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Conceptualizing and Driving a Writing-in-the-Disciplines Initiative to Enhance Undergraduates' Writing Competence at a University in Singapore

3rd August, 2021

Chair: Radhika Jaidev

Presenters: Radhika Jaidev, Brad Franklin Blackstone, Lee Chien Ching, Lee Hwee Hoon, Padma Rao, Kenneth Ong Keng Wee

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Writing-in-the-Disciplines Initiative to Enhance Undergraduates' Writing Competence at a University in Singapore

Assistant Professor Radhika Jaidev
Director
Centre for Communication Skills

Structure of the Presentation

1. **Radhika Jaidev**
   - conceptualizing and driving a **4-pronged approach** to enhancing undergraduates' writing competence at our university.
2. **Brad Blackstone**
   - Designing a **stand-alone module** using Backward Curriculum Design
3. **Kenneth Ong**
   - Designing & delivering an **embedded** writing instruction for an **academic** context
4. **Lee Hwee Hoon**
   - Designing and delivering an **embedded** writing instruction for a **professional** context
5. **Lee Chien Ching**
   - Developing **e-micromodules** to help students with their writing
6. **Padma Rao**
   - Providing **peer tutoring** and **writing consultation** through the Communication Helpdesk

Introduction

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Currently the Centre for Communication Skills offers writing instruction in **4** ways

1. **'Stand-alone'** modules in technical writing & presentation skills and career & professional development skills in several programmes
2. **Embedded** instruction within content modules based on ad hoc requests from content faculty through our **Communicating Across the Curriculum (CAC)**
3. **Peer Tutoring** and **consultation with faculty** on writing assignments through our **'Communication Helpdesk'** to students who seek help
4. **E-micromodules** that offer writing instruction to students at all times

Changes going forward

With endorsement from senior management, we will

1. offer a new 4 credit, 48 hour, 12-week module which emphasizes **critical thinking** in **writing** and speaking will be delivered to SIT undergraduates in **all undergraduate programmes** beginning in the new academic year of 2021-22.

2. embed writing instruction and consultation through our Communicating Across the Curriculum (CAC) programme in at least **one content module per academic year** in every undergraduate programme

3. assign **weighting** and **assess** the **writing** of **content assignments** using a set of **writing rubrics agreed upon and designed** by both the **content faculty** and the **CCS faculty.** The writing in those content modules will account for **3 credits** in **every academic year** beginning from Yr2 of a student's undergraduate education at SIT.

Discipline-specific literacies & values in the stand-alone module

In the design and delivery of the critical thinking and communicating module, CCS faculty work closely with content faculty to

1. discuss what students would be required to write in their programmes and in their professions
2. typical problem-solution contexts within their programmes so that these may be incorporated within the communication teaching materials.

This is to ensure that students are able to see the immediate relevance and applicability of the writing knowledge and skills acquired to their programmes and professions.

Discipline-specific literacies & values in CAC

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CAC has 2 sub-categories

1. **Academic** (to help students cope with writing & presentation demands in their university studies)
   i. **Writing in the Disciplines (WID)**
   ii. Presentation Skills

2. **Professional** (to help students cope with their communication demands during their work attachments and beyond)
   i. Instruction on emails, meeting minutes, interpersonal communication at the workplace etc.
   ii. Instruction in professional communication in specialized work contexts

Understanding by Design: Making an Entry-level Communication Module Goal-focused and Effective

Mr Brad Blackstone, Senior Lecturer

Understanding by Design…. (UbD)

"…is not a philosophy of teaching, it's not an approach to teaching, it's a planning framework."

"…what you're trying to do is make it more likely *by design* that when you teach, you're more goal-focused, more effective."

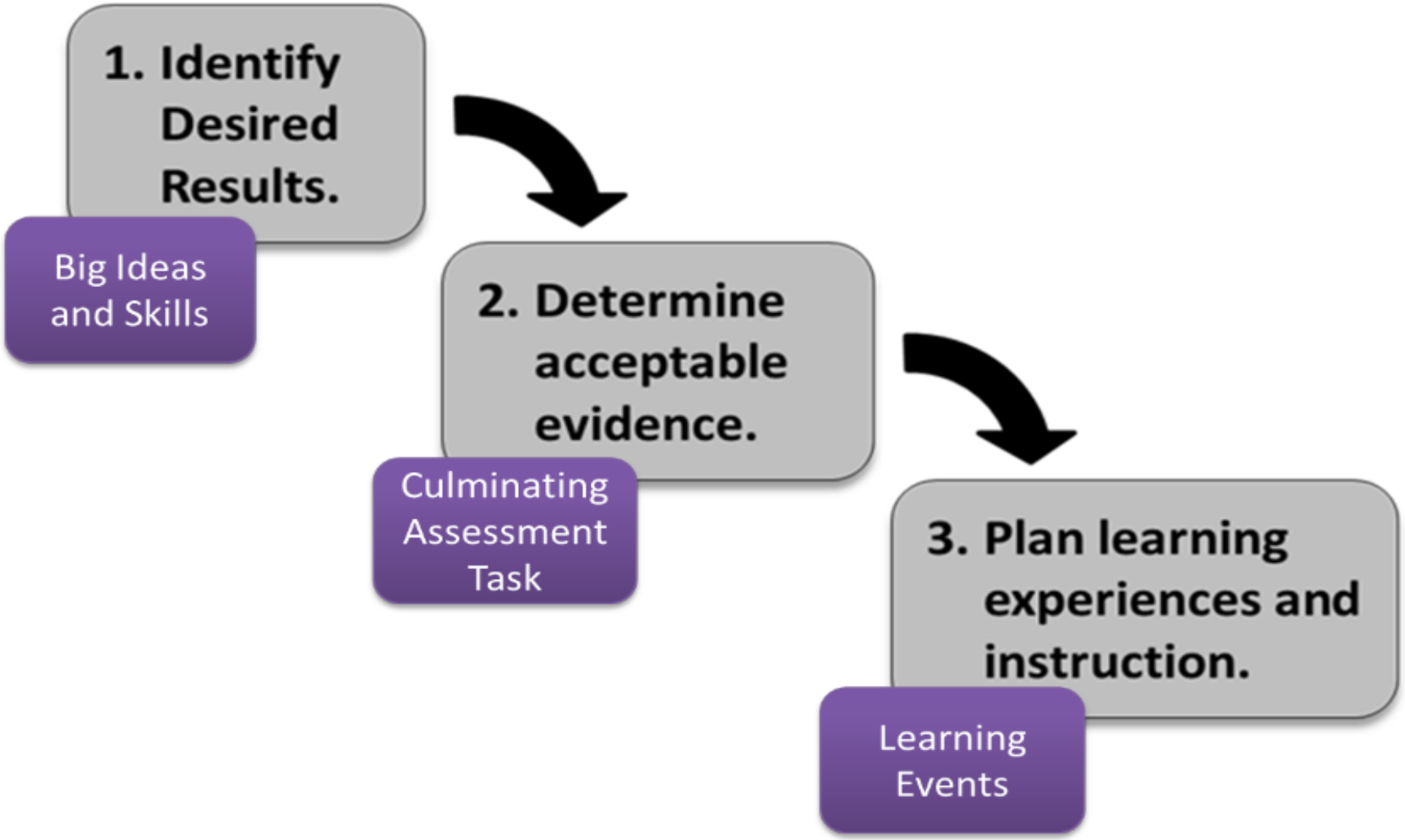
Wiggins, G. (2013, March 1), Understanding by design, Part 1. Youtube. https://youtu.be/4isSHf3SBuQ

Why *Backwards Design*?

Using *backward design* … "underscores the value of this process for yielding more clearly defined goals, more appropriate assessments, more tightly aligned lessons, and more purposeful teaching."

McTighe, J. (n.d.). Lasting lessons for teachers from Grant Wiggins. *TeachThought.*
https://www.teachthought.com/pedagogy/3-lasting-lessons-for-teachers-from-grant-wiggins/

Backward Design



Wiggins, G. P., & McTighe, J. (2005). *Understanding by design*. Association for Supervision & Curriculum Development.

The Role of Objectives in *Backwards Design*

Educational objectives
become the criteria by which
materials are selected,
content is outlined,
instructional procedures are developed,
and test and examinations are prepared…

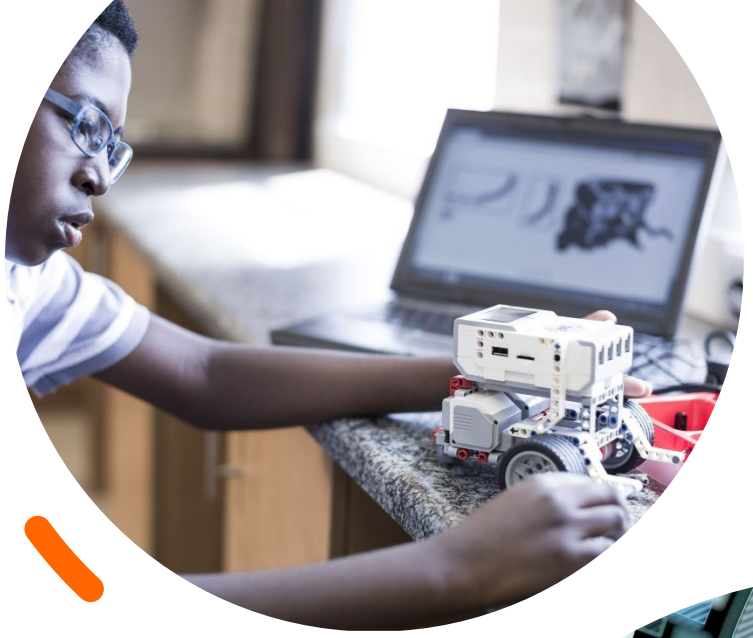
Ralph Tyler, 1949, as cited in Wiggins & McTighe, 1998, *Understanding by Design*

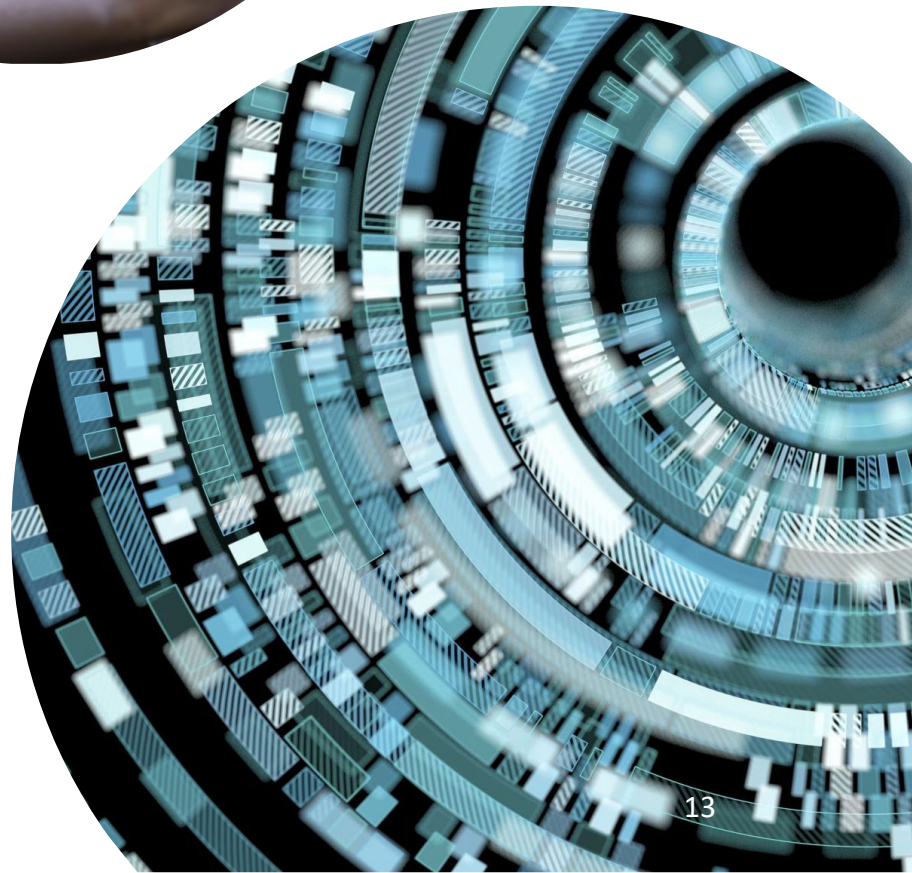
Critical Thinking & Communicating: Robotics (UCS1001)

