

# INFORMATION LITERACY MODULE

## Unit 2: Locating information sources

# LEARNING OUTCOMES

At the end of this learning experience you should be able to:

- Identify the relevant search approach based on an information need
- Analyse the topic of a defined/specific task (such as an assignment)
- Develop a search string based on an information need using tools such as Boolean operators, truncation and parenthesis
- Apply a search string to general search engines and academic databases

# ASSESSMENT CRITERIA

These learning outcomes will be evident when:

- The relevant search approach is identified based on a specific information need
- The topic of a defined/ specific task is divided into action, theme and limiting words
- A search string is developed using tools such as Boolean operators, truncation and parenthesis
- A search string is applied to general search engines and academic databases.

# Search approach

# Selecting a search approach

Extensive knowledge (Professor)



Existing level of  
knowledge  
about  
a topic

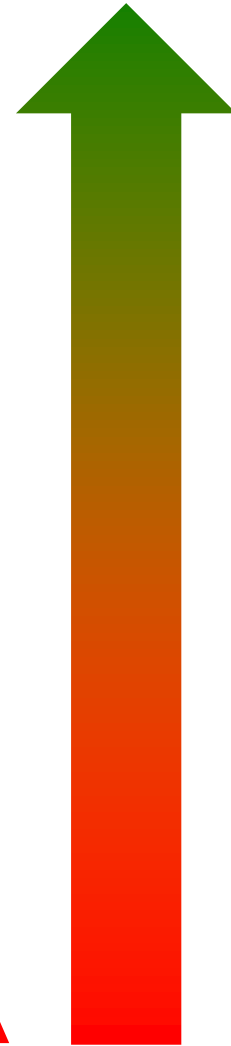
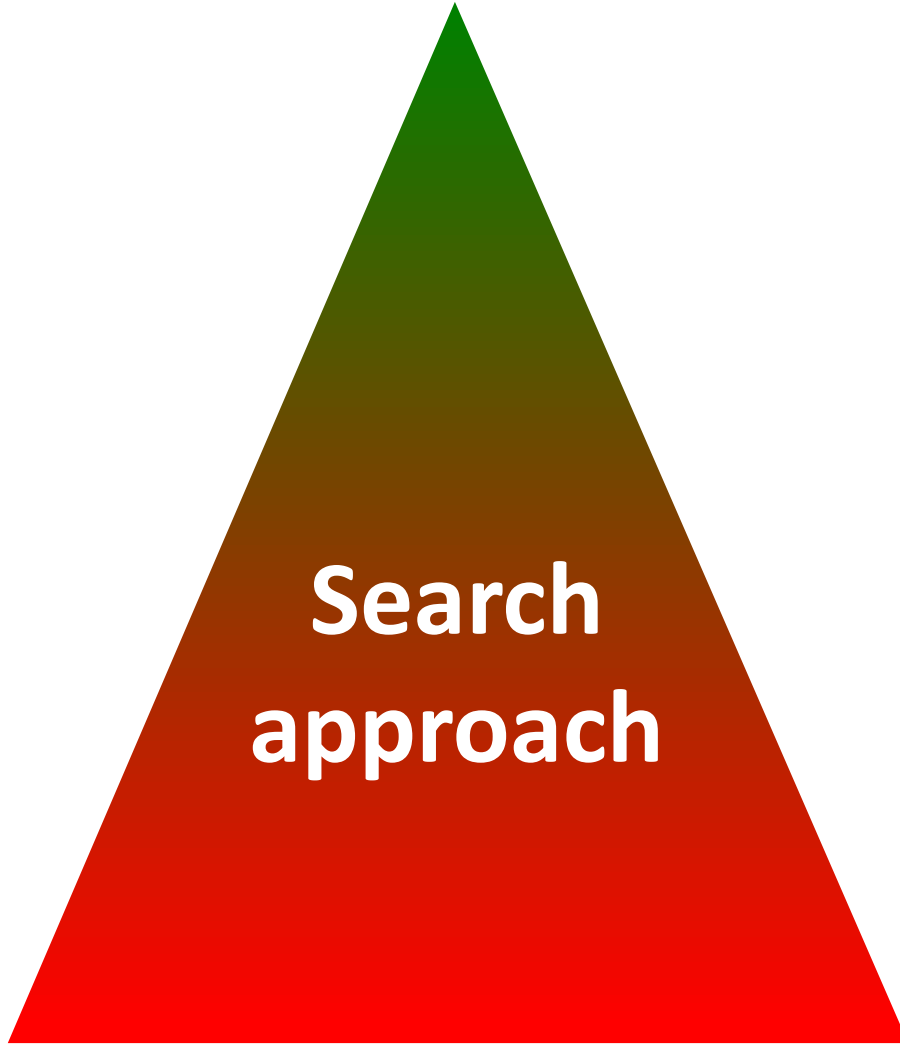
Little or no knowledge (first year student)

