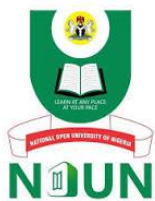


COURSE GUIDE

LIS 322 INFORMATION REPRESENTATION AND PACKAGING

Course Team

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INTRODUCTION

Welcome to LIS 322: Information representation and packaging. This is a 2 credit course that third year students are expected to offer which will last for one semester. This course will expose students in the Department of Library and Information Science to how information is packaged into a form that facilitates effective and efficient retrieval. Essentially, this course will focus on how indexing and abstracting assist in information representation and packaging and how to assist information searchers to maximize the search process and minimize the search time.

COURSE AIMS

The main aim of this course is to equip students with the skills of indexing and abstracting in order to enable them function as effective information organizers and professionals. The course comprises of six modules with nineteen units to assist the students understand the tasks involved in information representation and packaging in a clear manner.

COURSE OBJECTIVES

At this end of this course, it is expected that students should be able to:

- define an index, indexer and indexing
- discuss the purpose of indexes
- describe the various types of indexes
- list and discuss the principles of indexing
- describe indexing language
- evaluate an index
- define an abstract, abstracter and abstracting
- discuss the purpose of abstracting
- list and describe the types of abstracts
- describe the abstracting process
- evaluate an abstract
- describe how to construct a thesaurus

WORKING THROUGH THE COURSE

The completion of this course will require students to participate fully in the theoretical and practical aspects of the course. Students can do this by meticulously going through the different modules and taking time to answer the questions at the end of each module. It is also expected that students will go through the reading lists in order to add value to the content, participate actively in practical exercises and also be present for online facilitation.

Within each unit of study are: introduction, intending learning outcomes, the main content, summary, conclusion and recommended reading lists for further consultations. The courseware can be accessed electronically and downloaded into smart devices of various types for offline access.

ASSESSMENT

Assessment will be carried out through continuous assessment and examination. The continuous assessment will be in form of the Computer-Based Test (CBT) which will be deployed three times for the duration of the course and the mark allocated for this is 10 marks each test is deployed. Thus, the maximum score a student can earn for continuous assessment is 30 marks, while 70 marks will be for the examination. It is expected that students will sit for the three CBT and the final examination.

STUDY UNITS

There are 19 study units in the six modules for this course. The modules and units are as follows:

Module 1 Concept of Indexing

- Unit 1 Definition of index, indexer and indexing
- Unit 2 Purpose of indexes
- Unit 3 Types of indexes

Module 2 Indexing principles, systems, process and search process

- Unit 1 Indexing principles
- Unit 2 Indexing systems
- Unit 3 Indexing process and technique
- Unit 4 Search process
- Unit 5 Use of information and communication technology in indexing

Module 3 Indexing language and evaluation of an index

- Unit 1 Definition and components of indexing language
- Unit 2 Types of indexing languages
- Unit 3 Evaluation of an index

Module 4 Concept of abstracting

- Unit 1 Definition of an abstract, abstracter and abstracting
- Unit 2 Purpose of abstracting
- Unit 3 Types of abstracts

Module 5 Abstracting process and evaluation of an abstract

- Unit 1 Procedure for abstracting a document
- Unit 2 Abstracting of research papers
- Unit 3 Evaluation of abstract
- Unit 4 Skills and ethical guidelines for abstracters

Module 6 Thesaurus construction and evaluation

- Unit 1 Definition of a thesaurus
- Unit 2 Content of a thesaurus
- Unit 3 Steps in thesaurus construction
- Unit 4 Evaluation of a thesaurus

HOW TO GET THE MOST FROM THE COURSE

To be successful in this course, it is imperative for you to have the determination that you have what it takes to be a highly effective indexer and abstracter, this will prepare your mind to get the best from the course. Apart from this, you should be able to go through the list of additional readings after each module to add value to the content. In addition, you must be ready to engage in practical sessions to master the art of information representation and repackaging. It will also be good if you take time to consider the tutor-marked assignments at the end of the modules to ascertain your level of knowledge of the subject content.

SUMMARY

Information representation and packaging is a course that will expose you to the technical task of indexing and abstracting with the aim of empowering you with the knowledge and skills associated with this aspect of organisation of knowledge to assist information searchers access and retrieve needed information without wasting time. It is hoped that at the end of this course, you will have high academic achievement in information representation and packaging.

**MAIN
COURSE**

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MODULE 1 CONCEPT OF INDEXING

This module gives an overview of the concept of indexing with focus on what indexes are, who an indexer is and the explanation of indexing as a process. From this module, the relevance of indexing will be explained and the various types of indexes that are used for different purposes will also be discussed.

Unit 1	Definition of index, indexer and indexing
Unit 2	Purpose of indexes
Unit 3	Types of indexes

UNIT 1 DEFINITION OF INDEX, INDEXER AND INDEXING

CONTENTS

1.0	Introduction
2.0	Objectives
3.0	Main Content
	3.1 Definition of Index
	3.2 Definition of an Indexer
	3.3 Definition of Indexing
4.0	Conclusion
5.0	Summary
6.0	Tutor-Marked assignment
7.0	References/Further Reading

1.0 INTRODUCTION

This unit focuses on the definition of the basic fundamental concepts that should be understood in information representation and packaging. These are the definition of an index, indexer and indexing.

2.0 OBJECTIVES

By the end of this unit, you will be able to:

- define what an index is
- who is an indexer and what are the qualities of a good indexer?
- define indexing

3.0 MAIN CONTENT

3.1 Definition of an Index

Index as a word has its root in Latin and it connotes an individual who indicates, one who informs and discloses (Hjørland, 2018). This reveals the fundamental principles of what an index is meant to achieve. It is expected that an index points to where information can be located in a document with the sole aim of providing information to the searcher. Therefore, an index can be defined as an intellectual guide to the bibliographic content of documents in any format. It consists of arranged lists of entries of major terms, concepts subjects, topics and names, arranged alphabetically or chronologically with the corresponding reference. The reference could be page numbers indicating where the explanation of concepts can be directly located in a document as in the case of books and it could also be bibliographic details of publications where information can be found as in the case of periodicals.

Thus, an index provides a representation of the essential contents of a document through the different terms and entries that focus on the main subject in order to enable information searchers access information without the waste of time. Akinwumi (2013) posited that an index as an organized list of subject entries is very essential in assisting users to locate needed information. This is because, without an index, an individual in need of an explanation of a certain concept in a book for instance might need to open the pages one after the other until he or she can locate the needed information. This process is not only inefficient; it might not also be effective. This reveals that an index is like a form of map that guides readers directly to where the “treasures” are located in documents.

3.2 Definition of an Indexer

An indexer is a professional who has the requisite knowledge and practical skills of indexing. The indexer does the intellectual work of determining what a particular document is about by identifying the subject matter of the document, taking cognizance of the intended users, determining if there could be other possible users of the document, using an authority list if need be and approaching an expert for clearer understanding. Yadav and Yadav (2020) noted that there are full-time indexers who devote their time entirely to indexing and there are others who engage in indexing on a part-time basis. Some indexers are staff of organizations that are into indexing services, while some work in publishing houses and others work as freelance indexers.

To excel at indexing, the indexer needs to possess some important qualities like; intelligence, the ability to read wide, humility, patience,

inquisitiveness, including being analytical and imaginative. The indexer has to be intelligent because indexing is governed by principles and as such the indexer should be able to have the capacity to prepare a good quality index. An indexer who is not intelligent will not be able to deploy the knowledge of indexing in the actual practice. It is also important that an indexer is an avid reader who takes delight in reading about different phenomena thereby displaying versatility. This is because a professional indexer should be able to prepare indexes of different subjects which might be made easier as the indexer might have read about the subject areas before.

Humility is also an important quality that an indexer should possess. An indexer that is humble will recognize his or her limitations and that may move him or her to contact experts for assistance in specific subject domains that are not familiar rather than gamble to the detriment of the users. Furthermore, it is highly essential for an indexer to be patient because the task of indexing requires meticulousness which can be achieved when the professional patiently takes his or her time to identify and record indexable terms and entries. An indexer should also be inquisitive. Even though the principles underlining indexing might not change, the tools used in indexing could be modified by the use of technology. Thus, an indexer who is inquisitive will always want to move with the scheme of things by searching the Internet for applications that can assist him or her in the task of indexing and by asking questions from colleagues.

In addition, it is important for the indexer to be analytical in performing his task. Being analytical will assist the indexer to be methodical in breaking down the bibliographic contents of documents with the view to identify terms and concepts that better represent what the author(s) has in mind and package such in a way that will facilitate access. An indexer that is not analytical will perform his duties haphazardly and may index terms and concepts that are not content-carrying. Also, an indexer must have the ability to put himself or herself in the position of the users of the document and ascertain if the terms and concepts selected actually represent the document and that they also contain the required information. An indexer that is not imaginative can end up indexing terms and concepts that will not be useful to information searchers.

3.3 Definition of Indexing

Indexing is an information retrieval technique used by informational professionals to provide access to the contents of documents. Indexing can be defined as the process by which the content of an information material is critically examined to ascertain what the material is about with the goal of identifying key terms that could assist users to locate the

document easily. With indexing, the users can be easily guided to know what a particular document contains and as such might decide to make use of it or not. Aina (2004) describes indexing as the process for providing a guide to the intellectual content of documents in the library collection. In describing the documents, attributes like author, title, page number and location of the document will be highlighted.

The recording of the attributes of the document does not equate indexing with cataloguing. Indexing seems to be a superior technique of information retrieval when compared with cataloguing. This is because cataloguing describes the bibliographic details of a document highlighting the author, title, subject, place of publication, publishers name, date of publication, number of pages (Arabic and Roman) and the likes. This suggests that a document can be identified and accessed with the use of these elements of description. On the other hand, indexing goes further than just providing the bibliographic details, it x-rays the intellectual contents of a document to identify subject terms which can also provide access to the document. Thus, the access points created by indexing are more than that created by cataloguing. Put simply, indexing is the process of producing an index

Click on this link to watch a short animated video on the definition of an index <https://www.youtube.com/watch?v=9kWlrX80hvk>

Click on this link to watch a video on the definition of indexing <https://www.youtube.com/watch?v=cr3-J5wDLsM>

4.0 CONCLUSION

The definition of the key terms in the discussion of the concept of indexing is relevant as that will provide a fundamental understanding of the subject matter. The index cannot be prepared effectively without the indexer who is a professional that deploys his or her knowledge and skills in the art of indexing that is guided by principles.

5.0 SUMMARY

In this unit, the definition of an index, indexer and indexing has been provided with sufficient information and the qualities expected of a professional indexer were also discussed to enhance understanding.

SELF ASSESSMENT EXERCISE

What is indexing?

6.0 TUTOR-MARKED ASSIGNMENT

1. What do you understand by the term 'index'?
2. Explain who an indexer is and enumerate the qualities expected of an indexer.

7.0 REFERENCES/FURTHER READING

Aina, L.O. (2004). *Library and Information Science text for Africa*. Ibadan: Third World Information Services.

Akinwumi, O.S. (2013). Indexing and abstracting services in libraries: a legal perspective. *International Journal of Academic Library and Information Science*, 1(1): 1-9.
<http://www.academicresearchjournals.org/IJALIS/index.htm>

Hjorland, B. (2018). Indexing: concepts and theory. *Knowledge Organisation*, 45(5): 609-635.

Yadav, B.N.S. & Yadav, G.N.S. (2020). A review on indexing, history, types and indexing agencies. *International Journal of Creative Research Thoughts (IJCRT)*, 8(7): 2251-2255.
<http://www.ijcrt.org>

UNIT 2 PURPOSE OF INDEXES

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main content
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

This unit will focus on the reasons why adequate time and effort are expended in producing a good quality index. An adequate explanation of the purpose of indexing will be provided.

2.0 OBJECTIVE

By the end of this unit, you will be able to:

- List and discuss the reasons why indexing is done.

3.0 MAIN CONTENT

Libraries and information centres do not toil with indexes because of the important purpose they serve in information retrieval. These tools ensure that an information user sees the exact information that is needed and on time. It can be said that indexes ensure that information seekers maximize the search process and minimize the search time. Specifically, Onwuchekwa (2013) and Adetoro (2014) gave an insight into the purposes of an index. These authors noted that indexes serve the following purposes:

1. Indexes assist users to become familiar with a document so as to facilitate use. The subject terms in the index entry would have given the user an idea of what the document covers. For example, a book on Covid-19 Pandemic in Nigeria might have an index that will include terms like; Nigerian Center for Disease Control (NCDC), Presidential Task Force on Covid-19, social distancing, Covid-19 protocols, Covid-19 vaccination, etc. Thus, an information seeker who sees such terms will realise that the book is on Covid-Pandemic in Nigeria and that can assist him or her to decide to use the document or not.

2. Indexes identify and locate potentially relevant information in the document such that those who intend to use the text will not find it difficult to do so. The terms that are indexed are those that have been adjudged to be relevant to the subject matter and those that users might want to locate in the document. In addition to identifying these terms, the index will provide information on where the terms can be found by way of page numbers or bibliographic details of the main source(s).
3. Indexes connect authors with users by ensuring that the intellectual contents are emphasized and appreciated by information seekers. The intellectual efforts than an author puts into writing a book will go down the drain if users do not find the content of the document useful. However, the index analyses the contents of the document or information source and exposes all key concepts and expressions that could be of use to the users. As such, a user that comes in contact with the index might better appreciate what the book covers. For instance, an information user that sees that the index of a book on library and information science contains a term like “Robotics, Libraries” might want to know how robots can be used in libraries and as such, appreciate the document the more.
4. Indexes help reduce the time and energy a user expends in searching for a particular content of interest in a given document or sets of documents in a collection. This is achieved through page reference that is provided in the case of the index attached to a book or the bibliographic details of the document as for the index to periodicals. For example, an index term like “Coronavirus, 14” depicts that information about Coronavirus is located on page 14 of the book. Also, an index term like “Coronavirus, *Pandemics* v14 (5), 12-23” connotes that information about Coronavirus can be found on pages 12-23, volume 14, number 5 of a journal that is titled *Pandemics*. Thus, with this information either for a book or a journal, users can quickly locate how to get the needed information without having to search through the whole book or database. This upholds the 4th law of librarianship by Ranganathan that the time of information users should not be wasted.
5. Indexes also help to increase the use of a document as information seekers will always want to use a document with an index more than one without the index. Just as a beautiful resort with a map that shows its location will witness an influx of people and one without a map might witness a low turnout of holiday seekers due to the difficulty that might be encountered in locating the place.
6. Indexes also give users systematic and effective shortcuts to the information that they need. For example in a book titled “Cataloguing practice in Nigeria”, a term like “Cataloguing” has been indexed and under it, “Descriptive cataloguing” and “Subject cataloguing” were placed. There is a possibility that an individual

that seeks information on cataloguing might also be interested in the types and the index has already provided the types in a systematic order coupled with the page number where they can be found. Thus, such an index entry is not only systematic but also effective.

7. Indexes maximize the searching success of the user of a document as the user will be able to access the information without experiencing frustration associated with searching for information within a document or a collection without success.

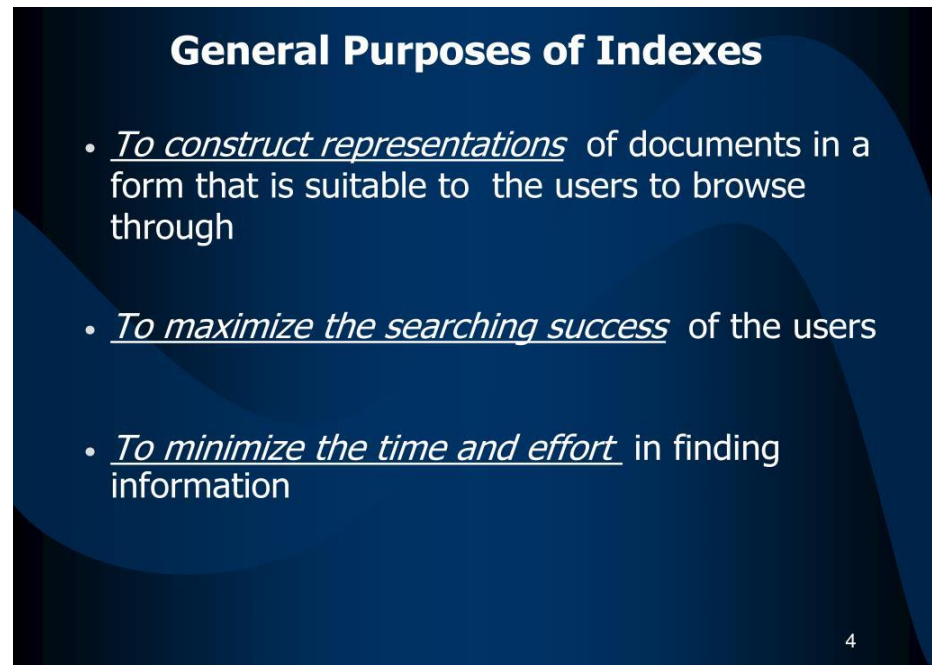


Fig. 1 Purposes and uses of indexes

<http://www.slideserve.com>

4.0 CONCLUSION

It is clear that without indexes, information seekers might find it very difficult to benefit maximally from the intellectual contents of information materials. The role that indexing plays in information systems is indispensable; as a result, library and information science professionals encourage information seekers to make effective use of indexes as they also ensure that indexes to periodicals are provided.

5.0 SUMMARY

In this unit, the various purposes of indexes have been discussed with practical hypothetical examples to aid understanding.

SELF ASSESSMENT EXERCISE

Discuss the reasons why indexing is needed in a library.

6.0 TUTOR-MARKED ASSIGNMENT

Discuss the importance of indexes to information seekers.

7.0 REFERENCES/FURTHER READING

Adetoro, 'N. (2014). *Indexing and abstracting*. Open University.
http://www.researchgate.net/publication/326843476_Indexing_and_Abstracting

Onwuchekwa, E.O. (2013). Indexing and abstracting services. In: Issa, A., Igwe, K.N. and Uzuegbu, C.P. (eds). *Provision of library and information services to users in the era of globalization*. Lagos: Waltodanny Visual Concept.

UNIT 3 TYPES OF INDEXES

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main content
 - 3.1 Types of indexes
 - 3.2 Types of indexes according to medium
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

Indexes are of different types and this also connotes that they are used by different individuals in different circumstances and for different reasons. This lecture will highlight the various types of indexes used for information retrieval by information seekers when the need arises.

2.0 OBJECTIVES

By the end of this unit, you will be able to:

- Identify the various types of indexes
- Explain the different types of indexes

3.0 MAIN CONTENT

3.1 Types of indexes

Indexes are of different types and different criteria are used to classify them in literature. However, for clarity, some of the most prominent types are hereby presented:

1. Alphabetical index: This type of index is perhaps one of the most prominent types of index. In alphabetical index, the entries are listed according to the order of the letters of the alphabet. As such, entries under letter 'A' will be listed before 'D' and also letter 'M' will be listed after 'L'. The entries that can be listed include subject terms, author names, and name of places. This type of index is simple to use and it could be very effective if properly prepared.

