



Professional Development Programme:

Enhancing Students' Literacy Skills Development through Promoting
Language across the Curriculum in the Junior Secondary English
Classroom

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Organized by the Centre for Applied English Studies, The University of Hong Kong and the Education Bureau, The Government of the Hong Kong Special Administrative Region

Overview

1. Introduction to Language Across the Curriculum (LaC)
2. Areas of collaboration
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11. Suggestions on the planning and implementation of LaC
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1. Introduction to Language Across the Curriculum

Language Across the Curriculum (LaC) aims to:

- provide a language-rich environment to encourage students to learn and use English, and to **support their learning of other subjects in English**;
- promote a habit of reading and the academic use of English to equip students with essential language knowledge and skills to cope with the **language demands from other subjects** (e.g. Value Education, Science and Geography) using English as the medium of instruction;
- create **meaningful linkage across learning experiences** acquired in different key learning areas;
- widen students' exposure to language use in **simulated workplace or applied learning contexts**;
- enhance students' **academic language awareness** and **academic content awareness**.

Quick questions

Do you have any prior experience working with other content teachers to enhance students' English literacy skills? Tell us about the activities you have worked together with them.

Please share your experience with others in a small group.

2. Areas of Collaboration

What are some of the common text types often encountered in language and content subjects?

*Common text types in language subjects in JS	Common text types in content subjects
<ul style="list-style-type: none">Poems	<ul style="list-style-type: none">Argumentative/ persuasive essay (e.g. problem solution)

In your group,

1. Fill in the above table
2. Discuss what can be done between language and content teachers to enhance students' English literacy skills based on the identified common text types

2. Areas of Collaboration

What are some of the common text types often encountered in language and content subjects?

Common text types in language subjects in JS	Common text types in content subjects
<ul style="list-style-type: none">• Poems• Book reviews/reports• Encyclopaedias• Film reviews• Interviews• Itineraries• Letters to the editor• Manuals• Memoranda• Newspaper/ Magazine articles• Presentations• Short films• Short novels• Social media texts• Talks• Trailers	<ul style="list-style-type: none">• Argumentative/ persuasive essay (e.g. problem solution)• Descriptive writing• Cause and effect essay• Compare and contrast essay• Scientific report such as laboratory report• Process essay (e.g. manuals)

2. Areas of Collaboration

See the handout

(Lin, 2016, p. 66)

2. Areas of Collaboration: LaC Activities

Key Learning Area	Examples of LaC/RaC Activities
Mathematics Education	<ul style="list-style-type: none"> Plan surveys, present research findings and prepare arguments using statistics.
Personal, Social and Humanities Education	<ul style="list-style-type: none"> Read and discuss texts that examine issues or topics related to healthy lifestyles, customs and traditions, conservation and sustainable development, use of resources and rights, responsibilities and social values.
Science Education	<ul style="list-style-type: none"> Discuss ideas and clarify purposes prior to and in the process of investigation; and Read and research information on science-related topics (e.g. energy, the earth, the solar system) or works of science fiction.
Technology Education	<ul style="list-style-type: none"> Explore and communicate ideas and information about the development or impact of modern technology; Write operating instructions for the gadgets designed in the Design and Applied Technology lessons; and Plan and produce coherent and structured texts related to workplace and business communication such as proposals, meeting minutes and reports.
Arts Education	<ul style="list-style-type: none"> Engage in different forms of creative writing (e.g. poems, short stories, play/film scripts) or give a dramatic presentation of a short play or a scene from a play; and Discuss and critique an advertisement, a poster, a film, a painting, a sculpture, or a multimedia artwork in a Visual Arts lesson.
Physical Education	<ul style="list-style-type: none"> Engage in learning tasks or activities that examine the pros and cons of various physical activities.

2. Areas of Collaboration: Curriculum Mapping

- “Conduct horizontal and vertical curriculum mappings of the language needs of students both within an academic subject and across different subjects” (Lin, 2016, p. 77)
- “Highlights possible entry points (e.g. learning and teaching strategies, themes, text structures, rhetorical functions, language items) for the implementation of RaC and WaC” (Education Bureau, 2020, p. 9)

2. Areas of Collaboration: Curriculum Mapping

Table 1: A Curriculum Map (An Example)

	Secondary 2	English Language	History	Science
Reading	Learning and teaching strategies	Use of visual representation (e.g. a Venn diagram) to help students deconstruct the text		
	Rhetorical functions	To compare/contrast		
	Language items	<u>Showing similarities</u> <i>Both, like, similarly</i> <u>Showing differences</u> <i>Unlike, while, however/but, instead of</i>		
	Teaching focus	Introducing the forms and functions of the target language items	Reinforcing the use of the target language items	
	Topic	Cultures of the World	Industrial Revolution	Respiration
Writing	Providing relevant contexts for the application of the target language items (e.g.)	<i>“<u>Unlike</u> western parents, Hong Kong parents tend to focus much on their children’s academic performance...”</i>	<i>“Water power was a source of energy before the Industrial Revolution, <u>while</u> the steam engine has become an important source of energy after the Revolution...”</i>	<i>“<u>Like</u> respiration, burning also produces heat energy...”</i>

2. Areas of Collaboration: Curriculum Mapping

By Ms. CHEUNG Tung-ping and Mr.
Kevin Kan, Munsang College,
Kowloon, Hong Kong

Reference: (Lin, 2016, p. 81)

An example of how a science and language teacher can work together on a particular topic (i.e. fair test) to facilitate students' learning

See the handout

2. Areas of Collaboration : Curriculum Mapping

By TWGHs Mrs. Wu York Yu
Memorial College

Reference: (Lo et al., 2021)