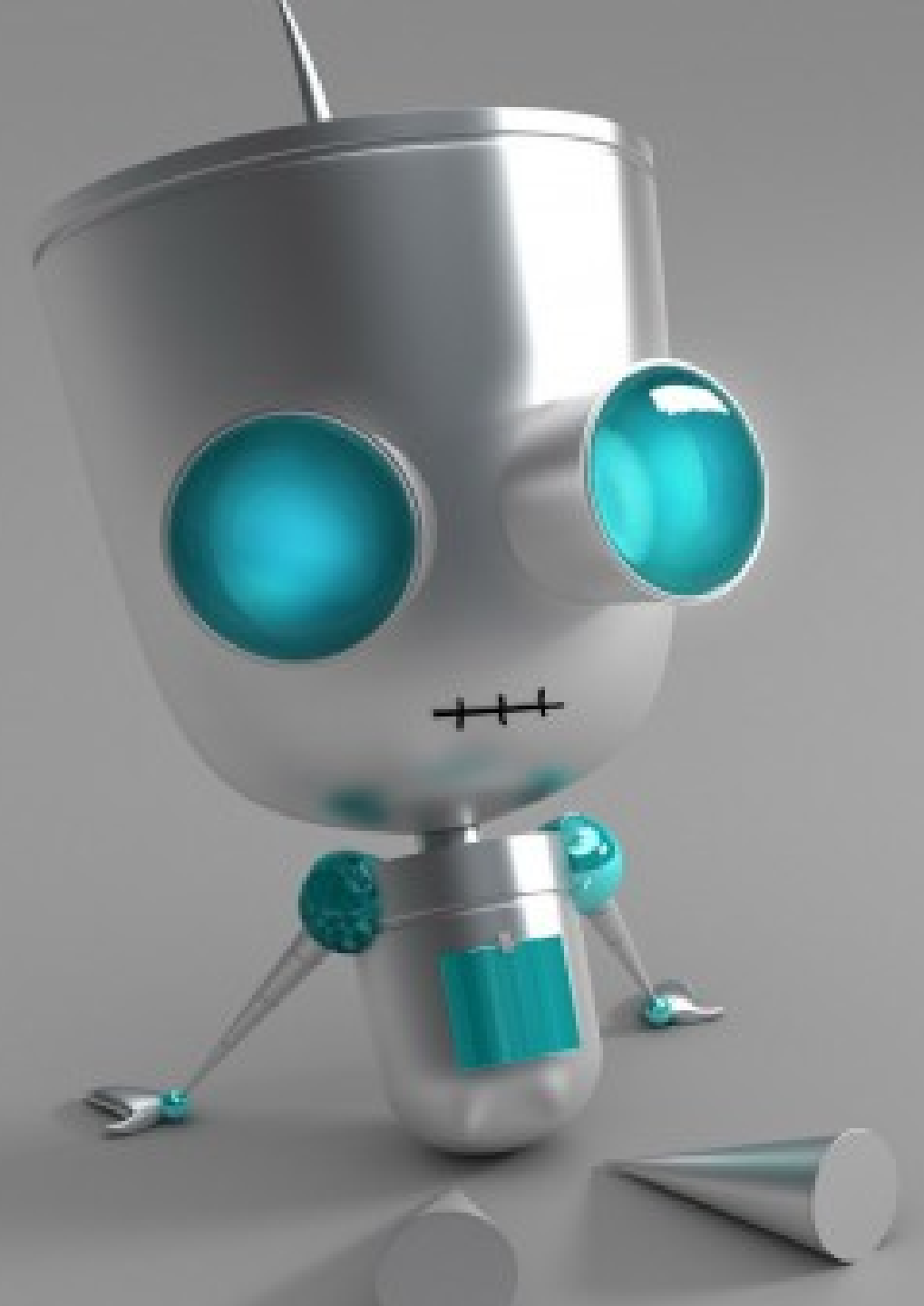
… is a 4-credit, 12-week, 48-hour module

… aims to equip 1st year robotics engineering students with critical thinking skills, foundational knowledge & skills in writing and presenting.

… requires 1) a summary-reader response, 2) both a descriptive and critical reflection, and a research project culminating in 3) a team-based design proposal and 4) a team-based oral presentation.







How to ensure that the instructional design might best serve robotics engineering students in a critical thinking and communicating module?

The Module Development Process

Start, on the macro level, by…

- Leveraging field experience developing and teaching similar modules for similar programmes
- Surveying the 'literature' (English for specific purposes, reading to writing, process writing, problem- and task-based learning, etc.)
- Considering university standards and expectations, academic cluster goals, requirements for transferrable skills and learning outcomes, employer feedback/student work challenges
- Communicating with the Robotics programme lead

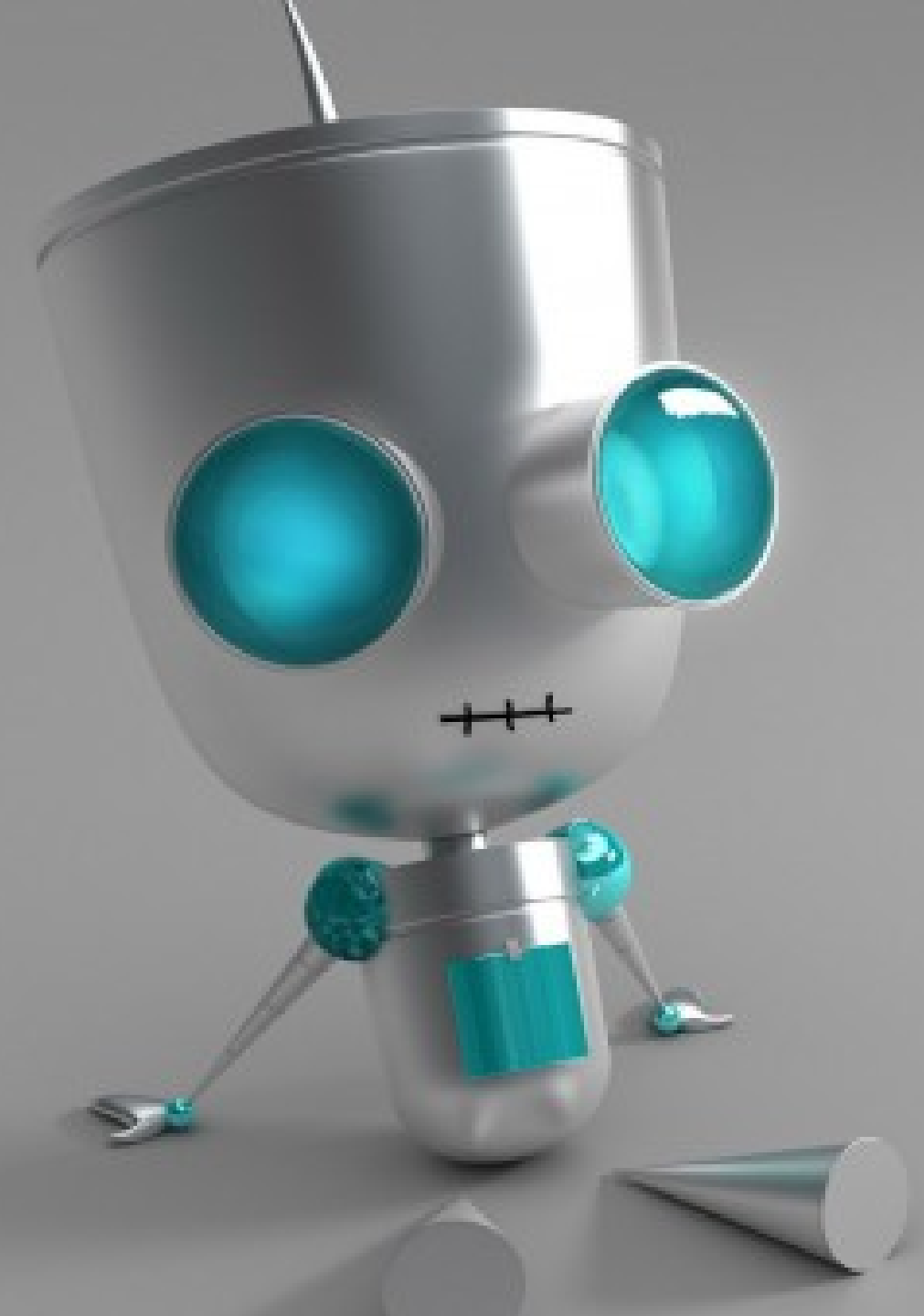
Considering university standards and expectations, academic cluster goals, requirements….

Specific comm skills focus for 3rd year engineering students' in their required work internship program:

Students must be able to…

- demonstrate effective oral and written communication skills.

- develop proposals and write professional reports for engineering projects that contribute to an improvement to existing products/processes/methods.



How about relative to the desired writing results?

Where do I begin?

Learning Objectives for

Critical Thinking and Communicating (1)

1. Understand the rhetorical constructs of a technical/ academic communication context for writing assignments and delivering presentations at university;
2. Apply critical thinking to reading content-specific texts, select key points and summarize salient information and use it to support your claims when you write or present;
3. Apply critical thinking to combine & synthesize information from multiple sources to support your claims in your writing and presentation assignments;
4. Demonstrate good knowledge of sentence structure, paragraphing, text flow when writing;

Learning Objectives for

Critical Thinking and Communicating (2)

1. Apply ethical principles of direct quoting, summarizing, paraphrasing and accurate referencing using citation conventions to avoid plagiarizing;
2. Apply critical thinking to produce a report/ proposal for a specified audience (individually and within a team);
3. Apply critical thinking to deliver an oral or poster presentation to a specified audience (individually and within a team);
4. Engage specified audience through the chosen mode of technical writing and/or speaking: expository, informative, persuasive, etc.

In terms of communicating with the Robotics programme lead

- Content focus on Mars rovers & tele-operation functionality/sub-systems
  (" detailed study of one device of the Mars Rovers")
- Research strategies/use of databases
- Citation management
- Skills for writing a literature review and design proposal

"I intend to have separate 'communication/critical thinking' assessment components in the first few project modules as a direct application of your module."

