge of sources of information; knowledge of searching techniques in terms of the use of catalogues, indexes, bibliographies; knowledge or skills for accessing electronic information, etc. Information skills would also include knowledge of how to access the collections of libraries through the use of catalogues, knowledge of where to locate certain items in the library, knowledge of how to access the contents of literature through the use of indexes, abstracts, bibliographies, etc and even knowledge of how to package and repackage information, e.g. indexing, abstracting, etc.

**Project Work:** Project work is a set of tasks for a group of pupils/students in which for a given period of time, subjects are taught with special reference to some chosen topic(s) and the pupils/students are encouraged to make independent enquiries to supplement formal teaching. The need for project work in any study is very important as it helps the learner to learn independently.

**Special Needs Learners:** Special needs learners, according to New Horizons for Learning (2008), are 'those who are challenged physically, emotionally or cognitively (and) gifted learners, who also have special needs that are not always acknowledged or met.' Adima (1989) and Abba and Aduwo (1985) have variously categorized special needs learners into the following: the blind, deaf, mentally retarded,

gifted physically challenged and the emotionally disturbed.

#### **Developing Information Skills for the Various Categories of Special Needs Learners**

Due to the peculiar nature of special needs learners, it is not possible to develop in them information skills using common approaches. To develop these skills, the teacher librarian has to take into cognizance the peculiar situations of the learners. This position is echoed by the producers of Time Learning Software Package (2008) that every child, whatever the situation, is special with his/her own combination of gifts, skills, needs and difficulties for learning. In developing information skills in special needs learners, however, it is important generally that these learners should know the different sources of information through identifying them physically and working with them to locate needed information, know where to locate information and how to do it practically, etc.

#### **Developing Information Skills for the Blind**

In instructing learners with either partial or residual blindness about how to develop their information skills, the school librarian instructs them about the material and sources that are available for them to use in the library. For those who cannot see very well, materials like large print books and audio books, i.e., books on audio cassettes may be made available. For those with residual blindness, talking books may be made available where they can be afforded. Talking books and magazines are books and magazines that are recorded at a slower speed and require a special cassette player. 'Talking book machines', according to the Braille Institute Library (2008), 'plays cassette recorded at 15/16 ips and the standard speed of 17/18 ips on two and four tracks. Talking books do not work on standard home cassette players'. The Webrary (2008) has listed **Magni-Cams** and **Optelec 20/20** as specialized equipment that can be deployed for use of audio books (apart from large print books and other materials), and the Aladdin Ambassador Pro Reading for talking books. The magni-cam is connected to a television set with the user sliding a hand held scanner over an item resulting in the magnification of the image on the television monitor. The magni-cam can be used for reading books and magazines, labels on food items, medicine bottles, and for looking at photographs, illustrations and other printed matter. Optelec 20/20 magnifies printed material about 4 to 60 times its original size, thus enabling those with partial visual impairments to more easily read and see photos. The Aladdin Ambassador Pro Reading machine converts texts from books, magazines, newspapers and other printed

materials to high quality speech. The machine scans printed material using OCR computer program, and converts the texts into synthesized speech.

The school librarian can also have Braille facilities for the use of his blind learner. There is also the telephone reader program used in the Braille Library (2008). Telephone reader program allows the user to use their touch-tone telephones to listen to media broadcasts. The school librarian will instruct the vision impaired pupils/students on how to use all the above facilities by guiding them and follow up with assignments on how to independently use the facilities. The school librarian will at times have to lead or guide the blind user to the source of information or read out to him or her what he/she intends to access, so that with time this category of users can access the materials or information that he/she requires with minimal assistance.

#### **Developing Information Skills for the Deaf**

For the hearing impaired pupils/students, the school librarian will have to use assistive devices like listenaiders, telephone relay system, as well as visual display facilities. Attending to this category of learners with hearing impairments like any other learner with special needs will require that the school librarian will have to have dual abilities in information management and special education. It will be required, for example, that he/she should know how to use sign language or have an interpreter and that he/she should have knowledge of the visual material to use and how to use them. Through this visual material, he/she will present examples of the different sources of information, such as print and non print sources (including electronic sources); primary, secondary and tertiary sources of information and the types of information to get from them. He/she will also demonstrate to the pupils/students how to locate relevant topics in a book through the use of index and how to use electronic devices like the computer with Internet connectivity to do google or yahoo searches. Having accomplished the above demonstrations and instructions, the teacher librarian will then give the hearing impaired pupils/students tasks on how to accomplish the above independently on their own.

