WSA-EFFECTIVE COMMUNICATION '*EXPRESS* TO *ENGAGE*'

Sharing by Sembawang Secondary School

- '*Students' Voices in the Classroom'*

Presented by

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2) Ms Caroline Eu (Science)

3) Miss Jenny Kho (Humanities)

Outline of Presentation...

- **Overview of WSA-EC**
- **WSA-EC in Sembawang Secondary School**
- **Sharing on Approaches used by Humanities and Science Departments**
- **Going Forward**
- **Question & Answer**

OUR OBJECTIVES:

- Develop all EL-medium teachers to become **role models** of effective communication

- Raise EL-medium **teachers' awareness** of the role of effective communication in subject teaching, so that students can better understand a subject's content

Aligned to Sembawang Secondary's Vision & Mission

STAFF:

- **Leading, inspiring and serving through effective communication**

STUDENTS:

- **Confident and Effective Communicators of the 21st century**

'LANGUAGE AWARENESS IN TEACHING' by Timothy Chadwick

- "Content teachers have a DUAL responsibility: to **teach content** and to **support language.**"

- 'How you and your students use language to communicate subject content and develop understanding is central to your students' success as learners.'

From 'Chadwick, T. (2012), *Language Awareness in Teaching* Cambridge: Cambridge University Press'

The Role of Language in Schools

Basic Interpersonal Communication Skills (BICS)

Classroom Language (CL)

Cognitive Academic Language Proficiency (CALP)

- Students' use of language to socialise

- Teachers' use of language
-to build rapport
- to introduce new concepts in terms familiar to students

Teachers' and Students' use of language in classroom routines, e.g.:
- giving instructions
- questioning techniques
- classroom management

Teachers' and Students' use of language to understand, apply and communicate new concepts, e.g.:

- Specific, specialised vocabulary

- Functional language and specific grammatical structures to aid with specific cognitive processes

The language becomes more and more specific to the content subject.

ELiS
ENGLISH LANGUAGE INSTITUTE
OF SINGAPORE

Inspiring Leaders, Active Contributors

CONTENT AND LANGUAGE INTEGRATED APPROACH

SUBJECT LITERACY

- ability to *read*, *listen*, *view*, *speak*, *write* and *visually represent* in order to *develop understanding* appropriate to a particular subject, and be able to *articulate that understanding.*

From 'Chadwick, T. (2012), *Language Awareness in Teaching* Cambridge: Cambridge University Press'

Subject Literacy

Content Vocabulary

- What vocabulary will our students need to know in order to understand the topic?
- How can we help them with their content vocabulary?

(Delta in Geography versus Delta in Mathematics)

Functional Language

- What thinking skills would our students need to know in the topic?

(classifying, comparing and contrasting ,analysing and evaluating etc)

OUR JOURNEY in 2012/13

1. School leader and representative from ELIS shared on the importance of effective communication and the WSA-EC <u>programme objectives</u> during staff meeting in December (2012).

2. Team along with the support of school leaders, came up with the <u>whole plan for WSA-EC</u>, which is aligned to school's vision, mission, values as well as strategic plans.

3. <u>Focus was on instructional practices</u> that would support effective communication in each subject discipline.

OUR JOURNEY in 2012/13

4. <u>Assembly talk</u> for whole school – On what is effective communication and the need to be effective communicators (Banner with our tagline: 'Express to Engage').

5. A <u>PD session</u> was used to address the whole staff on *'Academic language'.*

6. EC Champions used one <u>PLC session</u> to help department teachers to *further understand subject literacy* and worked out an individual department plan.

OUR JOURNEY in 2012/13

7. In August, one PLC session was devoted for EC champions to *review and refine their WSA-EC plan* with their respective departments.

8. Another PD session was used for all departments to *share their plan, their progress and impact of their literacy strategies* with whole staff.

9. In October, after the year end examinations, champions collected another round of feedback from department teachers on the impact of literacy strategies on student learning.