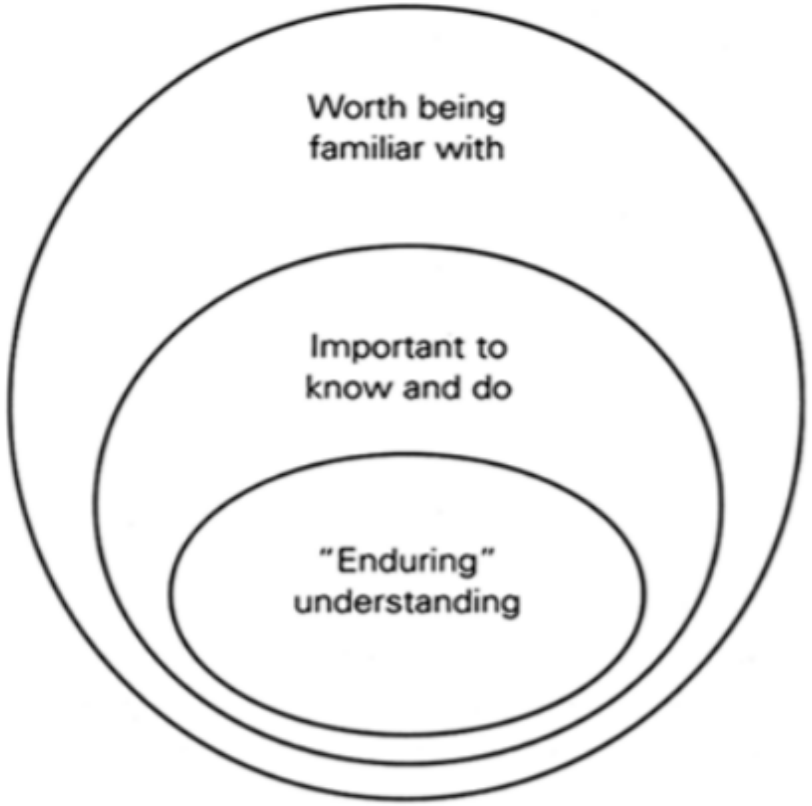
Dr. Liew Pak San, Robotics Programme Lead

The Module Development Process

Continue, on the micro level, by…

- Establishing curriculum priorities (Wiggins & McTighe, 2005)
- Writing high stakes assignments/ tasks
- Writing assessment rubrics and feedback forms
- Surveying and selecting module readings
- Developing instructional units: overviews, key concepts, learning outcomes, procedures, explanations, tasks and learning activities
- Setting up a Google Docs folder for archiving/sharing materials

Establishing Curriculum Priorities (1)



Wiggins, G. P., & McTighe, J. (2005). *Understanding by design*. Association for Supervision & Curriculum Development.

Worth being familiar with:

Citation conventions

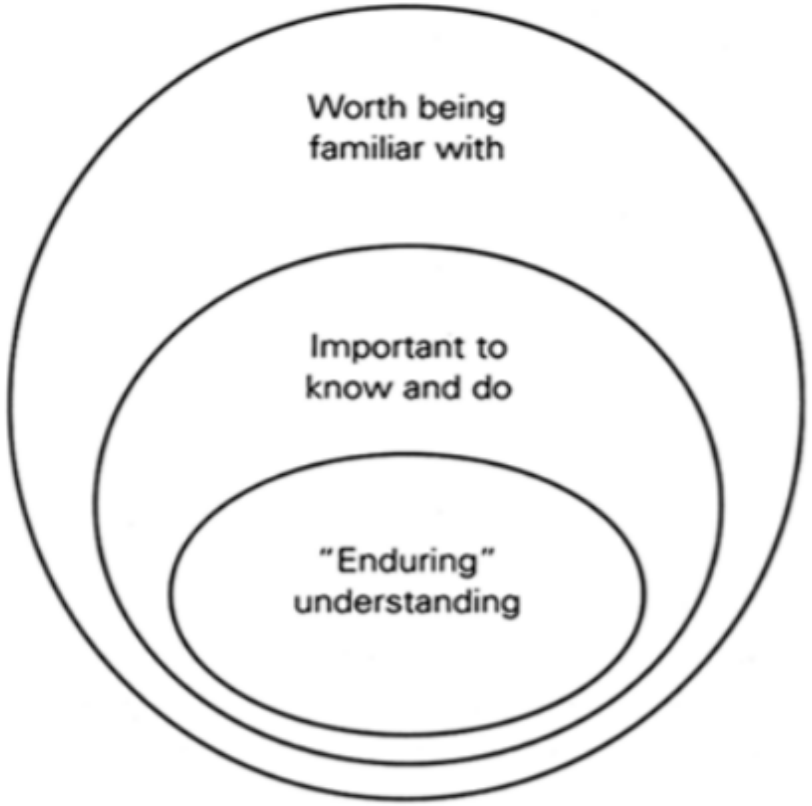
The Pyramid Principle

Design thinking

Robotics concepts

The Paul-Elder Framework (P-E): The *intellectual traits* of a critical thinker

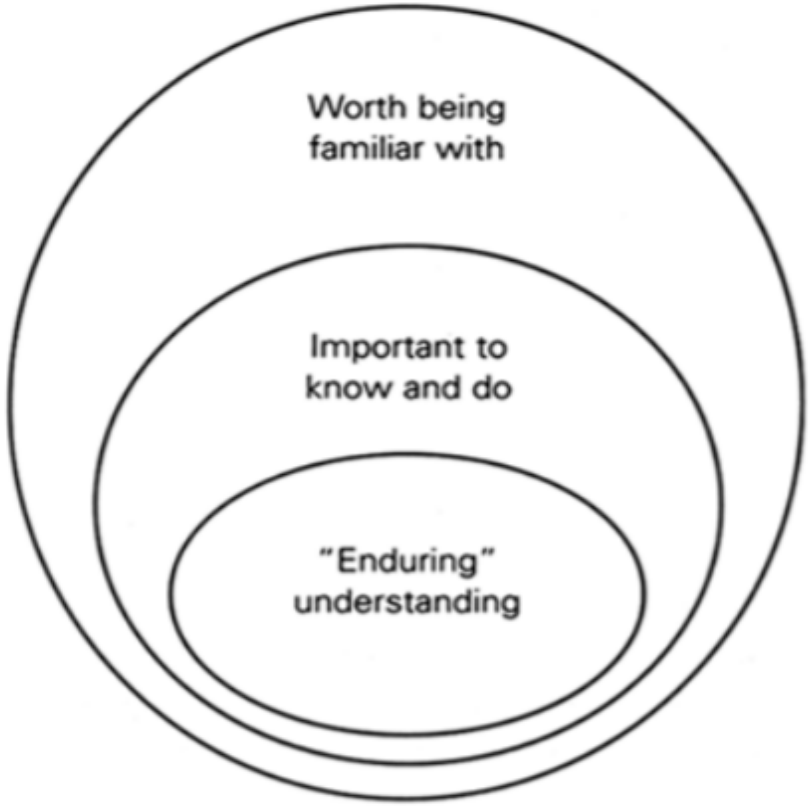
Establishing Curriculum Priorities (2)



Important to know and do:

How to read critically
How to paraphrase and cite the source;
How to effectively summarize
discipline-specific articles/material;
How to write a reader response with
a persuasive thesis
and support that thesis
with credible evidence;
How to initiate a research project
with a focused research question
and a precise problem statement
How to report that research and make a pitch
for a design modification or innovation,
orally and in writing

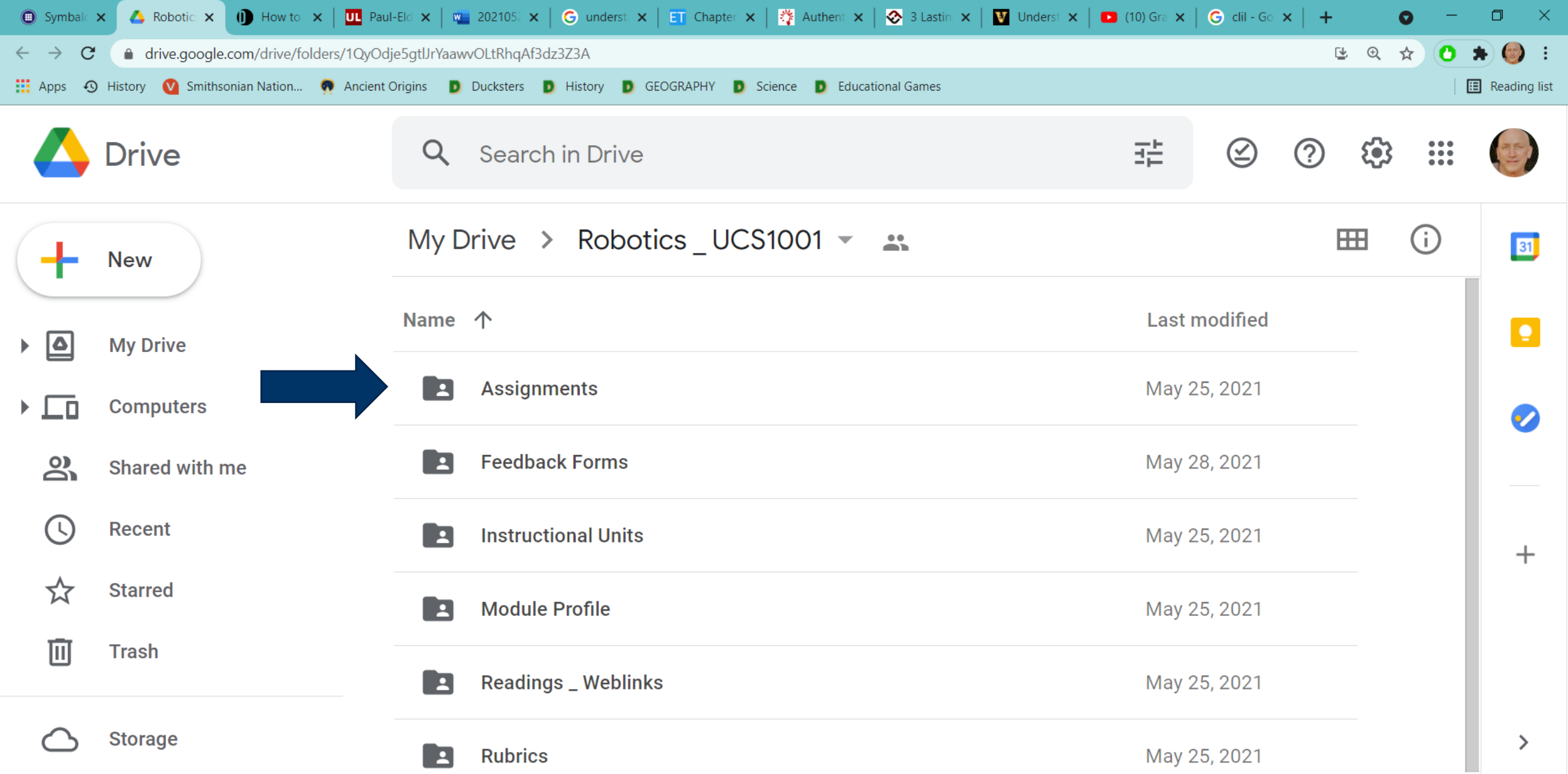
Establishing Curriculum Priorities (3)



Important to have an 'enduring' understanding of:

The value of *intellectual standards* --- accuracy, precision, clarity, completeness, logic, relevance, and significance, as well as breadth, depth, and fairness --- in writing and speaking. (P-E Framework)

The place of the *elements of thought* --- purpose, questions at hand, concepts, points of view, data/info, assumptions, implications, inferences/conclusions --- in reading, research and writing.
(P-E Framework)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Name
Last modified
Assignments May 25, 2021
Feedback Forms May 28, 2021
Instructional Units May 25, 2021
Module Profile May 25, 2021
Readings _ Weblinks May 25, 2021
Rubrics May 25, 2021