A Adams	E Egan	J Jackson	R Reed
Allen	Elkin		Robert
	Enfield	L Lewis	
B Brooks			T Taylor
	F Fisher	M Murray	Thompson
C Cameron	Foster	Myers	
Campbell			W Watson
Clark	H Hall		Wright
Cooper	Harris		
Cox	Hughes		

Fig 2: Alphabetical index

<http://www.stackoverflow.com>

2. Author index: This form of index guides users to the intellectual contents of a document through the name of the author. The names that could be indexed and made access points to the document include names of persons, organizations, corporate authors, government agencies, higher education institutions and the like. In addition, a document can contain an author index whereby all the names mentioned in that material will be brought out and indexed alongside their corresponding page numbers for ease of access. It should be noted that entries under author index are also arranged alphabetically.

INDEX OF AUTHORS.

Addison, Joseph,	130	Coke, Lord,	257
Akenside, Mark,	170	Coleridge, Samuel Taylor,	204
Aldrich, James,	234	Collins, William,	169
Austin, Mrs. Sarah,	242	Colman, George,	192
Bacon, Francis,	249	Congreve, William,	133
Bailey, Philip James,	233	Cotton, Nathaniel,	170
Barbauld, Mrs.,	184	Cowley, Abraham,	100
Barnfield, Richard,	89	Cowper, William,	180
Barrett, Eaton Stannard,	243	Crabbe, George,	187
Basse, William,	241	Crunch, Christopher P.,	242
		Crashaw, Richard,	99

Fig 3: Sample of author index

[Http://www.popjournal.ca](http://www.popjournal.ca)

3. Periodical index: Periodicals are information resources that are published at a known frequency for example daily, weekly, monthly, quarterly, annually and the like. Journals are prominent examples of periodicals because they are expected to be published at a particular fixed interval. Due to the scholarly and recent information contained in journals, adequate time and efforts are expended to index them. There are two types of periodical indexes as represented by journals: individual indexes and broad indexes.

An individual index is one prepared by the publisher and focuses on one particular journal. For example, an index of the Nigerian Journal of Library and Information Science will be prepared by the publishers, Department of Library, Archival and Information Studies, University of Ibadan. This could be done when a particular volume is complete. The index will list the subjects covered by the authors who published within that volume and other essential details that can facilitate the retrieval of information. On the other hand, broad indexes prepare entries for several journals. The features of periodical index are;

- This type of index is cumulative in nature
- Controlled indexing language is used
- A periodical index is detached from the main periodical as it is published separately
- The users have to purchase periodical indexes separately, thus it attracts additional cost
- Periodical indexes lead searchers to the periodicals that contain the needed information, as such; users still have to locate the information inside the periodicals.
- Sufficient time is needed for the publication of periodical indexes as it is not published with the periodical
- Periodical indexing is usually the property of information centres rather than private individuals

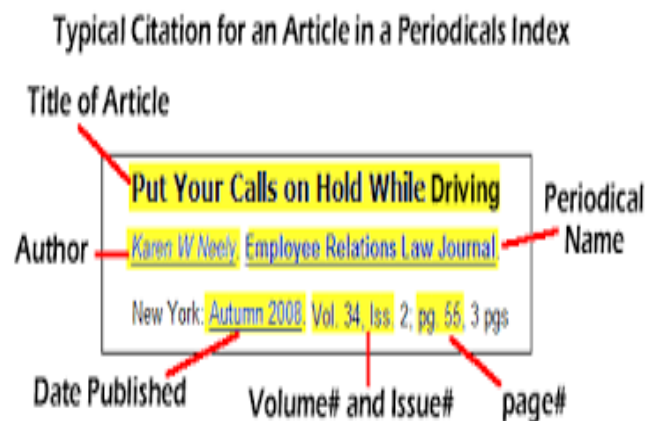


Fig 4: Typical citation for an article in a periodical index
<http://www.iris.everettcc.edu>

4. Cumulative index: This type of index is prepared by a team of indexers because of its complex nature. This form of index is a combination or merging of a set of indexes over a period of time. A cumulative index is a combined index of several indexes reflecting the essence and effect of accumulated data. An example of a cumulative index is an annual index to a monthly report that

combines all the indexes of the months and integrates such systematically and logically as one cumulative yearly index for the report.



Fig 5: Sample of a cumulative index

<http://www.slidetodoc.com>

5. Classified index: This is a type of index in which entries are presented in a hierarchical order rather than alphabetically. In this type of index, subject entries that have affinities with each order are presented to show the relationship existing between them so that users can have a good grasp of the subject of interest. For example:
- Philosophy
 - Metaphysics
 - Metaphysical theories
 - Logic
 - Ethics

In this example, philosophy is broader than metaphysics and all other concepts under it but they all have relationship with each other. So, instead of the concepts to be listed alphabetically and scattered throughout the index, they are listed together to aid users with information search.

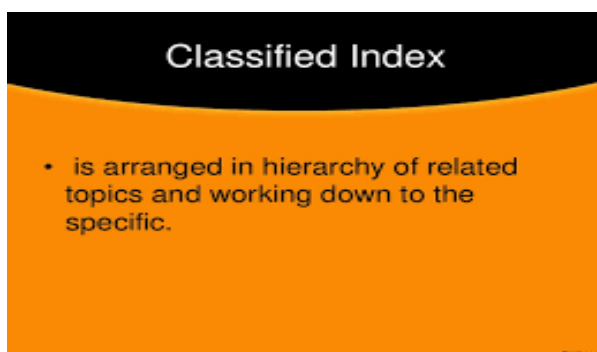


Fig 6: Classified index

<http://www.slideshare.net>

6. Citation index: This type of index consists of a list of articles with a sub-list under each article of subsequently published articles that cite the articles. This implies that for a published article, a citation index will document the bibliographic details and also provides a list of other articles that have cited this article. For example, if a journal article on social media use by undergraduates was published in 2017, a citation index will list this article and other published articles most likely on social media in which the authors have used the 2017 article and have cited it. Citation index can be used to determine the impact of the articles in the world of knowledge and can assist researchers to trace how knowledge is being generated and improved upon. Google Scholar gives a glimpse of what a citation index is like. Examples of citation indexes are Arts and Humanities Citation Index, Science Citation Index and the like.



Fig 7: Science Citation Index

<http://www.libstlawu.edu>

Click on this link to watch a video about citation indexing:

<https://www.youtube.com/watch?v=cEMRLSYiQZ8>

7. Book index: This form of index is perhaps the most popular of the types of indexes. This is also referred to as the back of the book index because it is usually found after the main content of a book. Book indexes provide a list of content carrying words with their corresponding page numbers. Book indexes are published with books and they facilitate effective use of the information material by pinpointing information so that the reader will not have to read or reread the entire book. The indexer uses the language of the author, also called natural indexing language to index the subject terms. The lengths of book indexes vary according to the size of

the book, the technicality of the book, the exhaustiveness of the index and the subject discipline of the book. Hence it could be as short as a page and as long as 20 pages. Book indexes are created after the final proof of the book has been produced. The final proof is given to the indexer who prepares the index, following the page layout of the proof. After the index is ready, the indexer hands the index over to the publisher who integrates it into the soft copy of the manuscript. The index of a book is the last thing that goes into the manuscript before it is printed and bound into a book and it does not attract additional cost to the users.

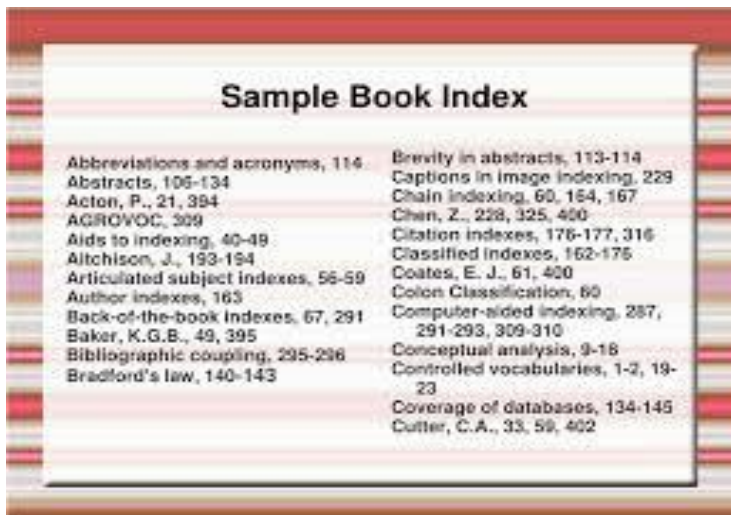


Fig 8: Sample of book index

<http://www.slideserve.com>

8. Newspaper index: This is an index that provides a list of newspaper contents (editorials, special features, columns and the like) with corresponding bibliographic details for ease of retrieval. This type of index is arranged either alphabetically or by subjects. Newspaper indexes can be compiled by the national library.



Fig 9: Sample of a newspaper index

<http://www.reddit.com>

9. First-line index: this refers to an index of poems where by the opening lines are captured and arranged alphabetically with corresponding details to facilitate retrieval. This type of index is mostly used by literary scholars and could assist them to ascertain the originality in poems by making comparisons.

3.2 Types of indexes according to medium

Hjorland (2018) also opined that indexes can also be grouped by virtue of their media. This implies that all the other types of indexes discussed could be in these media formats. These are; printed indexes, card indexes and electronic indexes.

Print indexes: These types of indexes seem to be the most common and popular. Printed indexes appear on paper and they dominated the scene before the advent of Information and Communication Technology (ICT). Even at present, indexes continue to appear in paper because this medium is still heavily relied upon by authors and publishers to communicate information. For instance, book and periodical indexes are still available in print format.

Card indexes: These are organised collections of information documented on a standard card, mostly, 3 by 5 cm card, with alphabetical arrangement. An example of the card index is the catalogue card that is used in a library that uses the card catalogue. It is expected that on each card, the bibliographic details of an information material is documented where such material is located in the library for ease of access. That is why the catalogue is described as an index to the holdings of a library. With this medium, for example, key concepts in a newspaper with information on where they can be retrieved can be written on cards and arranged and filed alphabetically. This form of index is not as popular as the printed index and as libraries jettison the traditional catalogue for the electronic version, the card catalogue will not enjoy much patronage any longer.



Fig 10: Card index

<http://www.tekportal.net>

Electronic indexes: these are indexes that appear in digital format which enables concepts and subject terms of documents to be retrieved via keyword search. This is the most modern format of index that allows information to be accessed anywhere once there is Internet connectivity, access to the database and the searcher has the requisite information retrieval skills. This form of index is at times referred to as electronic databases because of the level of organization and integration of electronic files. Examples of these indexes are EBSCOhost and ProQuest. These databases contain full text articles to thousands of journals in different subject areas with huge number of articles which can be accessed with the use of keywords.



Fig 11: EBSCO HOST
<http://www.sites.kowsarpub.com>

4.0 CONCLUSION

Different types of indexes ensure that information from authors are well represented and packaged. However, the back of book index seems to be the most prominent type of index. The index remains an effective information retrieval tool even in this age of ICT as modern search engines deploy the principles of indexing in ensuring that information searchers access the needed information on time.

5.0 SUMMARY

This lecture has examined the various types of indexes that assist in the retrieval of information from documents and information systems. The types of indexes explained include the alphabetical index, author index, cumulative index, citation index and the like, while the types of indexes according to formats were also described.

SELF ASSESSMENT EXERCISE

List and discuss the various types of indexes.

6.0 TUTOR-MARKED ASSIGNMENT

Describe the types of indexes according to medium.

7.0 REFERENCES/FURTHER READINGS

Aina, L.O. (2004). *Library and Information Science text for Africa*. Ibadan: Third World Information Services.

[Hjorland, B. \(2018\). Indexing: concepts and theory. *Knowledge Organisation*, 45\(5\): 609-635.](#)

Onwuchekwa, E.O. (2013). Indexing and abstracting services. In: Issa, A., Igwe, K.N. and Uzuegbu, C.P. (eds). *Provision of library and information services to users in the era of globalization*. Lagos: Waltodanny Visual Concept.

MODULE 2 INDEXING PRINCIPLES, SYSTEMS, PROCESS AND SEARCH PROCESS

This module will expose you to how indexing is done practically and professionally. The module has five units which focus on the principles that govern the process of indexing, indexing systems, how indexing is done and how the information users are expected to search in order to access the needed information. The application of information and communication technology to indexing will also be discussed.

Unit 1	Indexing principles
Unit 2	Indexing systems
Unit 3	Indexing process and technique
Unit 4	Search process
Unit 5	Use of information and communication technology in indexing

UNIT 1 INDEXING PRINCIPLES

CONTENTS

1.0	Introduction
2.0	Objectives
3.0	Main Content
	3.1 General Principles of Indexing
	3.2 Practical Principles of Indexing
4.0	Conclusion
5.0	Summary
6.0	Tutor-Marked assignment
7.0	References/Further Reading

1.0 INTRODUCTION

The process of indexing is guided by principles that ensure that indexers lead searchers to the essential contents in a document or a collection. Without the principles, standardisation and uniformity in the practice of indexing will not be achieved and this could create a chaotic information retrieval environment. If indexers adhere to the principles of indexing, those searching for information will be assisted to access the needed information on time.

2.0 OBJECTIVES

By the end of this unit, you will be able to:

- discuss the general principles of indexing
- List and describe the practical principles of indexing

3.0 MAIN CONTENT

3.1 General Principles of Indexing

The indexer needs to abide by some general principles in order to produce an effective and efficient index. The principles are sometimes referred to as the 5Cs. They are:

1. **Correctness:** this principle emphasises the need for the indexer to be meticulous in the spelling and presentation of subject terms. If this principle is violated, there is the likelihood that the index will be misleading and the searchers will find it difficult to retrieve the needed information. This indicates that the terms in the document should be the same as the representation in the index.
2. **Convention:** this principle highlights that the indexer needs to stick with the acceptable practical guidelines for indexing to guarantee consistency and uniformity. This implies that as much as possible, the indexer needs to follow the rules of indexing.
3. **Completeness:** this principle supports the need to include all the details that will assist the searcher to access the information content of a document. For a book, the index should include the page numbers and for an article in a journal, the index should provide details like, the name of the journal, author(s) name, title of the article, volume, number and number of pages.
4. **Clarity:** this principle emphasizes the need for the index to be easy to use and not complicated. The subject headings and index terms must be specific and concise. This will ensure that searchers can easily recall whatever information they need from the document or the collection.
5. **Consideration:** it is important for the indexer to be considerate in the choice of words used to represent the content of the work. The indexer needs to put himself or herself in the position of the searcher so as to ensure that the searcher is properly guided to the essential contents of the work. Thus, ambiguity in whatever form should be avoided and terms that are familiar to the searcher should be used.

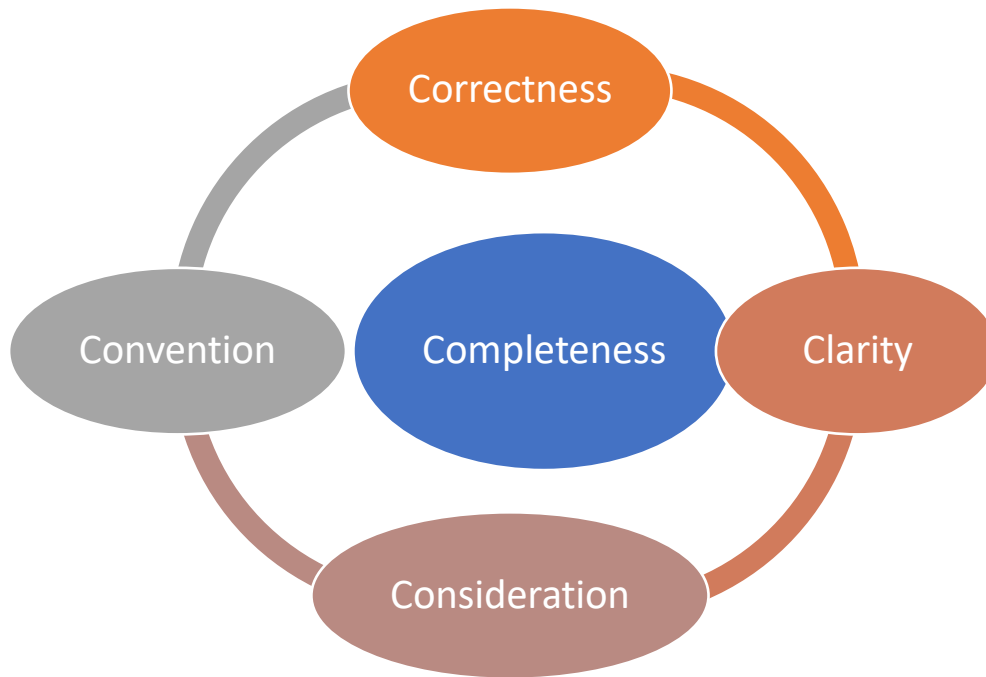


Fig 12: General principles of indexing

3.2 Practical Principles of Indexing

The notable practical principles governing the process of indexing are:

1. **Ensure that everything useful in the source material is indexed.** This implies that the indexer must put himself or herself in the position of the searchers by indexing the subject terms in the source material that will be useful to the searchers.
2. **Entries should be in one alphabetical sequence.** As such, index entries should be arranged alphabetically for ease of access.
3. **Select popular headings, with references from their equivalents, except where specialist audience is addressed.** For instance, in the Nigerian environment, petrol is the popular term used instead of gasoline or premium motor spirit (PMS). Thus, it will be most ideal to select petrol rather than gasoline or PMS in a document on crude oil. However, if the targeted audience is made up of specialists in the crude oil industry, PMS could be used instead of petrol.
4. **There is a need for consistency in spellings; as such standard dictionary should be used.** The indexer needs to stick to a spelling pattern so as not to mislead the searcher. For instance, it is advisable to use American or British spellings all through rather than a mixture of the two in an index entry.
5. **Choose the most specific headings which describe the items indexed.** For example a document that discusses the benefits associated with the use of Facebook, Twitter, WhatsApp, YouTube etc. should have social media as the heading rather than social communication.

