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# **DEVELOPING INFORMATION LITERACY MEASURES FOR HIGHER EDUCATION**

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## Introduction

- **Information Literacy (IL)** is gaining its significance among citizens of the Knowledge-based economy in the 21<sup>st</sup> century.
- North America, Europe and Asia have implemented programs to develop IL at various levels of education.
- Standards and guidelines for developing IL programs in higher education, e.g. ALA standards, IFLA guidelines.
- Schools, colleges, universities have implemented IL programs in various forms.
- None provides a specific measuring instrument to determine the IL competency levels of university graduates within the Asian context.

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## Information Literacy: Definition

A set of abilities enabling an individual to:

1. recognize when information is needed,
2. where to locate, access, and retrieve it efficiently,
3. evaluate and use it effectively to achieve certain goals.

[Modified from definitions used in ALA (2004), Bruce (2002), Correia (2002)]

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## Objectives

- To identify the competency level of information literacy among would-be university graduates in universities in Malaysia
- To identify areas of strengths and weaknesses in information literacy among the subjects of study
- To make comparisons of the level of information literacy among various disciplines and background of would-be graduates
- To test the measuring instrument for the ultimate design of a reliable instrument for measuring IL competency in higher education

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## Literature Review

- The significance of information literacy
- Information literacy in higher education
- Information literacy studies in Malaysia

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## Scope of the First Part of the Study

- ❑ Skills are measured through respondents' actual performance reflecting their IL skills.
- ❑ Skills measured are the abilities to:
  - Access, identify, retrieve, search, evaluate, organize, select suitable sources and certain information for specific purposes*

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## Methodology

- **Sample** – 1,118 final year Bachelor's degree students (4 public & 2 private universities in the Klang Valley)
- **Instrument** – A structured questionnaire to test the knowledge and abilities in performing certain tasks .
  - Levels of their performance are categorized as: beginner, intermediate, and advanced
  - Scores are assigned for levels of competency: 0 = wrong answer, 1 = beginner, 2 = intermediate, 3 = advanced
- **Pilot-tested** with 50 final year students across universities and faculties
- Actual data collection during September & October 2005

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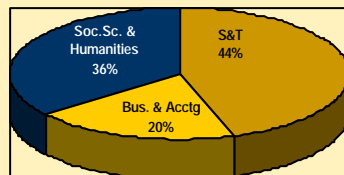
## Results and Discussions

- Profiles of respondents
- Overall Competency level
- Specific knowledge and IL skills
- Relationship between IL Competency and
  - Respondents' Background
  - Respondents' Information-Related Activities
- Discussions and implications of findings

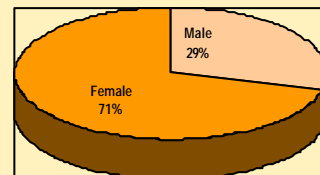
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## Profiles of Respondents

**Major**



**Gender**



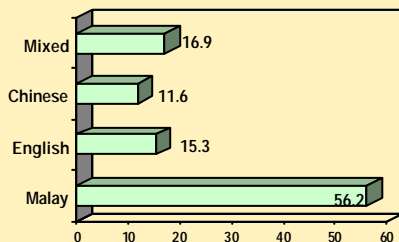
**Sample size = 1,118 final year degree students**

**Institutions: 4 public and 2 private universities**

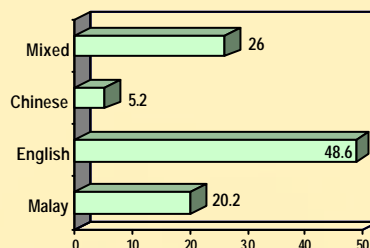
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## Language used

### On campus



### Reading Materials

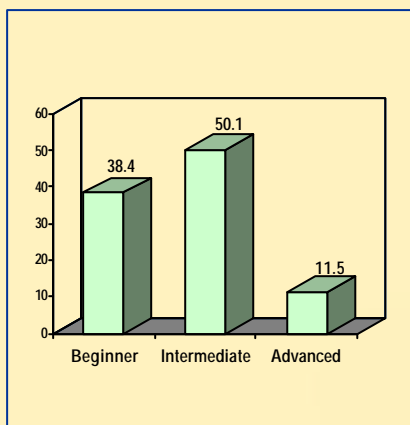


**Sample size = 1,118 final year degree students**

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## Overall Competency Level of Respondents



### Competency

**Score**                      **Level**

Less than 60%

**Beginner**

Between 60% to <75%

**Intermediate**

75% or more

**Advanced**

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## Respondents with Advanced Literacy level

No.	Knowledge on	Percent of Respondents with the most appropriate answer
1	Getting an up-to-date information on computer virus	86.3
2	Selecting relevant journal articles from an electronic database	73.9
3	Organizing information efficiently for preparing a paper	58.1
4	Identifying the most reliable source of information in the library	56.6
5	Differentiating facts from opinion	49.4
6	Choice of reliable information source for a research paper	44.9
7	Search engine	31.0
8	The most efficient search technique	14.5
9	Narrowing a search based on keywords	13.8
10	The most reliable published source of information on the Internet	12.7

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## IL Competency and Respondents' Background

Characteristic	Mean Percentage Competency Score	Test Statistic	P-value
1. Gender	Male = 61.7 Female = 61.4	0.637	0.755
2. Field of Study	S&T = 61.8 SS&H = 61.2 B&Fin = 61.1	0.901	0.637
3. Frequently used English at home	Yes = 62.4 No = 60.8	-1.754	0.079
4. Frequently used English on campus	Yes = 61.8 No = 60.7	-0.955	0.340
5. Frequently read English materials	Yes = 61.9 No = 58.8	-3.203	<b>0.001*</b>

\*Significantly different at the 0.01 level

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## Relationship Between IL Competency and Respondents' Information-Related Activities

Information-related Activities	Mean Percentage Score	Test Statistic	P-value
1. Use the Internet frequently to check the latest news	Yes = 62.3 ; No = 60.1	-2.977	0.004**
2. Use the Internet frequently to download programs/ software	Yes = 62.6; No = 60.5	-3.093	0.002**
3. Use the Internet frequently to search data bases for academic materials	Yes = 62.0; No = 60.2	-2.284	0.022*
4. Use the library frequently to discuss academic matters	Yes = 62.7; No = 60.7	-2.823	0.005**
5. Use the library frequently to read academic journals	Yes = 62.5; No = 60.8	2.357	0.018*
6. Have attended a voluntary information skills course for undergraduates	Yes = 60.9; No = 61.5	-0.731	0.465
7. Have attended one semester compulsory information skills course for first year students	Yes = 62.3 ; No = 61.0	-1.618	0.106
8. Have written assignments in essay format	Yes = 62.7; No = 60.0	3.657	<0.001**

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## Discussion

Lack of competency in the following abilities:

- To organise information for future use,
- To differentiate (evaluate and select) reliable sources of printed information,
- To differentiate facts from opinion
- To conduct search and select the most appropriate search engine for locating information.

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## Implications of Findings

- The relationship between competency and respondents' background has implications for designing IL program.
- Factors related to IL competency are useful inputs for educators and librarians in selecting:
  1. contents and contexts conducive for building IL competency, and
  2. teaching strategies that will result in improved competency levels.

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# Thank you

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