See the handout

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See the handout

3. Collaboration Models

- **Formal approach:** Curriculum mapping
 - Co-planning LaC lessons (e.g. collaborative lessons), activities (e.g. using class teacher period for LaC) and teaching materials
- **Informal approach:** Collaboration among teachers
 - Content teachers seek help from English teachers on students' language needs (e.g. vocabulary and sentence structure used in a particular genre)
 - English teachers adapt the existing materials (e.g. textbooks) into LaC worksheets in consultation with content teachers

3. Collaboration Models



Vocabulary Level

Provide useful vocabulary for content subjects

Curriculum-material-support level

English teachers provide feedback to content teachers on their subject materials

Project level

Identify common themes between English and content subjects and conduct a LaC activity

Full LaC course

Offer collaborative lessons

Discussion

Discuss the following questions in your own group:

- Which model(s) may be more suitable for your school?
- What are some of your concerns about implementing LaC?

Please share your answers on Mentimeter.

4. Challenges of implementing LaC

1. **Time** (e.g. planning, developing and delivering LaC materials)
2. **Resources** (e.g. time, manpower, materials, experience)
3. **Awareness** (e.g. understanding of the interface between language and content subjects)
4. **Strategies** (e.g. ways of creating LaC materials)

5. Genre-based pedagogy

Context

Text Paragraph

Sentence

Word group

Word

Syllable

Letter pattern

5. Genre-based pedagogy

Curriculum Context

Academic text types

Academic functions

Sentence patterns

Academic vocabulary

6. Strategies for promoting LaC

1. Raising Students' Awareness of Text Structures, Rhetorical Functions and Language Items in Academic Texts

Appendix A

Introduction (Rhetorical function: to describe/ make predictions)

(Aim)

This experiment **aims to** find out the effects of vinegar on eggshells...

(Hypothesis)

The eggshell will **dissolve**...

Method

(Materials/Apparatus)

- 2 raw eggs
- 2 beakers
- Some vinegar

(Procedures)

1. Put an egg in each of the beakers.
2. Pour some vinegar into one of the beakers until the egg (Egg A) is covered.
3. Add nothing to the other beaker (Egg B, the control).
4. Record the observation for Eggs A and B after 48 hours.

Results

Some bubbles came out from the surface of the eggshell. The colour of the eggshell of Egg A was lighter than that of Egg B. Part of the eggshell disappeared...

Conclusion

Vinegar dissolves the eggshell...

Discussion

Eggshells contain calcium carbonate, which reacts with the acetic acid in vinegar. The eggshell is dissolved because the acetic acid breaks up the calcium and carbonate in the eggshell. The bubbles on the eggshell are carbon dioxide generated as a result of the reaction between the carbonate and the acetic acid...

The experiment can be improved by...

Can you identify these components from the laboratory report in the appendix A?

6. Strategies for promoting LaC

1. Raising Students' Awareness of Text Structures, Rhetorical Functions and Language Items in Academic Texts

Appendix A

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Method (Rhetorical function: to give instructions)

(Materials/Apparatus)

- 2 raw eggs
- 2 beakers
- Some vinegar

(Procedures)

1. **Put** an egg in each of the beakers.
2. **Pour** some vinegar into one of the beakers until the egg (Egg A) is covered.
3. **Add** nothing to the other beaker (Egg B, the control).
4. **Record** the observation for Eggs A and B after 48 hours.

Results (Rhetorical function: to compare)

Some bubbles came out from the surface of the eggshell. The colour of the eggshell of Egg A **was lighter** than that of Egg B. Part of the eggshell disappeared...

Conclusion (Rhetorical function: to present facts)

Vinegar **dissolves** the eggshell...

Discussion (Rhetorical function: to give explanations)

Eggshells contain calcium carbonate, which reacts with the acetic acid in vinegar. The eggshell is dissolved **because** the acetic acid breaks up the calcium and carbonate in the eggshell. The bubbles on the eggshell are carbon dioxide generated **as a result of** the reaction between the carbonate and the acetic acid...

The experiment can be improved by...

Can you identify these components from the laboratory report in Appendix A?

6. Strategies for promoting LaC

1. Raising Students' Awareness of Text Structures, Rhetorical Functions and Language Items in Academic Texts

See the handout

6. Strategies for promoting LaC

1. Raising Students' Awareness of Text Structures, Rhetorical Functions and Language Items in Academic Texts

Reference: (The Curriculum Development Council, 2018, p. 85; also see Education Bureau, 2020, p. 15-25 for more examples)

Table 2: Examples of Rhetorical Functions and their Related Language Items Commonly Found across KLAs

Examples of Rhetorical Functions	Language Items (Examples)	Examples
Comparing/Contrasting	"However", "on the contrary", "similarly"	<i>Some historians think that the paintings had entertainment functions. <u>However</u>, these paintings were usually found at... (PSHE)</i>
Sequencing	"After", "before", "then"	<i>Clean the food thoroughly <u>before</u> cooking... (TE)</i>
Explaining	"Since", "because of", "as a result (of)"	<i><u>As a result</u>, more sulphur dioxide is produced... (SE)</i>
Describing	Adjectives, relative clauses	<i><u>Larger</u> current makes the bulb <u>brighter</u>... (SE)</i>
Defining	"Refers to", "is known as"	<i>Osmosis <u>refers to</u> the diffusion of fluid... (SE)</i>
Making suggestions	"Can", "may", "suggest"	<i>The government <u>can</u> make better use of the land through... (PSHE)</i>
Giving instructions	Imperatives	<i><u>List</u> the characteristics of the four phases in the long jump... (PE)</i>
Presenting facts	Present tense	<i>A computer system <u>consists</u> of... (TE)</i>
Presenting past events	Past tense	<i>The waltz <u>was</u> originally a peasant dance in Austria... (AE)</i>
Making assumption	Conditional clauses, "let", "suppose"	<i><u>Suppose</u> Jane's salary is \$10,000 now. What is the percentage of... (ME)</i>