6. **Be consistent in the use of singular or plural terms.** This implies that the indexer has to make a decision for the sake of consistency. For example, it is either the index list contains; apples, cars, dogs, planes or it should be; apple, car, dog, plane. A situation whereby the index list will include singular and plural terms is not ideal. For example; apples, cars, dogs, planes.
7. **Invert headings when necessary to bring significant words to the fore.** For instance, words like ‘the Vatican’ should be indexed as ‘Vatican, the’. In this example, the significant word is Vatican and not the definite article ‘the’.
8. **Where words of the same spelling represent different meanings, include identifying phrase in bracket.** For example:
Project (plan)
Project (image cast)
Project (task)
9. **Spell the names of people as they appear on the page.**
10. **Use Capital letters for all proper names.** For example, a name of a person or a place should begin with an initial capital.
11. **Index entries with figures/symbols ahead of words.** For example:
1960
1998
2020
Corona virus
Isolation
Quarantine
12. **The page number should immediately follow the indexed term for ease of reference.** For example:
Corona virus, 28
Isolation, 41
Quarantine, 10, 15, 19
13. **Avoid the use of bold type word.** For example, ‘isolation’ should not be indexed as **isolation**.
14. **All abbreviations should be spelt out.** For instance:
UNICEF (United Nations Children’s Fund)
WHO (World Health Organization)
15. **Show the relationship between terms to assist searchers in retrieving information.** For example:
Cataloguing, see classification
Conservation, see preservation
Indexing, see abstracting
Virtual libraries, see libraries, digital
16. **Ensure that the page numbers placed in front of the subject terms are correct**

17. **Capitalize the first letter of a term while other letters will be in lowercase.** For example, Computer and not COMPUTER or ComPuter

4.0 CONCLUSION

In as much as the unit has exposed you to the general and practical principles of indexing, you need to know that the practical principles highlighted are not exhaustive. There are quite a number of practical principles of indexing that are documented in the literature. It is expected that indexers abide by these principles of indexing so that information searchers will have access to needed information.

5.0 SUMMARY

This unit has discussed the general and some of the practical principles governing indexing of information materials. This has shown that indexing is not a task that can be carried out without proper training; rather, it is one with procedures. The various principles ensure that searchers can access the needed information within the shortest possible time.

SELF ASSESSMENT EXERCISE

Explain the general principles of indexing.

6.0 TUTOR-MARKED ASSIGNMENT

Describe the practical principles of indexing that you are familiar with.

7.0 REFERENCES/FURTHER READING

- Adetoro, 'N. (2014). *Indexing and abstracting*. Open University.
http://www.researchgate.net/publication/326843476_Indexing_and_Abstracting
- Aina, L.O. (2004). *Library and Information Science text for Africa*. Ibadan: Third World Information Services
- Akinwumi, O.S. (2013). Indexing and abstracting services in libraries: a legal perspective. *International Journal of Academic Library and Information Science*, 1(1), 1-9.
<http://www.academicresearchjournals.org/IJALIS/index.htm>
- Cleveland, D.B. & Cleaveland, A.D. (2001). *Introduction to indexing and abstracting*. Littleton: Libraries Unlimited.

UNIT 2 INDEXING SYSTEMS

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Pre-coordinate indexing system
 - 3.2 post-coordinate indexing system
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

Different indexing organizations use different indexing systems based on their in-house style. This unit will discuss the two main types of indexing systems which are the pre-coordinate and post-coordinate indexing systems.

2.0 OBJECTIVES

By the end of this unit, you will be able to:

- discuss the main types of indexing systems
- present a comparison between pre-coordinate and post-coordinate indexing systems

3.0 MAIN CONTENT

3.1 Pre-coordinate indexing system

This is an indexing system whereby subject terms that should be indexed are identified and a lead term is selected and all other related terms are coordinated under it. The pre-coordination is done by the indexer at the point of arranging the index. Adetoro (2014) noted that pre-coordinate indexing is used in classified catalogues and subject heading lists like the Library of Congress Subject Headings. For example in the subject heading lists, the different facets of a subject are presented with a lead term used as a subject heading, while the other terms are coordinated under it with their affinity denotations. For example:

Cataloguing

UF Bibliographic description
BT Organization of knowledge
RT Classification
NT Descriptive cataloguing
SA Indexing

In this example, cataloguing is the lead term, while the other related terms are under it. From the example, UF stands for Used For, BT stands Broader Term, RT denotes Related Term, NT means Narrower Term and SA refers to See Also. These terms show the relationship between the lead term and the coordinated terms. Pre-coordinate indexing system can also be used for the back of book index with less affinity terms. For example:

Classification

Benefits, 45-47
 Definition, 44
 Principles, 48-49
 Process, 49-50

In this example, classification is the lead term and all the indexable terms under the broad topic of classification were coordinated under the lead term alphabetically with their corresponding page reference. This pre-coordination will assist the users to quickly access terms that are related to the lead term without searching all over the index for them.

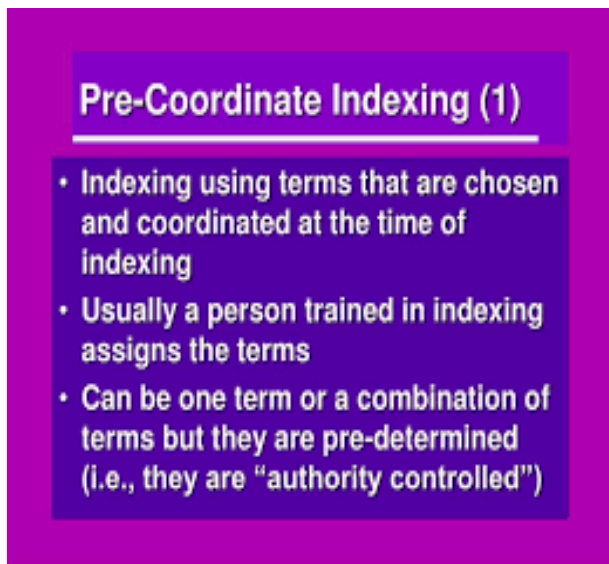


Fig 13: Pre-coordinate indexing

<http://www.slideserve.com>

Pre-coordinate indexing system is an indexing system where the coordination of search terms are carried out by indexers during the compilation of an index. What this means is that the order of search terms

for a multi-concept topic is decided by the indexer before the searcher sets out to seek and retrieve information. A good example of pre-coordinated terms is seen in subject headings, where the order of terms are fixed, lead terms are chosen and users must use them as they appear.

Baltimore (Md.)
 — History
 —— Revolution, 1775-1783
 —— War of 1812
 —— Civil War, 1861-1865
 —— Religious aspects
 —— Episcopal Church
 — Politics and government

Looking at the excerpt from Library of Congress Subject Heading Lists, the string of terms are already coordinated before any search can take place. A search for a document on the religious aspect of the civil war which took place in Baltimore between 1861-1865 would have to follow the pre-coordinated order which is:

Baltimore (Md.) – History – Civil War, 1861-1865 – Religious aspects
 Pre-coordinate indexing works well with library catalogues and other types of indexing requiring the use of control vocabulary tools.

3.2 Post-coordinate indexing system

In this type of indexing system, no lead term is selected. All the terms are indexed independently with reference to how to locate the information. Aina (2004) explained that in post-coordinate indexing, multi-concepts are broken down into single concepts and it is the users that would have to coordinate them if need be at the point of searching.

- 
- Post -Coordinate Indexing**
- Post coordinated indexing is the opposite of precoordinated indexing
 - The searcher controls how terms are combined for a search and the set of document retrieved
 - This will general increase recall but usually decrease precision
 - Allows searchers the freedom to freely combine many terms that are relevant to the search

Fig 14: Post-coordination indexing
<http://www.slideshare.net>

Post-coordinate indexing system is an indexing system where the coordination of search terms are carried out by the searcher at the time of searching. What this means is that, in the process of retrieving information, the order of search terms for a multi-concept topic is decided by the searcher at the point of searching. There is no pre-decided lead term or string order for searching. Using the earlier example, the search for information on the religious aspect of the civil war which took place in Baltimore between 1861-1865 would not follow any predetermined order. The searcher in a post coordinate system is free to combine the search terms as deemed fit. The searcher can simply search for Baltimore, History of Baltimore, Religious aspects of Baltimore civil war between 1861 – 1865, etc. Post coordinate indexing is often associated with online retrieval where users are free to use index terms as they deem fit for information retrieval.

Comparison between pre-coordinate and post-coordinate indexing systems

1. Pre-coordinate indexing system is time consuming and more tasking than post-coordinate indexing. This is because in pre-coordinate indexing, after the terms that will be indexed have been selected, the indexer has to carefully select lead terms and also coordinate the related terms under it. This is unlike the post-coordinate indexing system whereby once the terms have been selected; there is no need for any intellectual rigour of coordinating the terms.
2. The arrangement of the entries in the post-coordinate indexing system is usually alphabetical, while in pre-coordinate indexing; the entries are arranged based on the relationship between the subjects.
3. The pre-coordinate system is usually used for massive collection, while the post-coordinate method is based used for small collection,
4. It is much faster to retrieve information from an index that is pre-coordinated rather than one that is post-coordinate in nature. This is because, subject terms that might be of interest are not scattered all over the index as they have been arranged to facilitate fast access to the information content. For the post-coordinate system, the searcher has to locate terms that might even be related but are not coordinated together. That would take longer time.
5. The coordination in the post-coordinate indexing system is done by the searcher at the point of access, while in the pre-coordinate system, the indexer does the coordination.

4.0 CONCLUSION

The system of indexing could have implications for the retrieval of information by the searcher. If the system of indexing is too complicated, users would turn to other tools that can assist them to retrieve information. Thus, the indexing system used apart from the house-style of the indexing company should also consider the skills of the searcher.

5.0 SUMMARY

This unit has explained the two main types of indexing systems which are the pre-coordinate and post-coordinate indexing systems. The comparison between the two systems was also considered.

SELF ASSESSMENT EXERCISE

Present a comparison between the two indexing systems.

6.0 TUTOR-MARKED ASSIGNMENT

Discuss the main types of indexing systems.

7.0 REFERENCES/FURTHER READING

Adetoro, 'N. (2014). *Indexing and abstracting*. Open University.
http://www.researchgate.net/publication/326843476_Indexing_and_Abstracting

Aina, L.O. (2004). *Library and Information Science text for Africa*. Ibadan: Third World Information Services

Cleveland, D. B. & Cleaveland, A.D. (2001). *Introduction to indexing and abstracting*. Littleton: Libraries Unlimited.

UNIT 3 INDEXING PROCESS AND TECHNIQUE

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Definition of indexing process and familiarization stage
 - 3.2 Analysis stage
 - 3.3 Translation stage
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

Before an index can be produced, the indexer goes through a process to ensure that the terms selected are useful to the searchers. The searchers also go through a process to retrieve the needed information from the index. This lecture will explain the indexing process.

2.0 OBJECTIVES

By the end of the unit, you will be able to:

- describe the indexing process
- explain the techniques of indexing

3.0 MAIN CONTENT

3.1 Definition of indexing process and familiarization stage

The indexing process can be defined as the steps taken by the indexer to ensure that an index that is both effective and functional is created. This implies that a proper index cannot be created if the appropriate steps and actions are not taken and followed by the indexer. Thus, indexing process gives birth to an orderly and organized list of subject descriptors that will ensure that searchers can have quick access to the intellectual content of the document. Indexing techniques are embedded in the indexing process. Aina (2004) opined that the techniques of indexing are in three stages and they are;

1. Familiarisation stage
2. Analysis stage
3. Translation stage

Familiarization stage: This is the first task that should be done when indexing a document. At this stage, the indexer goes through the document in order to have a general feel of what the document is about. The goal here is to have an overall picture of the intellectual content of the document so as picture the terms that can be indexed for the benefit of the searchers. The indexer familiarizes himself or herself with the document by going through the relevant parts like the title, preface, foreword, introduction, table of contents and chapter headings. This will no doubt give the indexer an idea of what the document is about. This task requires patience and diligence on the part of the indexer in order to decipher the subject and intellectual content of the document in a general way. Thus, the goal of the indexer at this stage is to get acquainted with the document.

3.2 Analysis stage

This is a critical stage of indexing whereby the indexer goes through the main document and identifies the indexable, content-carrying words that could be beneficial to the searchers. This is the stage whereby the indexer deploys his or her intellectual abilities and knowledge to separate words used in passing from words with sufficient content that will give needed information to the users. In a manual process, the indexer uses pencil to identify the words and list them out with their corresponding page numbers. After that, the words can be sorted alphabetically and their page reference assigned. However, with the use of the computer, the words can be selected by the indexer and the computer will do the sorting and the creation of the index. It is important to note that if the indexing does not require the use of an authorized list of subject terms, the indexing process stops at this stage. However, if the indexable terms are to be selected from an authority list, the indexer must pass through the last stage, which is translation.

3.3 Translation stage

This is the stage whereby the selected terms identified by the indexer are subjected to controlled vocabularies like subject heading lists, subject dictionaries and thesauri, before they can be included in the index. This implies that after the indexer has used his or her knowledge and skills to select terms and concepts from the document, he or she will have to confirm from the controlled vocabularies if those terms are generally accepted and represents the essential content in the subject domain. For instance, if twenty five terms were selected in a document as content-carrying and the indexer has to use a controlled vocabulary for the indexing, the subject descriptors for some of the terms selected may change as a result of the instruction in the controlled vocabulary. For example, if the term “Library science” has been indexed and after going

through the Dictionary of Library Science, the acceptable subject term is “Librarianship”, the indexer will have convert into the language of the authority list and as such will index “Librarianship” instead of “Library science”. So, the terms are translated from the language of the author into that of the controlled vocabularies for standardisation purposes.

Note: It would be appropriate to note that in some cases only the first two stages are necessary. E.g., in the indexing of the back of a book where the natural language of the document has to be used eliminating the need for translation which occurs as a result of marching index terms with approved terms in a control vocabulary tool.

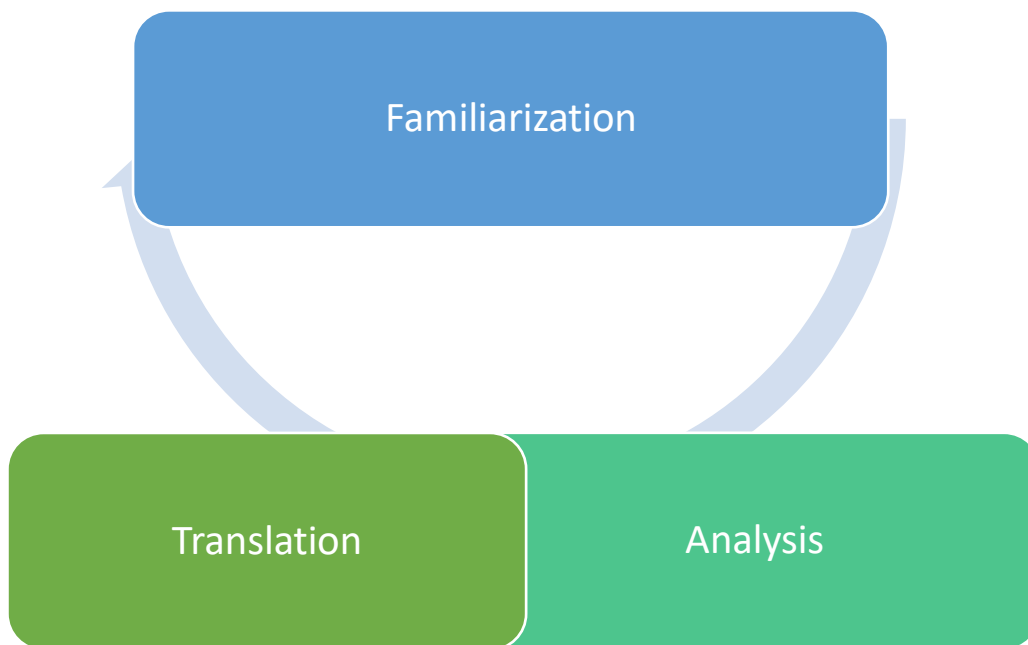


Fig 15: Stages in indexing

4.0 CONCLUSION

An indexer that wants to produce a good quality index will ensure that the stages involved in the indexing process are followed in line with the type of material being indexed and the prospective users. The stages ensure that due process is followed and that the index that will finally be produced will be effective to information searchers and users.

5.0 SUMMARY

This unit has emphasised the fact that indexing must be done according to a process which must be meticulously carried out. The indexing process was defined and the stages involved in the indexing process were also discussed.

SELF ASSESSMENT EXERCISE

If you are asked to index a document, how would you go about the task?

6.0 TUTOR-MARKED ASSIGNMENT

Describe the indexing process.

7.0 REFERENCES/FURTHER READING

Adetoro, 'N. (2014). *Indexing and abstracting*. Open University.
http://www.researchgate.net/publication/326843476_Indexing_and_Abstracting

Aina, L.O. (2004). *Library and Information Science text for Africa*. Ibadan: Third World Information Services.

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UNIT 4 SEARCH PROCESS

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

In the previous unit, you were exposed to the process and technique of indexing. This unit will focus on how information searchers are expected to make good use of the product of that process and technique, which is the index that has been produced. This process is called the search process.

2.0 OBJECTIVE

By the end of this unit, you will be able to:

- describe the search process

3.0 MAIN CONTENT

The search process refers to the series of steps that an information user takes in accessing information from the index. It is expected that if the search process is followed and the document has been indexed in the right manner, the users should not have difficulty in locating the needed terms and concepts. The stages involved in the search process are the same stages that an indexer follows in indexing information materials. These are:

1. Familiarization stage
2. Analysis stage
3. Translation stage

These stages will now be explained from the perspective of the information searcher.

1. **Familiarization stage:** This is the stage whereby the information searcher is expected to be acquainted with the subject domain. This will assist the searcher to have an understanding of the terms and concepts that he or she might come across in the body of the work or an information system. For example, an information user that

needs information on Covid-19 vaccination in Nigeria in a book of 607 pages is expected to use the index of that book for fast access to the needed information. Before this can be done, such a user needs to understand the subject of Covid-19 and all the registers associated with it like; social distancing, compulsory hand washing, use of nose masks, vaccination and the likes. With this information, such an individual would be able to understand the terms that are indexed and also will be able to determine that which is needed.

2. **Analysis stage:** As soon as the information searcher becomes familiar with the subject area, it is expected that he or she analyses the content to locate the terms and concepts that describe the needed information. Thus, the analysis stage is the link between the familiarization stage and when the needed information has been accessed. Aina (2004) noted that the analysis stage refers to the situation whereby the information searcher has correctly located the words or terms that relate to the topic of interest. In a situation that does not require the use of an authority lists, the search process ends here and the user is expected to have access to the information content of choice.
3. **Translation stage:** In a situation whereby an authority list was used to prepare the index, it is important for the searcher to also make use of the authority list to ascertain the acceptable and documented rendering of the selected term or concept before the content can be accessed. For example, if an information user needs information on cataloguing from a textbook on the organisation of knowledge prepared with an authority list, it is expected that he or she will consult the authority list to ascertain the subject heading or index term used. If the authority list uses bibliographic description instead of cataloguing, then the user has to translate his or her idea to that of the authority list.