# Selecting a search approach

**Specific**



**Search  
approach**



**Broad**

# Analysing an assignment topic

# DEVELOPING A SEARCH STRATEGY

3 Steps

Analyse the topic



```
graph TD; A[Analyse the topic] --> B[Develop concepts]; B --> C[Develop a search string];
```

Develop concepts

Develop a search string



# Step 1: Analyse the topic

## SEARCH STRATEGY WORKSHEET

In order to find relevant information you must follow a systematic and organised approach (also called a search strategy). This worksheet helps you to develop a basic search strategy in 3 easy steps. If you follow the steps below, you will save a lot of time when searching for information. You will also find the most relevant information on your topic.

1. Write down your topic and underline the action-, topic- and limiting words

Divide the topic into **action**-, **topic**- and **limiting** words.

| <b>Action words</b>  | <b>Topic words</b>  | <b>Limiting words</b>  |
|--|---|--|
| <ul style="list-style-type: none"><li>• Words that tells you what to do.</li><li>• Verbs</li><li>• Examples:<ul style="list-style-type: none"><li>• Compare</li><li>• Discuss</li><li>• Evaluate</li></ul></li></ul> | <ul style="list-style-type: none"><li>• Words that describe what the assignment is all about.</li><li>• Nouns</li></ul> | <ul style="list-style-type: none"><li>• Words that narrow the topic to a workable scope.</li><li>• Categories or criteria:<ul style="list-style-type: none"><li>• Geographic location</li><li>• Time frame</li><li>• Other groupings</li></ul></li></ul> |

# Step 2: Develop concepts

## 2. Divide the topic- and limiting words into concepts and list all the concepts

Use as many concept boxes as needed. List synonyms for each concept. Include singular and plural forms, spelling variations and different word endings.

|      | CONCEPT |     | CONCEPT |     | CONCEPT |     | CONCEPT |
|------|---------|-----|---------|-----|---------|-----|---------|
| TERM | <hr/>   |     | <hr/>   |     | <hr/>   |     | <hr/>   |
|      | or      |     | or      |     | or      |     | or      |
| TERM | <hr/>   |     | <hr/>   |     | <hr/>   |     | <hr/>   |
|      | or      |     | or      |     | or      |     | or      |
| TERM | <hr/>   | AND | <hr/>   | AND | <hr/>   | AND | <hr/>   |
|      | or      |     | or      |     | or      |     | or      |
| TERM | <hr/>   |     | <hr/>   |     | <hr/>   |     | <hr/>   |
|      | or      |     | or      |     | or      |     | or      |
| TERM | <hr/>   |     | <hr/>   |     | <hr/>   |     | <hr/>   |

<http://www.thesaurus.com>

- The action- and limiting words of the assignment topic represents the main concepts.
- Basic techniques to identify variants:
  - Synonyms and alternating terms,
  - Subject headings and index terms (tags) and
  - Abbreviations.

# Step 3 - Construct search string

3.

**Construct your search string using a) boolean operators, b) truncation and c) parentheses**

## ***Boolean operators***

Boolean operators are simple words (AND, OR, NOT or AND NOT) that are used to combine or exclude keywords, phrases and concepts in a search, resulting in more focused and productive results.

"OR" broadens your search by gathering records in which one or more terms appear

"AND" narrows your search by requiring that at least one term from each concept group be present

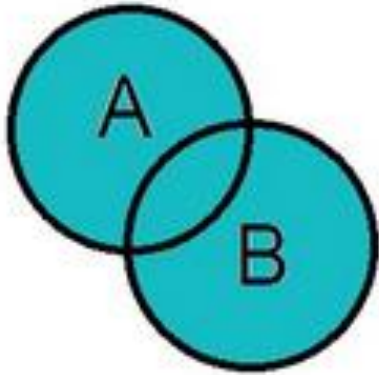
## ***Truncation***

Truncation is used to search for words containing a common root, with any number of letters preceding or following that root. To truncate a word use the "\*" symbol