Note: Key Learning Areas

ME: Mathematics Education; PSHE: Personal, Social and Humanities Education; SE: Science Education; TE: Technology Education; AE: Arts Education; PE: Physical Education

6. Strategies for promoting LaC

- 2. Use of Visual Representation to Deconstruct the Structure, Language and Content of Texts (e.g. Venn Diagram, Flow Chart, Timeline, Cycle, Spider Map, Chart/Graph)

To compare/contrast

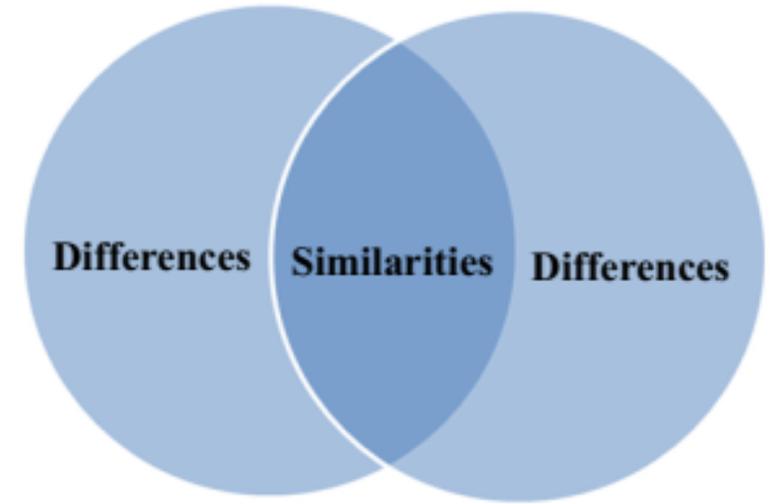
To present similarities

- *“Both”, “like”, “likewise”, “resemble”, “similarly”, “the same as”*

To present differences

- *“Different from”, “however”, “but”, “while”, “despite”, “more, less/fewer; taller than, the tallest” (the use of comparatives/superlatives)*

Venn Diagram



Table

Information/ Events/Ideas	Similarities	Differences

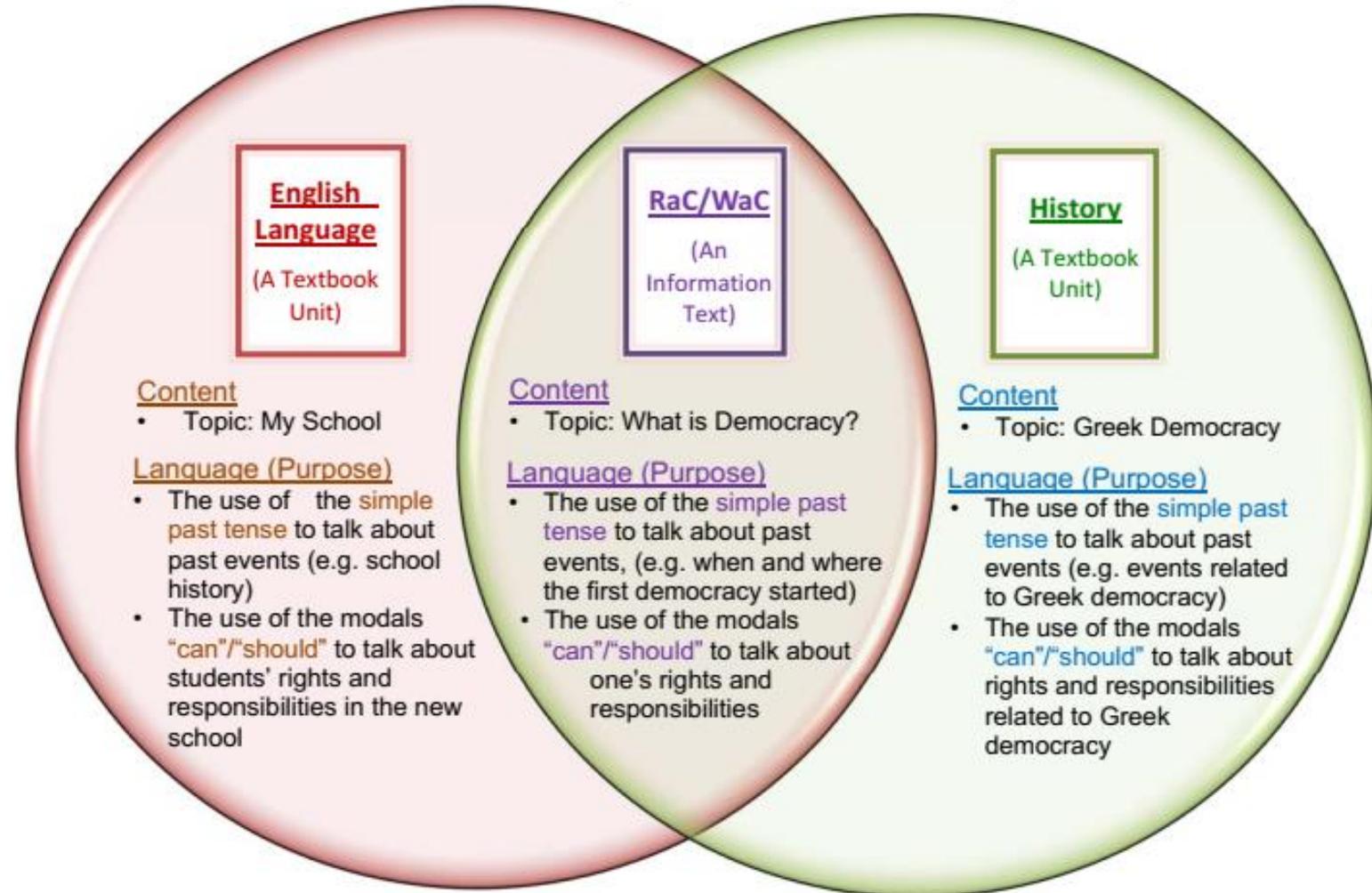
Reference: see (Education Bureau, 2020, p. 26-29) for more examples