#### **Developing Information Skills for the Gifted Learners**

Gifted learners are pupils/students with exceptional abilities, i.e., an exceptionally high level of general intelligence, as well as exceptionally high achievement in special areas of activity. Gifted learners have high intelligence Quotient (IQ), i.e.,

high mental ability to learn. Forschmiedt (2008) averred that gifted children are a diverse group of kids with exceptional talents but Hanninen (2008) lamented their plight in public schools in the USA because of the failure to give them appropriate attention. The plight of these kids in U.S. schools as lamented by Hanninen is child's play compared with the situation in the Nigerian school system, which is certainly worse.

In developing information skills for the gifted learner, the teacher librarian will teach and demonstrate all that is required in the content and context of this programme, conscious however that these are fast learners on whom he/she will spend less time in order not to make the programme boring and uninteresting. He/she will pay special attention to the following:

- (i) The teacher librarian should develop in the gifted learners creative and critical thinking skills through the use of the Socratic Method, which involves how to ask questions that challenge them. For example, the teacher librarian may require of him/her to bring a source of information that has material or information on Nigeria. The gifted child will most probably go for an encyclopedia, which is a secondary source of information. After listening to the teacher librarian on how to abstract an information material in terms of bringing out novel ideas and points emphasized by the author, ensuring clarity of language and avoidance of repetitions, ambiguities and criticisms, the gifted child can on behalf of his class be requested to abstract or summarize an essay. Through this he and his class have developed one of the skills for repackaging information.
- (ii) The gifted learner should be exposed to online learning opportunities, for example, the use of search engines and other Internet or online services to provide needed information. This child would naturally want to play computer games and use the computer for his other academic activities. The teacher/librarian should therefore provide information-seeking opportunities, which challenge the various types of giftedness. He/she will therefore need to have mastery of Vygotsky's 'zone of proximal development', which according to Hanninen (2008) 'means always keeping the learner on the edge of challenge without reaching the brink of frustration.' This is because if learning is exciting the gifted child or any other child for that matter will continue to learn.
- (iii) The gifted child or learner should have appropriate learning opportunities, for example,

being accorded the opportunity to develop his information skills ahead of his peers. Alternatively, he may be requested to lead the other learners in information seeking tasks, or be involved with children who are his intellectual peers. He can for instance be requested to lead the other students to use the catalogue to retrieve ten needed books from the shelves. It therefore becomes incumbent on teacher librarians to be trained in gifted education/librarianship.

#### **Developing Information Skills for the Mentally Retarded and Others**

The mentally retarded learners are those that are sometimes referred to as idiots, imbeciles or even morons. The idiots are the severe mentally retarded learners. In developing information skills for all categories of mentally retarded learners, the teacher librarian will require a lot more patience and take much longer time, as well as guide them more closely when they are having hands on-experience in terms of locating items in books, using the catalogue to locate books on the shelves or using the computer to access information.

For the emotionally disturbed learner, i.e., learners who have inner tensions, anxiety and exhibit neurotic or psychotic behaviour, the teacher librarian would have to have a lot of patience too and would handle them as carefully as the mentally retarded. In the case of the physically challenged, i.e., those without sensory impairments or challenges such as deafness, blindness, etc the teacher librarian after the verbal instruction may have to accompany them or go personally to retrieve materials for them from the shelves. But in terms of such tasks as retrieving information from books and making a choice among which sources to use, etc, the physically challenged should do these on their own.

#### **Conclusion**

From the foregoing, it is very important for special needs learners to be taught the skills for information, which are important skills for the successful accomplishment of any educational programme. The content of the teaching of information skills should include making the learners to know information services in both print and non-print formats, and in terms of whether they are primary, secondary and tertiary sources so that when they have specific and general information needs they will know the sources to consult. The special needs learners should know about the organization of information resources and be taught how to use the catalogue to identify and locate information resources. Assignments and tasks

should be given individually to these learners on how to make use of information resources, retrieve information, etc from time to time. Depending on their disabilities, the teacher may have to accompany some special needs learners for information search at times.

With available information and communication technology (ICT), special needs learners can be taught the skill of accessing information through constant practice in the use of ICT facilities like computers, etc and access to the Internet. With special computers and other sources of information for the special needs learners, they can learn and utilize their information skills independently. The teacher librarian will naturally devote more time to those learners with disabilities since it takes them longer time to learn. The teacher librarian will also ensure that these learners have hand-on-experience with the skills he/she has developed.

In conclusion, the teacher librarian should:

- Proceed at the pupil/student's own special needs pace.
- Encourage pupils/learners to become active participants in the learning process through exploration and discovery.
- Introduce new learning opportunities in a safe and supportive environment.
- Make learning stress-free.

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