

# **Assessing IL Skills of Primary-5 Students in Singapore**

Yun-Ke Chang , Schubert Foo, Shaheen Majid,

Nanyang Technological University, Singapore

ECIL 2014

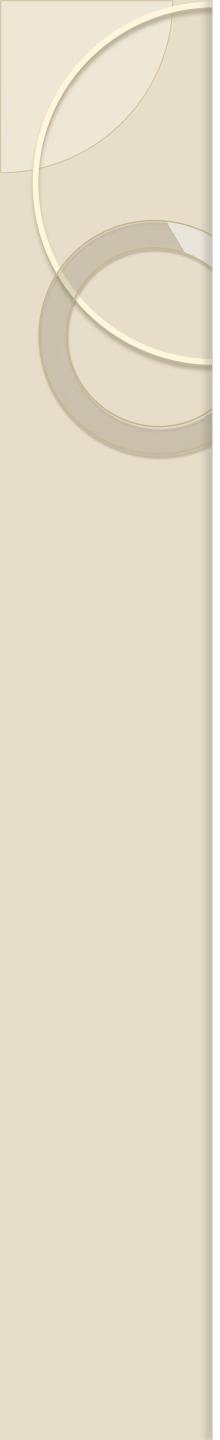
Dubrovnik, Croatia

# Main Focus of the Presentation

- This paper will report on the survey results of Singapore Primary 5 students' Information Literacy skills.

# Background

- Given the importance of IL competencies, some educative systems across the world have included IL skills in their curriculum, which are either
  - taught as an independent component,
  - incorporated into the curriculum with the foundation subjects pupils have to study, or
  - in a sole session by the library.

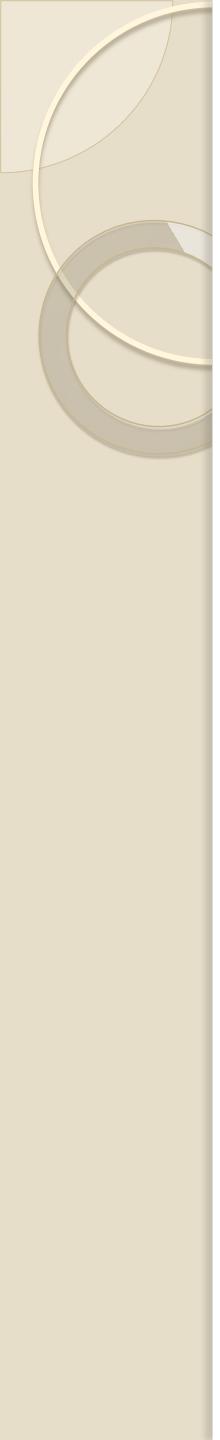


# IL Education in Singapore

- IL in the Singapore school sector has also evolved since it was first introduced in 1997.
- Applications of the IL publications and guidelines in school curriculum were short-lived by the end of the last millennium, and after nearly a decade, IL reappeared in the school curriculum