10. Using the evidence-based findings , departments will be reviewing their plan for next year.

USE OF DATA TO VALIDATE PROGRAM

DATA is used to guide our WSA-EC programme to help achieve student outcomes.
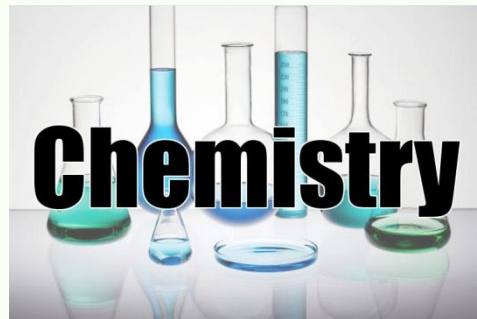
- Performance of students during formative assessment and summative assessment (end of the year examination- written, oral performance etc..)

- Marker's report

- Feedback from department teachers/ programme owners

Subject Literacy – SCIENCE DEPARTMENT

Subjects involved:

▪Lower Secondary Science

▪Chemistry
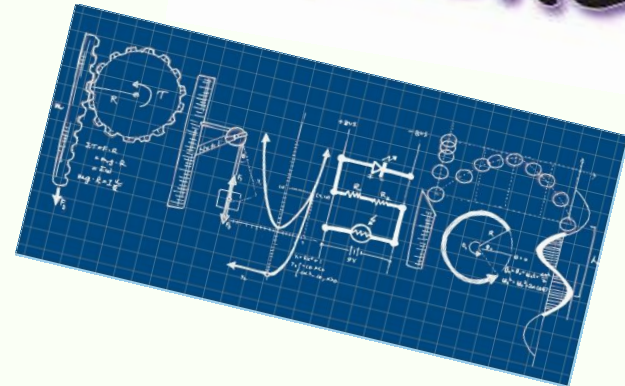
▪Physics

Difficulties faced by students

Based on marker's reports and students' feedback, students

- have difficulty reading the academic language of questioning;
- lack procedural knowledge on how to go about solving the questions.

Areas of focus for SCIENCE DEPARTMENT

No.	ACTION/S	DRIVERS	TIME PERIOD	EVIDENCE/KPI
1.	Identify functional language in Science	Science teachers	Term 2	1. **Identify functional language using past year 'O' level papers.** 2. **Lesson plans to include the specific words that will be explicitly explained.** 3. **Glossary of terms to be given to all students.**
2.	Identify content vocabulary in various topics	Science teachers	Term 3 and 4	1. **Lesson plans to include the specific words that will be explicitly explained** 2. **Display of words in classrooms and laboratories.** 3. **Use of glogster to showcase students' learning.**

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Functional Language in Science

5072 CHEMISTRY (WITH SPA) O LEVEL (2013)

GLOSSARY OF TERMS USED IN CHEMISTRY PAPERS

It is hoped that the glossary (which is relevant only to science papers) will prove helpful to candidates as a guide, i.e. it is neither exhaustive nor definitive. The glossary has been deliberately kept brief not only with respect to the number of terms included but also to the descriptions of their meanings. Candidates should appreciate that the meaning of a term must depend in part on its context.

1. *Calculate* is used when a numerical answer is required. In general, working should be shown, especially where two or more steps are involved.

2. *Classify* requires candidates to group things based on common characteristics.

3. *Comment* is intended as an open-ended instruction, inviting candidates to recall or infer points of interest relevant to the context of the question, taking account of the number of marks available.

4. *Compare* requires candidates to provide both similarities and differences between things or concepts.

5. *Construct* is often used in relation to chemical equations where a candidate is expected to write a balanced equation, not by factual recall but by analogy or by using information in the question.

6. *Define (the term(s)…)* is intended literally. Only a formal statement or equivalent paraphrase being required.

