

## 【附件三】成果報告

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教育部教學實踐研究計畫成果報告

Project Report for MOE Teaching Practice Research Program

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語言與內容並重的「探究式學習」：跨域英語寫作的生成課程設計  
(大一英文作文)

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## Inquiry-based Learning in a Nonlinear, Emergent Writing Curriculum:

### A Balance between Language and Content

#### I. Content

##### 1. Research Motive and Purpose

The college freshmen this year, first generation from the “108 curriculum” (shortened as *108ers* hereafter), are drawing attention from inquisitives conjecturing differences between before and after the educational reform. Diversity and integration, the two emphases in the curricular reform drive school-developed courses, inquiry-practice courses, and cross-class (interdisciplinary) elective courses while reducing the mandated general subjects—for the purpose of adaptive instruction and curricular integration. Subsequently, one should no longer assume homogeneity— knowledge- and experience-wise—among these curricular recipients. Additionally, many overseas Taiwanese recently returned to join the local schools (due to the pandemic); student heterogeneity increases more. Amidst the reform, CLIL (content and language integrated learning) comes into the picture of secondary education in response to bilingualization movement and related policies. All subjects to some extent are expected to teach language through content or vice versa; both are supposedly attended and assessed (Beaudin, 2022). CLIL aims at areas of integration, language awareness, and learning strategies in constructing knowledge (Coyle et al., 2010). Under this premise, writing training ought to comprise “both skillful content expression and language use” (Graham & Eslami, 2021, p. 344). Now as the first two batches of 108ers have become college students. How does higher education curriculum react to student heterogeneity and align with the aforementioned educational goals? This research proposal demonstrates a nonlinear, emergent design approach based on responsive teaching, actualizing through an inquiry-based learning (IBL) as an attempt to facilitate these new students to leap from high school curriculum to college classrooms in the context of freshman EAP (English for academic purposes) writing training. The following will provide solid rationales to explain the necessity and expediency.

The English Composition class faced challenges due to students' varied backgrounds and weaker skills than previous cohorts, resulting from a transitioning curriculum. This discrepancy highlights a misalignment between the integrated approach of new secondary education and traditional college EAP instruction. The competence-based educational reform, emphasizing inquiry-based learning and CLIL, contrasts sharply with the conventional, linear English writing curriculum in Asian colleges, which focuses on simplified content and writing conventions. This study proposes an inquiry-based EAP writing approach and a non-linear, emergent curriculum with four-tier scaffolding to accommodate diverse students, enhance academic discourse, and promote interdisciplinary learning. Moreover, it aims to actualize *Training writing is training*

*thinking* objective and hence accentuated around inquired based and responsive approaches. The empowerment of English learners, along with its successful outcomes, has not only been cross-disciplinarily disseminated through local and international conferences but also has been productively promoting the teaching quality in EMI classrooms through the below invited talks for professional development:

- 台灣科技大學 The 6th Applied Linguistics and Language Teaching (ALLT 2024)
- 清華大學 2024 教學創新「啟動未來學習力：國際視野教出新人才研討會」
- 國立東華大學「雙語浪潮中的英語教學面面觀：教學實踐與研究」教師社群工作坊
- 國立暨南國際大學「教學實踐研究績優計畫經驗分享」講座
- 私立朝陽科技大學「教學實踐課程中的「聚焦與發散」講座
- 私立輔仁大學「2024 素養導向教學研討會：創新科技賦能與社會實踐」

## 2. Research Questions

2.1 What are the teaching outcomes from this instructional design?

2.2 What are the learning outcomes when applying the responsive teaching infused-IBL approach in the non-linear, emergent EAP curriculum?

## 3. 文獻探討 (Literature Review)

This literature review mainly focuses on the aspects pertaining to IBL, the compatibility with Responsive Teaching, and their pedagogical values. These theoretical frameworks are tackled with the objective to unveil their capacities and elucidate the know-how to foster content- and language-based writing curriculum for EAP. The thorough literature review is available in the proposal and has served as bedrock of the instructional design and implementation.

### 3.1 Inquiry-Based Learning and Applications Outside of STEM

Inquiry-Based Learning (IBL) is a pedagogical approach that engages students in real-world connections through exploration and high-level questioning. Its five common phases—orientation, conceptualization, investigation, conclusion, and discussion—facilitate active student participation and self-directed learning. IBL requires students to follow methods similar to professional scientists, which explains its popularity in science education. Pedaste et al. (2015) emphasize how IBL fosters knowledge construction, boosts learner engagement, and promotes problem-solving skills. Additionally, guided IBL leverages technology, creating new affordances in electronic learning environments and allowing IBL projects to flourish without the need for first-hand experiments.

Introduced in Taiwan in the 1990s, IBL improved students' knowledge and inquiry skills. Scholars recommend professional collaboration and interdisciplinary teacher development to address these challenges. Although most empirical studies on IBL have been in STEM contexts, its applications extend beyond science. Finland, for instance, incorporates IBL across all levels and subjects to explore real-world phenomena in alignment with sustainable development goals (SDGs) (Silander, 2015). In the U.S., multidisciplinary programs demonstrate IBL's applicability to fields such as philosophy, journalism, business, and social work (Friedman et al., 2010). In Taiwan, researchers like Hung (洪瑞鴻, 2021) have shown that students can apply IBL to

complex queries in humanities, including historical analysis. In language learning contexts, IBL can significantly enhance critical thinking, self-discovery, and learner engagement. Studies by Huang (黃秋燕, 2004) and Tsai et al. (2020) reveal that IBL's incorporation into language classrooms results in improved writing quality, strategic growth, and positive learning attitudes.