4.0 CONCLUSION

The task of indexing is not complete until the users are able to use the index to retrieve needed information. This positive resultant effect of indexing cannot be realized without the search process. Thus, the search process is as important as the indexing process.

5.0 SUMMARY

This unit has explained the search process which also involves the three stages of familiarization, analysis and translation. It is expected that an information user has to pass through these stages for effective search result from the index.

SELF ASSESSMENT EXERCISE

Discuss the stages involved in the search process.

6.0 TUTOR-MARKED ASSIGNMENT

Explain how the search process is different from the indexing process.

7.0 REFERENCES/FURTHER READING

Adetoro, 'N. (2014). *Indexing and abstracting*. Open University.
http://www.researchgate.net/publication/326843476_Indexing_and_Abstracting

Aina, L.O. (2004). *Library and Information Science text for Africa*.
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Onwuchekwa, E.O. (2013). Indexing and abstracting services. In: Issa, A., Igwe, K.N. and Uzuegbu, C.P. (eds). *Provision of library and information services to users in the era of globalization*. Lagos: Waltodanny Visual Concept.

UNIT 5 USE OF INFORMATION AND COMMUNICATION TECHNOLOGY IN INDEXING

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

In Unit 2 of this module, the process of creating an index without the aid of technology was discussed. However, Information and Communication Technology (ICT) has changed the way activities of man are carried out in terms of effectiveness and efficiency and the field of indexing has also benefitted from this. This unit will discuss the application of information and communication technology to indexing.

2.0 OBJECTIVES

By the end of this unit, you will be able to:

- define ICT
- describe how a word processor can be used to index a document
- discuss other ICT applications to indexing

3.0 MAIN CONTENT

Information and Communication Technology (ICT) can be defined as the tools and techniques that facilitate communication, creation, dissemination, storage, and management of information (Agboola and Shaibu, 2019). ICT can also be viewed as the use of computers and other relevant devices in facilitating the activities contained in the information life cycle which are; acquisition, selection, processing, storage, retrieval, preservation, dissemination and use of information. Examples of ICT tools and devices are; computers, the Internet (web pages and social media), digital cameras, scanners, photocopiers, smart devices (mobile phones and other related gadgets), projectors and the like. Some of these ICT tools have found their application within the domain of indexing.



Fig 16: ICT

<http://www.shutterstock.com>

Terms like automatic indexing and computer-assisted indexing have emerged attesting to the application of ICT to the indexing of documents. The terms denote that indexing could become more effective and efficient if ICT tools are used. The prominent ICT tools that have been deployed to indexing are the computer and software packages. Technology has made it possible for indexing to be done with the aid of computers. However, it must be clearly stated that the involvement of humans cannot be completely eradicated. This is because humans will still have to operate the computer, provide instructions and give orders. One of the ways in which ICT has been applied to the field of indexing is through word processor.

A word processor is a computer application that assists with the creation of documents in several formats and with different styles. A prominent word processor is the several versions of Microsoft Word. This word processor has a facility that can be used to index a document. The following are the step by step procedure of indexing a document with the use of Microsoft Word.

1. Open the document to be indexed in Microsoft Word
2. Highlight a word that is to be indexed
3. Click on the references tab of the Microsoft Word and click on Mark Entry

4. Once the dialog box appears, click on Mark (this will add a particular icon to the main document signifying that it is undergoing the process of indexing)
5. Continue to mark all the terms to be included in the index by highlighting them and clicking on Mark Entry
6. In case you want to pre-coordinate the terms (indented) by selecting a lead term with other terms under it, copy the term, click on Mark Entry, immediately the dialog box appears, paste that term into the Sub entry space. This will make that term a subordinate of a main term. Click on main entry to add the lead term and also click on Mark to complete the process.
7. Once you have marked all the terms that you want to be included in the index, move to the last page of the document, and press enter to get to a blank page and type "Index" as the heading.
8. Click on the reference tab at the top of the Microsoft Word screen and click on "Insert Index"
9. Once Insert Index is clicked, a dialog box will appear with different styles with which the entries can appear (one column or two columns, indented or run-in etc.)
10. Once the decision as to the style of choice is selected, click "ok" and the index entries will appear (The alphabetical listing of the terms selected and their corresponding page numbers).
11. In case you want to add new terms to the index list, select the new term, click on References in Microsoft Word and mark the term.
12. Highlight the already generated index list and right click, then click on the option that states "update field", once that is clicked, the new word is automatically added to the index list.



Fig 17: Microsoft word
<http://www.nollytech.com>

Click on this link to watch a video that explains with an example how to use Microsoft Word to index a document

<https://www.youtube.com/watch?v=h0dyq8KgWz0&t=413s>

Apart from the application of a word processor, ICT has also been deployed in the field of indexing through the development and use of indexing software. The software can be subject based or general. When it is subject-based, the controlled vocabulary of a particular subject would have already been preloaded on the software, once a document to be indexed is uploaded, the software scans through to identify the index terms that are recognized based on the content of the controlled vocabulary. As for general software, the procedure applies unless that it is meant for a particular subject. The justification for the inclusion of a term in the index that will be generated by the software is determined by some parameters underlining the creation of the database some of which are mathematical in nature. Examples of indexing software are:

1. CINDEKX
2. SKY Index
3. Macrex
4. Index Manager

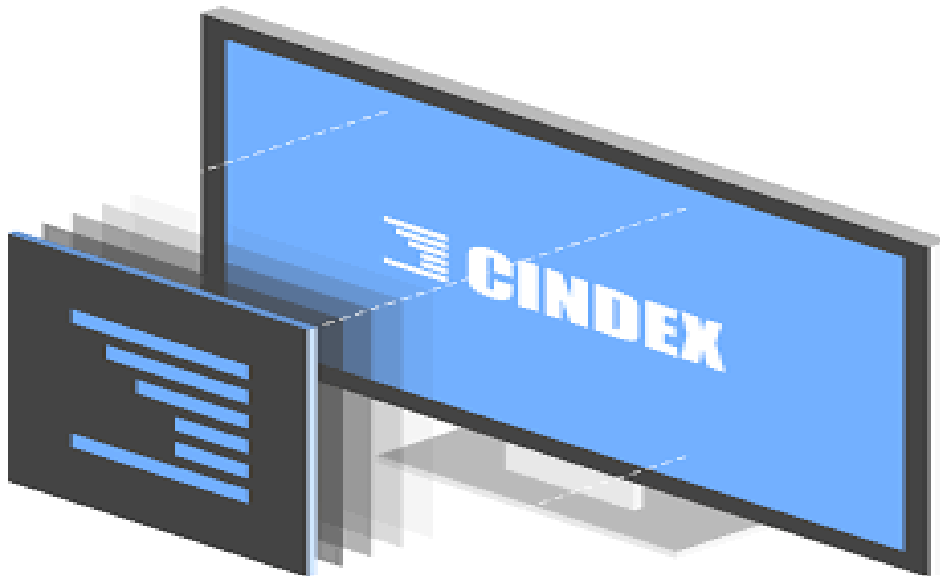


Fig 18: CINDEKX

<http://www.indexres.com>



Fig 19: SKY Index
<http://www.e-graffito.com>

MACREX Indexing Software

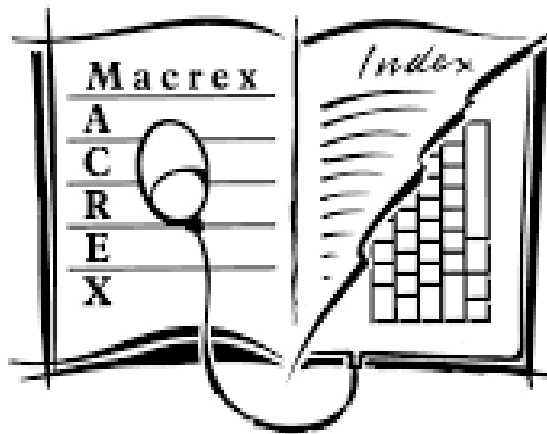


Fig 20: Macrex indexing software
<http://youtube.com>



Fig 21: Index manager

<http://www.index-manager.net>

ICT has also made it possible to access documents in several formats through the use of search engines developed from the principles of indexing. This is sometime called web indexing. Google is currently the most prominent search engine used by different categories of people all over the world while searching for information. Once an information searcher accesses Google and types his or her query, the system on Google uses keyword searching (keyword in context KWIC or keyword out of context KWOC) to locate documents with the keywords and presents the results sometime based on the frequency of occurrence of the keywords in the documents. As such, the relevance of the first 10 results presented on Google for instance cannot be compared with that of the last 20 results.



Fig 22: Google Index

<http://www.ahrefs.com>

4.0 CONCLUSION

The relevance of ICT in the indexing of documents cannot be overemphasized. ICT has made the indexing of documents more accurate and more efficient. With ICT, the stress of sorting and arranging of index terms is eradicated because the process is automated. With the passage of time, the use of ICT in indexing will continue to advance as improvement in ICT will also influence how indexing is done.

5.0 SUMMARY

This unit has discussed the application of ICT to indexing. The definition of ICT was provided and the process of using Microsoft Word to index was also outlined. The use of indexing software was enumerated and web indexing was also briefly described.

SELF ASSESSMENT EXERCISE

Explain the concept Information Communication Technology...

6.0 TUTOR-MARKED ASSIGNMENT

1. Explain in detail how you can index a document with the aid of a word processor like Microsoft Word.
2. Describe other areas of ICT deployment in indexing.

7.0 REFERENCES/FURTHER READING

Agboola, B. and Shaibu, R. (2019). Impact of ICT on information retrieval system in academic libraries: the experience of Federal University Gashua Library, Yobe State, Nigeria. *Library Philosophy and Practice (e-journal)*. 2350. <http://www.digitalcommons.unl.edu/libphilprac/2350>

Indexing software. <http://www.anszi.org/member-area/recommended-reading-and-guidelines/indexing-software/>

MODULE 3 INDEXING LANGUAGE AND EVALUATION OF AN INDEX

This module will discuss indexing language and how an index can be evaluated. The module has three units which focus on the indexing language and the criteria used to evaluate an index.

Unit 1	Definition and components of indexing language
Unit 2	Types of indexing languages
Unit 3	Evaluation of an index

UNIT 1 DEFINITION AND COMPONENTS OF INDEXING LANGUAGE

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Definition of indexing language
 - 3.2 Components of indexing language
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

Language is a very important concept in the communication process. Without language communication of ideas and knowledge in different formats cannot be effectively done. Since authors use language to pass their messages across to their intended users, it is imperative that an index which is meant to facilitate quick access to the published works also makes use of language that will properly represent the minds of the authors and also help connect with the users. Thus, this unit focuses on indexing language with special emphasis on the definition of indexing language.

2.0 OBJECTIVES

By the end of this unit, you will be able to:

- define indexing language.
- explain the components of indexing language.

3.0 MAIN CONTENT

3.1 Definition of Indexing Language

Indexing language refers to terms or group of words used by indexers to represent the content of a document so that users quickly have access to the needed information that they require. Rashid (2020) stated that indexing language refers to an organized list of descriptors or headings to the concepts in a collection or book. This connotes that indexing language is used by both the indexers and the searchers. The indexer identifies and organizes the terms, while the searchers use the terms to access the intellectual content of the document. Indexing language ensures that subject terms used in the documents are represented with the appropriate descriptors to facilitate quick access.

3.2 Components of Indexing Language

The components of indexing language are; vocabulary, syntax and semantics.

1. Vocabulary refers to terms used in the indexing concepts. For example terms like Coronavirus, Weeding, Serials, Resource Sharing and the likes are vocabularies as far as they have been indexed and they carry sufficient information contents.
2. Syntax refers to the way the words are put together to form an index term. At times an index term is not made up of one single term, there are cases where two or three words are combined to form an index entry. For instance, an index entry like “Headings, form” is made up of two words, headings and form. If these two terms are indexed separately, they might not have meaning than when they are joined together.
3. Semantics connote the class relations among index terms like synonyms, acronyms and associative relationship. For example, an index entry like “Display” see “Exhibition” connotes a form of associative relationship between the two terms. This form of entry also directs the user to where information can be found as in the case of the example provided, the document does not have information under “Display” but it has under “Exhibition”.

4.0 CONCLUSION

Indexing language is important to the retrieval of information in a document or information system. There must be a nexus between the language used by the author(s) and that which the searchers understand in order to facilitate the use of the subject content of documents.

5.0 SUMMARY

In this unit, the definition of indexing language was provided and the components of indexing language which are vocabulary, syntax and semantics were explained.

SELF ASSESSMENT EXERCISE

Explain the components of indexing language.

6.0 TUTOR-MARKED ASSIGNMENT

Define indexing language and describe its components.

7.0 REFERENCES/FURTHER READING

Aina, L.O. (2004). *Library and Information Science text for Africa*. Ibadan: Third World Information Services

Akinwumi, O.S. (2013). Indexing and abstracting services in libraries: a legal perspective. *International Journal of Academic Library and Information Science*, 1(1), 1-9.
<http://www.academicresearchjournals.org/IJALIS/index.htm>

Rashid, M.H.A. (2020). *Indexing language: types and characteristics*.
<http://www.limbd.org/indexing-language-types-of-indexing-language-characteristics-of-indexing-language/>

UNIT 2 TYPES OF INDEXING LANGUAGES

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Natural indexing language
 - 3.2 Free indexing language
 - 3.3 Controlled indexing language
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

There are instances whereby the indexer is not limited to the use of the words and terms used by an author of a document. This unit will discuss such instances with emphasis on the other two types of indexing language which are free and controlled indexing language.

2.0 OBJECTIVES

By the end of this unit, you will be able to:

- describe free indexing language
- discuss controlled indexing language
- define controlled vocabularies and enumerate their functions

3.0 MAIN CONTENT

3.1 Natural Indexing Language

This is a type of language whereby the indexer uses the terms used by the author as index terms. This means that the index list only contains terms used in the documents. Rashid (2020) observed that another name for this type of indexing language is Derived Term of Indexing Language. This is because the terms and concepts that will be indexed are derived from the document itself and the terms used by the author(s). The use of this indexing language restricts the indexer, as synonyms and other relationships cannot be added to improve the quality of the index. This type of indexing language is used for back of book index and computerized index.

3.2 Free Indexing Language

This is a type of indexing language in which the indexer is not restricted to the subject terms used by the author in the document as there is the liberty to incorporate terms that can better represent what the author has in mind. This type of indexing language is used for computer-assisted indexing as the system in addition to the terms used by the author can suggest other similar words from the database which can also represent the mind of the author. If this type of indexing language is to be used manually, the knowledge and experience of the indexer are very valuable. This is because for an indexer to suggest terms that are not used in the document as those that the searcher may use to access the information content, such an indexer must have thorough knowledge about that subject field. With the use of this indexing language, there is no room for gambling as mistakes made could mean that the searchers will not be able to understand the terms in the index entry and how they connect with the main content.

3.3 Controlled Indexing Language

This is the type of indexing language whereby the indexer is restricted to the appropriate, standardized and authoritative terms of the subject of the document being indexed. This is done with the use of controlled vocabulary lists, which are also called authority list. Smith (2021) noted that controlled vocabularies in addition to the list of approved subjects provided also indicate the affinity between subjects that reveal their broad and specific relationships. Examples of these include; Library of Congress Subject Headings, Sears List of Subject Heading, subject dictionaries, thesauri, authority files, classification schemes and folksonomies. The indexer makes use of this indexing language by identifying the index terms and confirming from the controlled vocabularies whether those terms are approved for use. Therefore, the terms that will be indexed are those that are found in the subject headings as specified by the professionals. Thus, an indexer that makes use of this indexing language will relinquish his or her professional knowledge and stick with the already prepared lists by a team of subject experts. Controlled indexing language is used for subject indexing like journal indexing.

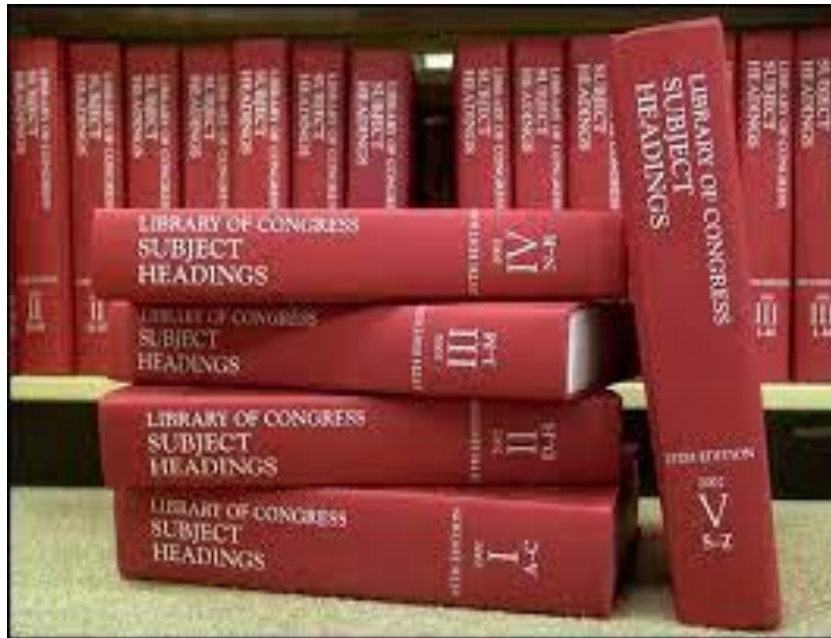


Fig 23: Library of Congress Subject Headings
<http://www.sites.darthmouth.edu>

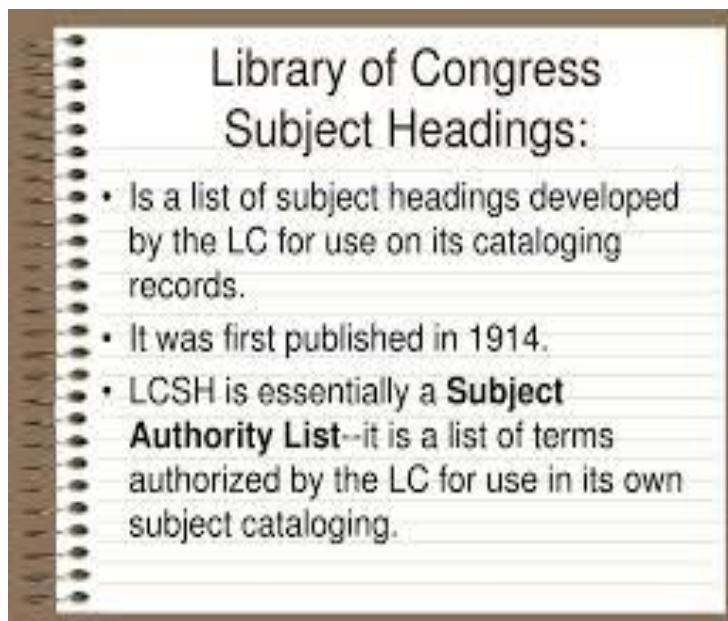


Fig 24: Introduction to the Library of Congress Subject Headings
<http://www.slideserve.com>