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Apps | History | Smithsonian Nation... | Ancient Origins | Ducksters | History | GEOGRAPHY | Science | Educational Games | Reading list

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My Drive

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Recent

Starred

Trash

Storage

9.61 GB of 15 GB used

My Drive > Robotics _ UCS1001 > Assignments

Name	Last modified
UCS1001 Robotics _ Assignment 1 _ Reflections.pdf	Jun 8, 2021
UCS1001 Robotics _ Assignment 2 _ (Design) Summary & Read...	Jun 3, 2021
UCS1001 Robotics _ Assignment 3 _ Technical Report (Design P...	Jun 2, 2021
UCS1001 Robotics _ Assignment 4 _Oral Presentation.pdf	Jun 9, 2021
UCS1001 Robotics _ Blogging as a Learning Portfolio 2021-22.p...	Jun 8, 2021

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Reading materials for students

My Drive > Robotics _ UCS1001 > Readings

Name ↑

- Academic Articles
- Critical Thinking
- Design Thinking
- For Design Summary & Analysis (Reader Response)

Readings for the summary-reader response assignment

My Drive > Robotics _ ... > Readings _ ... > For Desi

Name	Owner
The Science and Engineering of Mars Exploration....	me
Design Summary links _ NASA Perseverance Tech ...	me
Design Summary links _ European Space Agency _...	me
Design Summary links _ CNSA Tianwen 1.pdf	me

Possible design summary readings

Design Summary & Analysis (Reader Response):
Weblinks for articles and webpages *NASA Perseverance Technology and Flight*

NASA Mars Spacecraft:
https://mars.nasa.gov/mars2020/spacecraft/overview/

NASA Mars Perseverance Rover:
https://mars.nasa.gov/mars2020/spacecraft/rover/

NASA Mars Perseverance Instruments:
https://mars.nasa.gov/mars2020/spacecraft/instruments/

Where is Perseverance?
https://mars.nasa.gov/mars2020/mission/where-is-the-rover/

NASA Mars Rover Perseverance_ Key Questions:
https://www.bbc.com/news/science-environment-53129281

NASA Mars Mission Technology:
https://mars.nasa.gov/mars2020/mission/technology/

NASA Perseverance Robotic Arm Starts Conducting Science:
https://mars.nasa.gov/news/8944/perseverances-robotic-arm-starts-conducting-science/

NASA Mars Helicopter Ingenuity:https://www.space.com/ingenuity-mars-helicopter-perseverance-rover

NASA Mars Helicopter Ingenuity > Features:
https://www.space.com/ingenuity-mars-helicopter-perseverance-rover#section-mars-helicopter-ingenuity-technology-and-features

NASA Successfully Flies Small Helicopter on Mars:
https://www.bbc.com/news/science-environment-56799755

NASA Rocket Launch Vehicle:
https://mars.nasa.gov/mars2020/spacecraft/launch-vehicle/

Mars Exploration Rover Mobility
https://www-robotics.jpl.nasa.gov/publications/Mark_Maimone/MobIDDPerf90sols.pdf

drive.google.com/drive/folders/1QyOdje5gtlJrYaawvOLtRhqAf3dz3Z3A

Apps | History | Smithsonian Nation... | Ancient Origins | Ducksters | History | GEOGRAPHY | Science | Educational Games | Reading list

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Name	Last modified
Assignments	May 25, 2021
Feedback Forms	May 28, 2021
Instructional Units	May 25, 2021
Module Profile	May 25, 2021
Readings _ Weblinks	May 25, 2021
Rubrics	May 25, 2021

Instructional Units

Name	Date modified	Type	Size
junk	25-Jun-21 3:06 PM	File folder	
TCE	05-Jul-21 4:10 PM	File folder	
01_Introducing Critical Thinking & Communicating _ 2021-22.pdf	23-Jun-21 2:27 PM	Adobe Acrobat D...	297 KB
02_Revisiting Language Use & Writing Professional Emails _ 2021-22.pdf	15-Jun-21 3:12 PM	Adobe Acrobat D...	329 KB
03_Introducing Reflective Learning & Writing _ 2021-22.pdf	16-Jun-21 5:35 PM	Adobe Acrobat D...	505 KB
04_Paraphrasing, Summarizing, Citing Sources & Avoiding Plagiarism _ 2021-2...	18-Jun-21 1:54 PM	Adobe Acrobat D...	313 KB
05_Introducing the (Design) Summary & Reader Response (Analysis) 2021-22....	18-Jun-21 5:08 PM	Adobe Acrobat D...	326 KB
06 _ Conducting Peer Reviews for Writing & Revising One's Own Work 2021-2...	21-Jun-21 10:50 AM	Adobe Acrobat D...	309 KB
07_ Scaling the Pyramid Principle, Critical Thinking & Focus Statements_ 2021-...	25-Jun-21 10:55 AM	Adobe Acrobat D...	384 KB
08_ Introducing Technical Writing (ITW) _ Project Assignment, Formulation and...	05-Jul-21 9:12 AM	Adobe Acrobat D...	256 KB
09_Introducing Technical Writing (ITW) _ Crafting the Design Proposal (II) _ 20...	06-Jul-21 3:24 PM	Adobe Acrobat D...	1,201 KB
01_Introducing Critical Thinking & Communicating _ 2021-22.docx	23-Jun-21 2:26 PM	Microsoft Word D...	125 KB
02_Revisiting Language Use & Writing Professional Emails _ 2021-22.docx	15-Jun-21 3:12 PM	Microsoft Word D...	162 KB
03_Introducing Reflective Learning & Writing _ 2021-22.docx	16-Jun-21 5:34 PM	Microsoft Word D...	2,565 KB
04_Paraphrasing, Summarizing, Citing Sources & Avoiding Plagiarism _ 2021-2...	18-Jun-21 1:55 PM	Microsoft Word D...	109 KB
05_Introducing the (Design) Summary & Reader Response (Analysis) 2021-22....	18-Jun-21 5:08 PM	Microsoft Word D...	609 KB
06 _ Conducting Peer Reviews for Writing & Revising One's Own Work 2021-2...	21-Jun-21 10:51 AM	Microsoft Word D...	83 KB
07_ Scaling the Pyramid Principle, Critical Thinking & Focus Statements_ 2021-...	25-Jun-21 10:55 AM	Microsoft Word D...	99 KB
08_ Introducing Technical Writing (ITW) _ Project Assignment, Formulation and...	05-Jul-21 9:12 AM	Microsoft Word D...	1,421 KB
09_Introducing Technical Writing (ITW) _ Crafting the Design Proposal (II) _ 20...	06-Jul-21 3:22 PM	Microsoft Word D...	4,721 KB
10_Preparing and Delivering Effective Presentations _ 2021-22.docx	07-Jul-21 11:48 AM	Microsoft Word D...	129 KB
11. Introducing Technical Writing (ITW)_ Reviewing the Proposal III_ 2021-22.d...	06-Jul-21 4:31 PM	Microsoft Word D...	84 KB

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Robotics Google Drive
Purdue's Online Writing Lab
The 7 C's of Communication
Developing a Growth Mindset
Features of Academic Writing
Communication Theories
Reflective thinking
Reflective Writing
Recognizing Plagiarism
In-text Citations: The Basics
Prof and Tech Communication
SIT xSITe
Paul-Elder Critical Thinking
Writing an Introduction Lett...
Writing Effective Emails
Transmittal Letters
How to Write a Business Email
Quoting & Paraphrasing
Managing Citations (York)
APA Citation Guide (Columbia)
Mastering Tech Communication
Writing Success: Outlining
Applying Paul-Elder Framework
Search the web
The web Images Maps
Webmix... News
enhanced by Google
Summary Writing
SIT Library Engineering Stuff
Tables, Figures in APA 7th Ed
How To Improve Tech Writing
Writing a Thesis Statement
Critical Thinking Signposts
Tips for Writing Summaries
Evaluating Information
Doing Appendices in APA
Mayfield Tech Writing ToC
Thesis and Purpose Statements
Problem Statements
Problems: Ideal/Gap/Goal
Purdue OWL: Layering Reports
3 steps: Research questions
Revising a Written Draft
Engineering Design Process
Interaction Design Thinking
IDEOU Design Thinking
Mayfield Proposal Guide
DesignReports(P...
Monash Tech Reports
Stand-alone literature review
Monash: Literature Review
Mayfield Doc Checklist
Tips for Doing Peer Review
Presentation Zen
Assertion-Evidence Approach
Open & Close a Presentation

Understanding by Design: Sky's the Limit

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Applying ADDIE model to an embedded critique essay writing workshop for health and social sciences undergraduates

Assistant Professor Kenneth Ong

Content

Background/Objectives

Methodology

Findings

Recommendations

Background

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- HSC1006 Heath Systems – Singapore's Perspectives
- Singapore's health system is described and analyzed within the WHO's framework
- "Students learn to appreciate how policies are developed, health needs identified and met, intersectoral collaborations needed and established, and services organized and evaluated."
- Physiotherapy, Nursing, Occupational Therapy, Diagnostic Radiography, Radiation Therapy, Dietetics and Nutrition, Speech and Language Therapy
- Centre for Communication Skills offers embedded instruction/workshops for content modules of degree programmes – this initiative is called Communicating Across Curriculum

Background/Objective

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- Module lead requested for embedded workshop to prepare students on how to write the critique essay
- 2-hour workshop was conducted on 16 & 17 Sep 2020 for 600 students divided into 16 seminar groups
- Essay assignment (individual-based; 2000-word limit)
- Essay Q: Discuss Singapore's health system from the perspective of stewardship, resource generation, financing and services in meeting the demands of a pandemic, such as COVID-19.
- Essay assignment brief and evaluation rubric were emailed
- Objective of the embedded workshop is to write a sound and defensible academic essay