# IL Education in Singapore

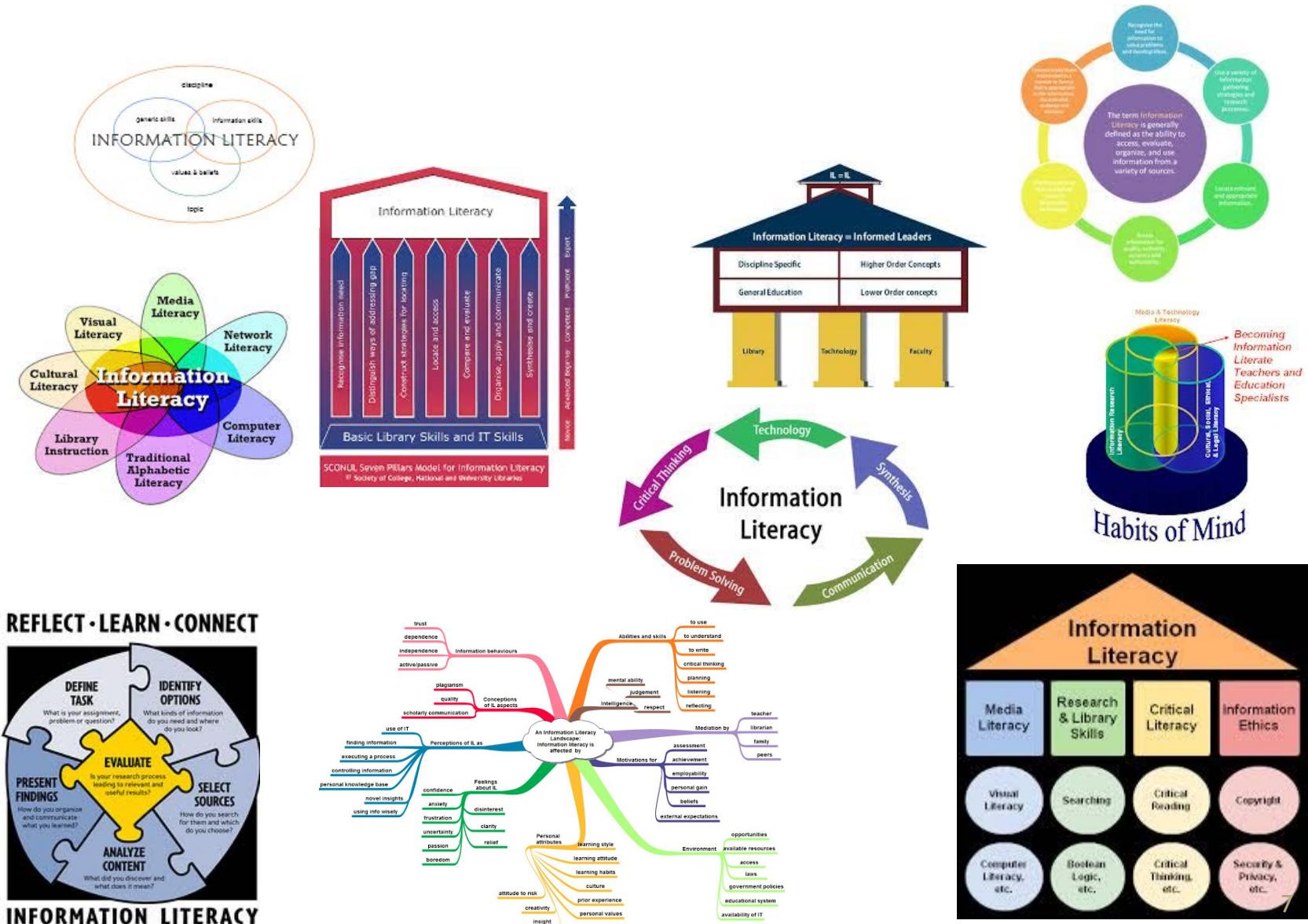
- However, most of the past efforts were focused on high school level and above.
- More recently, in 2009 information literacy skills were recognized among other 21st century skill sets to be taught to students from a younger age.
- In 2010, several information literacy components were incorporated into textbooks of various subjects.



# Background

- Different types of assessment, like questionnaires and tests, have been developed and applied to scrutinize the degree of IL competencies students and teachers possess.
- Outcomes obtained from diverse instruments across different regions have been reported.
- Most previous IL studies focused on secondary, high school, and university students.