7. *Describe* requires candidates to state in words (using diagrams where appropriate) the main points of the topic. It is often used with reference either to particular phenomena or to particular experiments. In the former instance, the term usually implies that the answer

Functional Language in Science

Example: Graduating classes

1   In this experiment you will <u>determine</u> the refractive index of water. To do this you will <u>measure</u> the real and apparent depths of an object. You will use the apparatus shown in Fig. 1.1.
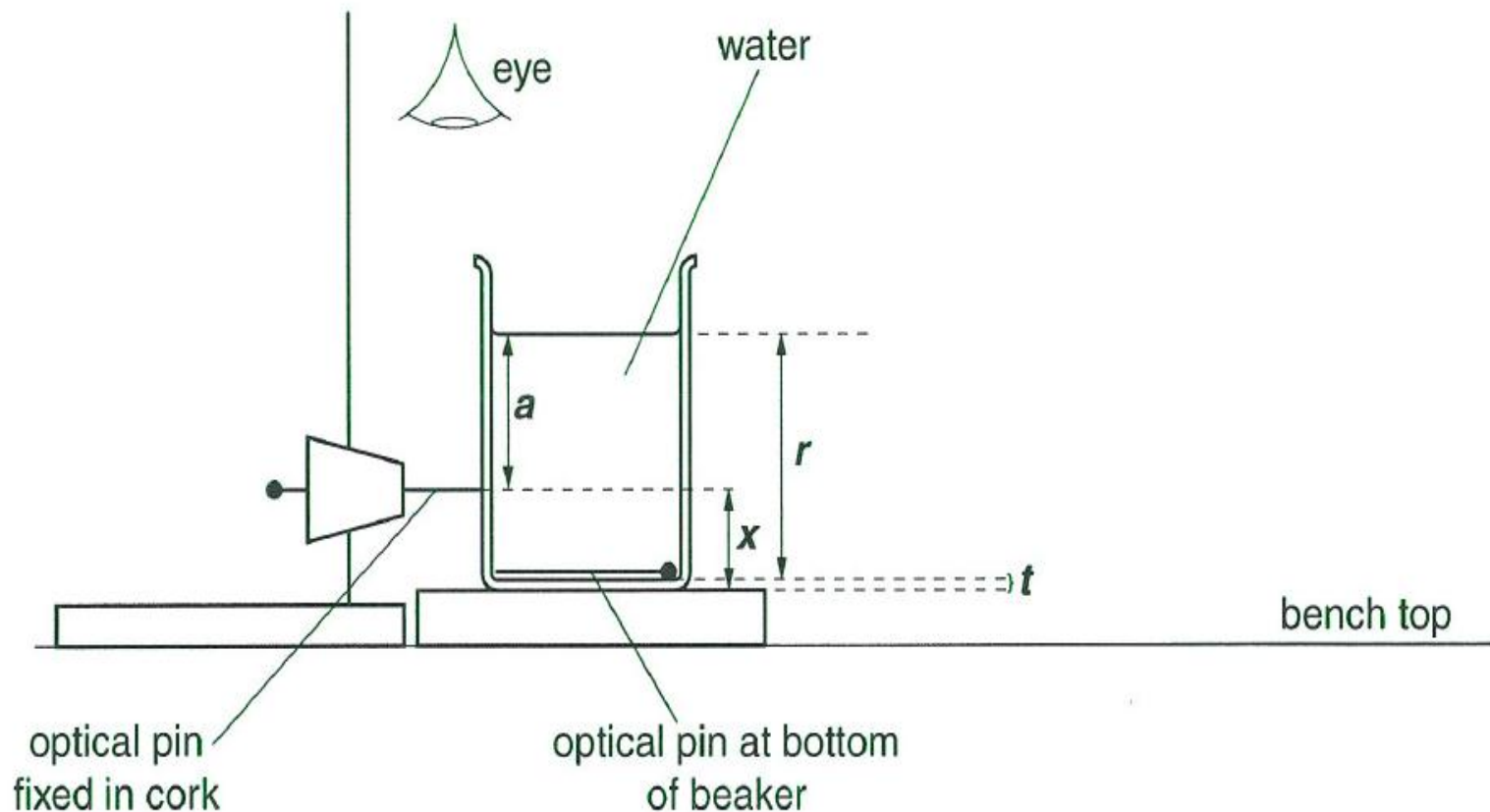
Functional Language in Science

Measure implies that the quantity concerned can be **directly obtained from a suitable measuring instrument** , e.g. length, using a rule; or angle, using a protractor.

