Engendering a Metacognitive Culture in the Singapore English Language Classroom

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An Experience of Speaking/ Writing/ Representing
Imagine you’re right here...
Imagine you’re right here...
Now, prepare to

- **engage a ‘live’ audience** about your experience for about 10 minutes; or

- **write about your experience** in about 300 words; or

- **represent your experience** in any way you choose.


**Table Conversation**

- **How did you feel** about your experience of preparing to speak/write/represent?

- **What did you do?**
  - On paper
  - In your mind
  - With others
  - Using technology

- **Why did you do what you did?**
  - Describe in some detail the process of your actions or decision-making, especially if it surprises yourself
Reflecting on Your Experience

- In what way(s) is your experience – of preparing to speak/write/represent – similar to or different from your students’?

- How might your students’ experience be enriched? Why?
What in fact is Metacognition?
‘Metacognition’ refers to one’s knowledge concerning one’s own cognitive processes and products or anything related to them...

metacognition refers, among other things, to the active monitoring and consequent regulation and orchestration of these processes in relation to the cognitive objects on which they bear, usually in the service of some concrete goal or objective.

Flavell, 1976, p. 232
Thinking about one's thinking
Metacognition

= Thinking about (inquiring into) our thinking

• Asking questions such as the following:
  o What am I doing?
  o Why am I doing it? /Should I be doing this now?
  o How can I do this better?

• Being curious and self-directed in learning

• Regarding learning as a process of inquiry
Table Discussion

• **What if** we let our students’ curiosity and their questions drive their language learning and use?

• **Why is** students’ curiosity important to language learning and use?

• **How would we** teach our students English Language if they are motivated by their own curiosity?
Cognition and Metacognition

Map of the Thinking Domain (Swartz & Perkins, 1990)
Components of Metacognition

Adaptation of Schmitt & Newby's *Components of Metacognition* by Chang & Ang (1999)
Metacognition involves:

- Awareness
- Monitoring
- Regulation

of both cognitive and affective processes.
Importance of Metacognition

Metacognitive strategies help us become more efficient and powerful in our learning because they help us to find information, evaluate when we need additional resources, and understand when to apply different approaches to problems.

Darling-Hammond, Austin, Cheung & Martin, 2003, p.159
Engendering a Culture of Metacognitive Practice in the Singapore EL Classroom
Metacognition in Language Use

Effective language use involves

- a social process of making, monitoring and evaluating choices in the use of strategies in reading, writing, interacting orally, viewing and representing, in the use of grammar and vocabulary; and

- considerations about appropriateness to purpose, audience, context and culture, in order to achieve communicative goals — not simply an act of applying rules and templates.
Metacognition may be:

- **Offline (Reflective)** – involving awareness, monitoring and regulation of one’s affective and cognitive resources that are carried out in a post-mortem manner, with the purpose on improving future performance.

- **Online (Interactive)** – involving awareness, monitoring and regulation of one’s affective and cognitive resources while performing a task, with the goal of more efficiently and effectively attaining the goal of completing the task at hand.

  

  Lee (2008)
Online Metacognition

“A Metacognitive Experience”
(Flavell, 1979)

Coins Problem

You have 24 S$1 coins. One of the coins is defective and weighs more than the others.

You also have a balance scale that will tell you which of two stacks of coins is heavier. It will not provide you with information about their actual weight.

What is the fewest number of times you can use the balance scale to identify the defective coin?

The A-ha! Moment
Online Metacognition

What Triggers Learning?
What happens when learning occurs?

1. Cognitive conflict or disequilibrium
2. Accommodation and assimilation
3. Change of schema
Example of an Offline Metacognition Scheme

## An Operationalised Conception of Metacognition

<table>
<thead>
<tr>
<th>Stages of Metacognitive Practice</th>
<th>Types of Metacognitive Practice</th>
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<tbody>
<tr>
<td></td>
<td>Online (Interactive)</td>
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<td>Offline (Reflective)</td>
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Teaching Metacognitive Strategies for Writing and Representing
The Cognitivist Process Approach to Writing: Theoretical Assumptions

• Writing came to be seen as a cognitive, goal-directed, problem-solving activity (Flower and Hayes, 1981)*.

• Writing is also seen as a non-linear, exploratory and generative process whereby writers discover, rediscover, formulate and reformulate their ideas as they attempt to express meaning to respond to a specific situation (Zamel, 1983)**.

• ‘Good’ writing shows careful planning, selection of ideas and revision to shape the writing according to the rhetorical goals of the writing task.


What does Writing Involve?

FLOWER & HAYES’ COGNITIVE PROCESS MODEL OF WRITING (1981, Adapted)

THE WRITER’S LONG-TERM MEMORY
Knowledge of:
Topic
Discourse

THE WRITER

WRITING PROCESSES
PLANNING
GENERATE
SELECT
SET GOAL

WRITING
ORGANISE
DEVELOP

REVIEWING
EDIT
EVALUATE
REVISE

MONITORING

TASK ENVIRONMENT
RHETORICAL GOALS
Topic
PACC

TEXT PRODUCED SO FAR

FLOWER & HAYES’ COGNITIVE PROCESS MODEL OF WRITING (1981, Adapted)
Table Task

Based on the earlier task in your experience of Writing and Representing, write down the questions that students could ask at each phase of the writing processes, and at each stage of metacognitive practice.