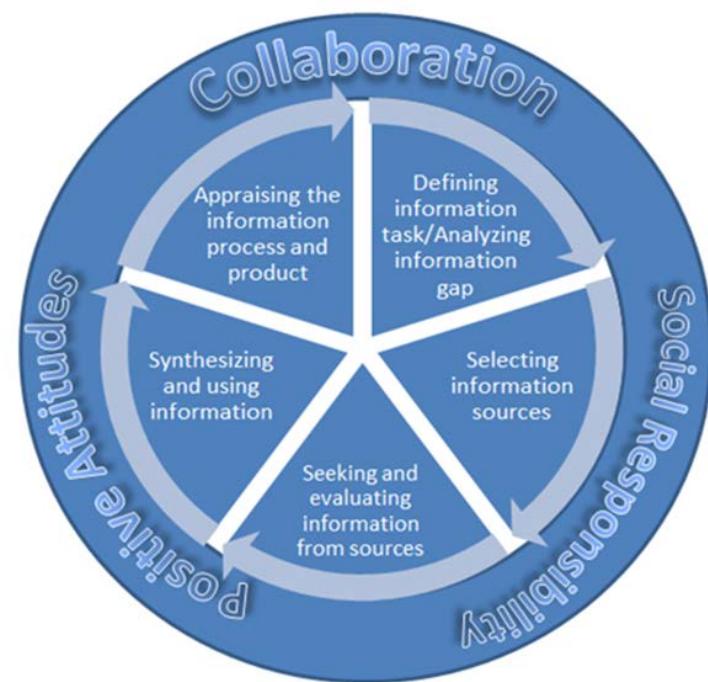
# IL Models



# i-Competent Model

1. Defining Information Task/Analyzing Information Gap
2. Selecting Information Sources
3. Seeking and Evaluating Information from Sources
4. Synthesizing and Using Information
5. Appraising the Information Process and Product

- Collaborative IL Process
- Social Responsibility
- Attitudes



# Methodology

- National IL Survey
  - Primary 5 (grade 5)
- The study was conducted with collaborative efforts
  - IL researchers,
  - Singapore National Library Board, and
  - Ministry of Education.





# Methodology

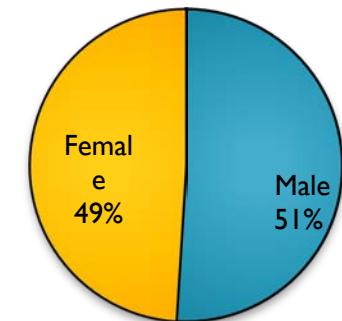
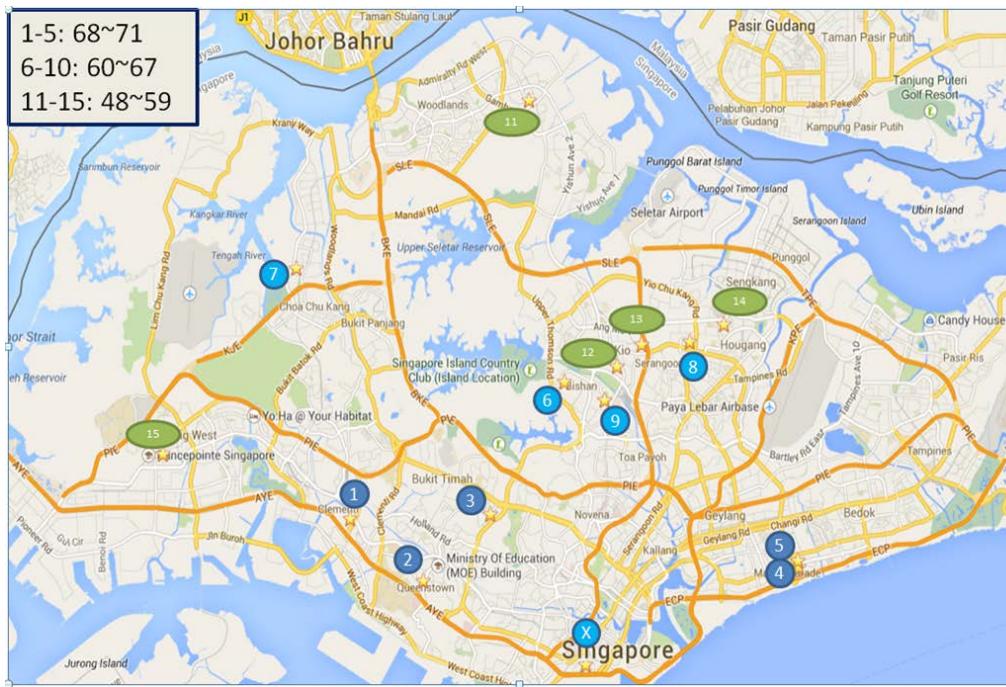
- Survey
  - A number of assessment tools were consulted (e.g. TRAILS, SAILS); the survey components were analysed
  - Based on our i-Competent Model
  - Questions were formulated to be appropriate to the Singapore context
  - Expert review
  - Pilot study

# Methodology

- Survey (Conti.)
  - Section I: demographic information
  - Section II: IL knowledge, 22 multiple-choice questions (Cronbach's alpha reliability of the 21-item measure was 0.71)
  - Section III: cyber-wellness, 2 multiple-choice questions
- Data Collection
  - Paper Based
  - 31 July 2013 to 15 Nov 2013