### 3.2. Responsive Teaching in IBL

Responsive teaching involves recognizing and addressing students' thinking to enhance engagement and learning. Although common in STEM, it applies to all disciplines. This approach, rooted in constructivism, requires teachers to adapt instruction based on students' needs, promoting higher-order cognitive skills and facilitating growth. In the context of IBL, responsive teaching is critical for ensuring quality implementation. For IBL to succeed, key elements such as interactive student engagement, appropriate scaffolding, well-designed group work, and teachers' ongoing facilitation play a pivotal role. Additionally, teacher assistants (TAs) act as "more knowledgeable others," providing insights into student attitudes and challenges, which help guide the instructional process (Bodner & Elmas, 2020). Responsive teaching addresses various student needs, individual differences, and proficiency levels, which is particularly crucial when implementing IBL in heterogeneous classroom settings.

IBL also requires a significant time investment, which can be a double-edged sword. While it allows for in-depth exploration and discussion, the greater time commitment could potentially deter its widespread use. Despite this challenge, responsive teaching's "anti-deficit" approach (Gouvea & Appleby, 2022) emphasizes accommodating learner diversity and fostering a supportive learning environment. The literature underscores the need for responsive teaching to serve as a keystone in the IBL process, guiding both content delivery and students' engagement.

### 3.3. Responsive Teaching and EAP Writing Curriculum

Responsive teaching in EAP writing is crucial to meet learners' evolving needs. Studies show teachers often focus on mechanics, neglecting aspects like word choice and organization. Lin (2015) and Cortes (2019) advocate for culturally responsive practices and continuous adjustments to balance language skills with students' diverse disciplinary backgrounds. As Taiwan's 108 curriculum reform promotes inquiry practice and content-language integration (CLIL), EAP writing programs require an infusion of responsive teaching to navigate these transitions. Thematic-based IBL projects and adaptive assessments, as suggested by Bell (2012), provide coherence and flexibility, enabling instructors to tailor challenges for individual learners. Urquhart and McIver (2006) recommend increasing students' writing time, offering flexible assessment, utilizing technology, and developing teachers' content knowledge and writing skills as starting points for CLIL in writing instruction. Responsive teaching-infused IBL, with its focus on a nonlinear, emergent curriculum, can address the diverse needs of EAP students and promote both content and language learning outcomes.

## 4. Instructional Design

### 4.1 Pilot Study

A pilot study helped identify students' diverse learning needs, implemented unorthodox yet necessary instructional changes, designed IBL projects with adaptive strategies, and ultimately achieved positive learning outcomes. Four key changes were made to improve students' learning outcomes: 1. discussing the purpose of writing to give students a voice; 2. using ELT textbooks flexibly as supplementary materials; 3. conducting mini-workshops to address emerging knowledge gaps; and 4. setting up rotation stations to attend to individual needs. Outcomes showed a positive shift in students' attitudes and writing abilities. A post-study survey indicated that students felt progress in both local (grammar) and global (organization, content) aspects of writing which also confirmed the attainment of English Composition course objectives. Additionally, 92% valued the feedback from peers, TAs, and the instructor, which targeted different writing issues. Comparative analysis of their work showed improvement, with 65% meeting requirements in Project 1 and 95% in Project 2. This result indicates the substantial training and adaptation time required on students' end. The study validated the viability of using responsive teaching-infused IBL to create an emergent EAP curriculum and suggested potential for further pedagogical adaptations and assessments. To delineate the necessity of TAs and personalization of the pedagogy, responsive teaching was incorporated as well.

#### 4.2 Instructional Design in the Formal Study and the Participants

**Participants.** The class had 22 students for the whole school year. The required core course Composition (I) and (II) The course objectives are to develop students' writing as a process involving constructive, interactive collaboration among authors and readers, and to incorporate research and reading to enhance their writing skills. The course also aims to strengthen students' academic literacy by focusing on writing, while integrating reading, speaking, and listening elements. All involved parties, including the instructor, two TAs and five crossover experts from the same university have signed consent forms before participating in this study.

**Instructional design 2.0.** Informed by the pilot study, the formal study enhanced instructional design by introducing disciplinary crossovers to balance content and language in writing assessments. This approach extended from CLIL principles to internal collaboration with TAs and external collaboration with field experts from five disciplines to guide diverse IBL writing topics. This required Composition courses for freshmen in the Department of Foreign Languages for the first time had a full-fledged responsive teaching-infused IBL to address student heterogeneity while meeting 108 curriculum goals.

This study broke away from the conventional ELT textbook-derived linear writing curriculum, which levels all students from sentence to essay and descriptive to argumentative types of writing, to address increasing individual differences and align college EAP training with CLIL/EMI. The four "unorthodox yet necessary changes" validated in the pilot study were sustained: prioritizing purpose and voice, unbinding textbooks, providing need-based workshops, and scaffolding through rotation stations.