Identify what you can do to enable your students to ask these questions as part of your design of a unit of study. Refer to **EL Syllabus 2020** CLEARR Pedagogical Framework.
CLEARR: A PEDAGOGICAL FRAMEWORK FOR THE SECONDARY ENGLISH CURRICULUM 2020

LEARNERS

CONTEXTUALISE
- Inquire into context for learning
- Surface existing thoughts and beliefs about theme

LEARN & EXPLORE
- Acquire SSAB through a balance of explicit instruction and discovery
- Share and explore perspectives about theme and text

APPLY & RESPOND
- Apply learner strategies in a range of contexts, which require interaction and awareness of PACC
- Develop and co-construct a personal perspective about theme and text

REINFORCE
- Review learning and improve through feedback and self-assessment
- Reflect on beliefs and thoughts about theme and text

BUILD MULTILITERACIES, METACOGNITION AND INQUIRY THROUGH DIALOGUE
CONNECT THEME, TEXT, TASK, TALK AND TECHNOLOGY

TEACHERS

Frame the context for learning
Motivate and support exploration of theme

Explain and model learner strategies for receptive skills
Guide learners to discover features and patterns in multimodal texts
Incorporate explicit and contextualised instruction in grammar and vocabulary

Explain and model learner strategies for productive skills
Monitor use of knowledge, skills and strategies
Prompt learners to monitor and adjust use of language

Provide feedback and assign tasks for reinforcement
Guide reflection on personal progress, in terms of language skills and thematic understanding

ACROSS ALL PHASES, SUPPORT LEARNERS THROUGH

Differentiated Instruction:
Use information from assessment to customise learning according to learners' readiness, interests and learning profiles with appropriate scaffolding and support.

Assessment for Learning:
Guide review of learning through feedback and self- and peer-assessment.

Extensive Reading, Listening and Viewing:
Encourage students to discover engaging and accessible texts.

Exploratory Talk:
Use ground rules, task framing, group structures and talk moves to guide discovery and exploration.

Explicit Instruction:
Provide modelling (I Do), guided practice (We Do), supported practice (You Do It Together) and independent practice (You Do It Yourself).

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Metacognitive Instructional Strategies

Four clusters of metacognitive instructional strategies, or instructional strategies that activate and engage students in metacognition, are found to be effective in improving student learning:

• **Log Writing** – students use writing activities to cultivate a more metacognitive approach towards learning.

• **Effective questioning techniques** – teachers establish an environment in which both teachers and students continuously ask questions with regard to the learning process so as to better understand, monitor and direct students’ cognitive processes.
Metacognitive Instructional Strategies

• **Pair and group learning** – students worked in pairs and / or groups, reasoning aloud and interviewing each other so as to be more aware of and thus more conscious of regulating the thought processes of the learner.

• **Identification of structural properties of learning tasks** – teachers consistently ask students to identify similarities and differences among different learning tasks.

*Lee, 2008, pp. 70-71*
Cultivating Curiosity

Enabling learners to

• discover and pursue their enthusiasms,

• develop self-directedness in learning through inquiry, and

• collaborate to improve others’ lives.
Alignment with *EL Syllabus 2020*

- Nurturing the Joy of Learning
  - Creating conditions that enable learners to be self-motivated and self-directed
- Three Foci in our Pedagogical Practice
  - Promoting Inquiry through Dialogue
  - Teaching Metacognitive Learner Strategies
  - Building Multiliteracies
Engendering a Culture of Metacognitive Practice in the Staffroom
Collaborative Professional Learning

Researchers in International Studies: Conditions that Support Quality Collegial Learning

Six Attributes of Learning Communities
Hord & Roy (2014)
Professional Learning: Structural Conditions

Resource Creation/Provision
Create/Provide time, space and other resources for professional learning

Job-embedded Learning
Embed professional learning in the day-to-day practice of teaching

Shared & Supportive Leadership
Foster collaborative communities that help teachers integrate new knowledge into practice
A Tripartite Model of Professional Learning

HOD/EL, YISS
Lead development and review of school’s EL curriculum

Researcher, NIE
Build knowledge in selected area of inquiry

MTT/ELIS
Mentor and coach teacher leaders in EL pedagogy

Strengthen Theory-Practice Nexus
Sustained Collaborative Professionalism

Learning about Metacognition

Preparing the Ground
All EL Teachers in the Department

Piloting Learning & Innovation
Core Team of Curriculum and Teacher Leaders

Application to EL Teaching

Growing the Practice
All EL Teachers and Students

Building a Culture of Metacognitive Practice
Professional Learning: Relational Conditions

Peers Supporting Peers

Build an environment that nurtures trust and accountability to each other

Shared Values & Vision

Engender a culture that focuses on learners and improving learning
Principles of Adult Learning (Andragogy)

Relevance
Since adults are looking for practical learning, content should focus on issues related to their work or personal life.

Involvement
Adults need to be involved in the planning and evaluation of their learning.

Problem-centred
Learning should be centred on solving problems instead of memorising content.

Experience
Because adults have so much experience to draw from, their learning should focus on adding to what they have already learned in the past.

from Knowles (1980), The Modern Practice of Adult Education: From Pedagogy to Andragogy
Applying the Principles of Andragogy

Relevance
Seeing how metacognition enables their students to be effective language learners and users, as it does in their own personal lives

Involvement
Applying their understanding of metacognition to preparing, enacting and evaluating EL lessons collaboratively

Problem-centred
Shifting away from the practice of product- and results-oriented language teaching and learning

Experience
Drawing on their prior experience and practice of metacognition both in and outside the classroom
Reflecting on Learning

Consider the intended outcomes of developing a culture of metacognitive practice in both the staffroom and the EL classroom.

Plan how you intend to apply what you have learnt to engender a metacognitive culture in professional and student learning.
References


thank you