Determine often implies that the quantity concerned **cannot be measured directly** but is obtained by calculation, or by substituting measured or known values of other quantities into a standard formula.

Content Vocabulary in Science

Steps:

1. **Specific words** from each topic were explicitly **explained**, e.g. moment. Words were put in context and given daily life examples to help students understand.

2. **Display of words** in classrooms and science laboratories.

3. Use of **glogster** to showcase students' learning.

Content vocabulary in Science

Example: Secondary 2 Express Classes

Outcomes

In the past, when asked to state a difference, students tend to comment only on one of the two terms. Therefore, they do not gain credit for the question.

A typical instance of student error, "Breathing does not produce any waste products but respiration does."

Outcomes

Students now have greater awareness of the content vocabulary pertaining to their subjects.
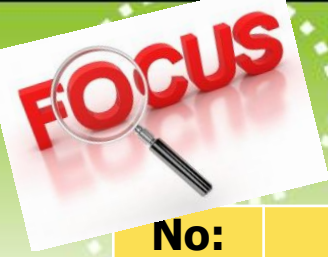
Subject Literacy – HUMANITIES DEPARTMENT
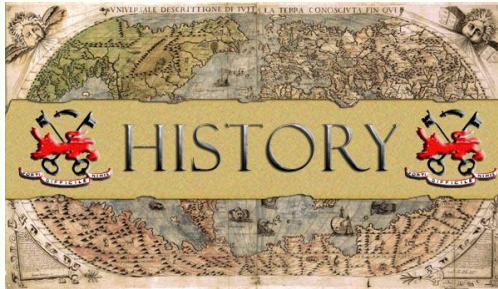
Subjects involved:

- Principles of Accounts (POA)
- Geography (Geo)
- Social Studies (SS)
- History (Hist)

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Areas of focus for HUMANITIES

No:	ACTION/S	DRIVERS	TIME PERIOD	EVIDENCE/KPI
1.	Identify content vocabulary for all topics	All Levels (Social Studies/ Geography/History)	March **(Term 2)** June **(Break)** July to Aug **(Term 3)**	1. **Students' assessments in common tests and MYE/EOY examinations** **2. Lesson plans to include the specific words explicitly under Objectives section**
2.	Review on 2012 'N' and 'O' Level markers reports for all subjects on Content Vocab and Functional Language	All Levels (Social Studies/ Geography/History /POA)	July to Aug	**1. Students' assessments in common tests and MYE/EOY examinations**

FOCUS

Humanities Department

Approach

The use of the ' *Content Vocabulary'* and *'Functional Language'* columns on the whiteboard.

Principles of Accounts (POA)

Level: Secondary 3 Exp/NA

Topic:

Chapter 5: Balance Sheet

Content Vocabulary:

Balance Sheet items

- Fixed Assets (FA)
- Current Assets(CA)
- Long Term Liabilities (LTL)
- Current Liabilities (CL)
- Owners' Equity (OE)

Functional Language:

- Classify

Examples of Fixed Assets

Land

Machinery

Building

Motor Vehicles
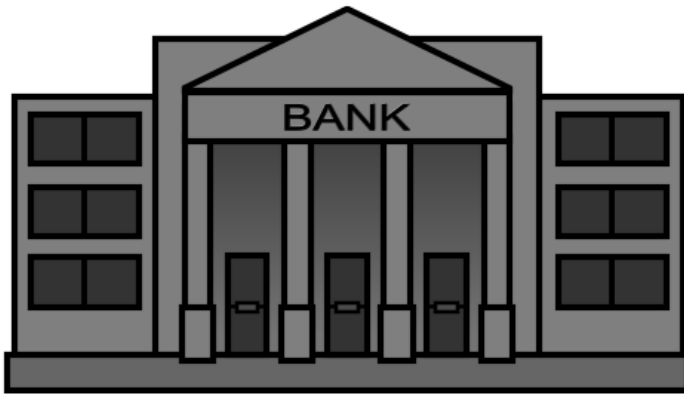
Examples of Current Assets

Cash

Stock

Debtors

Bank

Geography (Content Vocabulary)

Level: Secondary 3Express

Topic: Plate Tectonics

- Keys terms stated in textbook and worksheet
- Learning of content key words via 'Pyramid Game'

plate tectonics terms

Terms which you must know!