6. Strategies for promoting LaC

3. Integrating the Use of Information Texts in the English Language Curriculum

Figure 11: An Example of Cross-KLA Collaboration

Theme: Rights and Responsibilities (Level: Secondary 1)



Reference: (Education Bureau, 2020, p. 34)

7. LaC example 1: Rhetorical function – Give instructions/ advice

“The Pursuit of Happiness” in Longman English Edge JS3A (Potter et al., 2017a, p. 2-3)

- Don't be your own worst enemy
- Be grateful for what you have
- Be optimistic
- Help yourself to happiness

Can you think of any subjects that often make use of imperatives in their writing?

7. LaC example 1: Rhetorical function - Give instructions/ advice

- **Physical Education**
e.g. List four characteristics of the four phases in the long jump
- **Mathematics text (New Century Mathematics 3B) (Wong & Wong, 2017)**
e.g. Consider the x-coordinate of P. Find the coordinates of Q.
- **Science text (Understanding Integrated Science for the 21st Century 1A) (Chan et al., 2011)**
e.g. Put the Bunsen Burner on a heat-proof mat. Connect the rubber tubing to the gas tap.

7. LaC example 1: Rhetorical function - Give instructions/ advice

Some LaC activities

- **Finding examples:** Flip through any textbook from another subject and write down some examples of imperatives.
- **Fill in the blanks:** Fill in the correct verbs for the following experiment procedure (*Integrated Science*)

1. _____ an egg in each of the beakers.
2. _____ some vinegar into one of the beakers until the egg (Egg A) is covered.
3. _____ nothing to the other beaker (Egg B, the control).
4. _____ the observation for Eggs A and B after 48 hours.

- **Writing task (scenario question):** As a PE teacher, instruct your students to play badminton in four lines (*Physical Education*)

Purpose: to raise students' awareness of this rhetorical function in other subjects

8. LaC example 2: Rhetorical function – Compare and contrast

“Ahead of their time” in Longman English Edge JS3A (Potter et al., 2017a, p. 42-43)

Best innovator of all time

Leonardo da Vinci
(1452-1519)

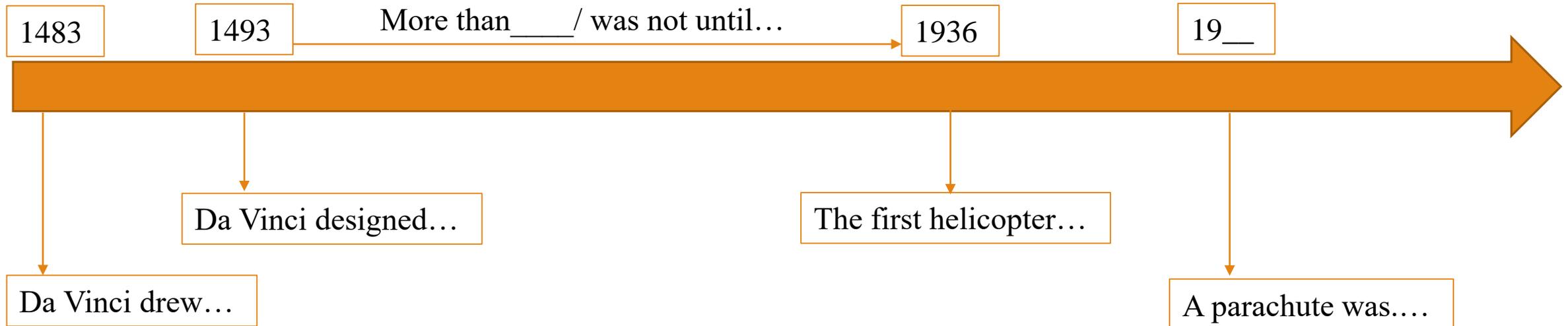
Zaha Hadid
(1950-2016)

8. LaC example 2: Rhetorical function – Compare and contrast

“Ahead of their time” in Longman English Edge JS3A (Potter et al., 2017, p. 42-43)

Use of Visual Representation to Deconstruct the Structure, Language and Content of Texts (e.g. Timeline)

Da Vinci was extremely interested in flying. In 1493, he designed a machine with a part that would spin round and round, raising the whole machine up into the air. His invention was designed to work in a similar way to modern helicopters. Amazingly, it wasn't until 1936, more than four centuries later, that the first helicopter was built.