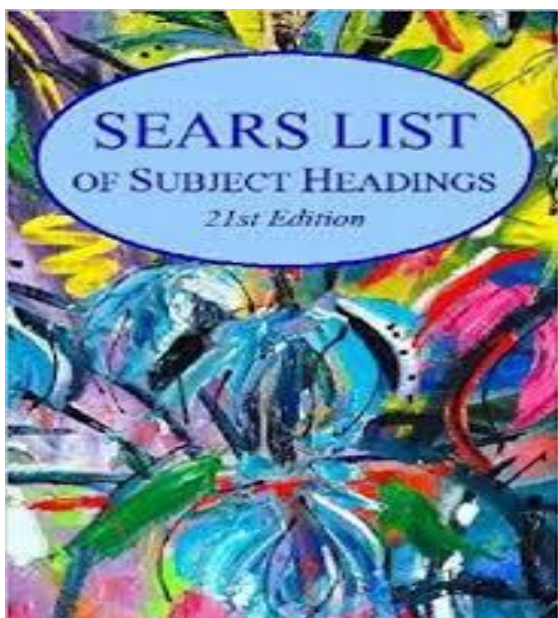


Fig 25: Sears List of Subject Headings

<http://www.amazon.com>

Click on this link to watch a video that you introduce you to the Sears List of Subject Headings

https://www.youtube.com/watch?v=Jlev-x_I5A

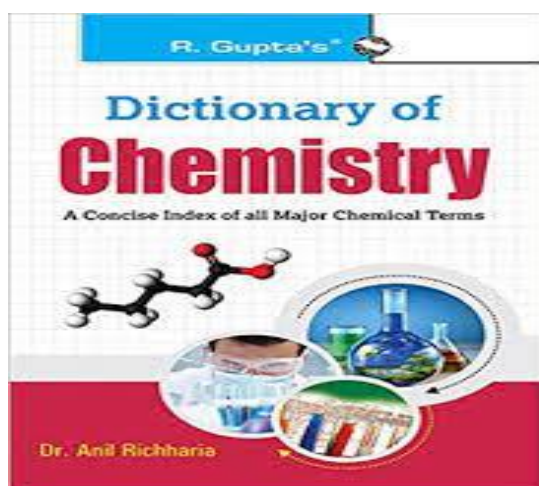


Fig 26: Dictionary of Chemistry

<http://www.amazon.com>

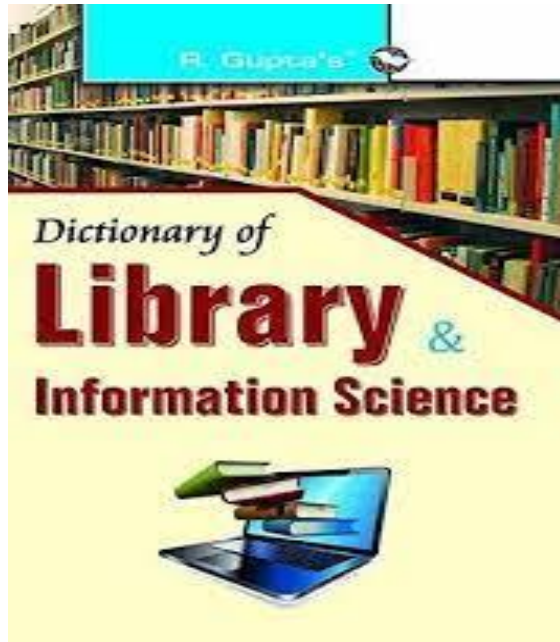


Fig 27: Dictionary of Library of Information Science

<http://www.neighbourjoy-5.myshopify.com/products/dictionary-of-library-information-science-subject-dictionaries>

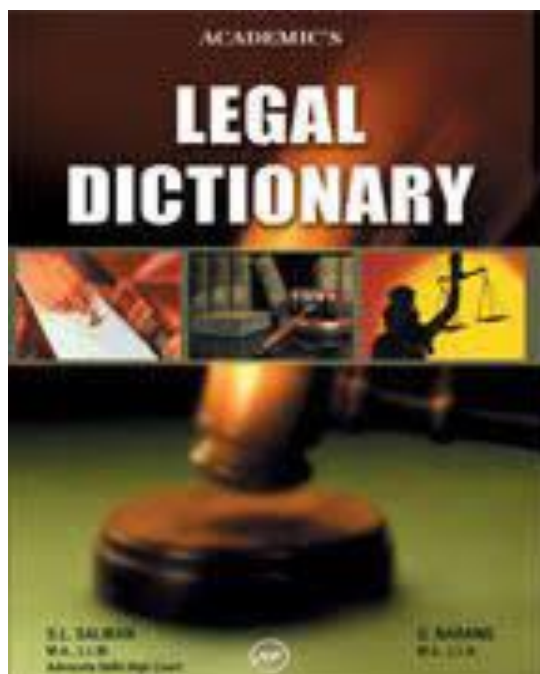


Fig 28: Legal Dictionary

<http://www.indiamart.com>

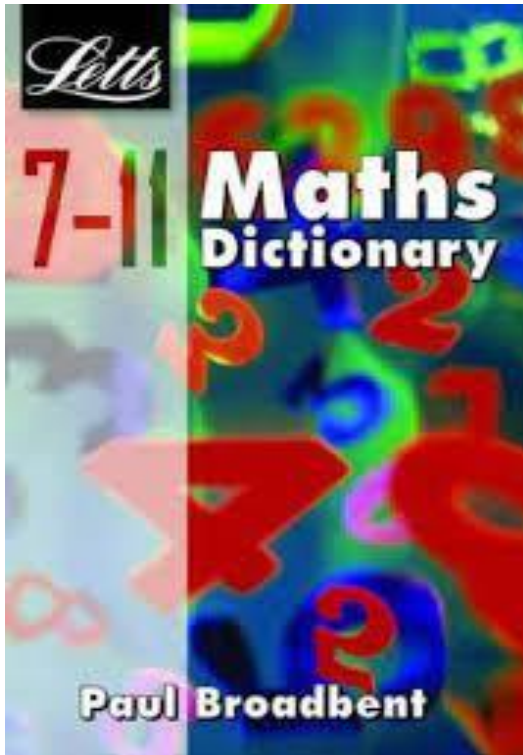


Fig : Maths Dictionary
<http://www.goodreads.com>



Fig 29: Dewey Decimal Classification Scheme
<http://www.worldcat.org>

Purposes of Controlled vocabularies

Controlled vocabularies serve five purposes:

1. **Translation:** controlled vocabularies make it possible for indexers after familiarising themselves with the content of a document and after analysis to convert the selected terms from how they were

used naturally by author(s) into the universally accepted subject descriptors.

2. **Consistency:** controlled vocabularies ensure that there is no ambiguity as to the terms that can be used for subject headings. Once, an indexer uses these tools, he or she is sure of uniformity in terms of what is generally acceptable.
3. **Indication of relationships:** controlled vocabularies make it possible to indicate semantic relationships among terms. The types of relationships in controlled vocabularies are: equivalence, hierarchical and associative relationships.
4. **Label and browse:** Since controlled vocabularies have subject descriptors for concepts in a document and information system, they provide consistent designation of labels. These tools also provide a navigation system that assists information searchers to locate desired content objects in a hierarchical context as subject terms are developed from the broad to the specifics.
5. **Retrieval:** controlled vocabularies also serve as a searching aid in locating content objects as the terms selected will have retrieval mechanisms in the document and information system.

Click on this link to watch a short video on why controlled vocabularies are important.

<https://www.youtube.com/watch?v=IPbtvZ0e6XE>

4.0 CONCLUSION

Indexing is a task that recognises the knowledge and experience of the indexer, as in the case of free indexing language. On the other hand, in order not to take that liberty overboard, controlled indexing language ensures that standardization and uniformity exist and that information searchers access the right information with the use of appropriate descriptors.

5.0 SUMMARY

This unit has focused on natural, free indexing and controlled indexing languages. A discussion on controlled vocabularies in terms of definition and purposes were also presented.

SELF ASSESSMENT EXERCISE

Explain the relationship between controlled indexing language and controlled vocabularies.

6.0 TUTOR-MARKED ASSIGNMENT

1. Explain natural indexing language
2. What do you understand by free indexing language?

7.0 REFERENCES/FURTHER READING

Aina, L.O. (2004). *Library and Information Science text for Africa*. Ibadan: Third World Information Services

Akinwumi, O.S. (2013). Indexing and abstracting services in libraries: a legal perspective. *International Journal of Academic Library and Information Science*, 1(1), 1-9. <http://www.academicresearchjournals.org/IJALIS/index.htm>

Smith, C. (2021). Controlled vocabularies: past, present and future of subject access. *Cataloguing and Classification Quarterly*, 59(2-3), 186-202. <http://doi.org/10.1080/01639374.2021.1881007>

UNIT 3 EVALUATION OF AN INDEX

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Recall ratio
 - 3.2 Precision ratio
 - 3.3 Other parameters used to evaluate an index
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

Evaluation of an index is carried out in order to determine if the index is actually living up to its name in terms of effectiveness and efficiency. This unit will focus on the measures for evaluating the relevance of an index and the influence of the concepts of specificity and exhaustivity. You will also learn the qualities of an index.

2.0 OBJECTIVES

By the end of this unit, you will be able to:

- discuss the two principal measures for evaluating the effectiveness of an index.
- explain the influence of specificity and exhaustivity in the evaluation process.
- describe the qualities of an index.

3.0 MAIN CONTENT

3.1 Recall Ratio

An index can be evaluated with the use of two principal measures which are the recall ratio and precision ratio.

Recall Ratio is a quantitative ratio of the number of relevant documents retrieved to the total number of relevant documents that are present in a collection or an information system. For example, if 300 documents in the library are relevant to the information needs of an information searcher and the index was able to retrieve 270, then the recall ratio is 270:300, meaning that the index is 90% effective. But, if through the use of the

index, all the 300 documents that are relevant to the information needs of the searcher are retrieved, the index has a total recall or very high recall. However, the high or total recall does not mean that all 300 documents devote a substantial part of the content to the information needed by the searcher. What it means is that the user will have access to 300 documents that relate to what he or she needs regardless of the level of treatment of the concept. Thus, a high recall will assist the searcher to have several documents to peruse in the quest of satisfying the information need. So it is important to ask this question when evaluating an index; does this index has the potential to retrieve a high number of documents from those that are potentially relevant to the information needs of the searchers? The answer to the question should testify to the usefulness of such an index. The formula to calculate the recall ratio is:

$$\text{Recall Ratio} = \frac{\text{Number of document retrieved}}{\text{Number of potentially relevant document}} \times 100$$

3.2 Precision Ratio

Precision Ratio is defined as the qualitative ratio of the number of relevant documents that an index was able to retrieve to the total number of documents retrieved. This attests to the ability of the index to sieve the retrieved documents in order to ensure that only those that are relevant are returned. Thus, if out of the 270 documents that were retrieved from the collection of the 300 potentially relevant documents, only 150 actually dealt with the information need of the searcher, then the percentage of the precision ratio of the index is 55.6%. This signifies that the ability of the index to provide highly relevant information to the user is above average. The formula used in calculating precision ratio is:

$$\text{Precision Ratio} = \frac{\text{No. of relevant documents retrieved}}{\text{No. of documents retrieved}} \times 100$$

From the explanation of the two principal measures used to evaluate an index, it is quite evident that the more the recall ratio of an index, the less its preciseness. On the other hand, the more an index is precise, the lesser its recall ratio. However, it is essential for an indexing system to be balanced because if an index has low recall, it means the searcher will not have the opportunity to access potentially relevant contents. Also, if the precision ratio is low, it means the searcher will be exposed to quite a number of contents that do not exactly meet his or her information needs. The rule of thumb in indexing is that there should at least have 70% recall and 60% precision.

There is a correlation between recall and precision ratios and principles of specificity and exhaustivity. Specificity is a principle that favours the indexing of terms that provide sufficient information about a particular concept. While exhaustivity is an indexing principle that refers to the indexing of terms that are related to a particular concept regardless of the depth of information provided about the concept. This implies that as far as a document mentions a particular concept, it can be indexed even if it is just a single line without much explanation. Thus, if an indexer has the conviction that exhaustivity is the best policy; the documents retrieved will have high recall but low precision. On the other hand, if an indexer upholds the principle of specificity, it is expected that few documents will be retrieved (low recall) but the content will address the concern of the searcher adequately (high precision). Put succinctly, Exhaustivity aligns with high recall, while specificity favours high precision.

3.3 Other Parameters Used to Evaluate an Index

An index can also be evaluated based on:

Time: Indexes are prepared so that users can access information as fast as possible. Thus, an effective index is one that facilitates the quick retrieval of information. If users find it very difficult to locate information content from the index, such an index is not effective and as such needs to be worked on.

Cost: An effective index is not necessarily the most expensive one. In as much as it costs money to produce an index, it should not be too expensive for individuals and information centres to acquire. This is especially important for periodical and cumulative indexes.

Evaluation of an index	Recall ratio
	Precision ratio
	Time
	Cost

Fig 30: Evaluation of index

4.0 CONCLUSION

Evaluation of an index is very important in order to ascertain if the index has the potential of meeting the information needs of searchers. When an index is evaluated, its performance would be facilitated.

5.0 SUMMARY

This unit has discussed the two principal measures used in the evaluation of an index which are recall and precision ratios. The principles of exhaustivity and specificity and their relationship with the two principal measures were also explained. Time and cost as parameters used to evaluate an index were also discussed.

SELF ASSESSMENT EXERCISE

Describe the relationship between the two principal measures and the principles of exhaustivity and specificity.

6.0 TUTOR-MARKED ASSIGNMENT

1. Present an essay on the two principal measures used to evaluate an index.
2. Explain the role of time and cost in the evaluation of an index.

7.0 REFERENCES/FURTHER READING

Aina, L.O. (2004). *Library and Information Science text for Africa*. Ibadan: Third World Information Services.

Cleveland, D.B. & Cleaveland, A.D. (2001). *Introduction to indexing and abstracting*. Littleton: Libraries Unlimited.

MODULE 4 CONCEPT OF ABSTRACTING

This module will explain another very important task that facilitates information representation and packaging, which is abstracting. The module has three units which focus on the definitions of an abstract, abstracter and abstracting; purpose of abstracting and types of abstracts.

Unit 1	Definition of an abstract, abstracter and abstracting
Unit 2	Purpose of abstracting
Unit 3	Types of abstracts

UNIT 1 DEFINITION OF AN ABSTRACT, ABSTRACTER AND ABSTRACTING

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

Abstracts are important information resources that also double as tools used in information retrieval. This unit will expose you to what abstracts are, who an abstracter is and what abstracting is all about.

2.0 OBJECTIVES

By the end of this unit, you will be able to:

- define what an abstract is.
- give the definition of an abstracter and describe what abstracting is about.

3.0 MAIN CONTENT

An abstract can be defined as a concise and accurate representation of the essential content of a document (Rowley, 1996). An abstract can also be viewed as a brief but actual representation of a document that is devoid of additional interpretation or criticism and without distinction as to who wrote the abstract. Thus, an abstract can be described as a terse,

condensed and skeletal representation of the essential contents of information resources like books, articles, speech, reports, dissertations, theses, conference proceedings and other scholarly documents. It could be likened to the précis or synopsis of information. Abstract reduces longer documents into a summarised form with main contents highlighted as laid out in the main document.

It should be noted that an abstract is different from an annotation, extract and summary. While an abstract summarizes the essential contents of a document briefly, an annotation presents a critical commentary or analysis of a work. An extract lifts one or two paragraphs of a document exactly as they appear without modifications which would represent the whole work and a summary can be described as a terse restatement of the prominent findings reported in a document. The professional who deploys his or her knowledge and skills in writing an abstract through the process of abstracting is referred to as an abstracter or abstractor.

Abstracting can be defined as the process of analysing the content of an information material and providing a summary or synopsis of the document. According to Reitz (2004), abstracting could be described as the preparation of a brief objective statement of the content of a written work to enable researchers to quickly determine whether reading the whole text might satisfy their specific information need or not. Thus, abstracting provides additional value to documents aside from providing a summary and bibliographic detail of documents. Abstracts are the intellectual products of abstracting produced by an abstracter or abstractor.

4.0 CONCLUSION

A good quality abstract is a product of a good abstracter who thoroughly understands the process of abstracting. Before information searchers can find an abstract effective, it must have undergone a series of steps that constitute the abstracting process.

5.0 SUMMARY

In this unit, the definition of an abstract and an abstracter has been provided. The concept of abstracting was also explained. It is important to restate that an abstract is a summarized version of the essential contents of documents. The process of summarizing the core aspects of the document is referred to as abstracting and the professional who does that task is an abstracter.

SELF ASSESSMENT EXERCISE

How is an abstract different from an annotation, extract and summary?

6.0 TUTOR-MARKED ASSIGNMENT

1. What is an abstract and who is an abstracter?
2. What do you understand by the term 'abstracting'?

7.0 REFERENCES/FURTHER READING

Adetoro, 'N. (2014). *Indexing and abstracting*. Open University.
http://www.researchgate.net/publication/326843476_Indexing_and_Abstracting

Aina, L.O. (2004). *Library and Information Science text for Africa*.
Ibadan: Third World Information Services.

Reitz, J.M. (2004). *Dictionary of Library and Information Science*.
Westport Libraries Unlimited.

Rowley, J. (1996). *The basics of information systems*. 2nd ed. London:
Library Association Publishing.

UNIT 2 PURPOSE OF ABSTRACTING

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

Abstracting is carried out to serve different purposes in the information retrieval process. This unit will discuss the five main purposes of the product of abstracting, which are abstracts. This unit will highlight the relevance of abstracting.

2.0 OBJECTIVE

By the end of this unit, you will be able to:

explain why abstracts are important to information users.

3.0 MAIN CONTENT

Abstracts also serve five main purposes:

1. **Help readers to decide if it is necessary to read the entire document:** Since the abstract presents the essential content of a document in a summarized form, a user can come to an informed conclusion if the original document will be useful or not. For example, a student that needs information on the dangers of drug abuse among undergraduates and comes across an abstract to a document on drug abuse may be excited. However, after going through the abstract, the student discovers that the focus of the article is not really on the dangers of drug abuse but the various drugs that are abused. Would the student still go ahead to retrieve or locate the full article? Probably not. So, from the abstract, the user can rationalize the usefulness of reading a full text.
2. **Assist information users to remember the important findings on a topic:** The abstract to a document contains brief relevant facts that can be easily remembered after reading the information material. For instance, an information seeker read an article on Covid-19 pandemic in Nigeria that detailed the date the first index case in the country was recorded, the nationality of the individual

involved, how cases spread throughout the country, recoveries, fatalities and cures. Even though the article might run into several pages, the information seeker can easily remember through the abstract of a few hundred words that the index case was recorded on the 27th of February 2020 and the individual involved was an Italian. These key points and others can be easily remembered and referred to through the abstract.