A, A+	A-, B+	B, B-	C+, C	D, E	F
CONTENT KNOWLEDGE AND UNDERSTANDING					
An exceptional and excellent essay with clearly defined aims, critically analytical discussions of issues arising from the chosen topic, and thoughtful implications for practice. A broad spectrum of perspectives is considered, resulting in balanced arguments being presented. The essay is analytical, displaying wide knowledge and understanding of the relevant issues, an ability to apply this to practice, deep insight, logic and originality. There is clear evidence of wide and critical reading, and independent thinking.	A very good essay with clearly defined aims, critically analytical discussions of issues arising from the chosen topic, and implications for practice. A range of perspectives are explored, resulting in fairly balanced arguments being presented. The essay is analytical, displaying knowledge and understanding of the relevant issues, an ability to apply this to practice, clear logic and originality. There is clear evidence of critical reading of relevant literature, and independent thinking.	A good essay with defined aims, critically analytical discussions of issues arising from the chosen topic, and some implications for practice. Logical arguments are presented with reference to pertinent perspectives to the topic at hand. The essay shows knowledge and understanding of the relevant issues, an ability to apply this to practice, and clear logic. There is clear evidence of critical reading of the relevant literature.	An average essay that includes stated aims, discussions of issues arising from the chosen topic, and some implications for practice. There are signs of critical analysis, attempts at construction of logical arguments, although largely descriptive in nature. The essay shows perfunctory understanding of the relevant issues, lacks application of theory to practice, and occasionally appears confusing. There is some evidence of critical reading of the relevant literature.	An acceptable essay with stated aims, mostly appropriate discussions of issues arising from the chosen topic, and limited implications for practice. There is limited evidence of critical analysis and logical arguments, with most parts of the essay being descriptive. The essay shows limited understanding of the relevant issues, lacks application of theory to practice, and often appears confusing. There is limited evidence of critical reading of the relevant literature.	A poor essay with incoherent aims, superficial discussions of issues arising from the chosen topic, and almost without implications for practice. The essay is descriptive, with very limited traces of critical analysis or discussion. The essay shows poor understanding of the relevant issues, lacks application of theory to practice, and is incoherent or confusing. There is no evidence of critical reading of the relevant literature.
LAYOUT, STRUCTURE AND COMMUNICATION					
An exceptionally well structured and effectively constructed essay. There are clear and appropriate headings and sub-headings. The introduction, body and conclusion are coherent and cogently presented. The citation and referencing styles are correct and consistent. The language and grammar reflects an excellent piece of academic writing.	A very well structured and effectively constructed essay. There are clear and appropriate headings and sub-headings. The introduction, body and conclusion are coherent and largely well argued. The citation and referencing styles are mostly correct and consistent. The language and grammar reflects a very good piece of academic writing.	A well-structured and communicated essay. Headings and sub-headings are largely effective. The introduction, body and conclusion are largely coherent and well argued. The citation and referencing styles are mostly correct and consistent. The language and grammar reflects a good piece of academic writing.	A fairly well structured essay. Headings and sub-headings can be clearer. The introduction, body and conclusion can be better linked and argued. There are some glaring inconsistencies in citation and referencing styles. The language and grammar reflects average attempt at academic writing.	The essay can be better organized. Headings and sub-headings can be better used to signpost the essay. The introduction, body and conclusion are not linked. There are glaring inconsistencies in citation and referencing styles. The language and grammar reflects deserved attempt at academic writing.	A poorly structured essay. Headings and sub-headings are lacking. The introduction, body and conclusion are incoherent. The citation and referencing styles are incorrect and inconsistent. The language and grammar reflects poor academic writing.
USE OF REFERENCES					
The essay makes excellent use of relevant academic references with limited non-peer-reviewed materials.	The essay makes very good use of relevant academic references with limited non peer-reviewed materials.	The essay includes relevant academic references, but also non-peer-reviewed materials..	The essay has some academic references and non-peer-reviewed materials.	The essay has some academic references and fairly large amount of non-peer-reviewed materials.	The essay relies on limited academic references but substantial amount of non-peer-reviewed materials.

Principles guiding the design of the intervention

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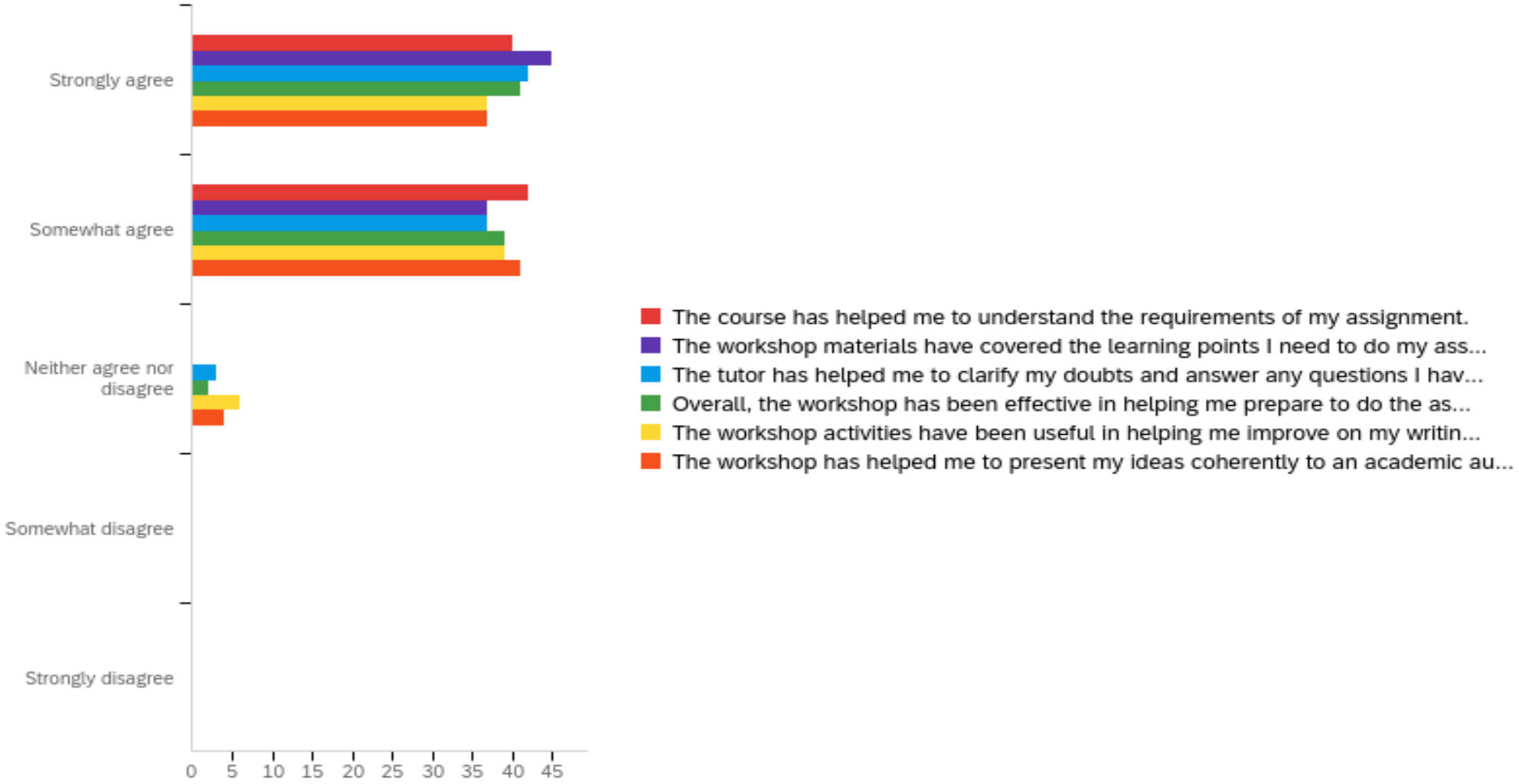
- Academic writing is based on critical-analytical reading. Therefore, students must be guided through the detailed reading of texts, and their attention must be drawn to argumentation as well as discourse features (Rose et al., 2008)
- Academic writing is a process and a product of critical thinking. Therefore, students must be given opportunities for developing critical thinking, for instance through the discussion of open-ended questions or problem-solving (Bean, 2001)
- The importance of making discourse and epistemological features explicit to students have been emphasized by genre and Academic Literacies researchers (Lea and Street, 2006; Martin, 1999). In the embedded approach, these features need to be highlighted in the classroom and in texts related to the session's topic.

Methodology – ADDIE Model

- ADDIE is suitable for structuring embedded instruction
- Analysis phase: Health & Social Sciences core module on Singapore's Health System; Freshmen with no prior formal instruction on academic writing at the university level; Workshop conducted via Zoom; timeline of 3 months
- Design phase: Essay assignment objective: assesses students' competence to construct an academic paper (appropriate to undergraduate level) and the transferable critical analytical skills in selecting, interpreting, and applying academic sources (e.g. journal articles, academic books). I found two journal articles on frameworks for assessing the performance of health systems useful
- Development phase: Seminar slides and handout were developed; feedback on the curriculum was solicited from the module lead; no pilot test was conducted
- Implementation phase: Briefing for teaching team
- Evaluation phase: Kirkpatrick's Model Levels 1 (Reaction) and 2 (Learning)

Quantitative Findings



Qualitative Findings

- “Thank you for having us for the workshop!:) It allows us to understand what to expect and take note when writing our essay.
- Everything’s good :)
- She was engaging and gave many examples to aid us in our learning.
- Better than expected. Interactive and engaging.
- Prof Wang is really patient and I love her teaching. She made sure all her students understand the content and confirmed it with questions. She enable me to have a deeper understanding about academic writing.
- The prof was very nice and patient.
- Wish this session was recorded on zoom so that we can refer back to it in future. Thks
- I feel that the workshop should be extended to at least 3 hours as we couldn’t cover everything within the 2 hour span. Alternatively, it could be a 2 session worlshop so that questions can be addressed in the 2nd session while the 1st session will comprise of covering the requirements of the assignment and the workshop tasks. But I’m thankful to Prof for trying her best to address the many queries from my coursemates within such a tight timeframe! :)

Findings

- Feedback from module lead was that there is improvement in students' essays compared to the previous batch
- Request for the same workshop to be conducted on 16 and 17 Sep 2021

Recommendations

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- Acquiring academic literacy is a gradual process that needs developmental feedback (Bharuthram and McKenna, 2006). Therefore, there must be a progression of short informal writing tasks to formally graded assignments, accompanied by formative feedback comments and 'dialogues around texts' (Lillis, 2006, 2001)
- Students were encouraged to book appointments with peer tutors at the Communication Helpdesk to review their essay drafts
- We will be launching a Critical Thinking and Communicating module for freshmen of all health and social sciences degree programmes
- Use of pretest and posttest – critical reading and writing test

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CAC for Mechatronics Systems

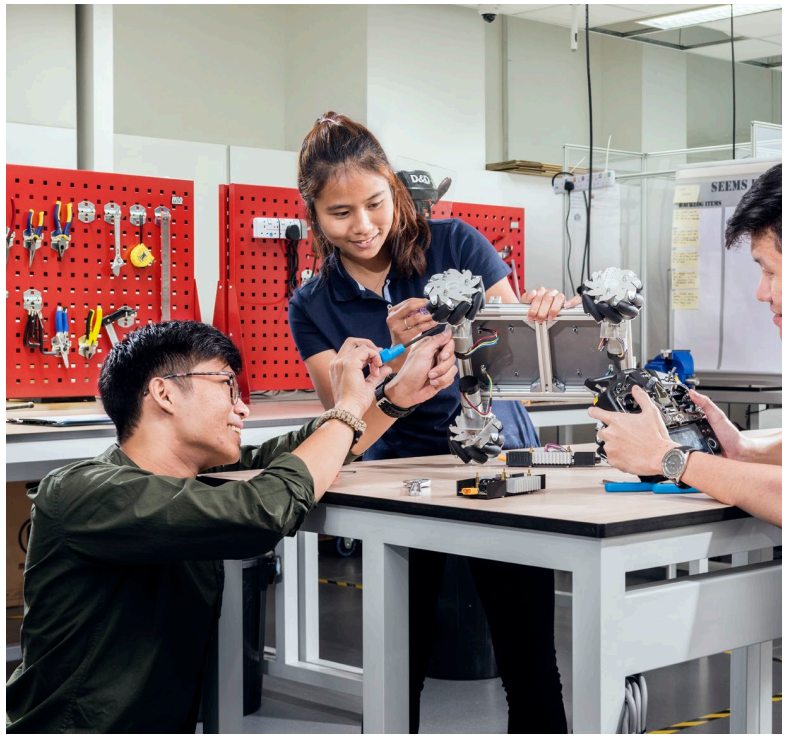
Systems Engineering Project
Integrated Work Study Programme (IWSP)

Assistant Professor Lee Hwee Hoon

SYSTEMS ENGINEERING PROJECT

- This is the first in a series of projects in which students work in teams to research, design, implement and test a functional system that interacts with other systems and meets specified requirements.
- Students must document their processes and give presentations on their progress.

https://www.singaporetech.edu.sg/modules/2569



https://www.singaporetech.edu.sg/undergraduate-programmes/engineering/mechatronics-systems

Lesson outcomes

- Recognise language features appropriate to meeting minutes
- Write meeting minutes using appropriate language, style and tone

The writing context

- Purpose for writing
- Writer & Audience
- Channel
- Message

Language, Style & Tone

- Clarity, coherence, conciseness, correctness
- Formality

- Verb tense
- Reporting verbs
- Active and Passive voice
- Present subjunctive
- Parallel structures

- Neutral, objective tone
- Pronoun references
- Expression
- Wordiness

Faculty feedback

I would say that one of the significant improvement is in the language, tone and style used in the MOM assignment. Students had better grammar and writing voice style (3rd person reported speech) after you had gone through with them in the class.

