STiLE Plug-and-Play Submission: Flipping Creative Problem Solving and Persuasive Communication

Jessica Y. Xia

English Language Centre

The Hong Kong Polytechnic University

Author Note

We have no known conflict of interest to disclose.

Correspondence concerning this submission should be addressed to Room A302, Core A, The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong. Email: jessica.xia@polyu.edu.hk

Overview

Interviews with four local young entrepreneurs were developed into flipped teaching and learning materials. The interviewees shared their experience and practical tips for creative problem solving and persuasive communication.

1. Ms. Peann Tam - *co-founder of Eco-Greenergy*
2. Ms. Twiggy Chan - *founder and director of Boaz International Education Institute*
3. Mr. Kevin Poon – *lifestyle entrepreneur*
4. Ms. Tiffany Kwan and Dr. Carol Tong– *co-founders of Solar Bee Education*

This submission includes the following flipped plug-and-play materials:

Videos: Jessica Plug-and-Play Submission Videos

1. Boaz_Background and Beginnings
2. Boaz_Identifying the Gap and Standing Out from the Crowd
3. Boaz_Importance of Language Skills and the Perfect Pitch:
4. Kevin Poon_Background and Beginnings
5. Eco-Greenergy_Background and Beginnings
6. Eco-Greenergy_Proposal Writing Tips
7. Eco-Greenergy_Pitching Tips
8. Solar Bee_Standing Out from the Crowd
9. Solar Bee_Importance of Communication and Presentation Skills

Flipped Lesson Plans

The interview videos have been developed into flipped, plug-and-play sets that can be easily integrated into existing subject materials. Each set requires about 40 minutes of out-of-class preparation time. The out-of-class discovery tasks then leads to a 20-minute in-class warmer activity.

Topic 1: Creative Problem Solving (2 Lessons)

1. Set 1: Discovering Your Niche
2. Set 2: Creative Problem Solving

Topic 2: Persuasive Communication (2 Lessons)

1. Set 1: Importance of Language and Communication Skills
2. Set 2: Persuasive Communication

Target Audience

- Teachers who teach project-based professional communication in English subjects

  Note: At PolyU, these subjects require students to write professional proposals and deliver persuasive presentations based on original ideas, credible research, and discipline knowledge. Subject Intended Learning Outcomes include:
  - *Apply appropriate language and communication strategies when communicating discipline knowledge to professional audiences.*
  - *Present ideas clearly, persuasively, and professionally in both spoken and written discourses.*

Needs

Input and focus on brainstorming and research

SILOs focus on developing students' language and communication skills but to effectively apply these skills, students first need to identify real problems and needs, conduct research, and brainstorm creative solutions. Within a constrained 13-week teaching schedule, it is challenging for teachers to allocate sufficient time for students to brainstorm and research their ideas. While subject leaders and materials developers have created extensive teaching resources on communication strategies and language skills for teachers to adopt, the materials on brainstorming techniques and research methods tend to be brief and general in nature.

Transferability of language and communication strategies

Students who take these discipline-specific requirement subjects often do not see the clear relevance and transferability of the language and communication strategies they are learning. These students may struggle to understand how the specific strategies and skills can be applied across academic and professional settings.

Active practice and language skill development

In-class presentations and discussions allow students to apply the language and communication strategies learned, while also developing essential delivery skills. Peers can actively listen and learn from each other, and teachers can provide feedback for continuous improvement. The challenge is finding sufficient time within the teaching and learning schedule to incorporate regular in-class presentation and discussion opportunities.

Goal and Objectives

To enhance the teaching and learning experience by optimising class time for active, collaborative, and personalized learning, while also fostering learner autonomy and engagement.

Teachers would be able to:

- integrate the flipped materials into existing subject materials and lesson plans on brainstorming and persuasive communication
- adopt the flipped learning approach when covering these topics
- optimise class time for in-class presentations, discussion and feedback

Students would be able to:

- relate to the relevance and applicability of the entrepreneurs' experiences and insights
- develop essential skills by analysing real cases and by learning directly from the practical tips shared by the entrepreneurs
- apply language and communication skills through participating in in-class presentations and receiving feedback

Topic 1: Creative Problem Solving

The two flipped plug-and-play sets in this topic are designed to be integrated into existing subject materials on brainstorming and researching ideas.