3. **Help readers understand a text by acting as a pre-reading outline of key points:** When an individual reads an abstract, it gives a glimpse of what to expect in the full document. It is possible to visualize and anticipate how the discussion in the full text unfolds because the abstract has provided an overall picture. The abstract helps to prepare the mind of the reader and makes reading the full document more enjoyable as the reader knows what to expect and the trend of discussion.
4. **Abstracts help in the indexing of articles for quick recovery and cross-referencing:** Articles that are abstracted will contain a list of keywords that can assist users to easily locate the documents amidst several documents. As such, an abstract of a library and information science (LIS) article will contain certain keywords that describe the work with other bibliographic details. Thus, a compilation of abstracts of LIS articles could be viewed as an index to those articles and through this, similar articles can be linked together. For instance if 20 abstracts on information seeking behaviour are compiled, there is the possibility of cross-referencing them to get a deeper understanding of the concept.
5. **Allow supervisors to review technical work without becoming bogged down in details:** For individuals in positions of management and responsibility, reading full reports that run into several hundreds of pages may become too burdensome because of their very busy and tight schedule. Hence, abstracts provide them with the opportunity of reading a few lines and still get the substance of a particular document with information that could assist them to make sound decisions. This is because the few lines will give an overall representation of the essential contents in the full report.

Click on this link to watch a video that explains the importance of abstracts <https://www.youtube.com/watch?v=KFHyB2U7XA4>

4.0 CONCLUSION

An abstract is a valuable information resource that helps users to satisfy their information needs and also serve as a pointer to useful content in a document. It is important for information users, especially researchers to use abstracts as they might not even need to access full text articles before they get whatever they are searching for.

5.0 SUMMARY

This unit has discussed in details with the aid of relevant examples, the purposes of abstracting. The five main purposes of abstracts have been sufficiently explained.

SELF ASSESSMENT EXERCISE

What is abstract?

6.0 TUTOR-MARKED ASSIGNMENT

With relevant illustrations, explain the purposes of an abstract.

7.0 REFERENCES/FURTHER READING

Adetoro, 'N. (2014). *Indexing and abstracting*. Open University.
http://www.researchgate.net/publication/326843476_Indexing_and_Abstracting

Onwuchekwa, E.O. (2013). Indexing and abstracting services. In: Issa, A., Igwe, K.N. and Uzuegbu, C.P. (eds). *Provision of library and information services to users in the era of globalization*. Lagos: Waltodanny Visual Concept.

UNIT 3 TYPES OF ABSTRACTS

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

Abstracts are of different types and as such they are used by information searchers in different settings. This lecture will expose you to the various types of abstracts and how they can be used to access information.

2.0 OBJECTIVE

By the end of this unit, you will be able to:

explain the various types of abstracts

3.0 MAIN CONTENT

The two main types of abstracts are informative and indicative abstracts.

1. **Informative abstract:** this type of abstract attempts to capture the essential details (qualitative and quantitative) in the original document in such a way that even if the reader does not have access to the full document, the information in the abstract can serve as a surrogate. This connotes that the abstract can replace the main document. Informative abstracts try as much as possible to reflect the content of an article in a systematic manner. This is the type of abstract that is written for a project, dissertation and thesis. It states the main problem and the objectives, methodology, findings, conclusion and recommendations. Aina (2004) opined that informative abstract could be between 200 and 500 words.

Click on this link to see a sample of informative abstract

<https://writing.colostate.edu/guides/page.cfm?pageid=1252&guidid=59>

2. **Indicative abstract:** this is also called descriptive abstract because the content only indicates what the main document contains without detailed information. Onwuchekwa (2013) noted that

indicative abstract may contain information on purpose, scope or methodology, results, conclusion and recommendations may be omitted. As a result, this type of abstract cannot serve as a surrogate of the main document. This type of abstract is used for less structured documents like editorials, essays, opinions or descriptions, or for lengthy documents, such as books, conference proceedings, directories, bibliographies, lists and annual reports.

Click on this link to see a sample of indicative abstract

<https://writing.colostate.edu/guides/page.cfm?pageid=1252&guideid=59>

Click on this video for more explanation on the main types of abstracts

<https://www.youtube.com/watch?v=HoUUO38THEY>

The other types of abstracts which are variants of the two main types are; critical abstract, mission-oriented abstract, discipline-oriented abstract, slanted abstract, author abstract and professional abstract. It should be noted that these variants could be informative or descriptive in the presentation.

3. **Critical abstract:** This type of abstract is called evaluative abstract whereby the abstracter uses his or her intellectual capacity to assess the quality of the document. Thus, the abstracter records the strengths and the weaknesses of the document leaving the readers to make their decision. This implies that for someone to write a critical abstract, he or she must be a subject specialist who has a firm grasp of the topic of discourse. Critical abstracts are mainly used for papers with broad overviews, reviews, monographs and even single papers.



Fig 31: Critical abstract
<http://www.slideshare.net>

4. **Mission-oriented abstract:** This is an abstract that is written to suit the objectives of a particular task. It focuses on the assignment at hand and not necessarily on the subject. For example if World Health Organization (WHO) commissions a research on the prevalence of malaria in Africa and an abstract was written, the thrust of the abstract will not be on background information about malaria like the origin of malaria and the like, rather the abstract will address the mission which is prevalence.
5. **Discipline-oriented abstract:** This type of abstract is devoted to a particular field of study like the Library and Information Science Abstract (LISA) for library and information science discipline and Chemical Abstract for those in the field of chemistry. Thus, this abstract presents a skeletal representation of textbooks and journals on a field of study.



Fig 32: Library and Information Science Abstracts
<http://www.abbreviations.com>

6. **Slanted abstract:** This is a form of mission-oriented abstract whereby the abstracting is tilted towards a particular section of the

document induced by the interest of the present and prospective users. For example, a research institute like the International Institute of Tropical Agriculture (IITA) has a bias for crops that could grow in the tropics. As such, if a book on agriculture is to be abstracted in IITA, it would be slanted towards the aspects of the tropical crops so that the researchers in the institute can find it useful.

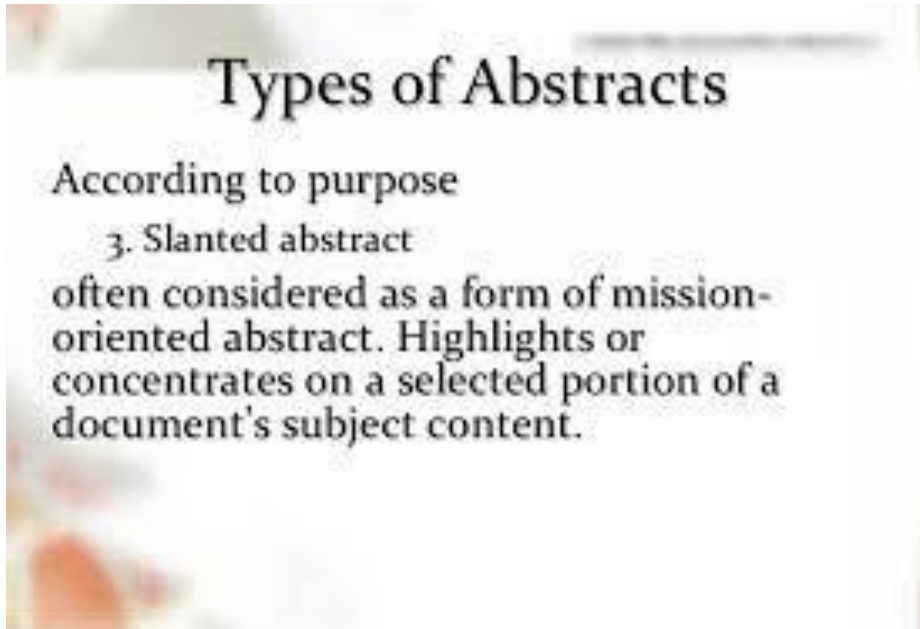


Fig 33: Types of abstract

<http://www.slideshare.net>

7. **Author abstract:** This is the type of abstract that is prepared by the author of the document. It is expected that since the author is the abstracter, the essential points in the document would be abstracted and this might also be done on time. However, the demerit is that a good number of authors cannot be addressed as professional abstracters and as such, the abstract may not be of good quality.
8. **Professional abstract:** This form of abstract is prepared by professionals who may not be experts in the subject being abstracted, but they have the requisite skills to produce a good quality abstract. It is believed that professional abstracters possess the relevant knowledge in abstracting which could be acquired through experience as a freelance abstracter or through regularly engaging in the task as a member of a publishing company or a private agency.

4.0 CONCLUSION

There are a wide variety of abstracts that can be used by individuals and information centers to meet information needs. Abstracts are not only prepared by professional abstracters, librarians who have received training in information representation and packaging need to prepare abstracts that will meet the specialized information needs of their patrons. This will ensure that the libraries add value to their services and users will also view the libraries as pro-active which will add to the image of the libraries positively.

5.0 SUMMARY

In the unit, the different types of abstracts were explained. These include the two main types of abstracts which are the informative and the descriptive abstracts and the other variants which also provide information.

SELF ASSESSMENT EXERCISE

Enumerate the differences between informative and descriptive abstract

6.0 TUTOR-MARKED ASSIGNMENT

With practical examples, discuss the variants of the two types of abstract.

7.0 REFERENCES/FURTHER READING

Aina, L.O. (2004). *Library and Information Science text for Africa*. Ibadan: Third World Information Services.

Onwuchekwa, E.O. (2013). Indexing and abstracting services. In: Issa, A., Igwe, K.N. and Uzuegbu, C.P. (eds). *Provision of library and information services to users in the era of globalization*. Lagos: Waltodanny Visual Concept.

MODULE 5 ABSTRACTING PROCESS AND EVALUATION OF AN ABSTRACT

This module will focus on how you can engage in abstracting a document following a series of steps. Also, in this module, the criteria for the evaluation of an abstract will be outlined and discussed. The module has four units which focus on the procedures for abstracting a document, abstracting of research papers and, evaluation of an abstract and skills and ethical guidelines for abstracters.

Unit 1	Procedure for abstracting a document
Unit 2	Abstracting of research papers
Unit 3	Evaluation of an abstract
Unit 4	Skills and ethical guidelines for abstracters

UNIT 1 PROCEDURE FOR ABSTRACTING A DOCUMENT

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

Abstracting is a process that involves a series of activities. This unit will outline the steps that constitute the procedure for abstracting a document and also discuss them one after the other to enhance understanding.

2.0 OBJECTIVES

By the end of this unit, you will be able to:

- List the steps in abstracting a document.
- Explain how a document can be abstracted.

3.0 MAIN CONTENT

Abstracting, which is the process of making an abstract involves a series of steps that must be meticulously followed to produce a good quality

document that will be useful to information seekers. The steps involved in abstracting a document are:

1. Recording of the reference
2. Content analysis
3. Writing of annotation
4. Writing of the abstractors' name
5. The arrangement of the abstract
6. Editing the abstract

Recording of the reference: This is the first activity that should be done when abstracting a document. At this stage, the abstracter records the bibliographic details of the document like the title of the work, name of the author(s), institutional affiliation of the author(s), edition statement, publication details and pagination. The recorded information will uniquely identify the abstracted document and will also assist users of the abstract to locate the full document if they so desire. So, the bibliographic description of the document precedes the other activities in abstracting a document.

Content analysis: This is the stage where the abstracter carefully goes through the intellectual content of the document with the view to becoming familiar with the concepts and message of the author in order to know what to include or exclude in the abstract. To know what the document is about, the abstracter has to go through the relevant parts of the document depending on the nature of the document that is being abstracted. For a textbook, the title page, preface, foreword, table of contents and the various subheadings can be considered. At the end of this stage, it is expected that the abstracter would have ascertained and possibly visualised the general content of the abstract. This is an activity that requires patience and diligence on the part of the abstracter because the result of this will inform how the content of the abstract will be written to the benefit of the users.

Writing of annotation: At this stage, the abstracter makes a note or several notes that contain the major highlights of the essential parts of the document based on the result of the content analysis. The notes are then turned into a draft of the abstract of the document bearing in mind the different important aspects of the document that will be of immense benefit to information seekers. This draft will also be carefully examined to ensure that the contents could serve as a surrogate of the main document. It is important to note at this stage that the abstract should not be lengthy and words should not be repeated.

Writing of the abstractor's name: It is essential for the abstracter to be acknowledged so as to appreciate the intellectual rigours associated with

abstracting. In doing this, the last name and initials of the abstracter can be written at the end of the abstract.

The arrangement of the abstract: This stage focuses on how the abstract is organized. Once the abstract has been written, it is important to decide whether to generate keywords and word count or not. Keywords make it possible to search for the abstract easily especially in an electronic system. Once the keyword is typed, all documents, including abstracts with that keyword will be returned as results. The word count gives an idea of the length of the abstract which ideally should not be too lengthy. In addition, in the case of journal articles where there are more than one abstracts, the abstractor may decide to provide a form of index for the abstract. This will list all the abstracts to the article in the journals alphabetically or chronologically as decided.

Editing the abstract: This is the stage whereby the abstracter goes through the content of the abstract, starting with the reference that was recorded and also the body of the abstract to determine its appropriateness and correctness. The bibliographic details are checked again to ascertain if they are error free. Within the body of the abstract, the grammar must be corrected if need be, clumsy diction is removed, and numerical and statistical words are checked for accuracy. Once editing is completed, the work still needs to be re-read severally before it is finally disseminated.

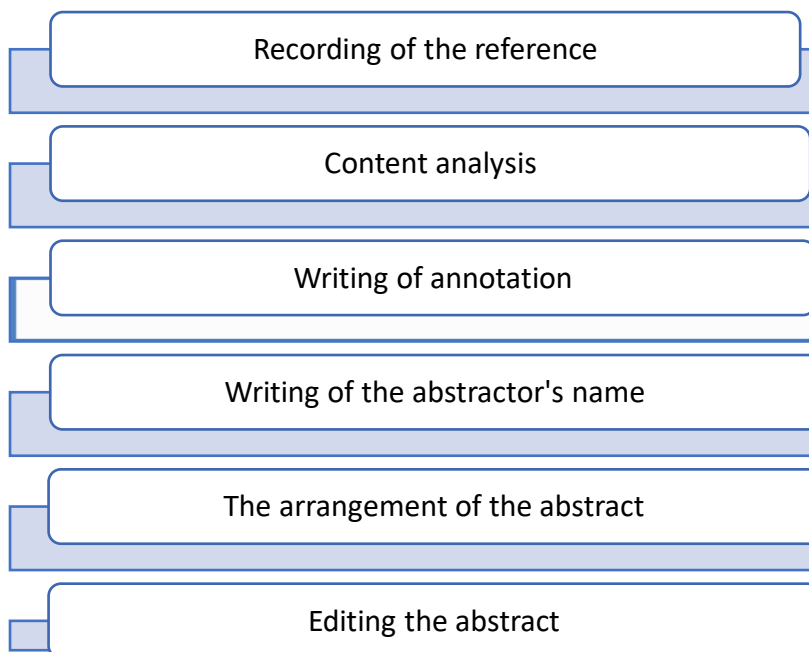


Fig 34: Illustration of the process of abstracting

4.0 CONCLUSION

Abstracting is an intellectual activity that should not be rushed; rather it demands patience and professionalism. If these steps discussed in this unit are followed meticulously, good quality abstracts will be produced and the users will have the opportunity to go through condensed information contents that could be used for problem solving and decision making.

5.0 SUMMARY

The steps involved in abstracting a document were listed and discussed in this unit. The steps that were explained were; recording of the reference, content analysis, writing of annotation, writing of the abstracter's name, arrangement of the abstract and editing of the abstract.

SELF ASSESSMENT EXERCISE

explain the process involved in **the** editing the abstract

6.0 TUTOR-MARKED ASSIGNMENT

As a librarian in a university library, you were given a document to abstract. Explain in details how you can carry out that task effectively.

7.0 REFERENCES/FURTHER READING

Adetoro, 'N. (2014). *Indexing and abstracting*. Open University.
http://www.researchgate.net/publication/326843476_Indexing_and_Abstracting

Aina, L.O. (2004). *Library and Information Science text for Africa*. Ibadan: Third World Information Services.

Cleveland, D.B. & Cleaveland, A.D. (2001). *Introduction to indexing and abstracting*. Littleton: Libraries Unlimited.

UNIT 2 ABSTRACTING OF RESEARCH PAPERS

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Abstracting of research papers (projects)
 - 3.2 Abstracting of journal articles
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

This unit is a build up from the last unit that focused on the procedures for abstracting a document. It is expected that before you graduate, you will write your final year project which is a research paper that must include an abstract. Also, after you have concluded the project, it is expected that your findings will be disseminated in scholarly journals. Thus, this unit will explain how to write an abstract of a research papers.

2.0 OBJECTIVES

By the end of this unit, you will be able to:

- explain how you can write the abstract of your final year project
- understand what is expected of you when writing an abstract for a journal

3.0 MAIN CONTENT

3.1 Abstracting of research papers (projects)

Generally, a bachelor's research project in Library and Information Science (LIS) is made up of five chapters. Chapter one includes subheadings like; background to the study, statement of the problem, objectives of the study, research questions, scope of the study, significance of the study and operational definition of terms. Chapter two is the literature review that includes relevant subheadings that correlate with the objectives of the study and a subheading that will contain the appraisal of the literature reviewed. Chapter three is the methodology that includes the research design, population of the study, sampling technique and sample size, research instrument, validity of instrument, data collection procedure and method of data analysis. The fourth chapter of

the project focuses on the results and discussion whereby the demographic information of the respondents, answers to research questions and the discussion of the findings are presented. The last chapter which is chapter five contains the summary of the findings, conclusion, recommendations and suggestions for further studies.

Since an abstract is the summary of the essential contents of a document, that of a research paper like LIS bachelor's project should also highlight the relevant sections of the research work. An abstract of a research paper like the LIS final project should have four paragraphs. Paragraph one should produce a condensed representation of chapter one of the project (The introduction). Paragraph two should present the skeletal version of chapter three of the project (Methodology). While, paragraph three of the abstract should contain the essential findings of the work as contained in chapter four of the project. The fourth paragraph of the abstract documents the summarized version of the conclusion and recommendations which is chapter five. Thus, the only chapter of the project that will not be abstracted is chapter two which is the literature review.