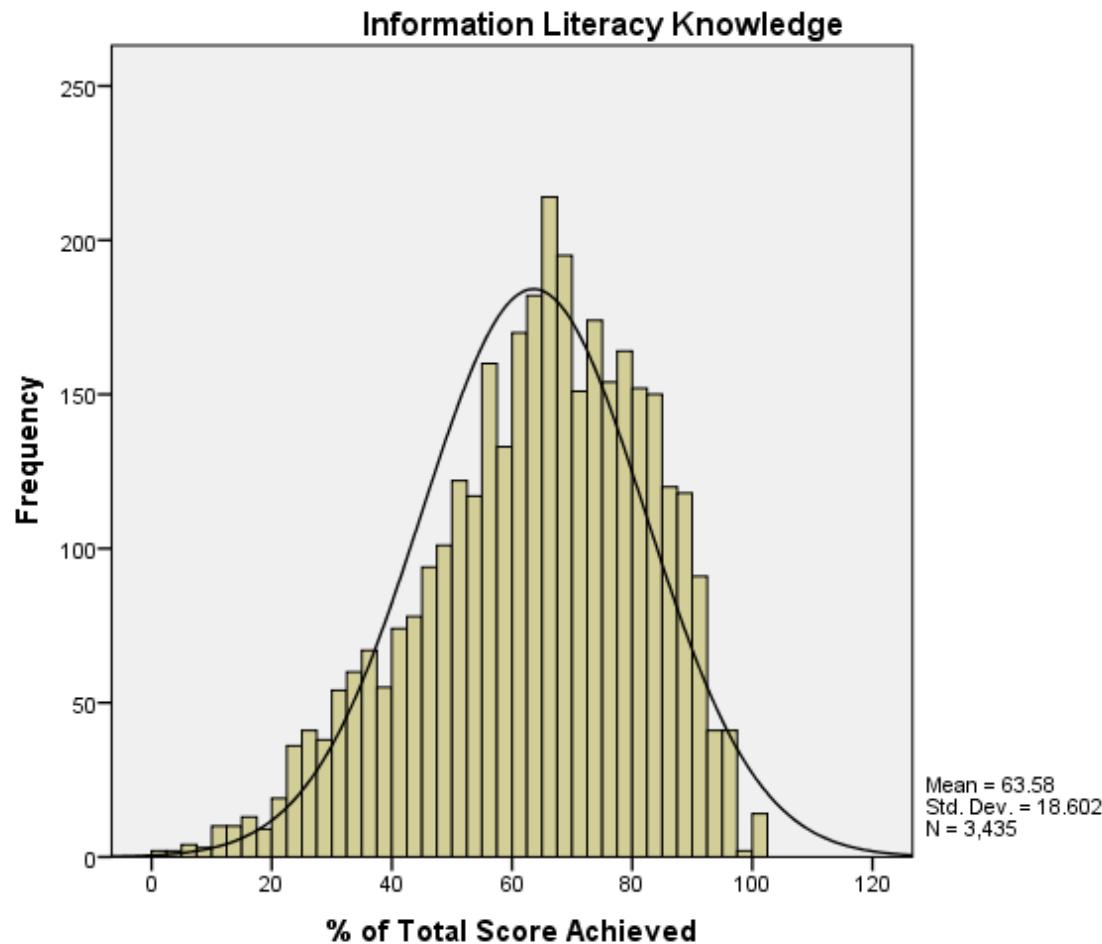
# Methodology

- Sample
  - 3435 students from 15 schools, spread across different geographical regions of Singapore, were sampled.