Disclaimer: these are just quick definitions, not how it should be phrased.

Key concept

Natural Hazard – natural-occurring event dangerous to humans

Tectonic – related to Earth's Crust

Why are there tectonics hazards? Where can they be found?

Internal structure of the Earth

Core – solid, inner most layer, solid

Mantle – largest volume, semi-solid

Crust –

Continental Crust – crust is mainly land mass. Less Dense

Tectonic Crust – crust is mainly under ocean. More Dense.

Forces moving the crust

Convection current – mantle heated by core, rise to crust and move crust

Slab-pull force – mantle cools and sinks back to core, pulling crust

Subduction – oceanic plate goes beneath other plates due to slab-pull force

Location of natural hazards

Subduction Zone – location where subduction occurs.

Plate boundaries – edge of tectonic plates

Divergent plate boundary – plates moving away from each other

Convergent plate boundary – plates moving towards each other / collide

Transform plate boundary – plates sliding past each other

Geography (Functional Language)

Level: Secondary 3Express

Topic: Plate Tectonics

Demo ('Describe')

Language of describing, expressing & analysing & evaluating

When you describe features...

a) Be clear <u>where</u> you are describing
> Top? Bottom? Sides?
> If it is photograph taken from ground, use terms like (background, middle ground, foreground)

b) Use appropriate terms:
- Shape (flat? sharp?)
- Size (if you are shown a satellite / aerial image)
- Gradient (Steep gradient? Gentle Gradient?)
- Surface (rough? smooth?)
- What kind of materials? (Rocks? Sediments?)

Gulf of Mexico

Demo (i)

pg (1)6 - qns (d) (2009)

Functional Language

(d)(i) Describe the shape and features of the delta shown on the satellite image. [4]

features = special characteristics

Gulf of Mexico

- Shape
- Size
- ~~Gradient~~
- ~~Surface~~ CAN"T TELL FROM IMAGE
~~What kind of materials?~~ CAN"T TELL FROM IMAGE BUT HAVE CONTENT KNOWLEDGE. USE AS LAST RESORT

Demo (i)

pg (1)6 - qns (d) (2009)

Content Vocabulary

(d)(i) Describe the shape and features of the delta shown on the satellite image. [4]

features = special characteristics

Gulf of Mexico

Triangular in shape[1]
Edges are not smooth –
a lot of small islands [1]

covers a large area [1]

Contain many small lakes [1]

Demo (i)

pg (1)6 - qns (d) (2009)

Functional Language

(d)(i) Describe the shape and features of the delta shown on the satellite image. [4]

features = special characteristics

The delta is triangular in shape. It's edges are not smooth as it has a lot of small islands.

It covers over a large area.

It contains many small lakes in the delta.

Gulf of Mexico

Outcomes of using 'Academic Language'

- August Review

Formative Assessment:
- 'Question and Answer' in class

Summative Assessment:
- Fewer spelling errors and better use of sentence structures during graded assessments

Outcomes of using 'Academic Language'

- October Review

Formative Assessment:
- 'Question and Answer' in class

Summative Assessment:
- Fewer spelling errors and better use of sentence structure during **End of Year Exams**

Going forward for Humanities department

Thinking of ways

- **To link key words/phrases used** in Social Studies to Geography and History e.g. reaction and outcome

- To explore ways to better teach financial analysis for Principles of Accounts **by teaching use of functional language like compare and analysis**

- To let help students realise that **mastery of key terms and functional language in these subjects** will also help them in their English communication

GOING FORWARD

Peer observation process using template

- Peer Observation Template to be modified by individual departments

- EC Champions to mentor two members in their department

- A PLC project will be done by this team of teachers

Thank You

- We welcome your questions and feedback