**IBL component.** In theme-based modules, students selected their topics of interest, raised genuine concerns, queried out of curiosity, discussed in small groups, sought answers or

solutions, and wrote to document and communicate their findings. The nonlinear, emergent curriculum not only satisfied the requirements of first-year writing but also further fortified content logic and reasoning.

**Responsive Teaching.** The responsive teaching-infused IBL expanded to include crossover experts as a fourth tier of scaffolding, complementing the instructor, TAs, and peers. This comprehensive collaboration fostered language-content balance and mutual professional development, addressing instructional and assessment gaps in EAP writing. Rotation stations among the instructor, TAs, and peers allowed for continuous attention to students' questions and difficulties. These in-class rotation stations alternated with mini-workshops to flip the conventional top-down, large-group instruction. The workshops responded to students' knowledge/skill gaps and proactively identified challenging aspects of language inherent in their tasks (Lucas et al., 2008).

**Sequence and approach.** IBL was likely outside of the target students' comfort zone, especially for non-STEM majors. Therefore, in the first semester, a progressive approach was taken to ease participants into the loop of IBL phases through three writing projects. The orientation provided students with an overview of IBL, the format of college essays, and the five text types. After completing the three modules, where students became familiar with the qualities and conventions of EAP writing and attained the basic skills to engage in IBL, they expanded their content depth and breadth by involving crossovers in the second semester. The assessments and rubrics were adjusted to increase content substance on the scale to strike a balance with language. Workshops, rotation stations, and four-tiered scaffolding served as the actualization of responsive teaching. Tables 1 and 2 depict the instructional design, showing the progressive approach by duration, IBL breadth, essay development, components in the modular rubrics, and scaffolding. These photos were taken when students were individual consulting the field experts from Sociology, Education, Law, Politics, and Psychology.




**Developmental process and summative results.** In this learner-centered classroom, both formative and summative assessments, aligned with the respective rubrics, took place before and after the training as well as between projects. The project rubrics evolved by increasing the scale of IBL and task complexity while including crossovers for content substance. The framework from Coetzee-Lachmann (2007) was selected from among a few language-content dual-focus CLIL/EMI empirical studies and guided the holistic assessment. To enhance their validity, the rubrics and derivative data collection instruments were reviewed by two outside experts in CLIL and EAP fields.

Table 1. First semester: Writing a complete academic essay through lightweight IBL (EAP focused: language 70%, content 30%)

Component	Module 1	Module 2	Module 3	
	4 weeks	5 weeks	7 weeks	
IBL (prompt direction)	<b>Orientation+Discussion:</b> noticing a phenomenon and discussing possible factors/causes/impacts of significance.	<b>Orientation+Discussion</b> → <b>Conceptualization:</b> formulating a query/hypothesis and possible directions to explore out of personal interests under the phenomenon (theme-based)	<b>Orientation +Discussion</b> → <b>Conceptualization</b> → <b>Small Investigation:</b> constructing an action plan for exploration or searching related evidence	
Essay Development	Topic and introduction	Topic, intro + body 1	Topic, intro, body 1 + body 2 + conclusion	
Content Depth/Quality <b>30%</b>	<b>The completeness and correctness of meaning constructed</b>			
	Organization	Logical development of the topic	Meaning and view construction and completeness	Information presentation and correctness
Language (EAP) <b>70%</b>	<b>The appropriateness of the textual realization of meaning</b>			
	Complexity	Accuracy	Fluency	Vocabulary (including terminology)
Scaffolding	3-tiered: ✓ instructor ✓TAs ✓ peers × crossovers			

Table 2. Second semester: Writing a full-fledged academic essay through IBL (EAP focused: language 50%, content 50%)

Component	Module 4	Module 5	
	8-weeks	8-weeks	
IBL (prompt direction) 	<b>Orientation+Discussion</b> → <b>Conceptualization</b> → <b>Full-on Investigation<sup>++</sup></b> : constructing an action plan for exploration or experimentation leading to data organization, analysis, and interpretation	<b>Orientation+Discussion</b> → <b>Conceptualization</b> → <b>Full-on Investigation<sup>++</sup></b> → <b>Conclusion</b> : reflect to refine theory/hypothesis, retrospectively seek improvement, or call to action	
Essay Development	Topic, intro, 3 body paragraphs, and conclusion— <b>to be published online.</b>	Topic, intro, 5 body paragraphs, and conclusion— <b>to be published online.</b>	
Content Depth/Quality <b>50%</b>	<b>The completeness and correctness of meaning constructed</b>		
	Organization	Logical development of the topic	Meaning and view construction and completeness
Language (EAP) <b>50%</b>	<b>The appropriateness of the textual realization of meaning</b>		
	Complexity	Accuracy	Fluency
Scaffolding	4-tiered: ✓ instructor ✓TAs ✓ peers ✓ crossovers (joining as the 4 <sup>th</sup> -tier)		

**Five modules, five IBL writing projects, and five rubrics.** The curriculum exhibited in Tables 1 and 2 proceeded in growing increments of project duration, essay development, IBL prompts (task fulfillment direction), depth and quality of content, involvement of crossovers, and, finally, rubric scope (shifting from EAP-focused to EAP-content balanced). The first semester focused more on EAP writing (Table 1). After students became comfortable with academic discourse, writing conventions, and mechanics, the second semester (Table 2) broadened the IBL scope and content substance. This was achieved with the help of crossover experts, allowing students to learn to "adhere to the conventions followed by the subject

community” (Coetzee-Lachmann, 2007, p. 136). The investigation phase then became full-fledged as a means to deepen queries, followed by reflection and evaluation in the conclusion phase. The five IBL modules expanded progressively—both in depth and breadth.

