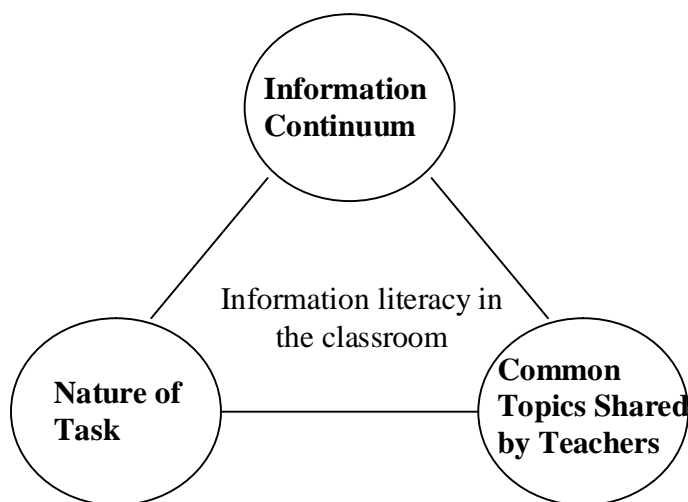


Information Literacy in the Classroom

When implementing the information literacy elements of teaching into the classroom, the teacher will need to consider the following three factors:



1. Information Continuum

The teacher will need to consider how much guidance (s)he shall give to the students for conducting a research according to an information continuum. This is related to what students of different education levels are expected to be able to achieve.

Generally speaking, students at the lower levels of education (i.e. primary 1) will be more dependent on the teacher's guidance to conduct a research than students of higher levels of education (i.e. secondary 7) at the different stages of the information process. In other words, the higher the levels of education, the more student directed becomes. For instance:

Information Process Stage	Primary 1 (Teacher Directed)	Secondary 7 (Student Directed)
1. Initiating a task	Teacher helps students develop and organise questions to guide research.	Students develop research questions.
2. Gathering information	Teacher helps students find a variety of appropriate and accessible sources of information.	Students find their own variety of appropriate and accessible sources of information.
3. Exploring information	Teacher helps students to distinguish between fact and	Students distinguish between fact and opinion, and between

	opinion.	hypothesis and generalization.
4. Organising information	Teacher provides a format to record simple bibliographic information.	Students record information needed for bibliography, footnotes and direct quotes, according to standard form.
5. Creating new information	Teacher helps students combine information to answer research questions.	Students formulate alternative answers or recommendations to research questions.
6. Sharing & Presenting information	Students present information to a partner or small group within the class.	Students present to individuals or groups within or out of the school.
7. Assessing & Evaluating	Teacher and students reflect on the complete research process, noting areas of strength for improvement.	Students reflect on the complete research process, noting specific ideas for transfer to other situations.

2. Nature of the Task

The common misconceptions about the information processing model are that the stages follow a linear pattern and that the *sharing and presenting information* stage has the greatest emphasis over the other stages because the end product is easier to assess by the teacher.

Depending on the nature of the task, the teacher is not bound to follow the model's linear structure and that other stages of the model may have greater importance over the presentation stage at different points in time. For example:

Subject	Task	Possible order of approaching the task	Stage emphasis
Chinese Language	Debates on <i>economic welfare have priority over environmental protection.</i>	<p><i>Before the debate</i></p> <ol style="list-style-type: none"> 1. Initiating a task 2. Gathering information 3. Exploring information 4. Organising information 5. Assessing & Evaluating <p><i>During the debate</i></p> <ol style="list-style-type: none"> 6. Sharing & Presenting information 7. Gathering information 8. Exploring information 9. Creating new information 10. Sharing & Presenting information <p><i>After the debate</i></p> <ol style="list-style-type: none"> 11. Assessing & Evaluating 	<p>Gathering informing</p> <p>Sharing & Presenting information</p> <p>Assessing & Evaluating</p>

3. Common Topics Shared By Teachers

Traditionally, there are different teachers for different subjects. When teaching in the classroom, every teacher has a different focus which tends to be their field of expertise. For example, a mathematics teacher may choose a topic which has no relation to a topic chosen by a languages teacher. As a result, the knowledge constructed by the students is often diverse and isolated when considering school education as a whole.

Cohesion between different subject teachers is required for determining common topics for the students. By doing so, this will allow students to think analytically of essentially the same issue but from multiple perspectives. This is an objective of implementing the information literacy elements of teaching into the classroom. For example:

“Hong Kong, My Home”

Subject	Area of Research	Research Question
Chinese Language	Debate	Does economic welfare have priority over environmental protection?
Mathematics	Measurements and ratios	Which are the 10 tallest buildings in Hong Kong?
Economic and Public Affairs	Transport management	What are the procedures for driving a vehicle lawfully in Hong Kong?

An Information Literacy Exemplar

Topic: Hong Kong, My Home
Area of research: Transport Management
Education level: Secondary
Subject: Economic and Public Affairs

1. Initiating a Task

(a) Identify an area of research

Teacher can set out the topic area for the students to investigate, e.g. Hong Kong, my home – transport management.