It is important to engage in content analysis before writing an abstract of a research paper. This will ensure that the most important points are identified and are not left out when an annotation is to be written. The first paragraph of the abstract should include the main gap that the study intends to fill and the general objective of the work. The second paragraph of the abstract should contain information on the research design used, the population of the study, the sampling technique and the sample size. Also contained in the second paragraph of the abstract are the description of the research instrument and the method of data analysis. Furthermore, the third paragraph will highlight the prominent results which represent answers to the research questions of the study. There may be need to write the frequencies and percentages of the prominent findings for the sake of specificity. The last paragraph should contain a summarized version of the conclusion and one or two abridged recommendations.

In all, the abstract should not exceed 500 words in terms of word count and a list of keywords should also be provided. It is important that the abstract also goes through thorough editing before the final version is typed. This implies that spellings should be checked, figures confirmed and redundant words should be removed.

3.2 Abstracting of journal articles

Shah (2017) noted that in writing an abstract for a journal which is described as a mini article, it is important to understand the format that the journal specifically requires. This is because each journal has its style

for abstracts. Some journals require that the abstract should be structured, while others demand unstructured abstract. Thus, it is advisable to read the instructions for authors of the journal that one intends to send the article to before forwarding it as it should include the style of the abstract required. This is very important because if the instructions are not followed, the article could be rejected at the desk officer's level before getting to the editor(s).

The structured type of abstract is one in the IMRAD format, which will include the four main sections: Introduction, Methods, Results and Conclusion in place of Discussion. Shah (2017) pointed out that an abstract does not have room for discussion and as such it should not be part of the abstract. Thus, if the journal that one intends to send an article to demands a structured abstract, it is important to ensure that the highly summarised version of the introduction, methodology, results and the conclusion, all from the main research article are provided in that order. If the journal requires a list of keywords and word count, that should also be provided.

Click on this link to learn more about structured abstracts and also see samples

[https://www.jiscmail.ac.uk/cgi-bin/filearea.cgi%3FLMGT1%3DBEL-NET%26a%3Dget%26f%3D/IJLBE/Abstracts\(Guidance-%2526-Examples\).pdf](https://www.jiscmail.ac.uk/cgi-bin/filearea.cgi%3FLMGT1%3DBEL-NET%26a%3Dget%26f%3D/IJLBE/Abstracts(Guidance-%2526-Examples).pdf)

As for the unstructured abstract, there is no need to use the IMRAD format as the four sections will not be present. The abstract is written in just one paragraph with important details like the introduction, methodology, results and conclusion. The difference between this and the structured abstract is that while the four main sections will be written in subheading style in the structured abstract, there are no subheadings in the unstructured, all the contents are in a paragraph.

Click on this link to watch a short video about unstructured abstract

<https://www.youtube.com/watch?v=MM-OdUk9Mn0>

It is important to state that while writing an abstract for a journal article (whether structured or unstructured), the abstract should not exceed the word count limit. In addition, adequate attention should be given to the formatting of the abstract as required by the journal. Some journals will want the abstract to be written with a particular font type, size and spacing and should be italicised. Thus, the instructions provided should guide the way the abstract of a journal is to be written.

4.0 CONCLUSION

The abstracting of a research article, especially an LIS final year bachelor project can only be done when the project has been completed and it must contain the necessary summarized details contained in chapters one, three, four and five. If the abstract is properly prepared, information users who are interested in the researched work can retrieve the needed information without going through the whole project.

5.0 SUMMARY

This unit has discussed in detail how you can write the abstract of your final year project. It was stated that the abstract should be in four paragraphs in line with chapters one, three, four and five of your project. The only chapter that is not abstracted is the literature review aspect of the project. This unit also explained how the abstract of journal articles can be written whether structured or unstructured.

SELF ASSESSMENT EXERCISE

Discuss how abstracts of journal articles are written.

6.0 TUTOR-MARKED ASSIGNMENT

Explain how you would write an abstract of your final year project.

7.0 REFERENCES/FURTHER READING

Shah, J. N. (2017). How to write abstract for a scientific journal article. *Journal of Patan Academy of Health Sciences*, 4(1), 1-2. <http://doi:10.3126/jpahs.v4i1.24657>

UNIT 3 EVALUATION OF AN ABSTRACT

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

An effective abstract is one that is useful to information seekers. There are some indicators that measure the effectiveness of an abstract and these constitute the parameters that provide the means of evaluation. This unit will highlight and discuss what constitutes a good abstract and how to identify one that will not be effective.

2.0 OBJECTIVE

By the end of this unit, you will be able to:

List and explain the parameters that are used to evaluate an abstract.

3.0 MAIN CONTENT

Adetoro (2014) noted that an abstract can be evaluated with the use of these parameters:

1. Diction and grammar
2. Redundant phrases
3. Obscure writing
4. Promptness in publication
5. Cost
6. The quality of supportive indexes
7. Authoritativeness
8. Brevity

Diction and grammar: the words of a good quality abstract should not be ambiguous. Rather, the expressions used should be clear, concise and the choice of words should convey thoughts that will be easily grasped by the users. It is also important that the abstract be written in conformity with the rules of the English Language as there should be concord in the expressions. As much as possible, active words should be used and there

should be fluidity of thoughts and expressions. An abstract full of grammatical errors will discourage the users and may even convey wrong information.

Redundant phrases: the words included in an abstract must be those that are absolutely useful and necessary. For example phrases and expressions made up of two or more words that repeat the same idea must be avoided. For example 'twelve midnight' is a redundant expression because midnight is always at 12am. As such, the use of 'midnight' alone will avoid redundancy. In addition, adjectives are not required in abstracts because they only qualify what has been stated already and if care is not taken, the use of adjectives could cause redundancy of words in the abstract. By implication, excessive use of synonyms will only crowd the content of the abstract with repetitive words that work against the brevity of the abstract.

Obscure writing: a good quality abstract will not include expressions that are not properly defined and explained, words that are difficult to understand. The content of the abstract should not become too technical that the users will find it very difficult to comprehend. In addition, the abstract should only present information that is found in the main document. An effective abstract will not contain obscured expressions. It is also important to limit the use of abbreviations.

Promptness in publication: an abstract to a periodical like a journal that has no known frequency of publication cannot be useful. This is because the users cannot ascertain when the abstract will be available for use. However, an abstract that is published twice a year or yearly can be effectively used as information seekers can wait to access it when the need arises. As such, a good quality abstract is one with a prompt publication mechanism.

Cost: an abstract should not be too expensive to acquire or access. If libraries cannot acquire abstracts because of the cost, it would negatively affect information seekers as they would not be able to gain access to the needed information. Even though the intellectual rigour of producing abstracts especially for scholarly journals can be heavy, the financial implication should not weigh those who want to acquire them down. Thus, an abstract should be affordable to those that need them.

The quality of supportive indexes: users will find an abstract which also has a complementary index very useful because such will improve the quality of information retrieval. If a very good abstract is accompanied by an index of very high quality, it indicates the quality of the publisher of this information retrieval tool. An abstract with a supportive index cannot be compared with another one without an index or one with a very poor

index. If the index is cumulative, it will facilitate the retrieval of information from a wide array of abstracts that have been published over the years.

Authoritativeness: in determining the quality of an abstract, there is the need to examine how authoritative the source is. This does not mean that only known and established authors or publishers can produce good abstracts, rather, authoritativeness in this context refers to the quality of trustworthiness and reliability. Thus, regardless of who the author or publisher is, is the information provided in the abstract true? Is the information free from bias and plagiarism? Is the publishing outlet one that does peer review or are articles published immediately receipt? Answers to these questions will reveal how authoritative the abstract is.

Brevity: The hallmark of abstracts is their brief nature. An abstract that is excessively long will not make for good reading as the objective of going through a concise and informative piece would have been defeated. A good abstract gives sufficient essential information of subject matter in a terse form. This implies that important information that ought to be presented will be recorded and it will not be jeopardized on the altar of brevity.

4.0 CONCLUSION

A very good abstract is a product of professionalism, skill and competence. This is because an abstract is not just a summary; it is a lean version of a longer document with adequate essential information. Before a researcher uses the information from an abstract, or before a library decides to purchase an abstract, it is important for evaluation to be done to be sure of the content of the abstract.

5.0 SUMMARY

This unit focused on the parameters that can be used to evaluate an abstract. The eight-parameter discussed are; diction and grammar, redundant phrases, obscure writing, promptness in publication, cost, the quality of supportive indexes, authoritativeness and brevity.

SELF ASSESSMENT EXERCISE

In evaluating an abstract explain the following concepts Authoritativeness and Brevity

6.0 TUTOR-MARKED ASSIGNMENT

Discuss how you can identify a good and qualitative abstract.

7.0 REFERENCES/FURTHER READING

Adetoro, 'N. (2014). *Indexing and abstracting*. Open University.
http://www.researchgate.net/publication/326843476_Indexing_and_Abtracting

UNIT 4 SKILLS AND ETHICAL GUIDELINES FOR ABSTRACTERS

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Skill requirements for abstracters
 - 3.2 Ethical guidelines for abstracters
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

Abstracting is an activity that requires the display of certain skills by the abstracter for the abstract to be useful to searchers. Abstracting is also guided by some ethical principles that ensure that the produced abstract follows the laid down convention. This unit will examine the skills that an abstracter should possess and the ethical guidelines that they should adhere to.

2.0 OBJECTIVES

By the end of this unit, you will be able to:

- discuss the skills that an abstracter should possess
- describe the ethical guidelines for abstracters

3.0 MAIN CONTENT

3.1 Skill requirements for abstracters

It is expected that a good abstracter should possess some skills that will enable him or her to produce good abstracts. Adetoro (2014) enumerated the skills as:

1. Ability to display dexterity in writing and reading different types of documents: This is very important because an abstracter should be able to abstract different documents for different purposes. To do this successfully, he or she should possess writing and reading skills.
2. Ability to summarise documents effectively: Abstracting itself is a condensed summary of the essential content of a work. Thus, an

individual who does not have the skills to summarize a document cannot be a good abstracter.

3. Ability to scan documents and explain their content: An abstracter needs to have the patience and skills to go through a document and ascertain the content before the abstract can be written. An abstracter who cannot scan documents will find it difficult to have an idea of what the documents are about and if that is the case he or she will not be able to explain the content effectively.
4. Ability to critically analyse contents of documents to identify key terms and expressions that should be part of the abstract: An abstracter should have an eye for quality such that in a document, he or she should be able to differentiate between key expressions from other expressions that make up the document. This requires professionalism that is at times nurtured by experience, such that even if the document does not provide clear clues as to the main points, the abstracter by virtue of this skill should be able to identify the needed points.
5. Ability to be comprehensive yet concise: this connotes that the abstracter should possess the skill that will enable him or her to provide a skeletal yet detailed abstract that will be short and still filled with essential content that will benefit the users.

3.2 Ethical guidelines for abstracters

According to Adetoro (2014), the following are some of the ethical guidelines for abstracters:

1. Ensure you scan the contents of documents with the mind-set of retrieving the key expressions: Abstracters need to focus on the reason for abstracting by focusing on the central ideas in documents. They should not lose sight of the fact that their goal is not just to summarize the contents, but also to provide meaningful information that is sufficient to make informed decisions.
2. Abstracts should be tailored towards the needs of the users: In as much as the abstracter needs to provide the condensed representation of the main content of a work, it is equally important to always have the users in mind. This will assist the abstracter to communicate in a clear manner and also retain essential contents that will benefit the users.
3. Do not be clumsy in your write-up, be explicit and do not write in an ambiguous manner: The essence of the abstract is to provide information to the reader. As such, the abstracter needs to write in simple and plain language that will not warrant the users dissipating energy and wasting time before the information can be understood if all. An abstract that is not explicit will defeat its purpose.

4. Avoid repetitive words and write concise sentences: It is imperative for an abstract to be brief so that users can quickly locate information in addressing their needs. As a result, there is no room for repetition, once a particular point has been made, it should not be re-emphasized again. Repetition will fill the abstract with redundancies and that will make the abstract to be unnecessarily lengthy.
5. Be mindful of the use of abbreviations: The use of abbreviations should be minimized in the abstract so that users will not devote time to decipher the full meaning of words. Even if abbreviations have to be used, it is essential to write the full meaning at the first mention and then the abbreviation in bracket. After that the abbreviation can be used subsequently. For example, WHO should first of all be written as World Health Organization (WHO) before it can subsequently be written in the abstract as WHO.
6. Do not lift and paste words directly from the body of the document: Pasting of words directly from the body may fill up the abstract with unnecessary details that will be carried over from the body. Also, lifting of words from the body and pasting them in the abstract does not show creativity and professionalism on the part of the abstracter. It is important for the abstracter to paraphrase and ensure that the content of the abstract is not an exact replica of the body. However, the idea in the body should not be at variance with that of the abstract. The key ideas must remain, but the word structure should be different to reflect originality.
7. The conclusion of the abstract should be written in the past tense: This is because the abstract is a report of the main document and to reveal that the information in the conclusion of the abstract already existed in the source document, it has to be written in the past tense.
8. Avoid the use of synonyms: This will ensure that the content of the body of the abstract does not include words just to fill up space. All the words in the body of the abstract must be properly weighed as to the relevance before they are written. Since word count is important in the abstract, there is no room for unnecessary words that can cause the abstract to exceed the needed word count. For instance, there is no need to write 'the world presently is dangerous, perilous and unsafe'. Dangerous, perilous and unsafe are synonyms that are conveying similar thoughts, as such writing the three of them in a sentence is wasteful. The sentence could read 'the world presently is unsafe' and still make sense. So, care must be taken to avoid the use of synonyms in the abstract.
9. Be cautious not to misrepresent the ideas in the main document: In as much as the abstracter wants to be original and creative, the main idea should not be lost on the altar of originality and creativity. If an abstracter changes the main idea of the author

because he or she does not want to be accused of lifting, he could be accused of misrepresentation and that could lead to legal matters in the worst case scenario. This ethical principle needs to be taken seriously.

10. Adjectives should not be used and avoid commenting on the content of the document: The task of the abstracter is not to critique the work, rather he or she has the duty of providing the condensed summary of its essential content. In doing this, the abstracter should focus on what the author said and not what he or she ought to say and did not say or what he or she has said but should be clarified. In addition, adjectives will only provide redundancies in the body as qualifying a noun might not change the content or add to it.

4.0 CONCLUSION

A good abstract is a product of hard work, skills and professionalism. As a result, it is essential for an abstracter in training to understand the skills requirements and the principles that guide the task of abstracting. If an abstracter fails to acquire these skills and adhere to the ethical principles, the abstracts produced by such an individual will not be useful and the time and effort expended would have gone to waste.

5.0 SUMMARY

This unit has explained and enumerated five skills that an abstracter requires and ten ethical principles that guide the process of abstracting.

SELF ASSESSMENT EXERCISE

As an abstracter, explain the skills that you have to possess.

6.0 TUTOR-MARKED ASSIGNMENT

Enumerate the principles guiding the process of abstracting.

7.0 REFERENCES/FURTHER READING

Adetoro, 'N. (2014). *Indexing and abstracting*. Open University.
http://www.researchgate.net/publication/326843476_Indexing_and_Abtracting

Aina, L.O. (2004). *Library and Information Science text for Africa*. Ibadan: Third World Information Services.

Cleveland, D.B. & Cleaveland, A.D. (2001). *Introduction to indexing and abstracting*. Littleton: Libraries Unlimited.

Lancaster, F.W. (2003). *Indexing and abstracting in theory and practice*.
3rd ed. Champaign Illinois: University of Illinois

MODULE 6 THESAURUS CONSTRUCTION AND EVALUATION

This module will provide details on how thesaurus, an important controlled vocabulary that is used in indexing can be constructed. The components of this module will include the definition of a thesaurus, the content of a thesaurus, the steps that are involved in the construction of a thesaurus and how a thesaurus can be evaluated.

Unit 1	Definition of a thesaurus
Unit 2	Content of a thesaurus
Unit 3	Steps in thesaurus construction
Unit 4	Evaluation of a thesaurus

UNIT 1 DEFINITION OF A THESAURUS

CONTENTS

1.0	Introduction
2.0	Objectives
3.0	Main Content
4.0	Conclusion
5.0	Summary
6.0	Tutor-Marked assignment
7.0	References/Further Reading

1.0 INTRODUCTION

In Module 3, Unit 2, you learnt that thesaurus is one of the controlled vocabularies that indexers use to ensure that users can effectively retrieve information from documents and information systems. In this unit, the definition of the thesaurus will be provided and the relevance of this authority list to information retrieval will also be enumerated.

2.0 OBJECTIVES

By the end of this unit, you will be able to:

- define a thesaurus
- enumerate the importance of a thesaurus in information retrieval

3.0 MAIN CONTENT

A thesaurus is a form of controlled vocabulary that presents relationships between terms. It can also be viewed as a representation of key concepts

that are peculiar to a particular subject field. According to the International Organization for Standardization (2013), a thesaurus can be defined as a “controlled and structured vocabulary in which concepts are represented by terms, organized so that relationships between concepts are made explicit, and preferred terms are accompanied by lead-in entries for synonyms or quasi-synonyms”. Aina (2004) stated that just like subject heading lists like the Sears List of Subject Headings (SLSH) and the Library of Congress Subject Headings (LCSH), thesaurus controls terms that can be used as descriptors and also guides the users on the terms to select through the affinity notations. Additionally, a thesaurus is also different from subject headings because it does not cover all disciplines as it is developed for specialized subject domains.

Ryan (2014) opined that thesauri are important tools in the retrieval of information as they ensure that indexers are properly guided as to the headings that can be used to describe subject concepts and that the users are also assisted in retrieving information with the use of standardized headings. Hedden (2010) stated that this function of the thesaurus is aimed at supporting indexing, access, organization and navigation of information. Thesaurus also leads searchers through the relationships to specific concepts by allowing them to go through the list of standardized terms in order to select the one that represents the concept needed. Furthermore, relationship terms used in thesauri like Broader Term (BT), Related Term (RT) and Narrower Term (NT) could direct information searchers to other concepts that they might not have thought of, but could also be useful in their search for information. The fact that navigating through the thesaurus can be done alphabetically or hierarchically by classified subject divisions made this vocabulary list very effective.

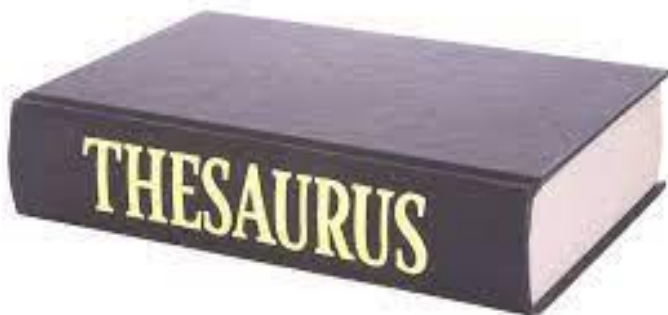


Fig 35: A thesaurus

<http://www.collinsdictionary.com>

4.0 CONCLUSION

Thesauri are vocabulary lists that are very useful for indexers who use controlled indexing language. These authority lists are also useful to those searching for information as they help in locating the information they require through the subject descriptors in the thesauri.