At the end of the school year, every participant presented their work products and reflection. Their writing included illustrations and evolved into multimodal compositions, helping students grow an awareness of their audience and the responsibility of writing with strong reasoning in the digital era. This reflection helped students become aware of their growth and provided valuable information for instructional adjustments (see Appendix 2 for the preparation guide) They detailed moments of conceptual change, such as “aha” moments, realizations, and applications of new knowledge (詹明峰, 2022).

## 5. Data Collection and Analysis

5.1 Writing products from IBL modules: Each module contained multiple drafts. From the choice of topics and continuous topic refinement, students’ thoughts process became visible. Moreover, the scrutiny of organizational changes and content enrichment, their language and content progressions revealed the pedagogical effectiveness. The framework from Coetzee-Lachmann (2007) was chosen to measure topic- or subject-specific aspects in CLIL, rather than just general writing characteristics (p. 136; p. 247–276):

- Content-wise: The completeness and correctness of meaning constructed, directly addressing the content side of CLIL writing and examining writing for discipline-specific content.
- Language-wise: The appropriateness of the textual realization of meaning, entailing mastery of language, specific terminology, and formal language conventions. This approximates the conventional metrics of complexity, accuracy, fluency, and vocabulary found in high-stakes rating rubrics of language proficiency tests.

5.2 Final presentations and reflections: Every student dedicated the entire school year to exploring SDG inquiries and investigating feasible solutions from multiple dimensions. A preparation guide (Appendix 2) was offered to facilitate students in creating an effective poster for their final project presentation, synthesizing findings from three key projects: Cause-Effect, Problem-Solving and Comparison, and Persuasive Writing. The guide provided a structure: an introduction, an adventure-filled middle, and a concluding takeaway.

## 6. Teaching and Learning Outcomes

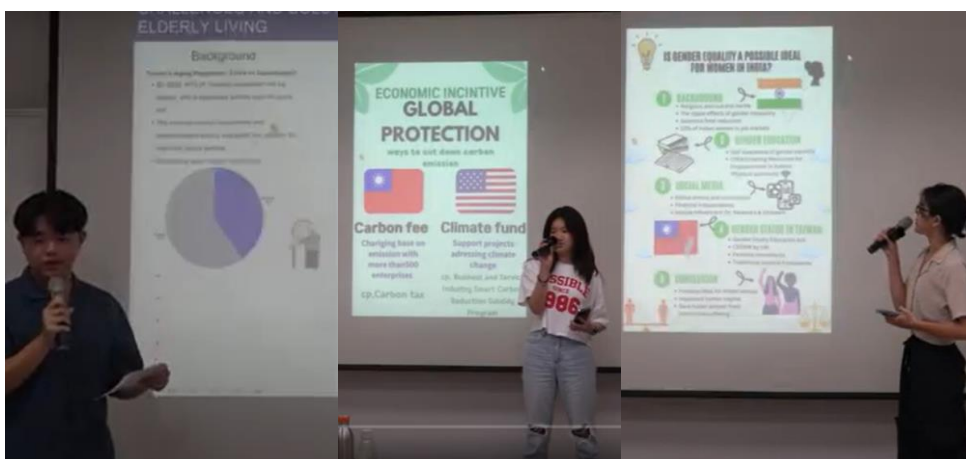
### 6.1 Teaching Outcomes:

***Content-based EAP writing rubrics.*** Toward the end of the school year, a content-based EAP writing rubrics was matured. The writing rubrics became rating criteria (Appendix 1) which encompass the evaluation of both content and language. Content-wise, they assess the completeness and correctness of the constructed meaning, directly addressing discipline-specific knowledge in CLIL writing. Language-wise, they examine the appropriateness of textual realization, including mastery of language, use of specific terminology, and adherence to formal

conventions. This approach aligns with traditional metrics used in high-stakes language proficiency tests, such as complexity, accuracy, fluency, and vocabulary. Most importantly, this rubric is powerful for content-based EAP writing projects as it balances subject content and language skills, focusing on key dimensions like **content clarity**, **logical development**, **evidence use**, and **theoretical application** valued in most social science fields. The bolded terms in sections (Introduction, Argument Development, Organization, Language, Conclusion) emphasize discipline-specific concepts, critical analysis, and current research—vital for academic writing. Most importantly, according to crossover experts’ feedback, this set of rubrics can apply to the writing discourse in their EMI classrooms.