1. *Set 1: Discovering Your Niche*
2. *Set 2 Creative Problem Solving*

Flipped Lesson Plan Set 1: Discovering Your Niche

1. Out-of-Class Discovery Activity: Exploring Business Niches (40 – 50 mins) *Objectives:* • *Define characteristics of a strong business/product niche* • *Identify steps/strategies of finding a strong business/product niche* • *Understand the importance of identifying a niche*	
Research **(10-15 mins)**	• Research the concept of a business or product niche using online resources and GenAI. • Focus your research on answering the following questions: 1. What is the definition of a business/product niche? 2. How can identifying a niche help a business or product succeed? 3. What are the potential risks or drawbacks of focusing on a niche? • Take notes from your research.
Watch Interview Videos **(10-15 mins)**	• Watch interview videos featuring young local entrepreneurs discussing how they identified their business niche. • Take notes on the steps, strategies, and insights the entrepreneurs share about how they found their unique business niche. Videos: 1. Boaz: Background and Beginnings 2. Kevin Poon: Background and Beginnings 3. Eco-Greenergy: Background and Beginnings
In-class sharing preparation **(20 mins)**	Prepare a maximum three-minute sharing to 1. describe what you think are the most important characteristics of a strong business/product niche 2. explain why the characteristics you chose to describe are important 3. introduce what you found as the most useful steps/strategies/insights from the entrepreneur interview videos
2. In-class Warmer Activity: Niche Identification Sharing (20 mins) *Objectives:* • *Present ideas concisely within a time constraint* • *Practice presentation skills in a supportive environment, building confidence in presenting ideas to peer.*	

In-class sharing (15 mins) 3 presenters; 3 mins/presenter	Each student will have a maximum of 3 minutes to share: 1. The most important characteristics of a strong business/product niche that they identified. 2. An explanation of why they believe those characteristics are important for a successful niche. 3. The most useful steps, strategies, or insights they gathered from the entrepreneur interview videos.
Round-off Discussion (5 mins)	In small groups, reflect on the in-class sharing. E.g., Reflect on • common themes or patterns in the niche characteristics identified by students • insights from the entrepreneur interviews that resonated across multiple students • how the characteristics and strategies identified can be applied to finding a niche for their own ideas

3. Existing Subject Materials

Consolidation Reflection Questions

- What do you see as the key strengths of this niche idea?
- What additional research or validation steps is required to further evaluate this niche?
- How could you refine or build upon this niche concept?
- What creative angles or problem-solving techniques could be applied to evolve this niche idea further?

Flipped Lesson Plan Set 2: Creative Problem Solving

1. Out-of-Class Discovery Activity: Identifying Gaps in Initial Research (40 mins)	
Objectives:	
• *Analyze examples from entrepreneur interviews to understand how discovering research gaps can impact the development and refinement of business/product ideas.* • *Identify effective strategies and techniques for uncovering potential gaps or limitations in initial research.*	

Watch Interview Videos **(20 mins)**	• Watch interview videos featuring young local entrepreneurs discussing how they started with an idea but then changed it in response to what the research showed them. • Take notes using the prompts below.
	Video: Boaz: Identifying the Gap and Standing Out from the Crowd *Ms. Twiggy Chan shares the steps she took to do her research and arrive at the idea for her education centre. Share her steps/examples with the class.* *e.g., Step 1: Understand the customer needs* 　• *Talked to parents because…* 　• *Talked to kids because …*
	Video: Solar Bee: Standing Out from the Crowd *After analysing her market research what information did Ms. Tiffany Kwan and Dr Carol Tang discover that convinced them that their commitment to providing STEM classes was the right direction? Ms. Tiffany Kwan and Dr Carol Tang also makes 4 recommendations for identifying an idea and researching your product and its potential market. Share their recommendations and examples with the class.*
	Video: Eco-Greenergy: Background and Beginnings *Ms. Peann Tam talks about her research for the coffee grounds soap products her company produces. Share with the class the strategies she used to help her critical thinking and analysis and why she changed from focusing on residential customers in housing estates to corporate customers.*
In-class sharing preparation **(20 mins)**	Prepare a maximum three-minute presentation to 1. introduce ONE entrepreneur's initial assumptions or focus areas in their research and the gaps they discover through further investigation 2. highlight how uncovering these gaps impacted the development of their ideas 3. share the key insight or the most important lesson you learned through watching the interview videos

2. In-class Warmer Activity: Identifying Gaps in Initial Research Sharing (20 mins) *Objectives:* • *Present ideas concisely within a time constraint* • *Practice presentation skills in a supportive environment, building confidence in presenting ideas to peer.*	
In-class sharing **(15 mins)** **3 presenters; 3 mins/presenter**	Each student will have a maximum of 3 minutes to share: 1. ONE entrepreneur's initial assumptions or focus areas in their research and the gaps they discover through further investigation. 2. How uncovering these gaps impacted the development of their ideas. 3. The key insight or the most important lesson learned through watching the interview videos.
Round-off **Discussion** **(5 mins)**	In small groups, reflect on the in-class sharing. E.g., Reflect on • common insights and strategies identified by students • insights from the entrepreneur interviews that resonated across multiple students • the interview insights and how identifying research gaps can be applied to your own niche research and idea development
3. Existing Subject Materials	
4. Consolidation Reflection Questions • How will you conduct your primary research for your product? • What secondary research can you carry out for your product / idea? • Have you critically analysed any information / feedback you have so far? How? What has the data shown you? • How will you respond to what the research showed you?	

Set 2: Persuasive Communication

The two flipped plug-and-play sets in this topic are designed to be integrated into existing subject materials on persuasive communication.