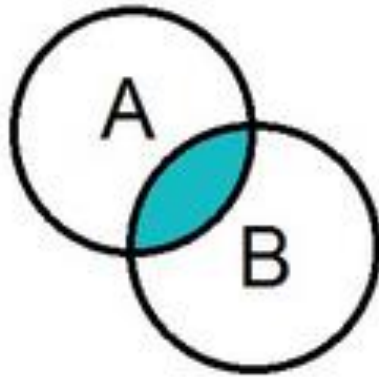
## ***Parentheses***

Parentheses are brackets ( ) that you use around terms that are connected with OR

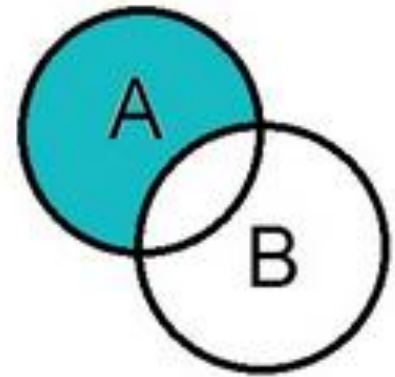
# Boolean operators



**OR**



**AND**



**NOT**

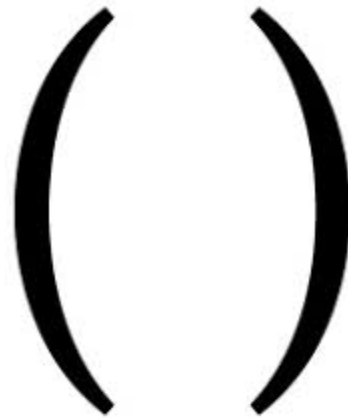
# Truncation \* most common

Prefix ROOT ~~Suffix~~ \*

Educatee  
Educationion  
Educatoror  
Educationalional  
Educatinging

} Educat \*

# Parenthesis



Parenthesis influences the way in which a search works

If parentheses (brackets) are used, the parts of the search contained within them are performed first.

$$(3-2)+(1+3)=$$

$$(1)+(4)=$$

5

Which one is correct?

Sustainability AND Reuse OR Recycle

(Sustainability AND Reuse) OR Recycle

Sustainability AND (Reuse OR Recycle)



# Application of a search string to databases

A demonstration of how a search string is applied to databases was presented during the lecture

# Summary

## Parenthesis ( )



Parenthesis influences the way in which a search works  
If parentheses (brackets) are used, the parts of the search contained within them are performed first.

$$(3-2)+(1+3)=5$$

$$(1)+(4)=5$$

### Examples

Sustainability AND Reuse OR Recycle  
(Sustainability AND Reuse) OR Recycle  
Sustainability AND (Reuse OR Recycle)

## DEVELOPING A SEARCH STRATEGY

# 3 Steps

Analyse the topic

Develop concepts

Develop a search string

## Truncation \* most common

Prefix ROOT ~~Suffix~~\*

Educate  
Education  
Educator  
Educational  
Educating

} Educate\*

Shahene University of Technology  
Library and Information Services  
Information Literacy Training

### SEARCH STRATEGY WORKSHEET

To obtain the most relevant information you need to use a systematic and organized approach called a search strategy. This worksheet helps you to develop a basic search strategy in a easy steps. If you follow the steps below, you will save a lot of time when searching for information. You will also find the most relevant information on your topic.

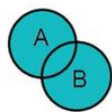
- Write down your topic and underline the action-, topic- and limiting words
- Divide the topic- and limiting words into concepts and list all the concepts
- Construct your search string using a) boolean operators, b) truncation and c) parentheses

You are now ready to search the internet, academic databases and the library catalogue. When writing an assignment or a research paper it is always better to search academic databases and the library catalogue first to save time.

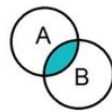
Divide the topic in **action-**, **topic-** and **limiting** words.

| Action words  | Topic words  | Limiting words  |
|---|--|---|
| <ul style="list-style-type: none"> <li>Words that tell you what to do.</li> <li>Verbs</li> <li>Examples:                             <ul style="list-style-type: none"> <li>Compare</li> <li>Discuss</li> <li>Evaluate</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>Words that describe what the assignment is all about.</li> <li>Nouns</li> </ul> | <ul style="list-style-type: none"> <li>Words that narrow the topic to a workable scope.</li> <li>Categories or criteria:                             <ul style="list-style-type: none"> <li>Geographic location</li> <li>Time frame</li> <li>Other groupings</li> </ul> </li> </ul> |

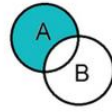
## Boolean operators



OR



AND



NOT

- The action- and limiting words of the assignment topic represents the main concepts.
- Basic techniques to identify variants:
  - Synonyms and alternating terms,
  - Subject headings and index terms (tags) and
  - Abbreviations.

# Thank you