**Poster Presentation Preparation Guidance.** The *Poster Presentation Preparation Handout* (Appendix 2) is designed to guide students through creating an effective poster and delivering an oral presentation for their culminating project. The presentation activity aimed to enhance students' audience awareness, use of **multimodal compositions**, and strong reasoning skills, encouraging reflection on “**aha**” moments and fostering instructional adjustments (see the photos below for students’ presentation in action). Two main parts include:

1. **Effective Poster Guidelines:** This section advises students on synthesizing key findings from three projects—Cause-Effect, Problem-Solving and Comparison, and Persuasive Writing. It emphasizes planning, concise content, and balanced design, suggesting tools like Canva or PowerPoint for creating a one-page poster. Students are instructed on layout, visual elements, and how to present information clearly to capture audience attention.
2. **Preparing for the Oral Presentation:** This part offers a structured approach for an engaging presentation. It covers crafting an "elevator pitch," providing essential background information, explaining research methodology, findings, and conclusion. It encourages students to keep their pitch concise (8 minutes) and to practice thoroughly, ensuring a compelling narrative for the audience.



## 6.2 Learning Outcomes:

**Unprecedented depth and breadth.** Each student dedicated him/herself to one SDG inquiry for a school year, which allowed for continuous exploration and investigation. This sustained focus is crucial because it aligns with the progressive approach of IBL, enabling students to develop a deep understanding of their chosen topic. By consistently engaging with the inquiry

across various phases, students not only become familiar with the qualities and conventions of EAP writing but also refine their ability to think critically and analyze content from multiple disciplinary perspectives. This journey towards greater depth and breadth is enhanced through crossovers with fields like Sociology, Education, Law, Politics, and Psychology, promoting a holistic view of complex, real-world issues.

Take one student Will as an example, Will's progress in his exploration of *SDG 14, Life Below Water*, shows significant improvement in depth, breadth, scope, specificity, and feasibility from the first module to the final module. Initially, his topic in Module 1, "*What Role do Lives Below Water Play in Contributing to the Process from the Incipiency of the Earth to the Contemporary World?*" was broad and ambitious. It attempted to cover the extensive role of underwater life throughout Earth's entire history, lacking a clear focus or specific research direction. This wide scope made the topic overwhelming and challenging to explore thoroughly within a school year. However, by Module 5, Will refined his topic to "*Shedding Light on the Consequences of Environmental Catastrophe Caused by Plastic for Humanity: Why Do We Need Single-Use Plastic Regulation?*" This revised focus demonstrates a deeper understanding and a more targeted approach to the issue. The shift in Willy's topic reflects not only an increase in specificity but also a more manageable research scope, showing a clear development in his critical thinking and investigative skills. Will's final topic allowed him to delve into a relevant, real-world issue, thereby improving the depth and breadth of his inquiry. Most participants also showed similar progress in refinement and expanding their topics with multi-layered scaffolding.

Compared to conventional freshman English writing curriculum, two breakthroughs emerged: 1. Real-world problems are usually complicated. This new pedagogy established a new collaboration model between language teachers and domain experts as well as between EAP-EMI. 2. Inquiries like what Willy selected were mission impossible for traditional language training; short writing exercises only allowed the expression of superficial knowledge. Now with responsive teaching with timely scaffolding from language and domain experts (and TAs), this group of freshmen were willing to take on the challenge (see the example in the image below). By concentrating on the contemporary problem of plastic pollution, they were able to explore specific causes, consequences, and the necessity of regulatory measures. This narrowing in scope made the research more feasible, allowing them to gather relevant data and propose concrete solutions. This is personal meaning in actualizing SDGs.

### Overcoming Stigma: Chinese Characters with the Female Radical Through Time

#### 「克服性別污名化：隨時間演變的帶女字旁的漢字」

In today's society, the term “stigma” may appear unrelated to our everyday lives.

However, the stigmatization of Chinese characters with the female radical is extremely pervasive and normalized by Chinese society. From the stigmatization of 媛 (socialite) becoming a derogatory word, mocking female influencers who take pictures in formal places, such as temples, hospitals, and fields, to 娘 (mother) being frequently used as a curse word to use upon others, demeaning men that showcases feminine traits, all illustrate the oppression and persecution of women in Chinese society. While the usage of stigmatized language towards women may not be considered an imperative issue, it is deeply tied to the patriarchy, and as people nowadays start to realize the harm of this societal system, improvements and adjustments towards the language stigma could be our first step towards gender equity. This essay will explore and compare two potential solutions to mitigate the stigmatization of Chinese characters with the female radical, discuss their pros and cons, and analyze how society nowadays can effectively address stigmatization.

***Knowledge ownership and self-confidence.*** The images below illustrate students’ poster presentations of culminating knowledge on individual SDG inquiries. Students actively presented their research on continuing SDG topics, showcasing their genuine concerns and dedication to real-world problems, such as carbon tax, climate protection, and gender equality. These presentations closely tied to the learning objectives by requiring students to synthesize complex information into accessible formats. The posters use multimodal elements (as shown below), integrating visual components like charts, infographics, and icons with concise text to communicate effectively. This approach aligned with the desired academic literacy, teaching students how to present their research through a combination of oral, visual, and textual methods. Additionally, the use of oral presentation alongside the posters enhanced their public speaking skills and allowed them to articulate their ideas in front of an audience, reinforcing both their understanding of the topic and their ability to engage others. During their final presentations, several students expressed their anxiety before meeting with the crossover experts. During the consultations with the professors from other fields, they realized it is imperative that they stay open-minded to different perspectives in order to understand and internalize the new input. They also shared some useful reference sources and electronic database to access more professional statistics or scholarly works in the field of their interests. These are all positive stimulations to drive the freshmen to become more intellectually mature.