1. *Set 1: Importance of Language and Communication Skills*
2. *Set 2: Persuasive Communication*

Flipped Lesson Plan Set 1: Importance of Language and Communication Skills

1. Out-of-Class Discovery Activity: Importance of Language and Communication Skills (40 mins)	
Objectives: • Evaluate communication strategies and techniques used by successful entrepreneurs • Identify key language and communication skills that are essential to effectively engage your audience	
Watch Interview Videos **(20 mins)**	• Watch interview videos featuring young local entrepreneurs talking about the importance of language and communication skills. • Take notes using the questions below.
	Video: Boaz Part 3 – Importance of Language Skills and the Perfect Pitch 1. What are the examples Twiggy gave to illustrate why writing skills are important? 2. Why is the ability to change into a sales person important? 3. How long was her elevator pitch? 4. Did anything Twiggy shared surprise you? Why? 5. What are your own strength and weaknesses when you are communicating in English? What can you do to work on them?
	Video: Solar Bee: Importance of Communication and Presentation Skills 1. Audience awareness: how does she explain the differences between her main audiences (investors and parents)? 2. Adjusting tone: Tiffany uses 2 techniques when she is talking to parents. What are they? What are the three questions she asks herself when she is preparing to speak with investors? 3. English from the school to the workplace: what example does she give about needing English when she started her first Solar Bee centre? 4. Did anything Tiffany shared surprise you? Why? 5. What are your own strength and weaknesses when you are communicating in English? What can you do to work on them?
In-class sharing preparation **(20 mins)**	• Pick one of the interview videos to focus on and summarise your notes. • Prepare a maximum three-minute presentation summarsing what you learned, your own strength and weaknesses when you are communicating in English and what you can do to work on your weaknesses.

2. In-class Warmer Activity: Importance of Language and Communication Skills Sharing (20 mins) *Objectives:* • *Present ideas concisely within a time constraint* • *Practice presentation skills in a supportive environment, building confidence in presenting ideas to peer.*	
In-class sharing **(10 mins)** **2 presenters; 2 mins/presenter**	Each student will have a maximum of 3 minutes to summarise what they have learned, their own strength and weaknesses when communicating in English and what they can do to work on their weaknesses.
Round-off **Discussion** **(10 mins)**	In small groups, reflect on the in-class sharing. E.g., Reflect on • common insights and strategies identified by students • strategies from the entrepreneur interviews that resonated across multiple students • what you can do to work on our weaknesses
3. Existing Subject Materials	

Flipped Lesson Plan Set 2: Persuasive Communication

1. Out-of-Class Discovery Activity: Persuasive Communication (40 mins)	
Objectives:	
• Evaluate communication strategies and techniques used by successful entrepreneurs • Identify key language and communication skills that enhances persuasiveness	
Watch Interview Videos **(10 mins)**	In the videos below, Ms. Peann Tam tells us that the difference between proposals and academic writing is that proposals are "pitching for money", this means the stakes are high and it is important to write a persuasive and effective proposal. Peann shares important tips about writing proposals and delivering pitches. Make some notes on her tips and reflect on your own strength and weaknesses when writing proposals and delivering pitches. Videos 1. Eco-Greenergy: Proposal Writing Tips 2. Eco-Greenergy: Pitching Tips
Analysing Samples **(10 mins)**	Sample 1 1. Read this extract from the video Eco-Greenergy: Proposal Writing Tips 2. Identify the persuasive language Peann uses to describe the concept behind the product and the products themselves. So these are our very first products. It is coffee grounds upcycled into soap and it is under our own brand called Coffee Next, which means 'what's next after you have drunk a cup of coffee?'. And this coffee grounds soap, you can use it for a shower, for cleansing and it comes with a scrubbing effect. And the scrubbing effect is something that comes very naturally as the coffee grounds is something natural and it's different from plastic beads which when it does into the ocean, it will hurt the marine life. So this is a very good natural product that everyone can try and these all can be customised into different shapes, so we also serve different organisations as corporate gifts as well.

	Sample 2
	Watch the video Eco-Greenergy: Proposal Writing Tips again from 4:34 and listen to Peann's description of the **second** and **third** products she shows. Do you notice any persuasive language and techniques here?
In-class sharing preparation **(20 mins)**	Prepare a maximum three-minute presentation sharing: • What you think is the most important tip for writing persuasive proposals. • What you think is the most important tip for delivering pitches. • The persuasive language and techniques you found in the samples.
2. In-class Warmer Activity: Persuasive Communication Sharing (20 mins) *Objectives:* • *Present ideas concisely within a time constraint* • *Practice presentation skills in a supportive environment, building confidence in presenting ideas to peer.*	
In-class sharing **(15 mins)** **3presenters; 3 mins/presenter**	Each student will have a maximum of 3 minutes to share what they think is the most important tip for writing persuasive proposals and delivering pitches, and the persuasive language and techniques they found in the samples.
Round-off **Discussion** **(5 mins)**	In small groups, reflect on the in-class sharing. E.g., Reflect on • common insights and strategies identified by students • strategies from Peann that resonated across multiple students
3. Existing Subject Materials	