INTEGRATED WORK STUDY PROGRAMME (IWSP)

The IWSP is an integral part of applied learning as it provides an opportunity for students to integrate what they have learnt in the classroom to what is practised in the real world, and vice-versa.

https://www.singaporetech.edu.sg/modules/2569?page=2

ASSESSMENT	
IWSP report (mid and final)	80%
Final presentation	20%

Original marking guide

Report	Marks
Introduction	10
Company background	10
To integrate theory learned in the classroom with real world practice	10
To critically analyse problems and formulate solutions in the work place and wider community	10
To demonstrate effective professional and interpersonal skills and behaviours in the workplace	10
To demonstrate effective oral and written communication skills	10
Conclusion	10
Overall format and clarity	10
Referencing	10

(New) Report structure

The report comprises 4-5 parts; the wording of section headings is only a suggestion.

I. INTRODUCTION [20 marks]

- IWSP – purpose / goal
- Company background [this can be a separate section, if desired]
- Summary of report / lessons learnt
- Purpose, scope and organization of the report

If the marker prefers *Company Background* as a separate sub-section, then *Introduction* will be allotted 10 marks and *Company Background*, 10 marks (as in the marking guide).

II. TECHNICAL COMPETENCE [20 marks]

Description of technical assignments; 3-4 sub-sections (to highlight the most important tasks & reflection points); for each sub-section, focus on:

- analysis of problem
- formulation of solution
- integration of theories learnt in the classroom **with real world practice**
- lesson(s) learnt, i.e., looking ahead to what the student could do in future similar instances

III. COMMUNICATIVE COMPETENCE [20 marks]

- Description of problems and solutions related to interpersonal communication and oral & written communication skills
- Application of theories; includes lessons learnt

Faculty feedback

- *Students are able to follow the template and write all the required components.*
- *I have seen there are improvements over the years, such as the report structure, referencing.*
- *I have used the revised marking guide and find it is useful. The IWSP report grading is relatively subjective, especially there are multiple markers. Thus, a marking guide is important to ensure all markers have the same criteria, so that the deviation of students' grades will not be large.*

(New) Report rubric

	Excellent A- to A+	**Good** B- to B+	**Satisfactory** C to C+	**Weak** F to D
INTRODUCTION & COMPANY BACKGROUND • IWSP purpose / goal • Company background • Summary of report / lessons learnt • Purpose, scope & organization of report	The introduction provides a clear, succinct context for the report; all necessary information is clearly included.	The introduction provides some context for the report; most necessary information is included.	The introduction provides a brief context for the report; some necessary information is included.	The introduction provides inadequate context for the report; most necessary information is left out.
TECHNICAL COMPETENCE (to highlight the most important tasks & reflection points): • Analysis of problem • Formulation of solution • Integration of theories learnt in the classroom with real world practice • Lesson(s) learnt, i.e., looking ahead to what the student could do in future similar instances COMMUNICATIVE COMPETENCE • Description of problems and solutions related to interpersonal communication and oral & written communication skills • Application of theories to practice • Lessons learnt	The main sections are well developed, with detailed, relevant descriptions and analyses of problems and solutions, as well as clear statements of application of theories to practice; assertions are well-supported; decisions and actions are justified; content clearly connects to the report's overall purpose; the response is clear and causes no strain for the reader.	The main sections are developed, with clear descriptions and analyses of problems and solutions, as well as clear statements of application of theories to practice; assertions are adequately supported; most decisions and actions are justified; content clearly relates to the report's overall purpose; the response reads well, causing little strain on the reader.	The main sections are not well-developed, with insufficient and irrelevant information about the problems and solutions, and with little evidence of application of theories to practice; decisions and actions are sometimes justified; some effort is needed to comprehend the response.	The main sections lack substance; little or no analysis is evident; neither is application of theories to practice; decisions and actions lack justification; the content is irrelevant to the overall purpose of the report; the response causes much strain for the reader.

Workshops for IWSP students

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Workshop 1

This workshop aims to help students:

- reflect on their learning in IWSP
- write reflectively by linking practice to theory
- convey technical information clearly and concisely

Workshop 2

This consultation session aims to help students:

- identify gaps in their report
- clarify their thinking about writing

Student feedback

- *The workshops were helpful for me; I was clueless about how to start my report initially but the first workshop enable me to be able to start writing. The slides and exercises provided during the workshop were also very helpful. I had a fruitful consultation during the second workshop as I managed to clarify my doubts regarding my report draft and also got pointers on further improvements.*

- *The workshops were definitely helpful for me. My tutor gave me insightful feedbacks on how I can improve the way I write to make the report more informative while being concise. It was also very helpful that the workshops taught us how to do proper reflections - not just thinking back, but also how/what we were feeling, how we could've improve/prevent the situation, etc. These are helpful not just for our reports but also in our IWSP.*

CCS e-micro-modules

Associate Professor Lee Chien Ching

Scaffolding students' learning amidst constraints

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- Constraints in terms of curriculum time, resources (scalability), and cost
- Considered the blended approach where students go through the materials outside class hours and more time is spent on practice and feedback in the classroom.

Why develop original micro-modules?

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- As experienced communication skills tutors, we understand our students' needs first-hand and we want to meet those needs first-hand.
- Standalone e-resources can be reused and repackaged
- One-time development cost
- No copyright issues

Accessibility in the flow of studies and work

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- Automatic enrolment in the CCS workplace communication course site for the entire duration of their candidature(undergraduate and postgraduate) inclusive of the Integrated Work Study Program (IWSP) period
- OneSIT approach - Automatic enrolment to the course site for student-facing staff: all faculty, Professional Officers, Career Services, and Student Life staff.
- Used in regular modules, embedded modules, back-to-campus (IWSP) modules as mandated or supplementary resource

CCS micro-modules rolled out in the LMS

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CCS rolled out the micro-modules progressively to students and staff

1. English Quest (rolled out in May 2018)
2. Managing Meetings (rolled out in Sept 2019)
3. Career and Professional Development (rolled out in May 2020)
4. Interpersonal Skills (rolled out in Sept 2020)
5. Online writing and speaking skills (rolled out in Sept 2020)
6. Email writing (rolled out in March 2021)
7. Technical writing (rolled out in March 2021)

Assessing students' learning

- Pre-post surveys on students' learning for each e-resource
- Graded reflection assignment for the Career and Professional Development module

Communication Helpdesk

Addressing the writing needs of SIT students

Assistant Professor Padma Rao

Communication Helpdesk @SIT

Focus is on the process of writing rather than the finished product, prioritising concerns related to organisation and argumentation of texts.

Online Consultations at Communication Helpdesk

Online consultation has been introduced to help SIT students with their written assignments or oral presentations, but at the convenience of being anywhere and at any time.

To widen outreach, CCS has also initiatied peer-tutoring to assist SIT students through Communication Helpdesk.

Peer-Tutoring at Communication Helpdesk

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Peer Tutors are carefully recruited for Communication Helpdesk services

Training workshops are conducted to equip the selected peer-tutors with the knowledge and skills to assist SIT-students with their written assignments

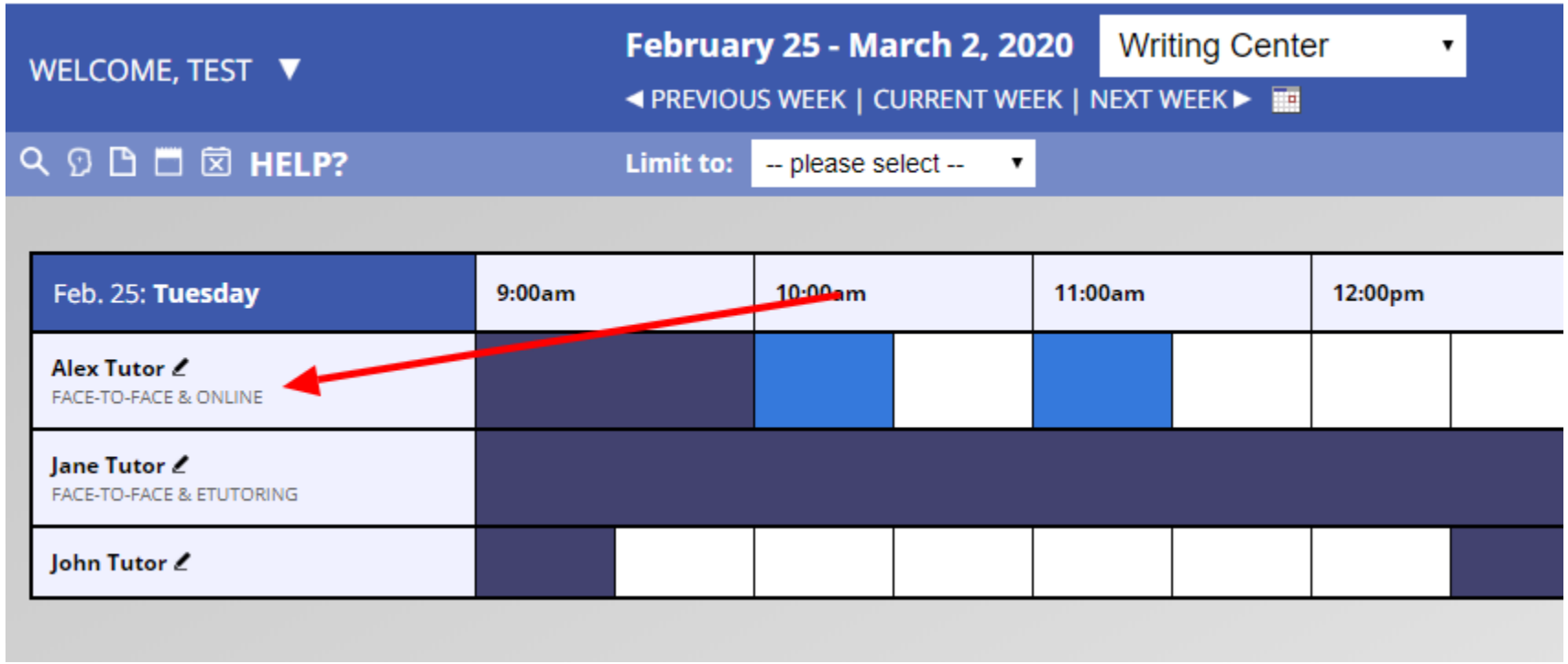
A comprehensive guide is provided to the peer-tutors

This guide has six sections:

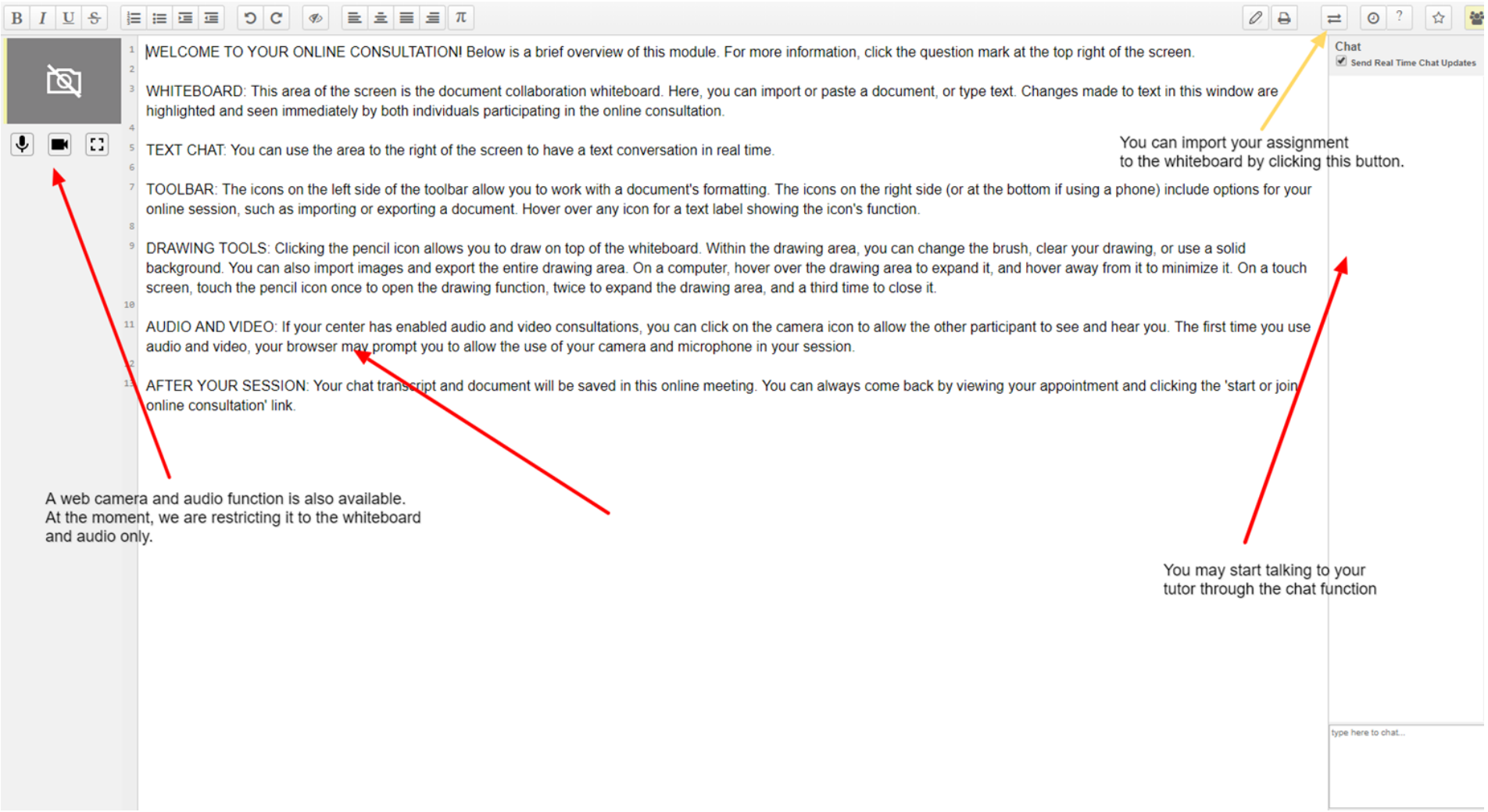
1. At the start of the consultation
2. If the tutee has yet to write anything
3. If the tutee has written an introduction
4. If the tutee has yet to write a conclusion
5. If the tutee has written the whole assigned work
6. At the end of the consultation

3	If the tutee has written an introduction:
	ACTION
3.1	Read the introduction for language, and content and organization.
3.2	Check for grammar, spelling and punctuation.
3.3	Explain the corrections in terms of rules as far as you can so that the tutee will develop and understand sentence grammar and not make the same errors again.
3.4	Ask the tutee which the lead-in sentence is, whether it contains the key words and provide some context
3.5	Ask the tutee whether it is necessary to provide a fuller background context and scope to situate the written assignment.
3.6	Ask the tutee which sentence states the purpose/s of the essay/assignment/report.
3.7	Discuss with the tutee whether the purpose is to record, inform, describe, explain, prove, analyse, synthesise, justify, argue, propose, compare and contrast, evaluate, etc. or a combination of several (Bloom's Taxonomy may be useful here).
3.8	If the statement of purpose and the statement of the theme are not the same, ask the tutee to show which sentence or sentences state the theme of the assignment. (For example, the general purpose of the assignment may be to state that hospitals must undergo change to meet the needs to the community, but the specific theme of the tutee's assignment may be to show that the change needed in Singapore today is for our hospital wards to be more Alzheimer patient friendly.)
3.9	Explain to the tutee that the theme is the main point that drives the tutee's whole essay/assignment/report. For example, the theme may be exploring the feasibility of 'doll therapy' for Singapore's Alzheimer patients. Then the whole essay will be a discussion of its feasibility as revealed in research literature and its possible application in Singapore.
3.10	Ask the tutee to show which sentence or sentences in the introduction tells the reader how he or she will organize and unpack the content of the essay, assignment or report. This forecast sentence in the introduction will most likely contain the key words of the essay/assignment/report.

Booking a consultation



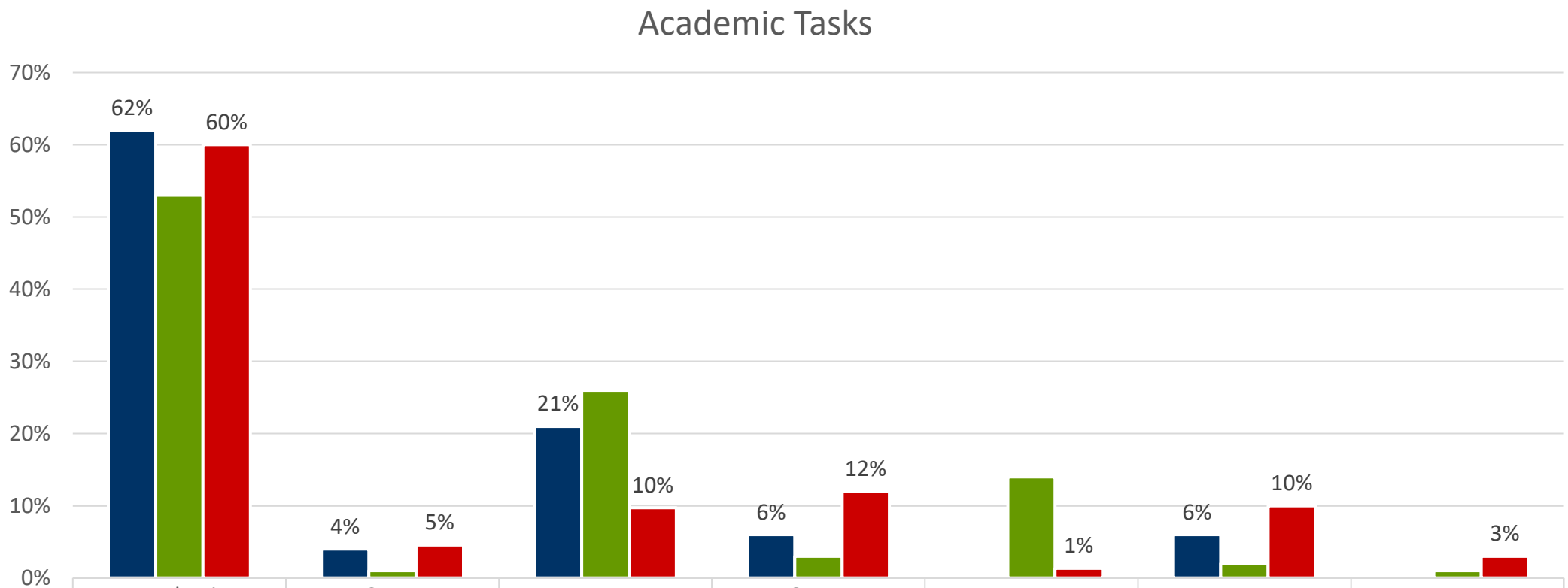
Booking a consultation



Summary of Consultations

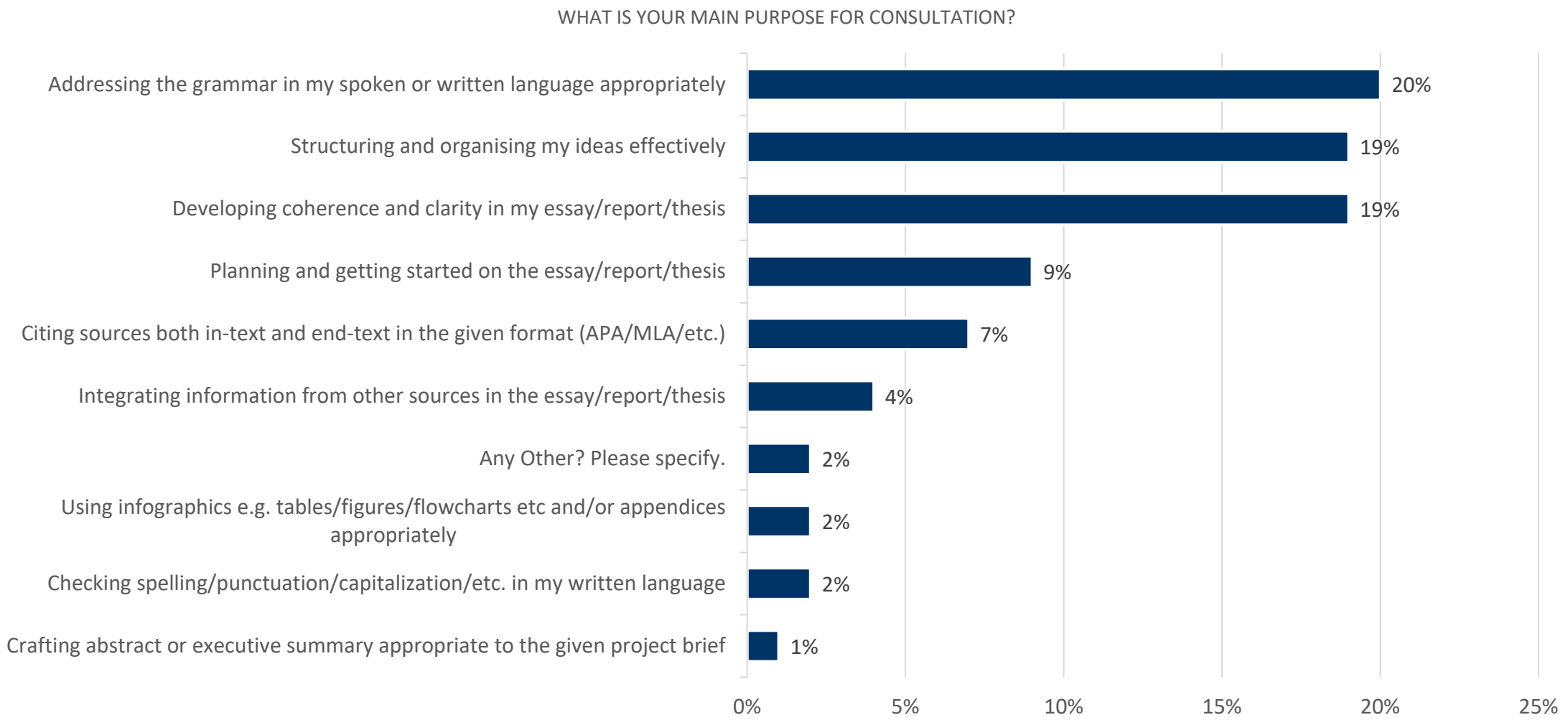
Cluster	AY2018-2019	AY2019-2020	AY2020-2021 (T1&T2)
CEFT	56	120	147
DSB	39	4	2
ENG	82	36	62
HSS	222	228	290
ICT	2	4	22
Other	0	0	2