### Being Healthy: Things I Learned in the 3 Projects

**01 An oral essay**

**problem solution+compare+persuasive(counterargument)**

**sol:** exercise: strength training, eat nutritious food: home cooking

**persuade:** 1. prevent disability 2. perform better 3. save money

**counterargument:** happy vs healthy?

**compare:** both are necessary, but diet is more important

**02 What I Learned**

1. Passion for learning
2. Baby step
3. Brain storm vs structure
4. Write drunk, edit sober
5. Important of English

**03 Process of the essay**

1. Surface-level problem
2. The sarcastic approach
3. Magic of reading aloud

**04 Ultimate lesson & Take away knowledge**

1. Muscle & protein
2. Stick to the topic

### Optimizing Food Resource Utilization

**Background**

- Global Hunger Post-COVID-19
- SDG 2 (Zero Hunger)

**Two Purposes**

1. Internal management systems  
Transportation, Storage, Delivery
2. External collaborations  
Cont: Financial Support, Manpower

**Three Characters**

1. EU Food Banks
2. Government & Private Org.
3. Volunteers

**Conclusion**

- Balanced Approach
- Innovative Practices
- Practical & Immediate Impact

**Background**

- Roe v. Wade Overturn
- France — Legal
- Arizona (US) — Illegal
- Conditionally Legal

**Counterargument**

- Various Moral Standards
- Prioritize Fetus Rights
- Neglect Autonomy
- Anonymous Adoption

**Legalizing Abortion Rights**

**Comprehensive**

- Fundamental Human Right
- Victims of Rape
- Unsafe Alternatives
- Risks of Health & Life

**Women**

- Unwanted Pregnancies
- Timely & Informed Decisions
- Profound Consequences
- Inadequate Care For Fetus

### English Writing Learning process!

**Problem**

People know the importance of slow fashion but it is still lack of popularity

- High expense
- Not trendy
- The rate of production is low

**Method**

**Capsule**  
Collection with fast fashion

Inspired from capsule wardrobe  
Example: Encircled

**Capsule wardrobe**  
**What is it?**  
is a collection of thoughtfully curated, easily interchangeable items designed to maximize the number of outfits you can create.

1. Save money
2. Sustainable
3. Get higher quality clothes

**How to start?**  
Look at what you already have and what you might be missing.

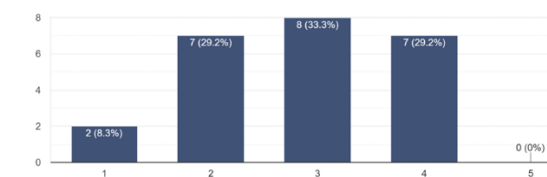
**Why**

- Leveraging economies of scale
- Fast Fashion is somewhat more trendy

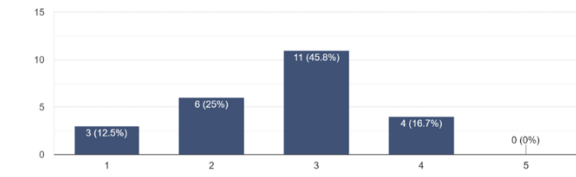
After a year of continuous IBL, students' individual distillation and consolidation of content-based knowledge has led to their ownership of knowledge and commitment to personal efforts. Creating and presenting these posters serve as crucial reflective moments where students could revisit their research journey, identify key findings, and celebrate their progress. By preparing these visual presentations, students pondered on the complexity of issues like environmental policy and gender equality while demonstrating their critical thinking and creativity. This type of presentation is also a form of celebration—an opportunity for students to share their knowledge, efforts, and solutions in a tangible way. It acknowledges their devotion and engagement with SDG challenges, solidifying their growth as problem-solvers and advocates for the issues they deeply care about. The total SDG topics spread into five disciplines which relied on the crossover experts from other departments.

According to students' replies to the entry and exit surveys, their ability to raise critical, effective questions grew. Additionally, they learned to constantly introspect on assumptions and bias as well. See the before-after comparisons below

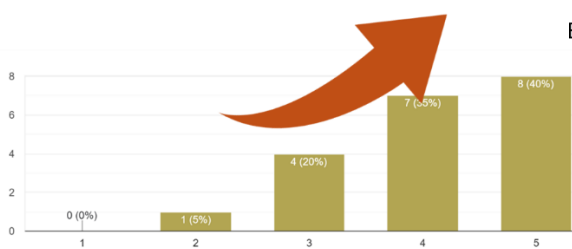
In the process of doing a project or task, did you challenge initial ideas or beliefs when looking for answers (會不停地挑戰原來的假設嗎)?  
24 responses