# Results

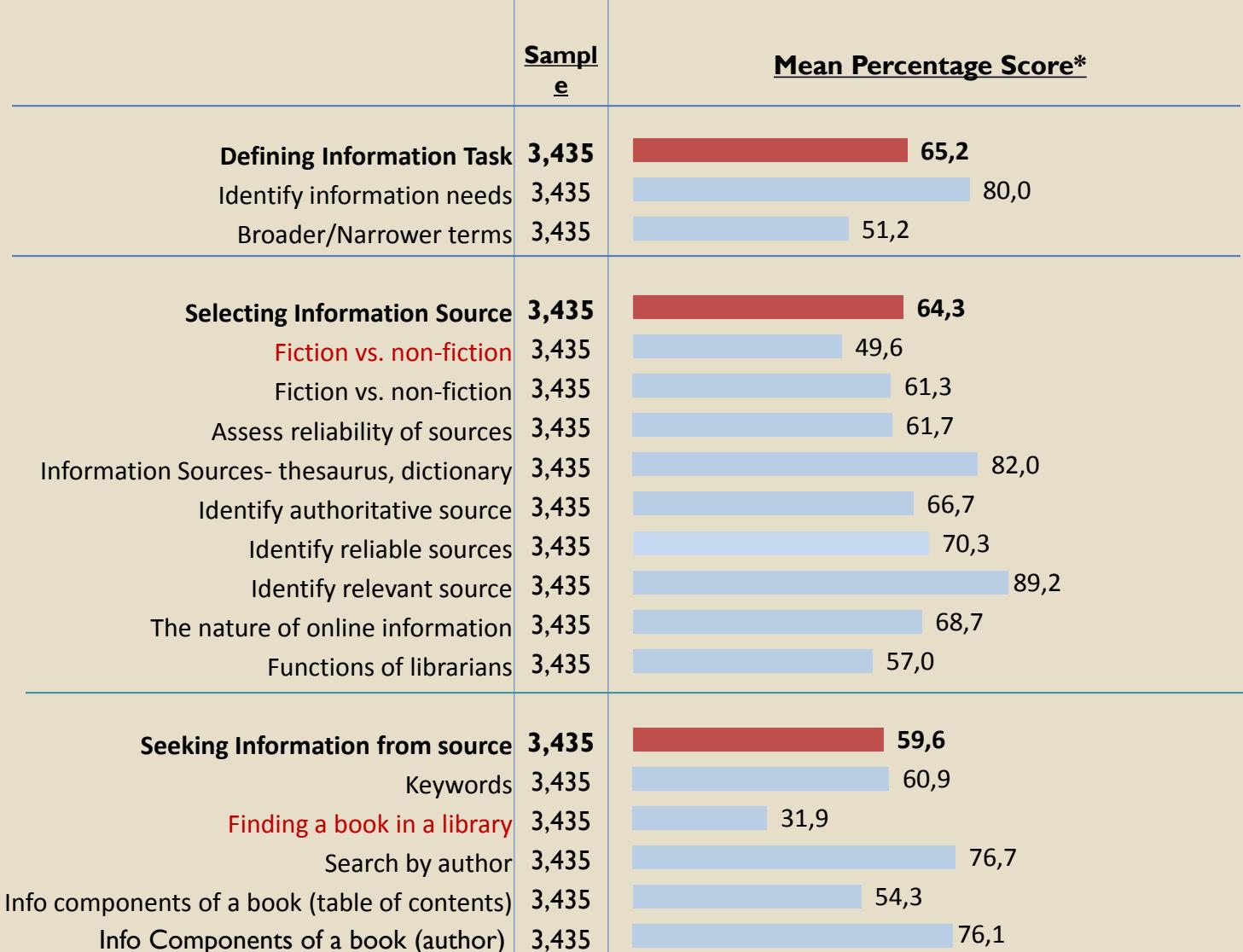
- Spread of results



**Students' scores by IL questions**  
**Highest Score:**  
Identify relevant source(89.2%)

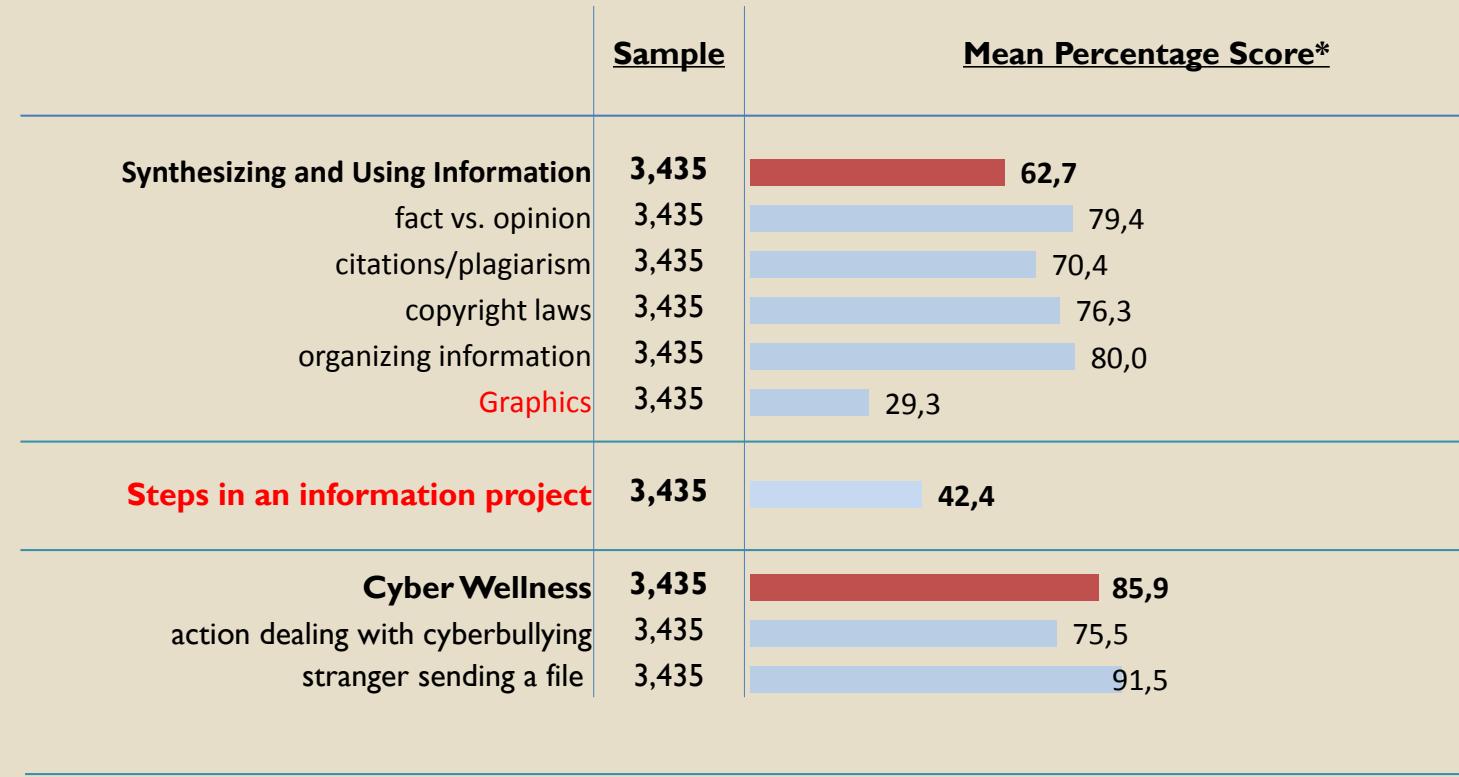
Students performed poorly for questions related to differentiation between fiction and non-fiction (49.6%), how to find a book in a library (31.9%).

## Primary 5



\*The mean percentage score for each stage is obtained without consideration of different weights assigned to questions of that stage.

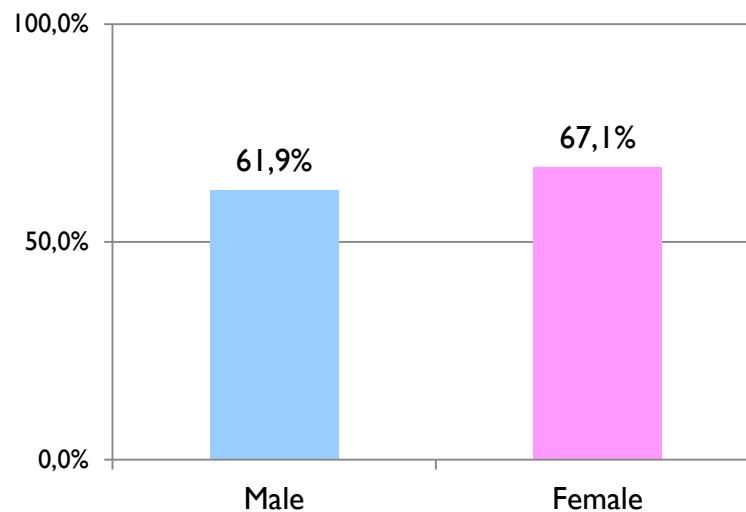
Students also performed poorly for questions related to interpretation of graphics (29.3%) and identifying correct steps in doing an information project (42.4%).



\*The mean percentage score for each stage is obtained without consideration of different weights assigned to questions of that stage.

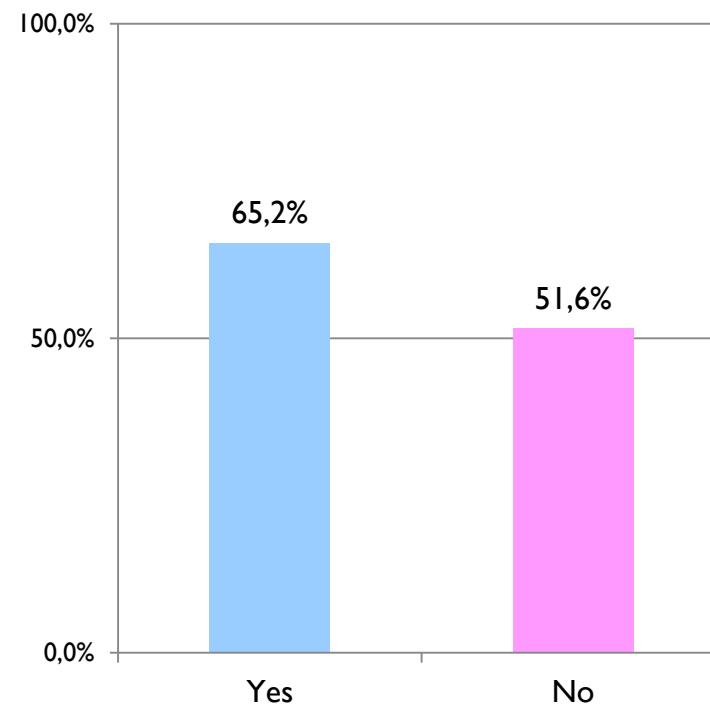
# Results

- Gender Differences- Females scored higher than males
  - In all these tests, there were significant differences between genders in each one of the four stages and the IL total scores.



# Results

- Internet Access - Students having Internet access at home scored higher than those having not



# Discussion

- Students scored well on questions regarding cyber wellness, implying that they were well aware of the dangers of sharing personal information on the Internet



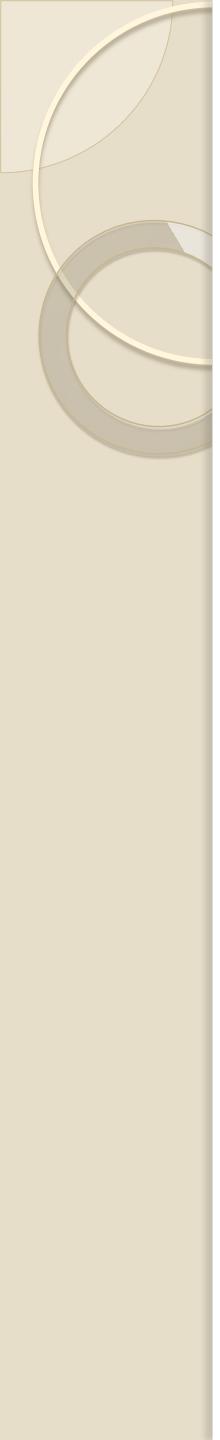
# Discussion

- In general lower-order IL competencies (e.g. definition information task and selecting information sources) were possessed by more students than a higher-level competency (e.g. synthesizing and using information).
  - The exception was seeking and evaluating information from sources.



# Discussion

- The finding may imply that there is enough recognition and endeavours in instructing these competencies in the Singapore school , probably as a result of the implementation of TE2I Model.
- The higher-level competency may require more time and practice to acquire.



# Conclusion

- It is one of the first attempts to assess primary school students' IL skills on a large scale.
- In addition, this research has supplied understanding what Singapore P5 students conceive as
  - their IL competencies,
  - their comprehension of the information seeking processes and information organization, both in non-print and print sources, and
  - their perception in terms of social responsibility and cyber wellness.

# Conclusion

- Future Surveys
  - Increase length and comprehensiveness of P5 survey
  - Benchmark the revised survey with current survey (as applicable)
- Curriculum Review and Other Recommendations
  - Sharing of best practices among schools
  - Review IL components in current curriculum to address weakness identified in survey, Spreading out of IL skills education and training



*Yun-Ke Chang , WKWSCI, NTU*

[ykchang@ntu.edu.sg](mailto:ykchang@ntu.edu.sg)

*Thank You!*