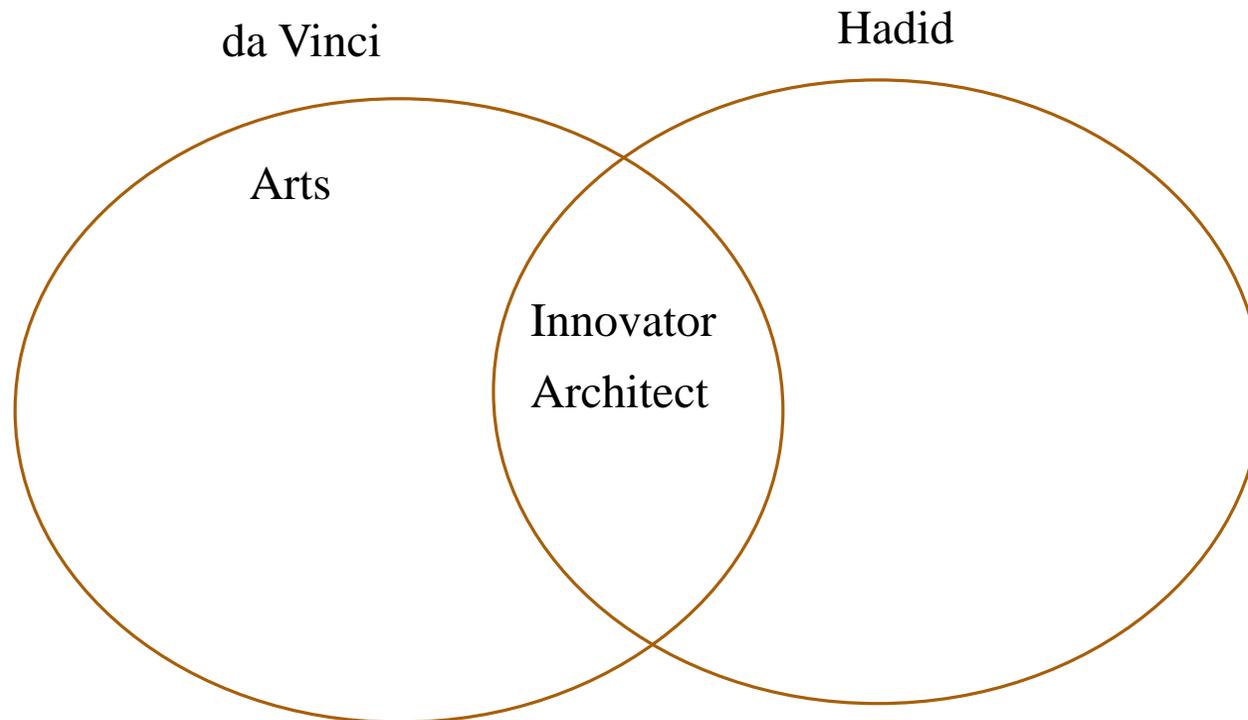
Language items: X years ago/..was not until.../ in 19xx../ more than...later

8. LaC example 2: Rhetorical function – Compare and contrast

“Ahead of their time” in Longman English Edge JS3A (Potter et al., 2017, p. 42-43)

Use of Visual Representation to Deconstruct the Structure, Language and Content of Texts (e.g. Venn Diagram)

While da Vinci has long been acknowledged as a great innovator from the past, Hadid will surely be remembered as one of the most innovative people of modern times. That is why they **both** deserve to be named among the best innovators of all time.



Give hints on aspects of comparison: active period/ design style/ expertise

Language items: both/ like/ instead of/ more than/ while/ similar/ however...

8. LaC example 2: Rhetorical function – Compare and contrast

“Ahead of their time” in Longman English Edge JS3A (Potter et al., 2017, p. 42-43)

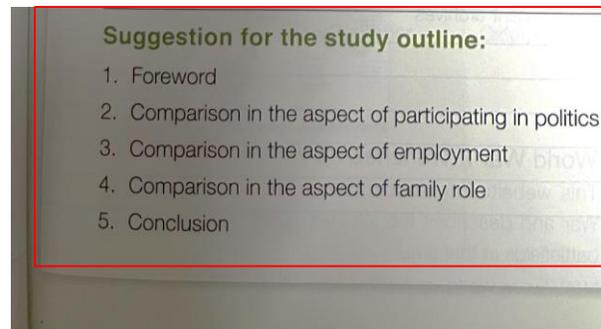
Writing task: Using the following structure, write an essay to discuss how Leonardo da Vinci and Zaha Hadid were similar and different in different aspects.

- Introduction
- Comparison in the aspect of active period
- Comparison in the aspect of design style
- Comparison in the aspect of expertise
- Conclusion

Useful language items: both/ like/ instead of/ more than/ while/ similar/ however...

8. LaC example 2: Rhetorical function – Compare and contrast

History - World history
express 3A (King & Leung,
2010, p. 43)



Topic

Compare the women's status
BEFORE and AFTER the First
World War

Strategies/ tools

- Timeline/ Venn Diagram

Language items

- In X year/ X years later/
more than...later/...not
until...
- Both/ unlike/ while/
however

Structure

- Introduction
- Comparison (aspect 1)
- Comparison (aspect 2)
- Comparison (aspect 3)
- Conclusion

8. LaC example 2: Rhetorical function – Compare and contrast

To further raise students' **academic language awareness** and **academic content awareness**, teachers may highlight how the discussed *structure, rhetorical function and language items* may be useful for HKDSE History

HKDSE – History 2021 Paper 2

Question 7: Select one of the following years, and explain why it could be regarded as a turning point in the 20th century