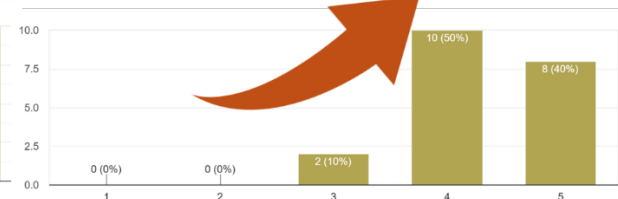
Following the first question, were you trained to raise questions to explore information or gather ideas for learning tasks/projects?  
24 responses



Entry



Exit



## 7. Recommendations and Reflections

This study adopts a responsive teaching-infused IBL approach to guide college freshmen in mastering EAP by integrating content and language. The curriculum used in-class rotation stations, cross-disciplinary consultations, and mini-workshops, moving away from conventional, top-down instruction. This setup prioritized learner needs, allowing the curriculum to emerge organically during IBL writing projects. The expected outcomes and contributions are outlined below:

***Voice Empowerment.*** This training empowers non-native English-speaking (NNES) students to express their thoughts confidently. Through multimodal IBL projects, students "write to think" and "write to learn." By creating posters, synthesizing findings, and delivering presentations, they develop audience awareness and responsibility in communication—essential skills in the digital age. This process aims to alleviate linguistic self-doubt, helping students focus on writing's ultimate goals: promoting important ideas and building networks. Their writing becomes a reflection of growth, celebrating their ability to tackle complex topics like SDGs with depth.

***Teacher Professional Development.*** The curriculum fosters two-way professional development between language instructors and crossover experts in other fields like Sociology, Education, and Law. Admittedly, this group of freshmen's topic selections and collaborations with domain experts are rooted in Social Sciences, indicating a boundary that needs pushing if future freshmen aim to explore Natural Sciences or Engineering. This expansion would necessitate revisiting the content-based EAP writing rubrics presented in Appendix, to accommodate the specificities of different disciplines. Hopefully, this collaboration model will soon break down traditional STEM and non-STEM divisions, enhancing students' readiness for English-Medium Instruction (EMI) coursework. EAP instructors are exposed to diverse reasoning and scholarly norms, enriching their teaching practices. In short, this model supports student growth while expanding instructors' expertise efficiently.

***Aligning Secondary and Higher Education Curricula.*** The proposed curriculum bridges the gap between secondary education and college EAP. Shifting towards a balance of language and content in assessments aligns with the reformed secondary curriculum emphasizing inquiry-based learning and CLIL. While this shift may challenge language teachers initially, it meets the evolving needs of today's students by cultivating academic literacy and interdisciplinary thinking.

***Modeling and Sharing.*** Instructional materials, methods, and student outcomes—including posters and reflective writings—have been presented in teacher professional development workshops and conferences (listed in the Introduction section). This course demonstrates the integration of interdisciplinary knowledge and team teaching, essential for preparing NNES students for global academic and professional demands. Multimodal projects in this curriculum offer educators new strategies to adapt EAP instruction to current challenges.

In conclusion, with the outcomes from the pilot study and the formal study, multiple

empirical evidence solidifies the effectiveness of the new pedagogy. By focusing on responsive teaching, consultations, and interdisciplinary collaboration, this study transforms the classroom into a space where students explore their interests, reflect on progress, and communicate through effective, multimodal methods.

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## II. Appendices

### Appendix 1: Writing Project 5 Language and Content Balanced Evaluation Criteria for Persuasive Essays

\*0=Absent, 1 = Needs Improvement, 2 = Satisfactory, 3 = Excellent

\*The underlined words/phrases are to be replaced by different topics under various disciplines.

#### Part 1. Introduction

- **Hook:** Is it enticing and intriguing, drawing the reader into the **topic of gender equality**?
- **Background Information:** Does the introduction provide sufficient **context** to understand the **complexities of gender equality**, making the reader see its **importance**?
- **Thesis Statement:** Is the **thesis specific**, well-defined, and clear in presenting the writer's **viewpoint on gender equality**?
- **Personal Meaning:** Does the essay convey why the **author finds this issue urgent** and **relatable**? Is it framed thoughtfully, avoiding **clichés**?

#### Part 2. Argument Development

- **Content Clarity:** Does the essay clearly define key **concepts** (e.g., gender equality, social norms, power dynamics) and use them consistently throughout the discussion? Are the main ideas **explicitly stated** and relevant to the topic?
- **Logical Development:** Are the arguments organized logically, following a **sociological framework** that builds towards the thesis? Does the author employ **deductive reasoning** (starting from general sociological theories) or **inductive reasoning** (drawing broader conclusions from specific case studies) to support the argument on **gender equality**? Is there a clear progression of ideas that reflects a **deep understanding of sociological perspectives**?
- **Use of Evidence:** Does the essay use a well-balanced combination of **facts, statistics, case studies, expert quotes, and examples** that are **specific to gender equality** and relevant in the **sociological field**? Are **sources properly cited**, demonstrating **depth of research** and an understanding of current academic discussions in sociology? Does the author critically analyze the evidence to draw meaningful conclusions rather than simply summarizing?
- **Citing Proper, Updated References:** Does the essay reference **current, credible sources** in the field of sociology, including **recent studies** and **literature**? Are the citations up-to-date and directly related to the **topic** being discussed?
- **Inclusion of Theory:** Does the essay **effectively incorporate relevant theories** (e.g., conflict theory, symbolic interactionism) to **support** and **strengthen the argument**? Is the **theoretical framework** explained and appropriately applied to the **topic**?
- **Counterarguments:** Does the author **acknowledge potential opposing viewpoints** related to **gender equality** and present their **rationales** clearly, considering **alternative perspectives**? Are these counterarguments critically evaluated using **evidence** and theory to highlight their limitations or weaknesses?