Survey Data (AY2020-2021)



	Academic Essay/Report	Cover Letter/Resume	Dissertation	Group Assignment/Project	Oral Presentation	Other	Poster Presentation
AY18-19	62%	4%	21%	6%		6%	
AY19-20	53%	1%	26%	3%	14%	2%	1%
AY20-21	60%	5%	10%	12%	1%	10%	3%

Survey Data (AY2020-2021)



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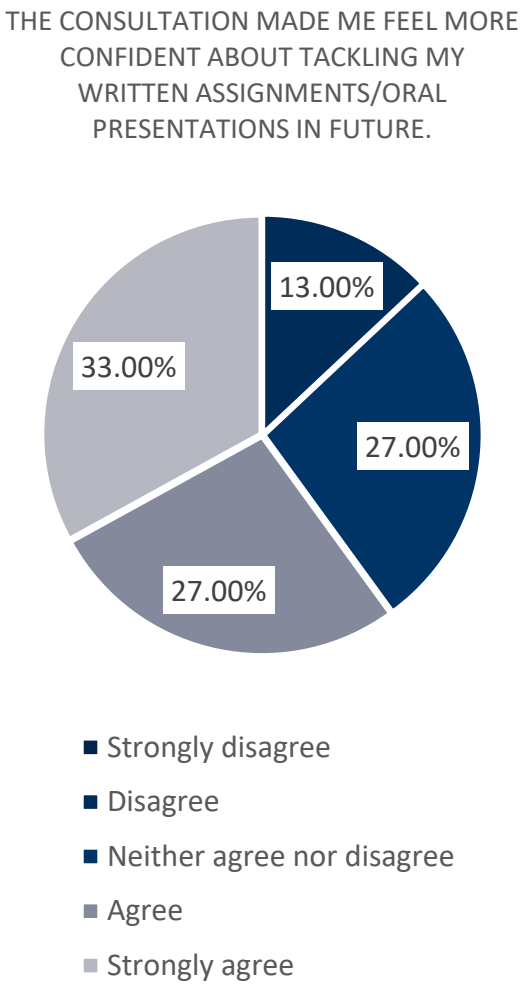

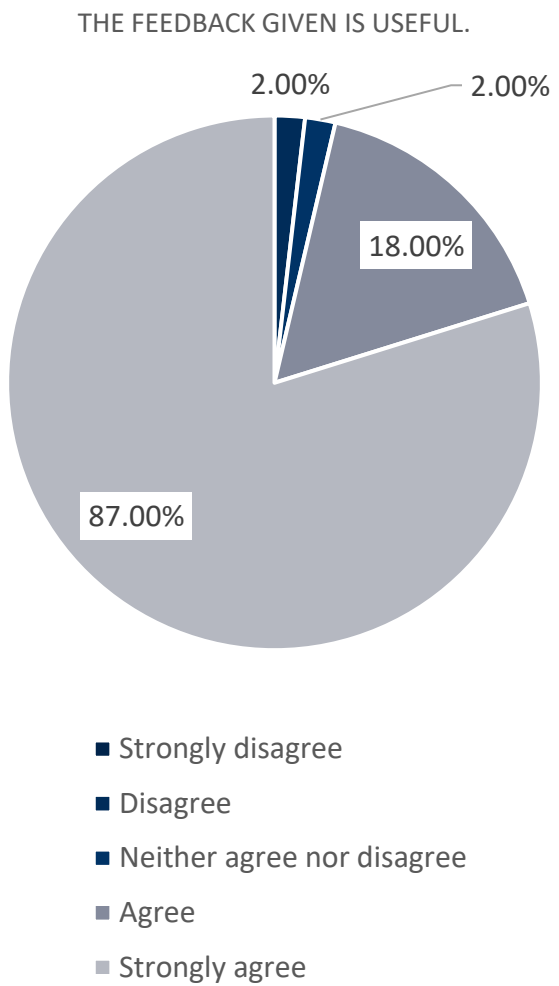

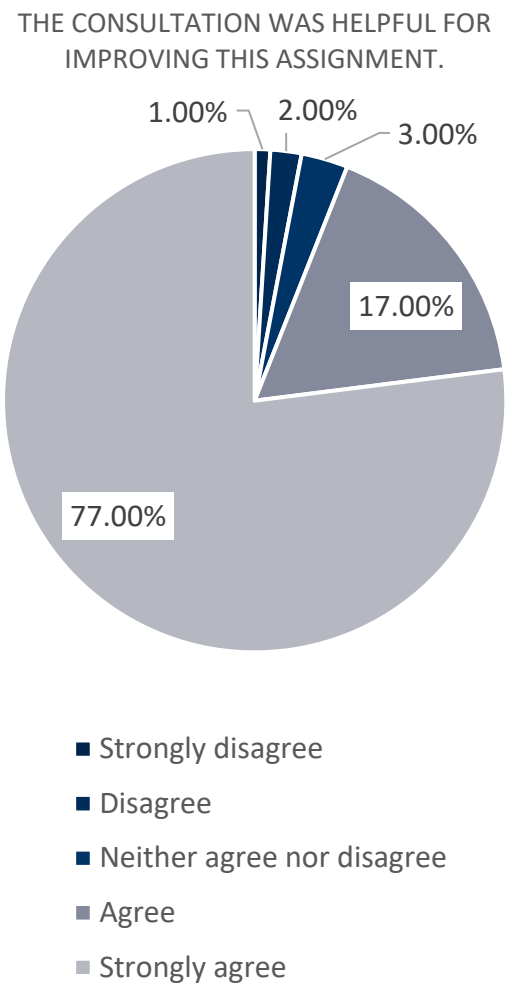

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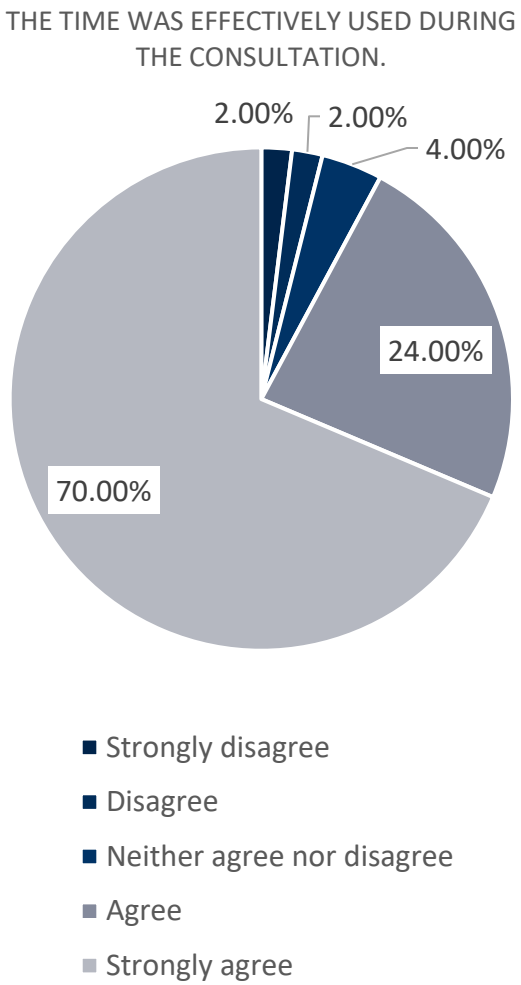

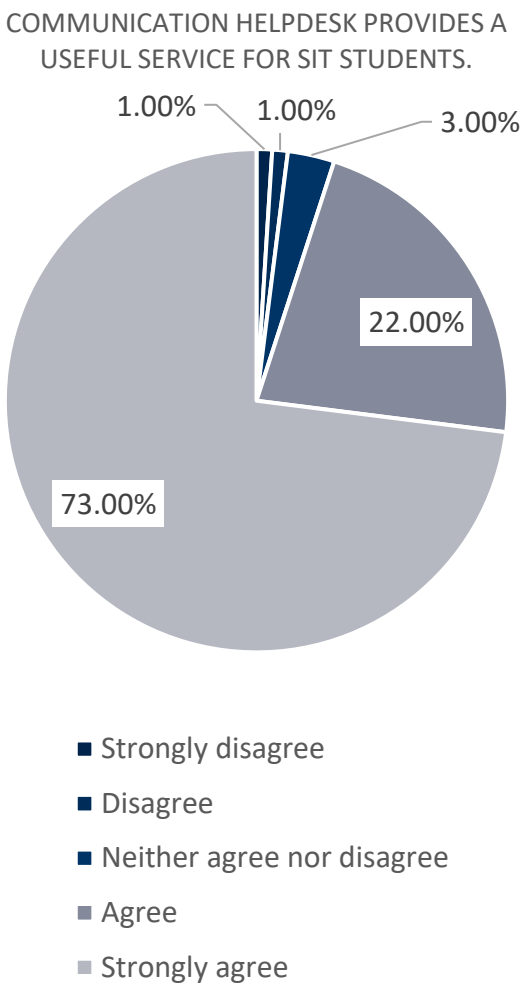

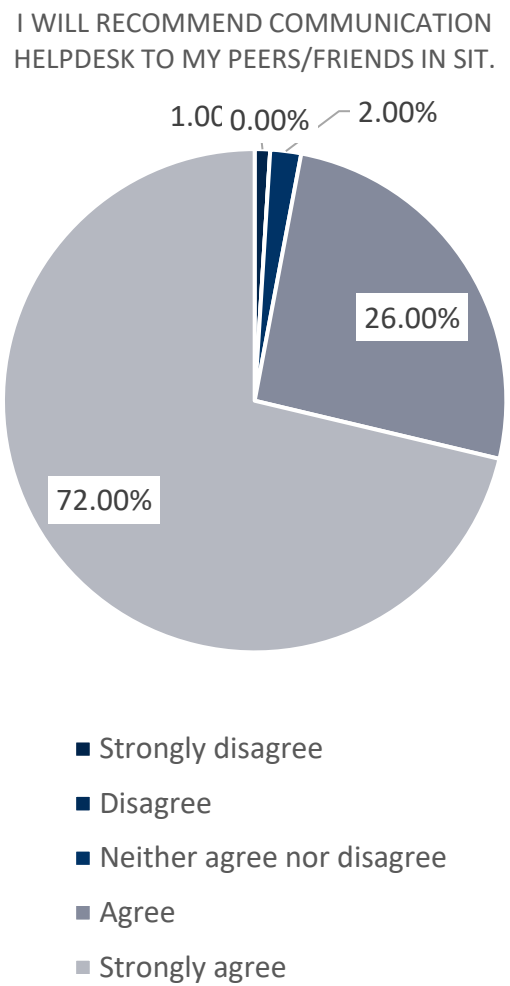

QUESTIONS?