- (a) 1929
- (b) 1945
- (c) 1911

Criteria	Highest band of performance	Marks
<ul style="list-style-type: none"> - Coherent presentation with <u>reasonable and balanced comparison</u> of the periods before and after the selected year, with effective explanation about the ways in which the turning point had marked profound changes for the 20th century world history. The answer is effectively substantiated. 	A	23-25
<ul style="list-style-type: none"> - Shows a good understanding of the question, <u>able to explain the ways in which</u> the turning point had marked profound changes for the 20th century world history, but marred by slight lopsidedness in the period before or after that. Historical examples are generally relevant. 	B	20-22
<ul style="list-style-type: none"> - Shows a good understanding of the question, <u>clearly discusses the periods</u> before and after the selected year and shows the ways in which they were different, but weak in explaining why the year served as a turning point in the 20th century world history. Historical examples are generally relevant. 	C	17-19
<ul style="list-style-type: none"> - Shows a general understanding of the question, attempts to relate the 20th century world history to the selected year, but <u>without any attempts to compare such developments with those that took place before the year, or</u> - Attempts to discuss the periods before and after the selected year, but obviously lopsided. Historical examples are generally relevant, but contain vagueness. 	D	14-16

- Shows an awareness of the question, <u>attempts to discuss</u> the changes occurring after the selected year, without relating them to the impact on the development of the 20 th century world history.	E	11-13
- Primarily <u>a narration of the</u> events relevant to the selected year, occasionally with casual remarks on their impact.	E/F	9-10
- A <u>general narration of the</u> events relevant to the selected year, without any efforts to discuss their impact.	F	5-8
- Shows little understanding of the question, with no distinction made between relevant and irrelevant materials. - Containing very few relevant facts. - <u>Very poorly organised and difficult</u> to understand, with annoying mistakes in writing/spelling important personal and place names.	U	0-4

HKDSE – History 2021 Paper 2

LEVEL 5 EXEMPLAR AND
COMMENTS (HONG KONG
EXAMINATIONS AND
ASSESSMENT
AUTHORITY, 2021b)

See the handout

7. The year of 1945 is indeed the turning point of the 20th century world history in terms of political, social and economic aspects.

In terms of political aspect, the world power changed from European powers to 2 superpowers. Before 1945, the world leaders were European nations including Great Britain, France and Germany. European nations enjoyed supremacy and prestige in status. They had the greatest influence in the world. For example, the League of Nations set up in 1920 was dominated by European nations like Britain and France. They had the bargaining power to pass bills, whereas countries which did not join the League could not influence the decision-making such as the US. However, after 1945 the end of WWII, European countries lost their supremacy due to the huge casualty and economic recession caused by the WWII. Economies of European countries were devastated and they relied on the financial assistance from the US and USSR after 1945. For example, Britain suffered a lot and she even faced food shortage. Many Western European powers recovered from war by the dependence on US's Marshall Plan in 1947. It was indicated that national strength of European

Introduction

Main body

To compare and contrast

- In terms of X....
- Before 1945...
- ...whereas..
- However, after 1945...

HKDSE – History 2021 Paper 2

LEVEL 5 EXEMPLAR AND
COMMENTS (HONG KONG
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ASSESSMENT AUTHORITY,
2021b)

HKDSE – History 2021 Paper 2

LEVEL 5 EXEMPLAR AND
COMMENTS (HONG KONG
EXAMINATIONS AND
ASSESSMENT AUTHORITY,
2021b)

Countries were redesigning. They were no longer world powers. The new world powers after 1945 were the US and USSR. The battleground of WWI was mainly in Europe. The US territory was not devastated or destroyed by warfare so she recovered from WWI quickly. Besides that, the US economy boomed significantly during WWI because the demand for military supplies increased sharply. The manufacturing industry of the US was boosted which enhanced the economic strength of the US. Hence, after 1945, the international strength of the US became stronger and she became a world power that supported the countries in the Western bloc. For USSR, although she suffered a great casualty in WWI as well, USSR absorbed various Eastern European countries as her satellite states. Hence, USSR's influence spreaded greatly and she also became a world power. All in all, 1945 is a turning point in world politics.

In terms of social aspect, 1945 is also a turning point, changing from the trend of imperialism to decolonization. Before 1945, European countries were still influential and strong. Many of them established colonies in Africa or Asia. For instance, the British empire had colonies in Malaya, Hong Kong, South Africa. France had colonies in Indochina and Northern Africa. The Netherlands also had colony in Dutch East India. Empires were

Main body

To compare and contrast

- ..were no longer...
- Hence, after 1945
- Although...
- In terms of X....
- Before 1945..
- After 1945...

HKDSE – History 2021 Paper 2

LEVEL 5 EXEMPLAR AND
COMMENTS (HONG KONG
EXAMINATIONS AND
ASSESSMENT AUTHORITY,
2021b)

Strong and Imperialism was prevalent before 1945. Yet, many colonies in Asia were occupied by Japanese and Empires failed to protect them. European nations also suffered a lot from war after 1945 and was incapable to continue administration in colonies. Also, after 1945, nationalism in colonies started to rise. According to the principle of self-determination, colonies declared independence and became various new and independent states in the world. For example, in Southeast Asia, Malaysia, Vietnam, Indonesia all became independent. Decolonization was the trend after 1945.

In terms of political aspect, nations started war due to nationalism before 1945 while conflicts broke out due to ideological differences after 1945. Before 1945, the two world wars broke out mainly due to nationalism. In WWI, due to the conflict between Pan-Germanism and Pan-Slavism, and French revanchism, countries declared war to fight for national glory. For example, Serbian student assassinated Archduke Ferdinand due to Pan-Slavism nationalism in 1914. The Sarajevo Assassination later triggered WWI. In WWII, Germany started foreign expansion and invaded countries like Poland, Czechoslovakia and later France in 1938, 1939, 1940. World War II in Europe started. Because of

Main body

To compare and contrast

- Yet...
- In terms of X....
- Before 1945...
- However, after 1945...