### Part 3. Organization and Structure

- **Coherent Structure:** Is the essay structured **logically**, guiding the reader through **arguments** related to **gender equality** using a **sociological lens**?
- **Unity:** Are the **different reasons** connected in a way that **strengthens the overall argument**, demonstrating how **social structures** and **cultural norms** interplay? Is there a clear relationship between the **counterarguments** and the **main points**?
- **Paragraph Development:** Does each paragraph focus on a **single point** related to **gender equality**, supported by **relevant evidence**? Are **topic sentences** powerful and clearly connected to the **thesis**?
- **Effective Transitions:** Are **transitions** used to maintain **flow** and **coherence**, connecting **ideas** about **gender equality** smoothly (e.g., using phrases like "similarly," "however")?

### Part 4. Language and Expression

- **Language Appropriateness:** Is the **language** use suitable for **advanced ESL students**, demonstrating a **strong command of English**?
- **Sophisticated Vocabulary:** Does the essay use **varied** and **topic-specific vocabulary**, including **key sociological terms** related to **gender equality**?
- **Use of Transitional Phrases:** Are **transitional phrases** employed effectively to connect **arguments** and **evidence** or to highlight **contradictions** within **gender-related discussions**?
- **Grammar, Spelling, Punctuation:** Are **errors minimal**, allowing for a **clear** and **professional presentation** of the **arguments**?
- **Length and Formatting:** Does the essay meet the **specified requirements** for **length and formatting**?
- **Originality and Citation:** Is the essay **original** in its **analysis of gender equality**, properly **credits all sources**, and **adheres to academic citation standards**?

### Part 5. Conclusion

- **Summary:** Does the **conclusion** reinforce the essay's **purpose**, summarizing **key points** about **gender equality** effectively?
- **Consequences and Predictions:** Does the **conclusion** present **potential consequences** of **ignoring gender equality issues** or make **predictions** about **future implications** using a **sociological perspective**?
- **Call to Action:** Does the author present a **feasible plan** or reiterate an **important message** for the reader to consider regarding **gender equality**?

## Appendix 2: Presentation Preparation Handout

### Part 1. Effective Poster Guidelines

This will guide you through creating an effective poster for your culminating project presentation. Your poster should synthesize your findings from three significant projects completed this year: **Cause-Effect, Problem-Solving and Comparison, and Persuasive Writing**. It should showcase the development of your knowledge and judgment on the topic. [Samples are available here](#) →



#### 1. Planning Your Poster

**Content Gathering:** Review your three essays to extract key findings and conclusions that demonstrate your learning progression. Draft a layout to decide where each piece of information will go. **You don't want to include everything, or the audience will remember nothing!**

#### 2. Designing Your Poster

- **Tools:** Canva, PPT, or Adobe Spark. Remember the product will be **ONE PAGE only in JPEG or PNG file**.
- **Title:** Create a short, compelling title that draws interest and reflects the essence of your presentation.
- **Text Format:** Use clear, concise language. Keep the content between 150 to 250 words to ensure clarity and focus. Utilize bullet points, numbering, and headlines to organize information and make the poster easy to read. Avoid all capital letters.
- **Visuals:** Incorporate charts, graphs, or images that complement your text and highlight key points. Choose colors and fonts that are easy to read and attract attention without overwhelming your content.
- **Layout:** Ensure a consistent and clean layout. Align text and visuals for a balanced look. Avoid clutter by leaving adequate space between elements. 40% text, 40% graphics, 20% space.

### Part 2. Preparing for the Oral Presentation

- **The “elevator” pitch:** What is your research theme and topics? What have you found/learned? Why is that important? What would've been an alternative way to tackle the inquiry? Your research needs a beginning, a middle and an end. Aim for this to be 8 minutes long, or less.
- **Highlights:** Get your audience hooked and wanting further details. The audience might need the background info. Make sure your pitch is punchy, intriguing and relevant.
- **Organize your presentation:**

Introduction is the opening:

- What is the necessary background information about your research topic that the audience must know?
- How did this lead you to your inquiry, what were you hoping to find out and why?
- Who are the main characters (e.g. a disease, a drug, a cell type, a brain region, a technique)?  
What are the relevant parts of their “characteristics” to the story?

Middle section is the adventure, it answers:

- How did you get from your research question to your conclusion? Why did you choose to take that route?
- What did you find on your way? Were there any interesting twists to your research, like what

contradicts to your original assumptions?

Conclusion for the audience to walk away from:

- What is the ultimate lesson of your journey? What does this mean for your research?
- What have you learned eventually? What do you want the audience to walk away with?

- **Practice:** Rehearse your oral presentation and interact with the poster.