5.0 SUMMARY

This unit has provided the definition of thesaurus as a controlled vocabulary tool. The importance of a thesaurus was also explained.

SELF ASSESSMENT EXERCISE

Define thesaurus

6.0 TUTOR-MARKED ASSIGNMENT

Explain why it is an important tool in information representation and packaging.

7.0 REFERENCES/FURTHER READING

Aina, L.O. (2004). *Library and Information Science text for Africa*. Ibadan: Third World Information Services.

Hedden, H. (2010). *The accidental taxonomist*. Medford, New Jersey. Information Today, Inc.

International Organization for Standardization 2013 ISO 25964-2:2013, information and documentation. Thesauri and interoperability with other vocabularies. Part 2: interoperability with other vocabularies. Geneva. International Organization for Standardization.

Ryan, C. (2014). Thesaurus construction guidelines: an introduction to thesauri and guidelines on their construction. Motif Project. <http://www.researchgate.net/publication/267207310>

UNIT 2 CONTENT OF A THESAURUS

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

In the previous unit in this module, you learnt the definition and importance of a thesaurus. In this unit, you will be exposed to the contents of a thesaurus which will give you a better understanding of how this authority list is structured.

2.0 OBJECTIVES

By the end of this unit, you will be able to:

Identify and discuss the content of a thesaurus

3.0 MAIN CONTENT

A thesaurus is expected to be made up of the following:

- 1. Preferred terms
- 2. Non-preferred terms
- 3. Semantic relationship
- 4. Guide to application
- 5. Rules of synthesis

Preferred terms: These are also called descriptors in the thesaurus. These are terms that the thesaurus recognizes as those that can be used as headings for subject based concepts. This connotes that these are the terms that can be used to index documents and also terms that the searchers can use to locate the documents. Without preferred terms, there is no thesaurus as these descriptors form the basis for further terms of relationships (Like broader term, narrower term etc.) that could exist between subjects which the thesaurus also takes care of.

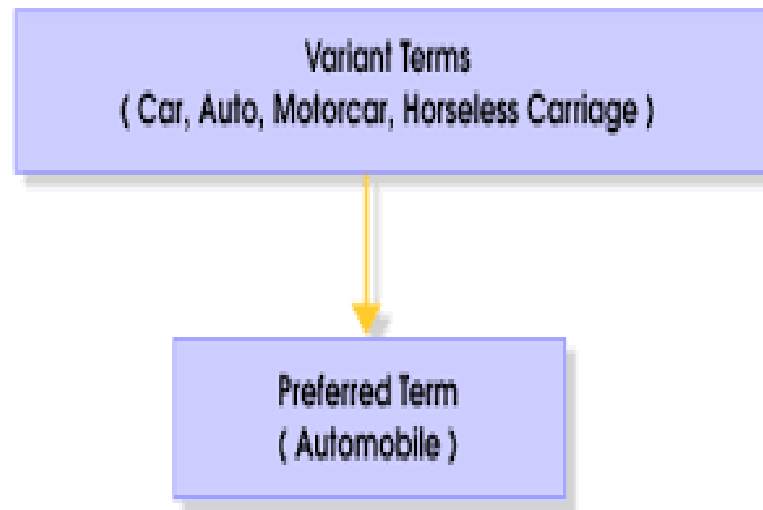


Fig 36 : Sample of a preferred term

<http://www.thesaurusbuilder.com>

Non-preferred terms: These are also known as non-descriptors in the thesaurus. These are the terms that cannot be used as subject headings by the indexer and as such the questers will not be able to retrieve the needed information with the use of these terms. The non-preferred terms in the thesaurus will also provide information on the terms that the indexer is allowed to use. Thus, the non-descriptors guide the user of the thesaurus to the descriptors. The notations used in this context are USE and USE FOR (UF). For example, if the information is given in a thesaurus; Petrol USE Gasoline, this indicates that Petrol is not a preferred term, Gasoline is. Also, in the case of; Bibliographic description UF Cataloguing, connotes that Cataloguing is not a preferred term.

Semantic relationship: this is one of the hallmarks of the thesaurus. The thesaurus provides extensive relationships that could exist between different terms, thereby assisting the user to understand the terms better in order to make select the relevant search terms. The forms of semantic relationship in a thesaurus are:

- **Equivalence:** Ryan (2014) noted that the equivalence relationship in a thesaurus is one that exists between descriptors and non-descriptors which helps to clarify the terms that can be used as heading and those that are not preferred. This relationship is represented by USE and UF. It should be noted that this type of relationship can only exist between terms and not concepts.
- **Hierarchy:** this is a form of semantic relationship that presents an ordered relationship between concepts not terms. Hierarchical relationship specifies the concept that are broader and those that are narrower to a specific term or concept and they are represented

in the thesaurus as BT for broader term and NT for narrower term. BT refers to a concept that is larger and can accommodate other concepts under it. For example Goat BT Domestic animal. This connotes that goat is just an example of domestic animals. On the other hand, NT refers to a concept that is subsumed under a broader concept. For example Sports NT Football. From this example, it is clear that football is a form of sport. Hierarchical relationships can assist searchers to either broaden a search or narrow it.

- Association: this form of relationship refers to the similarities that exist between terms. Hedden (2010) pointed out that associative relationship informs the indexer and the searcher of the availability of other terms that are equally related and could also be used to index and to search. Associative relationship is depicted in the thesaurus by Related Term (RT). For example, Cataloguing RT Classification, thus signifying that there is a form of correlation between cataloguing and classification and that a searcher who is interested in accessing information content on cataloguing might also be interested in classification which completes the process of organization of knowledge.

Guide to application: a thesaurus also includes information on how it can be properly used by indexers and searchers. The guides could be in form of introductory statements and scope notes.

The introductory statements will provide directions on how best the thesaurus can be used and also guide users on the arrangement of the thesaurus in terms of structure. As for scope notes, they are depicted in the thesaurus with SN. These notes give direction on the meaning of a preferred term and how best such a term can be used. Scope notes could define terms, clarify their usage, give further explanations as to why they should be used in specific contexts and why they should not be used. Ryan (2014) pointed out that other guides to application in a thesaurus are; history note (HN) that gives information about the origin of a concept for the sake of clarity and definition of term/concept (DEF) that provides the definition of a term.

Below is an example of a thesaurus entry from slideplayer.com that showed the different relationships discussed thus far:

Dark chocolate

BT Chocolate

RT Single-origin chocolate

UF Semisweet chocolate

Baker's chocolate

Sweet chocolate

SN Chocolate without milk solids and less than 70 percent chocolate mass

This is the summary of the four relationships discussed thus far as provided by slideplayer.com:

BT: broader term, one level up in a hierarchy

RT: related term, in another facet of the hierarchical branch

UF: Use for; synonyms, or non-preferred terms

SN: Scope note; definitions or usage guidelines

Rules of synthesis: a thesaurus should also include the rules governing how descriptors can be combined to form headings for subject concepts. Rules of synthesis also cover how to create preferred terms and how synonyms can be generated. These rules also follow grammatical rules of language to have a standardised thesaurus.

4.0 CONCLUSION

Thesaurus is an effective controlled vocabulary that could assist indexers to better represent and package ideas from authors and also assist the searchers to retrieve information contents from documents and systems through appropriate descriptors. It is imperative that indexers and information users master the content of thesauri in order to effectively use them as tools for information representation and retrieval.

5.0 SUMMARY

This unit has discussed quite extensively the content of a thesaurus. The components of a thesaurus that were explained are; preferred terms, non-preferred terms, semantic relationship, guide to application and rules of synthesis.

SELF ASSESSMENT EXERCISE

Enumerate the contents of a thesaurus

6.0 TUTOR-MARKED ASSIGNMENT

List and explain the contents of a thesaurus.

7.0 REFERENCES/FURTHER READING

Hedden, H. (2010). *The accidental taxonomist*. Medford, New Jersey. Information Today, Inc.

Ryan, C. (2014). Thesaurus construction guidelines: an introduction to thesauri and guidelines on their construction. Motif Project. <http://www.researchgate.net/publication/267207310>

UNIT 3 STEPS IN THESAURUS CONSTRUCTION

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

The previous unit exposed you to the contents of a thesaurus. This unit will however explain to you how the contents are developed by discussing the steps that are involved in the construction of a thesaurus.

2.0 OBJECTIVE

By the end of this unit, you will be able to:

List and explain the steps involved in the construction of a thesaurus

3.0 MAIN CONTENT

The construction of a thesaurus is a consciously planned activity that requires expertise as well as a deliberate course of action that will bring about a functional controlled vocabulary list. Ryan (2014) observed that the process of constructing a thesaurus is a long term activity that should be properly planned. The seriousness of the planning needed when constructing a thesaurus is reflected in the series of steps that are involved in its construction. These steps according to Cleaveland and Cleaveland (2001) are:

1. Identification of the subject context
2. Identification of the literature that will be indexed
3. Identification of the users
4. Identification of the filing system
5. Consultation of other vocabulary resources
6. Clustering and establishing of relationship between the subject terms

Identification of the subject context: Before constructing a thesaurus, it is imperative to ascertain the subject area(s) that the thesaurus will cover. This will be of assistance in determining the core facets and the concepts that the thesaurus will accommodate and the subject boundaries that will

be respected by the thesaurus. Identifying the subject field will reveal if there is a gap to be filled as the availability of an effective thesaurus in that field could render the construction of another one unnecessary. This does not mean that multiple thesauri cannot exist in a particular subject field, if such a situation occurs, they should not be an exact replica.

Identification of the literature that will be indexed: Since a thesaurus is a tool that is used in indexing, the identification of the nature of literature is important. This is because the nature of the literature whether books, journals, conference proceedings, book reports, grey literature and the likes will have an implication for the depth of the organization. If the thesaurus will be used primarily for the indexing of books, the level of complexity in the arrangement of terms will not be as high as if it will be used for a journal.

Identification of the users: This is a very important activity in the construction of a thesaurus because without the users, all the efforts expended in ensuring that the thesaurus is constructed will not be justified. Thus, it is important for those who are in charge of the development of the thesaurus to determine who the tool is for. Is the thesaurus developed for children? Are the users of the thesaurus secondary school students? Will the thesaurus be used by university students? Is the thesaurus constructed for researchers? Even if the users of the thesaurus are university students, are they in a particular discipline or field of study? Answers to these questions have implications for the choice of terms and arrangements in the thesaurus. It is expected that descriptors used in the thesaurus meant for children will not be the same used in a journal. The information needs of the users will go a long way in determining the content of the thesaurus that is to be constructed.

Identification of the filing system: this is an important activity in the construction of a thesaurus that has to do with the file structure. The structure could either be pre-coordinate or post-coordinate in nature. When it is pre-coordinate, it means for all the subject terms in the thesaurus, lead terms would be selected and other related terms would be coordinated under these terms. For example:

Cataloguing

Definition

Elements

Process

Types

In this example, cataloguing is the lead term and other associated concepts with cataloguing are listed under it. Thus, as a result of the pre-coordination done at the point of construction, searcher would know the

relationship between the terms in the thesaurus. On the other hand, if the filing system is post-coordinate, all the terms will be independently listed and the searcher will be the one to do the coordination at the point of searching. In the case of the example already provided, this is how the entries will be in a post-coordinate setting:

Cataloguing, definition
Cataloguing, elements
Cataloguing, process
Cataloguing, types

From this example, it is clear that all the terms are independent and there is no lead term.

Consultation of other vocabulary resources: the experts who are constructing the thesaurus can benefit greatly from the careful consideration of other vocabulary resources in the subject area that is being developed. This will assist them to evaluate what has been done before, how it was done and the registers in the subject area. Ryan (2014) opined that the vocabulary resources can be consulted include classification schemes, taxonomies and published works like abstracts, summaries, reports, conference proceedings and the likes. Others include; reference materials like subject dictionaries, indexes, databases and encyclopedias. The author also identified online information resources relevant to the subject field and internal team resources such as minutes of meetings and correspondences as valuable resources that can contribute to the development of the thesaurus. The influence of subject experts and professionals should not be ruled out in the development of vocabulary. These individuals because of their wealth of experience can offer perspectives that will be beneficial to the construction of the thesaurus.

Clustering and establishing relationship between the subject terms: this is the process of logically organizing the selected terms into different headings and using associative notations to identify their relationships. It is at this point that descriptors and non-descriptors are selected and different forms of semantic relationships are deployed. Terms like Broader Term (BT), Narrower Term (NT), Related Term (RT), SEE AND SEE ALSO will be used. It is important to state that when deciding on subject terms that will be included in the thesaurus, preference should be for nouns, noun phrases and verbs, while adverbs and articles should be avoided as much as possible.

4.0 CONCLUSION

The construction of a thesaurus is a planned, deliberate and a very serious activity that needs professionalism and expertise of those who are saddled

with such responsibility. Before a thesaurus is published, it must have gone through these series of activities, thereby ensuring that what the users will access is authoritative and reliable.

5.0 SUMMARY

This unit has explained the steps that must be taken before a thesaurus can be constructed. These steps are; identification of the subject content, identification of the literature that will be indexed, identification of the users and identification of the filing system. Other steps include: consultation of other vocabulary resources and clustering and establishing of relationships between the subject terms. The different criteria that can be used to evaluate a thesaurus were also discussed.

SELF ASSESSMENT EXERCISE

Enumerate the steps involved in the thesaurus construction.

6.0 TUTOR-MARKED ASSIGNMENT

You have been saddled with the responsibility of constructing a thesaurus in a particular field, explain how you are going to carry out your responsibility.

7.0 REFERENCES/FURTHER READING

Cleveland, D.B. & Cleaveland, A.D. (2001). *Introduction to indexing and abstracting*. Littleton: Libraries Unlimited.

Ryan, C. (2014). Thesaurus construction guidelines: an introduction to thesauri and guidelines on their construction. Motif Project. <http://www.researchgate.net/publication/267207310>

UNIT 4 EVALUATION OF A THESAURUS

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

To determine whether a thesaurus is effective or not, there is the need for it to be evaluated. This process will assist the indexers and searchers to ascertain if the contents in the thesaurus can be relied on or not. The focus of this unit is to therefore list and discuss the criteria that can be used to assess the quality of a thesaurus.

2.0 OBJECTIVE

By the end of this unit, you should be able to:

Enumerate the criteria that can be used to evaluate a thesaurus

3.0 MAIN CONTENT

Cleaveland and Cleaveland (2001) highlighted the criteria that could be used to evaluate a thesaurus as:

1. Authority
2. Proven usefulness
3. Regular revision
4. Ease of use

Authority: this has to do with those that are responsible for the construction and publication of the thesaurus. As a result of the intellectual rigor associated with the construction of a thesaurus, it is expected that academically qualified, competent and experienced individuals and organizations are those who should be responsible for it. The authority behind the thesaurus goes a long way in revealing the quality of the content of the thesaurus. When a known and respected organization is responsible for the publication of a thesaurus, it instills confidence in the searchers.

Proven usefulness: an effective thesaurus has a track record of quality and a fine testimony from those who have used it before. If the review of the content of the thesaurus is negative, it could be a pointer that such a thesaurus has not been properly prepared. A thesaurus that has been very useful to the intended users is no doubt a good thesaurus whose functionality has been confirmed. Thus, before deciding to use or acquire a thesaurus, it is important to ask if such thesaurus has been proved useful or not.

Regular revision: knowledge is not static, as such it is expected that new lexicons will emerge on the scene over time. Thus, an effective thesaurus should have a policy of revision to add new words and evaluate the use standing of the older ones. It could be the policy of the publishers of a catalogue to revise every decade, while for some; it could be every 15 years. Regardless of the duration set for the revision, it is essential that it is revised. The implication of a thesaurus that does not undergo revision is that the knowledge contained may be obsolete and not relevant in the present scheme of things. Also, it is possible for a thesaurus to be revised but not regular. If this is the case, such a thesaurus is not consistent and those who are responsible for the publication cannot be viewed as serious. In evaluating a thesaurus, it is important to ask if the thesaurus has a revision policy or not.

Ease of use: a very important determinant of the use of a thesaurus is the ease associated with its use. If a thesaurus is difficult to use, information searchers will not consult it and the essence of its construction will be defeated. An effective thesaurus should have a set of instructions for users that will be very explicit with less ambiguity. This will guide the users as to how to make use of the thesaurus and especially what the associative terms like BT, NT and RT mean and how they can be properly used by indexers and searchers.

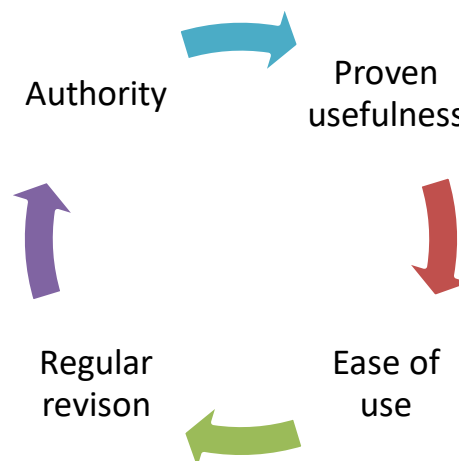


Fig 37: Evaluation of a thesaurus

4.0 CONCLUSION

Evaluation of a thesaurus is essential to ascertain the effectiveness or otherwise of this controlled vocabulary list. This process will assist indexers with the needed information that will determine whether to use the thesaurus for information representation or not. It will also assist the searchers to make a decision as to its use.

5.0 SUMMARY

The criteria that can be used to evaluate a thesaurus were discussed in this unit. These are authority, proven usefulness, regular revision and ease of use.

SELF ASSESSMENT EXERCISE

What do you understand by the term thesaurus evaluation?

6.0 TUTOR-MARKED ASSIGNMENT

Critically examine the criteria that can be used to evaluate a thesaurus.

7.0 REFERENCES/FURTHER READING

Cleveland, D.B. & Cleveland, A.D. (2001). *Introduction to indexing and abstracting*. Littleton: Libraries Unlimited.

Blurb

This course material is on information representation and packaging and it highlights the definition of an index, indexer and indexing. It discusses the purposes of the use of indexes and the various types of indexes. The material also enumerates the principles that guide the indexing process with explanations on the two main types of indexing systems. The different types of indexing language were also explained. The course material also discusses the criteria that can be used to evaluate an index to ensure its effectiveness.

This information resource also explains the concept of abstracting, with a special focus on the definition of abstracting, the purpose of abstracting and the different types of abstracts. The abstracting process and evaluation of an abstract were also sufficiently discussed. This course material also presents a detailed explanation on the construction of thesaurus which includes the contents and evaluation of a thesaurus.