HKDSE – History 2021 Paper 2

LEVEL 5 EXEMPLAR AND
COMMENTS (HONG KONG
EXAMINATIONS AND
ASSESSMENT AUTHORITY,
2021b)

extreme nationalism and revengeful feelings of the German people, wars would break out. Before 1945, conflicts were caused mainly due to nationalism. However after 1945, ideological differences caused the conflicts. The world was split into 2 camps, capitalist and communist bloc. The capitalist bloc led by the US preferred individual freedom, market economy and democracy, whereas the communist bloc led by the USSR preferred collectivism, totalitarianism and central planning. Due to the ideological differences, the two camps were hostile against one another. Conflicts such as Korean War in 1950-1953, Vietnam War in 1961-1975 were all because of the rivalry between capitalist and communist blocs. Even North Korea and South Korea, North Vietnam and South Vietnam were of the same nation, they fought due to ideological differences. Hence, 1945 was a turning point when ~~the~~ nations fought for national interest and ^{then} ideological difference.

In terms of economic aspect, 1945 was also a turning point. Countries turned from protectionism to economic cooperation. Before 1945, countries adopted protectionism and imposed tariff on imported goods. Since the relationship between countries was still intense before 1945 due to the legacy of WWI, like France and

Main body
To compare and contrast

- In terms of X....
- Before 1945...
- However, after 1945...
- Even...

HKDSE – History 2021 Paper 2

LEVEL 5 EXEMPLAR AND
COMMENTS (HONG KONG
EXAMINATIONS AND
ASSESSMENT AUTHORITY,
2021b)

Germany were still suspicious towards each other, this made economic cooperation difficult. Countries practice protectionism to protect own economic interest. They would not offer assistance to one another during economic crisis. During Great Depression in 1929, countries did not cooperate together to overcome the crisis. The US even withdrew economic aids and loans for Germany which led to further recession in Germany. However, after 1945, countries switched to have economic cooperation to recover from WWII. In 1946, Belgium, the Netherlands and Luxembourg formed Benelux Union to cooperate with one another by abolishing external tariffs, allowing free flow of goods, people and capital. In 1952, ECSC was established. "Inner Six" countries pooled out their steel and coal resources to boost production. In 1958, EEC established between "Inner Six" countries. External tariff was abolished, Common Agricultural Policy was enacted. In the inter period, European countries adopted exchange rate mechanism to link currencies of member states. Further economic cooperation was encouraged. International economic organisations like World Bank, WTO, IMF also established to further facilitate trade, economic cooperation among countries in the world. 1945 was indeed a turning point for economic development in the world.

All in all, 1945 was truly a turning point of 20th century and

left much impacts to the world until 2000. Political, economic and social changes after 1945 were drastic.

Main body

To compare and contrast

- In terms of X....

- However, after 1945...

Conclusion

8. LaC example 2: Rhetorical function – Compare and contrast

HKDSE – History 2021 Paper 2

Question 7: Select one of the following years, and explain why it could be regarded as a turning point in the 20th century

- (a) 1929
- (b) 1945
- (c) 1911

A summary of the writing structure

- **Introduction (to discuss/ argue)**
- **Main body (to compare)**
 - In terms of the political/ economic/ social aspect...Before 1945...However, after 1945...
- **Conclusion (to conclude)**

Useful language items (as discussed through Venn diagram/ timeline/ writing tasks in LaC):

- Before 1945
- However/ Yet/ But
- After 1945
- While.../ Although...
- Whereas
- ...were no longer
- Hence
- Even...

9. LaC strategy: Sentence-generating tables

The purpose of a sentence-generating table is to provide useful sentences to students.

To define things:

Subjects	Terms		General class	Specific details (e.g. relative clause)
Science (Chan et al., 2018b, p.22)	A kaleidoscope	is	a cylinder	with plane mirrors containing loose and colored objects.
Science (Chan et al., 2018b, p.23)	A periscope	is	a long tube	which consists of a pair of plane mirrors.
Geography (Chau et al., 2017b, p.36)	Marine Protected Areas (MPAs)	are	conservation areas	that fishing is restructured or is only allowed seasonally.
Geography (Chau et al., 2017a, p.37)	Climate refugees	are	people	who are forced to leave their homeland due to climate change.

9. LaC strategy: Sentence-generating tables

To compare and contrast:

Subjects			
Science (Chan et al., 2018a, p.11)	(Object A) + is + (properties) Protons are positively charged	while/ whereas/ but	(Object B) + is + (properties) neutrons are electrically neutral.
History (King & Leung., 2010, p.54)	(Object A) + verb + (properties) Britain and France became weaker	while	(Object B) + verb + (properties) the United States and Japan grew stronger.
Science (Chan et al., 2018a, p.23)	(Description/ definition) + are + (object A) Many substances around us are mixtures	but not	(Object B) elements.
History (King & Leung., 2010, p.54)	(Subject for comparison) + verb + (Object A) In 1931, the index of raw silk price (1914=100) had fallen to sixty-seven	compared with	(Object B) one hundred and fifty-one in 1929.

9. LaC strategy: Sentence-generating tables

To show cause and effect:

Subjects	Effect		Cause
Geography (Chau et al., 2018b, p. 54-55)	All kinds of recreational activities will be suspended People will become sick	when	the coastal reasons are polluted. they eat contaminated seafood.
Science (Chan et al., 2018b, p.27)	Refraction occurs	when	light travels from one medium, such as air, glass and water, to another.
Science (Chan et al., 2018b, p.55)	It is impossible for a virtual image to be captured on a screen	as	there is no light passing through it.
History (King & Leung., 2010, p.38)	They [the European powers] set up an international organization called the League of Nations	since	they wanted to settle future disputes through peaceful means.

