

Identifying Indicators in Information Literacy Competency-Differentiating Between Objective and Subjective Data

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ABSTRACT

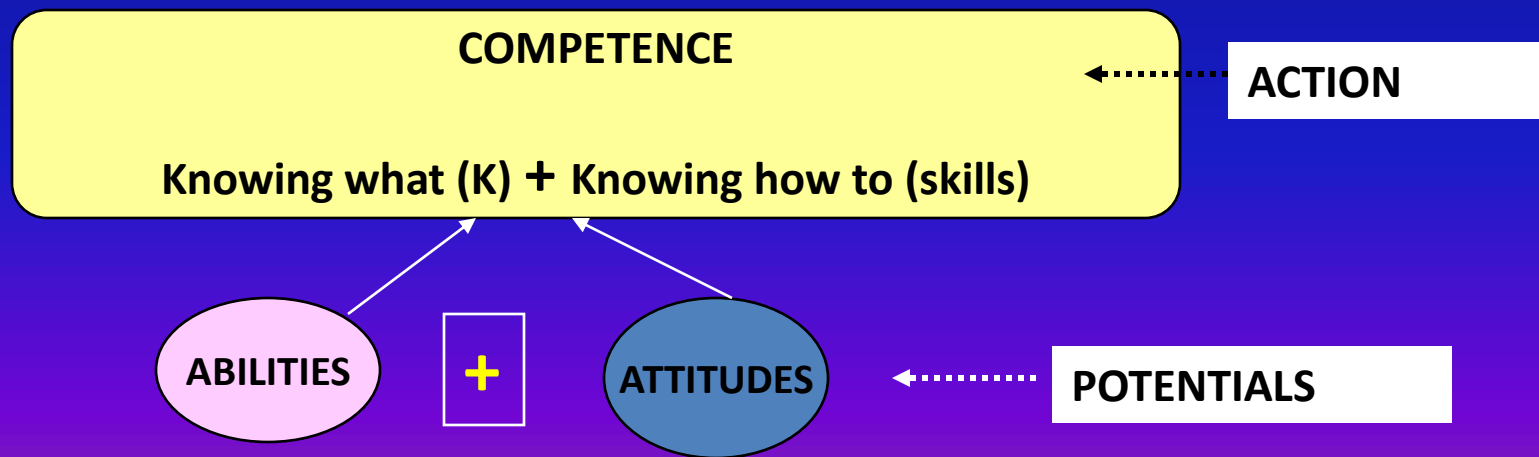
1. explains the concept of 'competency' in Information Literacy and the methodologies for measuring information literacy competency.
2. focuses on using evidence-based data as indicators for information literacy.
3. Evidence-based or objective data are contrasted with self-assessment and perception-based or subjective data.

3. COMPETENCY: Definitions

1. The generic knowledge, skills, or attitude of a person, related to effective behavior as demonstrated through performance.

2. A behavior, or set of behaviors that describe **excellent** performance in a particular work context.

3. One's faculty of doing things appropriately, based on one's abilities.
ABILITY – inherent resources, intellectual & physical in humans which may be actualised in everyday practices.



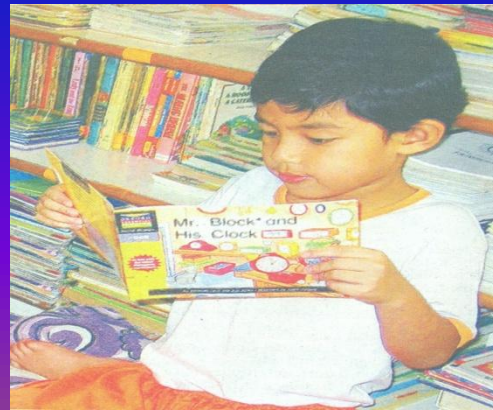
Evidence-based Evaluation

Good decision-making needs reliable data.

Competent managers use factual data in decision-making to avoid biases / unfairness and to maintain integrity.



EVIDENCES



Unobtrusive Method -

Participants

Unaware / Unaffected

Observation

Observe how children play in a small group.

Observe how the dept. head conducts meetings.

Observe how students search for information.

Data Tracking

Info. system used to track activities & behaviors

Principle: **Action cannot lie.** Words can lie.



**Collect data from observable behavior /
actual incidents / recorded evidences =
objective, factual data**

Perception vs. Fact

Are female students more hardworking than male students?

Strongly agree Agree Neutral Disagree Strongly Disagree

What are the empirical data?

Collect facts from BEHAVIOR and ACTION

What time did the students get up in the morning?

What did they do the first thing after they get up?

What did they have for breakfast? How long did they eat BF?

What time did they start working? What time did they break for tea?

What time did they pack up to go home? Go somewhere else?

The relationship between database usage by students and their academic achievement: a study at the National University of Malaysia

204 graduates from Faculty of Science, NUM, July 1999

First class honors	-	7 Chinese
	-	0 Malay
Second Upper	-	82 Chinese
	-	22 Malay
Second Lower	-	15 Chinese
	-	67 Malay
Third Class	-	0 Chinese
	-	11 Malay

*(Source: Mursiti Djojsumarto & Zaleha L. Saleh
Unpublished paper, M.Sc. Information Management program, UiTM, May 2000)*

Use of Databases

- **BA** : **C = 74%** ; **M = 26%**
- **FSTA** : **C = 75%** ; **M = 25%**
- **DAO** : **C = 100%** ; **M = (NIL)**
- **Thesis** : **C = 62%** ; **M = 38%**
- **SCI** : **C = 77%** ; **M = 26%**
- **LAIL** : **C = 74%** ; **M = 26%**

Total Database Use

- **C = 72%** ; **M = 28%**

Length of Usage

- **First and Second class students** : **May - October**
- **Third class students** : **May - July**

Turn Perceptive Survey into Evidence-based

- The library has adequate collection.

strongly agree agree neutral disagree strongly disagree

- The library has up-to-date collection.

strongly agree agree neutral disagree strongly disagree

What instruments should be used to replace perception with evidence-based data?

Adequate collection: Evidences

1

2

3

Up-to-date collection: Evidences

1

2

3

PERCEPTION-BASED vs. EVIDENCE

1. My ability to search electronic databases is:
 - advanced
 - moderate
 - beginner

1. If I want specific items on “Bird Flu” I will use:
 - Search term, “Bird” and “Flu”
 - Search term, “Bird” or “Flu”
 - “Bird” not “Flu”

Measuring Information Literacy

IL skills applicable to all human development (UNESCO 2008)

- a. Recognise information needs
- b. Locate and evaluate the quality of information
- c. Store and Retrieve information
- d. Make effective and ethical use of information, and
- e. Apply information to create and communicate knowledge.

(ALA 2004)

1. recognize when information is needed,
2. **Locate, access, and retrieve it efficiently,**
3. evaluate and use it effectively to achieve certain goals
4. **use information effectively to accomplish a specific purpose**
5. Understand many of the economic, legal, and social issues surrounding the use of information and access and use information ethically and legally.

Standard One *The information literate person recognises the need for information and determines the nature and extent of the information needed*

Standard Two *The information literate person finds needed information effectively and efficiently*

Standard Three *The information literate person critically evaluates information and the information seeking process*

Standard Four *The information literate person manages information collected or generated*

Standard Five *The information literate person applies prior and new information to construct new concepts or create new understandings*

Standard Six *The information literate person uses information with understanding and acknowledges cultural, ethical, economic, legal, and social issues surrounding the use of information*

(Australian and New Zealand Information Literacy Framework, principles, standards and practice. Second edition. Editor Alan Bundy. Adelaide, Australian and New Zealand Institute for Information Literacy, 2004)

Performance Level Definitions And Performance Standards Recommended For Proficient And Advanced Levels On The 60-item ILT

Proficiency Performance Descriptors
Level Standard Proficient 39 (65%).

The student who is Proficient is able to:

1. Describe how libraries are organized.
2. Define major library services.
3. Choose the appropriate type of reference source for a particular information need.
4. Identify common types of citations.
5. Employ basic database search strategies.
6. Locate a variety of sources in a library or online.
7. Discriminate between scholarly and popular publications.
8. Legally and ethically use information.

Advanced 54 (90%). The student who is Advanced is able to attain the criteria for Proficient and:

1. Modify and improve database search strategies to retrieve better results.
2. Employ sophisticated database search strategies.
3. Interpret information in a variety of sources.
4. Evaluate information in terms of purpose, authority and reliability.
5. Understand ethical, legal, and socioeconomic issues relating to information access and use.

Outcome 3: Evaluate information and its sources critically

Measurable behavior / action

- 1.
- 2.
- 3.
- 4.
- 5.

Measuring instrument

- 1.
- 2.
- 3.
- 4.
- 5.

Outcome 4: incorporate selected information into one's knowledge base

Measurable behavior / action

- 1.
- 2.
- 3.
- 4.
- 5.

Measuring instrument

- 1.
- 2.
- 3.
- 4.
- 5.

Outcome 5: use information effectively to accomplish a specific purpose

Measurable behavior / action

- 1.
- 2.
- 3.
- 4.
- 5.

Measuring instrument

- 1.
- 2.
- 3.
- 4.
- 5.

How good is the library collection?

Quality

- 1.
- 2.
- 3.

Quantity

- 1.
- 2.
- 3.

How good is the library collection?

Quality

1. award-winning titles
2. expert reviews
3. citation studies
4. users studies
5. up-to-date

Quantity

1. standards
2. benchmark
- 3.

How good are the library's services?

Performance	No of response	%
Excellent	3	6.12
Very good	19	38.77
Satisfactory	27	55.00
Unsatisfactory	0	0.00
Total	49	100.00

July
2007

Performance	No of response	%
Excellent	2	18.18
Very good	2	18.18
Satisfactory	6	54.54
Unsatisfactory	1	09.09
Total	11	100.00

July
2008

Measuring Quality of Services

Performance	No of response	%
Excellent	3	6.12
Very good	19	38.77
Satisfactory	27	55.00
Unsatisfactory	0	0.00
Total	49	100.00

A

Time taken to obtain materials on shelves	No of response	%
5-10 minutes	3	05.08
11-20 minutes	19	32.20
21-30 minutes	27	45.76
> 30 minutes	10	16.95
Total	59	100.00

B

Measuring productivity of work

Performance	No of response	%
Excellent	3	6.12
Very good	19	38.77
Satisfactory	27	55.00
Unsatisfactory	0	0.00
Total	49	100.00

A

No of original & correct card catalogs produced in one hour	No of response	%
3-5 titles	23	48.94
6-8 titles	19	40.43
9-12 titles	5	10.63
13-15 titles	0	0.00
Total	47	100.00