(b) Suggest question for investigation

Students can decide on their research questions under the topic of transport management with or without teacher supervision, e.g.

‘What are the procedures for driving a vehicle lawfully in Hong Kong?’

(c) Decide what information is needed to complete the investigation

Students are to search the Internet for information.

(d) Identify audience and presentation format

Students are to share their researched information with the teacher and other classmates via PowerPoint display.

(e) Establish evaluation criteria

Teacher is to assess students and also students are to assess themselves.

2. Gathering Information

(a) Finding relevant information sources related to the investigation

Internet websites such as the Hong Kong Government’s would address issues concerning transport and law.

<http://www.info.gov.hk>

(b) Identify and select sources of information

One approach to the research question is to research on the driving licence application procedures. The Transport Department's homepage would be the most appropriate.

<http://www.info.gov.hk/td/>

(c) Locate the individual sources

The section of *Licences and Permits* within the Transport Department provides information that relates specifically to driving in Hong Kong.

http://www.info.gov.hk/td/eng/services/lp_menu_index.html

(d) Find information within sources

To find out the application procedures for the driving licence, the section on *Vehicle and Driving Licences* provides the details and downloadable application forms.

http://www.info.gov.hk/td/eng/services/lp_menu_index.html

3. Exploring Information

(a) Establish a focus for inquiry

Identify the requirements and details for applying a driving licence.

http://www.info.gov.hk/td/eng/services/lp_menu_index.html

(b) Engage information within a source

Download application guidelines on *How to Apply for a Driving Licence*.

http://www.info.gov.hk/td/eng/services/drive_index.html

(c) Systematic scanning and organizing of data

Browse through all the sections of *Requirements for Obtaining a Driving Licence; Procedures for Obtaining a Full Driving Licence with Driving Test; Driving in Hong Kong for Overseas Driving Licence Holders; General Information on Driving Licence;* and Appendices.

(d) Record the main idea from the source

Take written notes to summarise all the sections, including their flow charts.

(e) Examine, select and reject information/ideas

Choose the sections that are particularly relevant to the research question, e.g. *Requirements for Obtaining a Driving Licence* and *Procedures for Obtaining a Full Driving Licence with Driving Test*.

http://www.info.gov.hk/td/eng/services/drive1_index.html

http://www.info.gov.hk/td/eng/services/drive2_index.html

4. Organising Information

(a) Extract relevant information

Using the *Flow Chart for Obtaining a Full Driving Licence* to search and use extracts within the section to complement each stage in the chart.

(b) Arrange and rearrange information fragments until patterns emerge

Begin to add sections to the flow chart which can provide a more macro picture to the research question.

(c) Record and store information

Complete the new flow chart which incorporates the requirements for those who are and are not qualified for applying a full driving licence; and how to apply for learner's driving licence.

(d) Evaluate information

The information at hand is sufficient for answering the research question. However, further research can be conducted to give more information to the audience.

5. Creating New Information

(a) Specify need for particular information

Besides the procedures for applying a driving licence, there are other information such as ordinances that also stipulate the legality of driving in Hong Kong.

(b) Gather information pertinent to the focused topic

A variety of codes and guidelines to driving can be found under the *Advice to Road Users* in the Transport Department's website, e.g. drink driving, using the mobile phone whilst driving, passengers not wearing seats and so on.

http://www.info.gov.hk/td/eng/td29_flash.html

(c) Interpret, analyse and synthesise information collected

Add the new information to complement the flow chart and the overall presentation.

(d) Revise and edit

Examine the new information for inconsistencies with the information that already answers the research question. Draw links between the new and existing information.

(e) Review plan for research

Students are to refer back to the information process for any significant stages that they have omitted which prove to be crucial for the research.

6. Sharing & Presenting Information

(a) Present findings in written/oral form

Students are to present to their classmates by using PowerPoint displays which feature flow charts and bullet points to illustrate the significant findings from the research.

(b) Present recommendations to audience

Students are to draw conclusions by offering their solutions on how to drive a vehicle in Hong Kong legally and safely.

(c) Interact with audience

A question time is to be allocated at the end of the presentation for the audience to discuss with the presenters about further issues arising from the research topic.

7. Assessing & Evaluating

(a) Judge the effectiveness of end product

The teacher is to judge the end product based on criteria such as the style of presentation, validity, reliability and so on.

(b) Gain feedback from wider community

Input from the audience are to be gained for criticising and also improving the end product of whether the topic is worth further researching.

(c) Judge the efficiency of information research process

Rubrics can be used to assess the components the whole process.

(d) More research needed before reporting?

Review the information process of whether there was sufficient information gathered for the presentation.

(e) Evaluate the information research process

Criteria for every stage of the information process are to be assessed by the teacher and students for their own performances.