9. LaC strategy: Sentence- generating tables

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Reference: (Lin, 2016, p. 125)

See the handout

10. LaC strategy: Vocabulary building strategies

English Textbook

Unit 6 “Gene editing – how will we use this amazing scientific breakthrough” - Longman English Edge JS3B (Potter et al., 2017b, p. 22-23)

10. LaC strategy: Vocabulary building strategies

Unit 6 “Gene editing – how will we use this amazing scientific breakthrough” - Longman English Edge JS3B (Potter et al., 2017b, p.22-23)

Word formation strategy	Examples
Nominalization	Possible → Possibility Healthy → Health Genetic → Gene
Affixation	Scientist (suffix -ist denoting people) Genetic (suffix -tic denoting relating to)
Compounding	Gene editing Food crops

10. LaC strategy: Vocabulary building strategies

Unit 5 “Shopping for a better world” - Longman English Edge JS3B (Potter et al., 2017b, p.2-3)

Word formation strategy	Examples
Affixation	Farmers (suffix -er denoting people) Re-revaluate (prefix re- denoting again)
Compounding	Marketing sign Impulse buying Rice formers
Blending	T-shirts (Tee + shirts)

10. LaC strategy: Vocabulary building strategies

Word Families

Verbs	Nouns	Adjectives	Adverbs
Geneticize	Gene	Genetic	Genetically
Biologize	Biology	Biological	Biologically
Technologize	Technology	Technological	Technologically
Edit	Edit Editor	Editorial	Editorially

Useful tool: <https://www.wordhippo.com/>

10. LaC strategy: Vocabulary building strategies

LaC activities

- 1. Textbook search:** Take out the Science textbook, go to chapter X and identify the words formed by affixation, compounding and blending
- 2. Corpus approach:** Find ten words that are derived from the word from a corpus (or simply Google the word), for example, “gene” (i.e. genetics, genetically modified, genetic engineering) and identify the word formation methods/ word parts

Corpus: <http://wordneighbors.ust.hk/>

10. LaC strategy: Vocabulary building strategies

LaC activities

- 3. Gamified approach:** In groups, ask students to come up with as many combinations of the given prefixes/ roots/ suffixes (e.g. gene/ -tic/ -ist) as possible in 10 mins.

Let's try this task:

In groups, using the flashcards in front of you, can you please form as many words as possible?

Please share your answers on Mentimeter.

10. LaC strategy: Vocabulary building strategies

LaC activities

- 3. Gamified approach:** In groups, ask students to come up with as many combinations of the given prefixes/ roots/ suffixes (e.g. gene/ -tic/ -ist) as possible in 10 mins.

An alternative game with flashcards

In pairs, ask students to study the words (parts) and their definitions at the back, and have them take turn to draw a card to test each other's understanding.

11. Suggestions on the planning and implementation of LaC

At the teachers' level

- Identify students' learning needs (e.g. themes, text types, language items and structure, vocabulary) in English Language and non-language subjects and enrich the existing materials
- Explore opportunities to collaborate with content teachers to develop LaC activities

At the schools' level

- Forming a Committee to Oversee and Plan for Cross-curricular Learning
- Formulating the Whole-school Language Policy
- Curriculum mapping

Discussion and sharing

- What strategies/ skills might be useful for you to plan/ implement LaC at your school?
- How would you plan/ implement LaC at your school?
- Do you have any (more) good practices of planning/ implementing LaC at your school?

12. Summary

- Try to establish meaningful links between English and content subjects for your students
- Seek more collaboration with content teachers if possible
- Adapt existing language materials as a progressive approach towards LaC

Enriching what you have already been doing is good enough!

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Appendix A

An example of a laboratory report

Introduction

(Aim)

This experiment aims to find out the effects of vinegar on eggshells...

(Hypothesis)

The eggshell will dissolve...

Method

(Materials/Apparatus)

- 2 raw eggs
- 2 beakers
- Some vinegar
-
-
-

(Procedures)

1. Put an egg in each of the beakers.
2. Pour some vinegar into one of the beakers until the egg (Egg A) is covered.
3. Add nothing to the other beaker (Egg B, the control).
4. Record the observation for Eggs A and B after 48 hours.

Results

Some bubbles came out from the surface of the eggshell. The colour of the eggshell of Egg

A was lighter than that of Egg B. Part of the eggshell disappeared...

Conclusion

Vinegar dissolves the eggshell...

Discussion

Eggshells contain calcium carbonate, which reacts with the acetic acid in vinegar. The eggshell is dissolved because the acetic acid breaks up the calcium and carbonate in the eggshell. The bubbles on the eggshell are carbon dioxide generated as a result of the reaction between the carbonate and the acetic acid...

The experiment can be improved by...

Note. From “Connecting Students’ learning experiences through promoting reading and writing across the curriculum in the junior secondary English classroom”, by Education Bureau (p.18), 2020 (https://www.edb.gov.hk/attachment/en/curriculum-development/kla/eng-edu/references-resources/RWaC/RWaC_JS.pdf). Copyright 2020 by Education Bureau.

Gene	-tic	-ist
Editing	-tics	Scientist
Engineering	-s	-ive
Problem	Disease	Defect

It is a part of a cell that controls its characteristics, growth and development	Related to	Denoting people
The process of making changes	The study of	
Work related to designing or constructing machines/ engines/ things using scientific principles	Plural	Related to
		A fault