B

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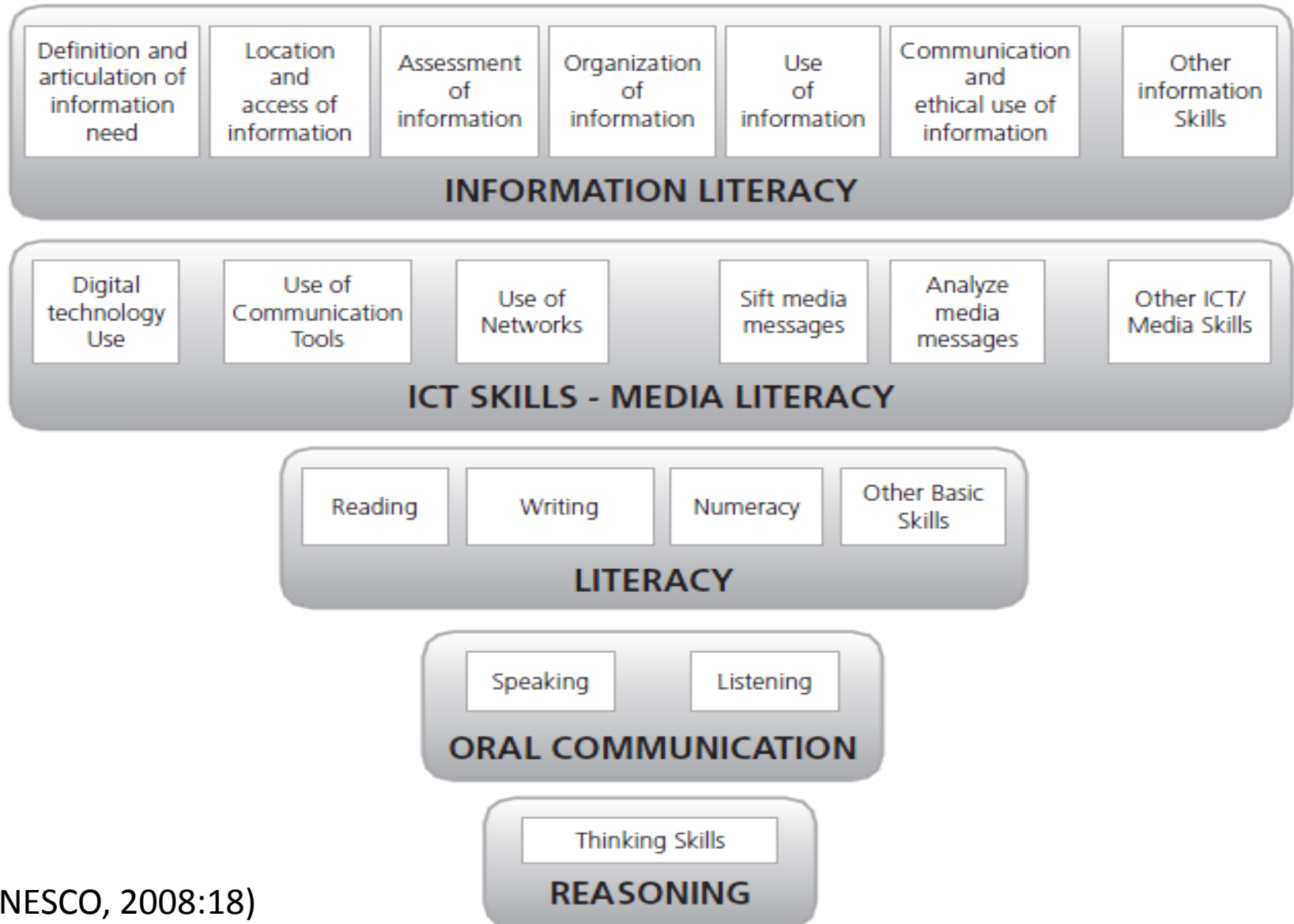
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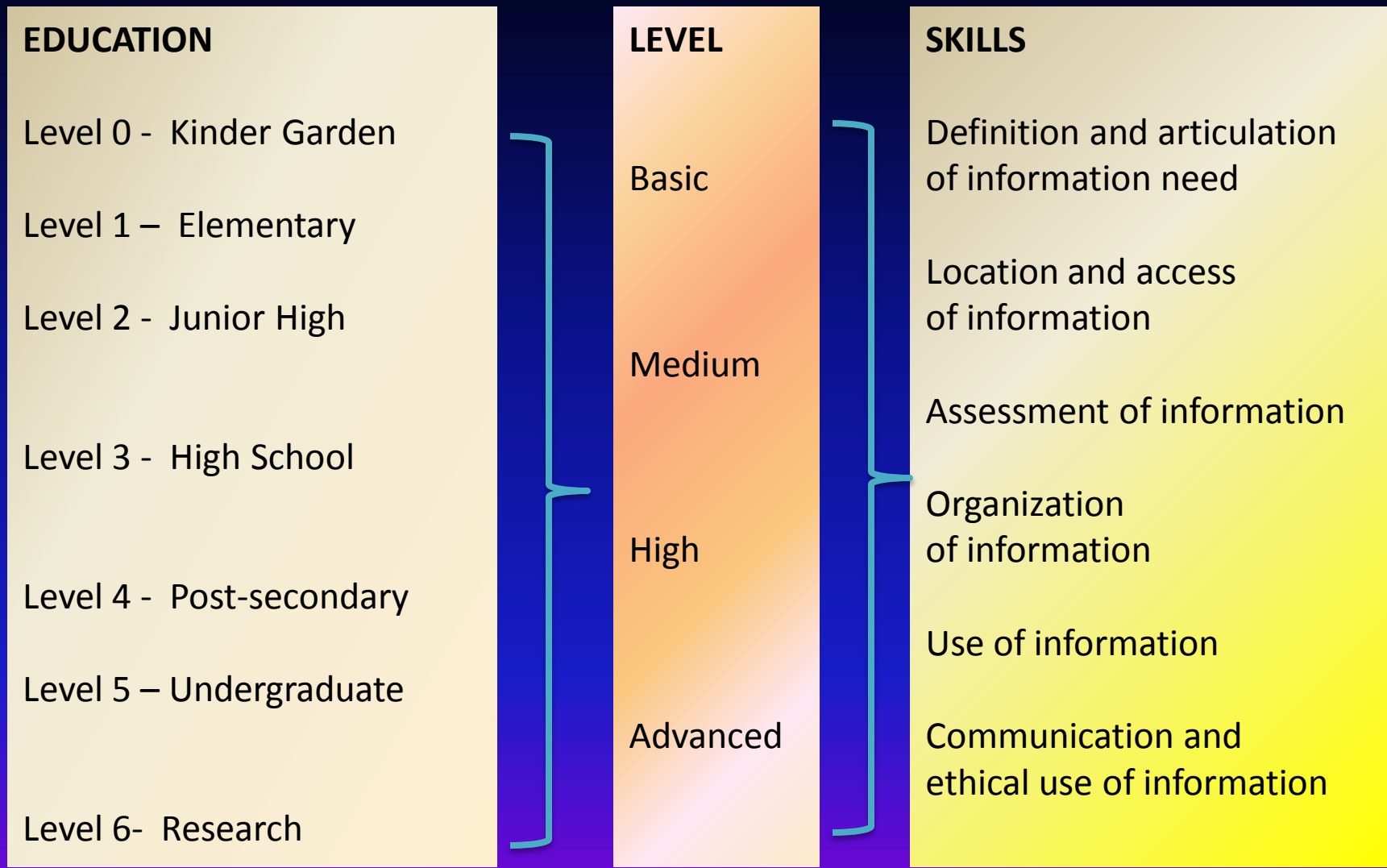
Communication Skills Map

Communication Skills Constellation



(UNESCO, 2008:18)

Information Literacy Continuum



(UNESCO, 2008:19)