Assessment Criteria for Teachers

(Evaluation marks: 1 = Needs attention; 5 = Excellent)

Student Outcomes Achievement Effort

1. Initiating a Task

Overall, the student has:

- | | | |
|--|--------------------------|--------------------------|
| (a) set the research question on their own | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) understood what needs to be achieved | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) chosen a research question that fits the curriculum | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) brainstormed for a variety of sources of information | <input type="checkbox"/> | <input type="checkbox"/> |
| (e) developed further questions to guide research | <input type="checkbox"/> | <input type="checkbox"/> |

Teacher comment:

2. Gathering Information

Overall, the student has:

- | | | |
|---|--------------------------|--------------------------|
| (a) found useful resources for the research question | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) generated possible search terms using subject heading lists | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) gathered sufficient information to answer the research question | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) used technological equipment appropriately | <input type="checkbox"/> | <input type="checkbox"/> |

Teacher comment:

3. Exploring Information

Overall, the student has:

- | | | |
|---|--------------------------|--------------------------|
| (a) reviewed materials collected and made preliminary list of resources | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) used standard location tools, e.g. computer catalogue | <input type="checkbox"/> | <input type="checkbox"/> |

- (c) determined if information is applicable to the research question
- (d) considered accuracy of the source
- (e) recorded research information

Teacher comment:

4. Organising Information

Overall, the student has:

- (a) recognised the adequacy of information
- (b) understood strategies of reading, such as skimming and scanning
- (c) distinguished between fact from opinion
- (d) compared information from different sources

Teacher comment:

5. Creating New Information

Overall, the student has:

- (a) combined information to answer research question
- (b) recorded simple bibliographic information
- (c) generalised and stated relationships between concepts
- (d) decided which tools would be most appropriate for use
- (e) found results to the research question

Teacher comment:

6. Sharing & Presenting Information

Overall, the student has:

- | | | |
|--|--------------------------|--------------------------|
| (a) decided on the format of which results are presented appropriately | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) followed-up enquiries raised by the audience | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) identified the target audience | <input type="checkbox"/> | <input type="checkbox"/> |

Teacher comment:

7. Assessing & Evaluating

Overall, the student has:

- | | | |
|---|--------------------------|--------------------------|
| (a) understood what were achieved from the research assignment | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) assessed individual and group participation skills adequately | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) identified research results provide sufficient value for further research | <input type="checkbox"/> | <input type="checkbox"/> |

Teacher comment:

Self-Assessment Criteria for Students

(Evaluation marks: 1 = Needs attention; 5 = Excellent)

Student Outcomes
Achievement Effort

1. Initiating a Task

Overall, I have:

- | | | |
|--|--------------------------|--------------------------|
| (a) identified what I really want to find out | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) defined my purpose | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) understood why I need to find out | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) understood the key words/ideas of the task | <input type="checkbox"/> | <input type="checkbox"/> |
| (e) understood what I need to do | <input type="checkbox"/> | <input type="checkbox"/> |

Student comment:

2. Gathering Information

Overall, I have:

- | | | |
|--|--------------------------|--------------------------|
| (a) found the information needed | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) understood what I already know | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) recognized what I still need to find out | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) identified the sources and equipment can I use | <input type="checkbox"/> | <input type="checkbox"/> |

Student comment:

3. Exploring Information

Overall, I have:

- | | | |
|--|--------------------------|--------------------------|
| (a) identified what information I really need to use | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) omitted information that were unnecessary for the task | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) understood the relevancy of information I have found | <input type="checkbox"/> | <input type="checkbox"/> |

- | | | |
|--|--------------------------|--------------------------|
| (d) found credibility of the information | <input type="checkbox"/> | <input type="checkbox"/> |
| (e) recorded the information I need | <input type="checkbox"/> | <input type="checkbox"/> |

<i>Student comment:</i>

4. Organising Information

Overall, I have:

- | | | |
|--|--------------------------|--------------------------|
| (a) made best use of this information | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) recognised sufficient information for my purpose | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) identified the need to use all this information | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) combined information from different sources | <input type="checkbox"/> | <input type="checkbox"/> |

<i>Student comment:</i>

5. Creating New Information

Overall, I have:

- | | | |
|---|--------------------------|--------------------------|
| (a) addressed complex issues | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) presented points of view backed by evidence | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) enhanced the impact of imaginative writing | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) used technology to serve communication purposes | <input type="checkbox"/> | <input type="checkbox"/> |
| (e) found alternative solutions/recommendations | <input type="checkbox"/> | <input type="checkbox"/> |

<i>Student comment:</i>

6. Sharing & Presenting Information

Overall, I have:

- | | | |
|---|--------------------------|--------------------------|
| (a) presented information appropriately | <input type="checkbox"/> | <input type="checkbox"/> |
| | <input type="checkbox"/> | <input type="checkbox"/> |

- (b) understood what to do with this information
- (c) shared this information with the appropriate audience

Student comment:

7. Assessing & Evaluating

Overall, I have:

- (a) identified what I learned from this
- (b) fulfilled my purpose
- (c) recognized how did I go with each step of the process
- (d) recognized how did I go presenting the information
- (e) considered where do I go from here

Student comment: