

# Making **EMI work** in Engineering and IT

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Formulating Solutions and Workarounds

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Jan 11, 2022 @ NCU

# SHARING Insights 01

- What do CEFR, EMI, and CLIL have to do with us?
- How did Japan, HK and China implement their EMI?
- CLIL and EMI in Taiwan (Engineering & IT)

# AGENDA (PM)

## How to FACE these Challenges

- Teaching Science through English – a CLIL Approach.
- Educational technology and the way forward.

# 02



**01**

**SHARING Insights**

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# 2030 打造台灣成為雙語國家!

Developing Taiwan into a Bilingual Nation by 2030

啟動教育體系雙語活化

Bolster Taiwan's  
bilingual education  
system

abc  
ABC



從需求端強化國人英語力

Improve the public's  
English proficiency through  
demand-driven learning



提升國家整體競爭力

Enhance the  
nation's overall  
competitiveness



# 高教雙語政策 - 推動大專校院學生雙語化學習計畫

發布單位：高等教育司 聯絡人：陳浩

(一) 2024年達到「25-20-20」：2024年時，標竿大學與標竿學院至少有25%的大二學生，其英文能力在聽說讀寫達到CEFR B2以上的流利精熟等級，同時全校至少有20%的大二學生與碩一學生，在其當年所修學分中的20%以上為全英語課程。

(二) 2030年達成「50-50-50」：2030年時，標竿大學與標竿學院中至少有50%的大二學生在聽說讀寫達到CEFR B2以上的流利精熟程度，同時至少有50%的大二學生與碩士學生其當年學分中的50%以上為全英語課程，並推動畢業證書EMI修課認證，以接軌國際及產業。

(一) 英語課採全英語教學：2024年至少20所大專校院英語課採全英授課比率達30%以上、2030年至少40所大專校院英語課採全英授課比率達80%以上；並逐步推動專業導向(ESP、EAP、EWP)之英語教學內涵，以逐步協助學生修習EMI課程。

(二) 鼓勵學生修讀EMI課程：2024年至少5%大二及碩一學生修習至少1門全英語授課課程、2030年至少10%大二及碩一學生，修習至少2門全英語授課課程。



# CEFR Levels & Proficiency

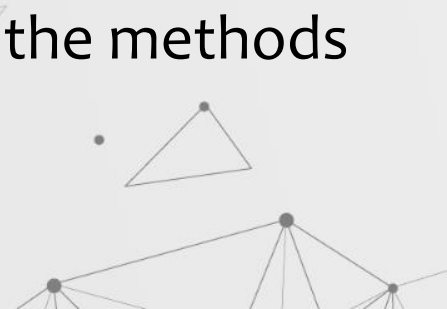
Common European Framework of Reference for Languages.

## Main objectives of the CEFR:

- ⇒ promoting plurilingualism and **diversification** in the choice of languages in the curriculum
- ⇒ supporting the development and demonstration of the **plurilingual profile** of individual learners
- ⇒ developing and reviewing the content of **language curricula** and defining positive 'can do' descriptors adapted to the age, interests and needs of learners
- ⇒ designing and developing **textbooks** and teaching material
- ⇒ supporting **teacher education** and cooperation among teachers of different languages
- ⇒ enhancing **quality** and success in learning, teaching and assessment
- ⇒ facilitating **transparency in testing** and the comparability of certifications

# CEFR Levels & Proficiency

- The CEFR provides a common basis for the elaboration of language syllabuses, curriculum guidelines, examinations, textbooks, etc. across Europe.
- “One thing should be made clear: **the CEFR does not set out to tell practitioners what to do, or how to do it.** It raises questions but doesn’t provide ready-made answers. It is not the function of the Common European Framework of Reference to lay down the objectives that users should pursue or the methods they should employ.”



# CEFR Levels & Proficiency

PROFICIENT USER	C2	Can understand with ease virtually everything heard or read. Can summarise information from different spoken and written sources, reconstructing arguments and accounts in a coherent presentation. Can express him/herself spontaneously, very fluently and precisely, differentiating finer shades of meaning even in more complex situations.
	C1	Can understand a wide range of demanding, longer texts, and recognise implicit meaning. Can express him/herself fluently and spontaneously without much obvious searching for expressions. Can use language flexibly and effectively for social, academic and professional purposes. Can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organisational patterns, connectors and cohesive devices.
INDEPENDENT USER	B2 ★	Can understand the main ideas of complex text on both concrete and abstract topics, <u>including technical discussions in his/her field of specialisation</u> . Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.
	B1	Can understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc. Can deal with most situations likely to arise whilst travelling in an area where the language is spoken. Can produce simple connected text on topics which are familiar or of personal interest. Can describe experiences and events, dreams, hopes & ambitions and briefly give reasons and explanations for opinions and plans.





# CEFR and TOEIC

測驗名稱	項目	分數範圍	CEFR 分數對照						
			A1 入門級	A2 基礎級	B1 進階級	B2 高階級	C1 流利級	C2 精通級	
多益系列測驗	TOEIC® Tests	總分	10-990						
		聽力	5-495	60	110	275	400	490	
		閱讀	5-495	60	115	275	385	455 <sup>1</sup>	
		總分	-			550	785	945	
		口說	0-200	50	90	120	160	180	
		寫作	0-200	30	70	120	150	180	



# Comparison Chart

TOEFL	IELTS	TOEIC	Cambridge exam	CEFR Level	Skill level
118-120	9		CPE	C2	
<b>115-117</b>	<b>8.5</b>		<b>CPE</b>	<b>C2</b>	Mastery or proficiency
110-114	8	975-990	CAE / CPE	C2/C1	
102-109	7.5	966-974	CAE	C1	
<b>94-101</b>	<b>7</b>	<b>945-965</b>	<b>CAE</b>	<b>C1</b>	Effective operational proficiency
79-93	6.5	900-960	FCE	C1/B2	
<b>65-78</b>	<b>5.5-6.0</b>	<b>785-940</b>	<b>FCE</b>	<b>B2</b>	Vantage or upper intermediate
53-64	4.5-5	785-795	FCE	B2/B1	
41-52	4	670-780	PET	B1	
<b>35-40</b>	<b>3.5</b>	<b>550-665</b>	<b>PET</b>	<b>B1</b>	Threshold or intermediate
<b>30-34</b>	<b>3</b>	<b>225-545</b>	<b>KET</b>	<b>A2</b>	Waystage or elementary
19-29	2.0-2.5	171 -220		A1	
<b>0-18</b>	<b>1.0 - 1.5</b>	<b>120 -170</b>		<b>A1</b>	Breakthrough or beginner



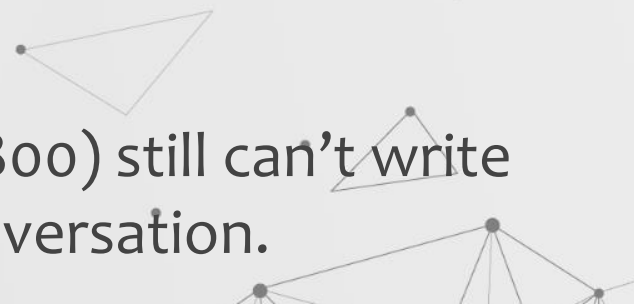
# TOEIC in Taiwan

## Table 1: Mean Performance by Native Country

Country	Listening		Reading		Total	
	Mean	(SD)*	Mean	(SD)*	Mean	(SD)*
CHINA, PEOPLE'S REPUBLIC	275	(107)	258	(112)	533	(212)
HONG KONG	330	(108)	259	(121)	589	(223)
INDIA	357	(106)	317	(103)	674	(200)
INDONESIA	229	(104)	162	(87)	391	(183)
JAPAN	296	(94)	236	(100)	531	(186)
KOREA (ROK)	377	(81)	306	(103)	683	(176)
MALAYSIA	354	(94)	281	(114)	634	(202)
PHILIPPINES	417	(65)	357	(85)	773	(142)
<b>TAIWAN</b>	<b>308</b>	<b>(101)</b>	<b>256</b>	<b>(107)</b>	<b>564</b>	<b>(201)</b>
THAILAND	279	(105)	206	(102)	485	(200)
TUNISIA	403	(80)	347	(88)	750	(161)
VIETNAM	266	(100)	225	(103)	491	(195)

# CEFR and TOEIC

## 必須破除的常見迷思：

- TOEIC scores are just an “estimate”.
  - Many students with high TOEIC scores (>800) still can't write properly, much less carry out a simple conversation.
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- A collection of faint, light gray geometric shapes including triangles and lines, scattered in the bottom right corner of the slide.

# Let's start from the beginning...

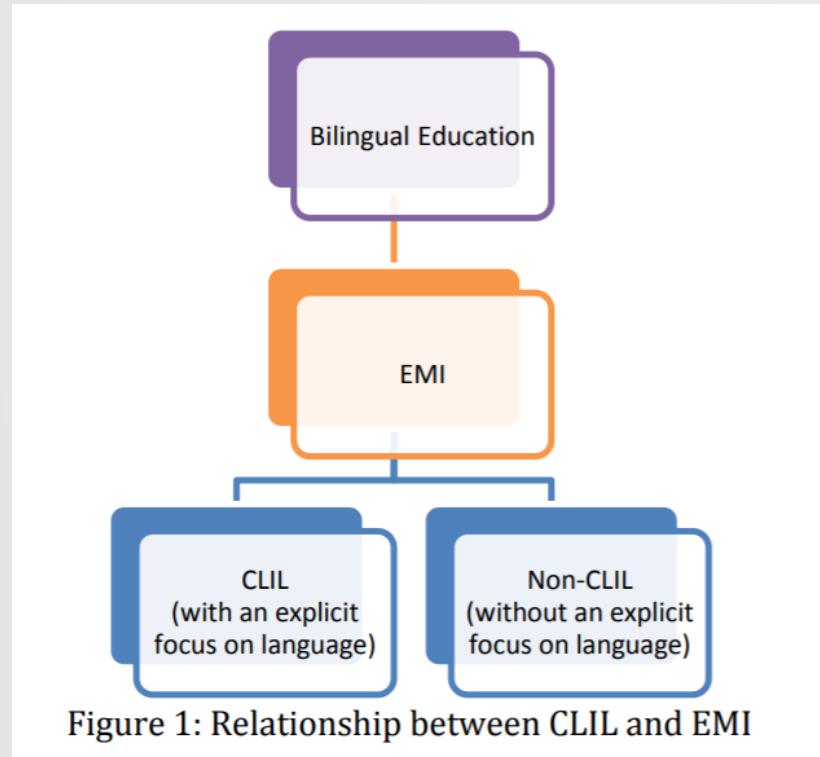
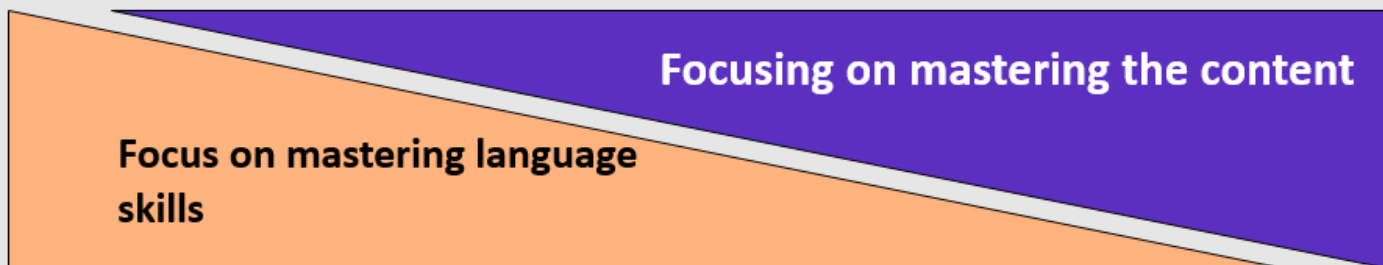


Figure 1: Relationship between CLIL and EMI



# The CLIL/EMI cline



English language class

English class with some subject content

English class reinforcing some subject course objectives

Subject course balanced with English-learning objectives

Subject course in English-learning context

Subject course in English-speaking context

ELT

Soft CLIL

Hard CLIL

EMI

# EMI in Japan

Interviewed 7 undergrads & 3 faculty members.

Higher Education

<https://doi.org/10.1007/s10734-018-0323-5>



CrossMark

**An analysis of Japan's English as medium of instruction initiatives within higher education: the gap between meso-level policy and micro-level practice**

**Ikuya Aizawa<sup>1</sup>  • Heath Rose<sup>1</sup> **

Published online: 03 November 2018

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**4.634 (2020)**

Impact factor

**5.171 (2020)**

Five year impact factor

# EMI in Japan

Interviewed 7 undergrads & 3 faculty members.

**Table 1** Information of students (source: student interviews)

Participants	Year	Gender	Proficiency (CEFR)	Major
Tomoya	1	Male	A2 (low)*	N.A.**
Ryo	1	Female	C2 (high)*	N.A.**
Minami	2	Female	A2 (low)*	N.A.**
Asuka	2	Female	B1 (middle)*	N.A.**
Kohei	3	Female	A2 (low)*	Sociology
Daisuke	3	Male	B1 (middle)*	Economics
Mikiko	3	Male	C2 (high)*	Biology

**Table 2** Information of teaching faculty members (source: staff interviews)

Participants	Position	Gender	Proficiency	Department
Atsuki-sensei	Director of department	Female	High (C2)***	Linguistics
Yujo-sensei	Professor	Male	High (C2)***	Business
Seyo-sensei	Lecturer	Male	High (C1)***	Sociolinguistics

\*\*\*Faculty members' self-rated English proficiency according to CEFR



# EMI in Japan

Five students explained that they had experienced difficulty in understanding lecture content due to instructors accented or poor English, as illustrated by the following except:

I had difficulty in understanding what my lecturer was saying because of his thick Japanese accent.... He assigned a lot of reading materials written in Japanese, so I wish he also had used Japanese when conducting lectures. (Mikiko, High C2, 3rd year student)

Teachers also observed language-related challenges associated with delivering EMI classes. Seyo-sensei (Linguistics Lecturer), who had only studied and taught in Japan, mentioned problems with his English when conducting EMI courses, including a need to speak more slowly, coupled with increased time pressure to prepare EMI lectures. Yujo-sensei (Business Professor), who completed his PhD in an English-speaking country, also indicated issues surrounding EMI:

There are some drawbacks of teaching in English. I have to spend much more time on preparation for my class. In English there are certain topics I'm not comfortable teaching, whereas in Japanese I can teach almost anything freely in my field. The quality of E courses taught by a Japanese teacher can easily be lower.

# EMI in Japan

**Table 6** Problems regarding teachers' English proficiency (source: student interviews)

Source	Course	Lecturer's L1	Problems
Mikiko	Japanese linguistics	Japanese	<ul style="list-style-type: none"><li>• Lecturer had a strong foreign accent.</li><li>• Lecturer used Japanese when he could not find English words.</li></ul>
Daisuke	Gender and sexuality	Japanese	<ul style="list-style-type: none"><li>• Lecturer only used simple English words.</li><li>• Lecturer spoke too slowly.</li></ul>
Tomoya	Linguistics	Chinese	<ul style="list-style-type: none"><li>• Lecturer had a strong foreign accent.</li></ul>
Minami	Translation studies	Japanese	<ul style="list-style-type: none"><li>• Lecturer had a strong foreign accent.</li><li>• An exam paper was written in poor English.</li></ul>
Kohei	Global studies	Japanese	<ul style="list-style-type: none"><li>• Lecturer had a strong foreign accent.</li><li>• Lecturer was reading everything from notes.</li></ul>

# EMI in Japan

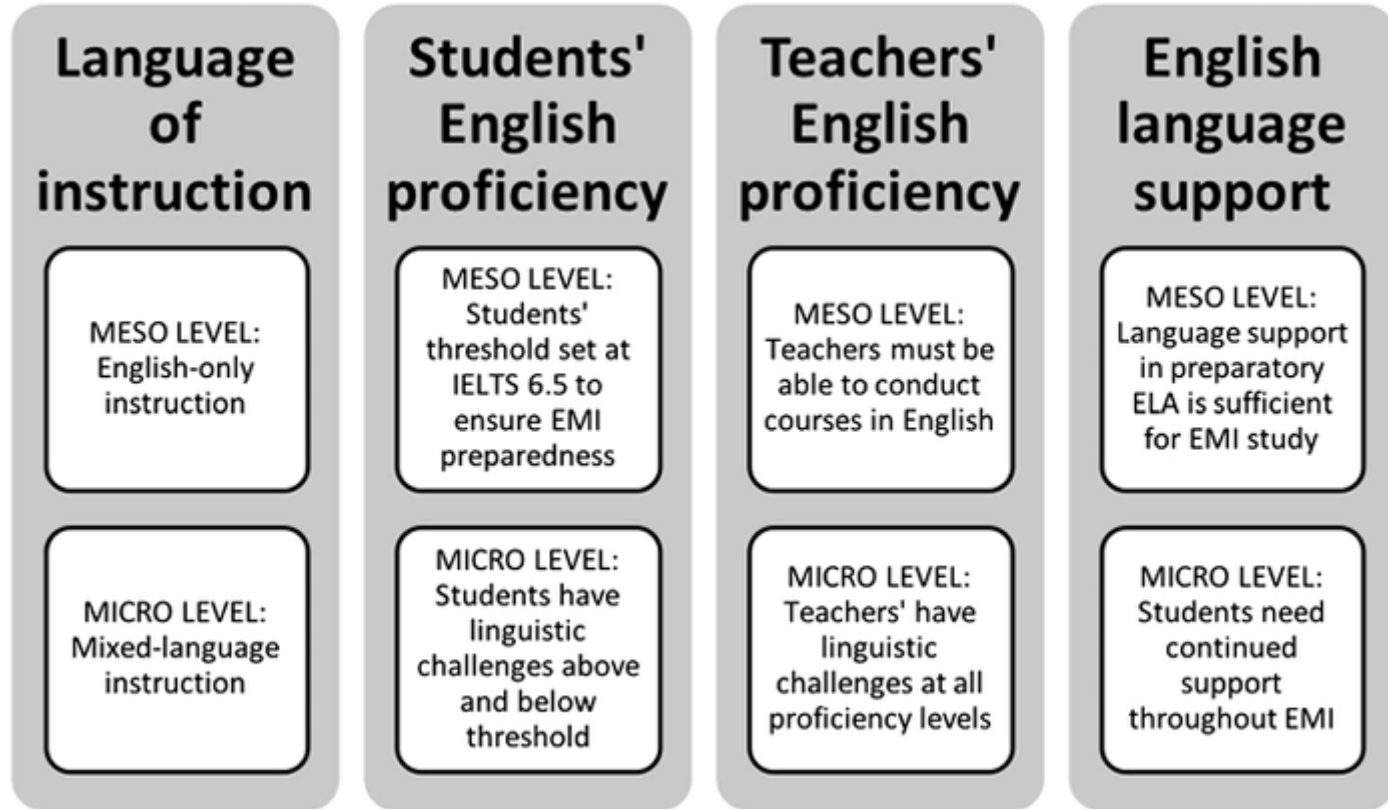


Fig. 2 A gap in EMI implementation between the meso and micro level

# EMI in Japan

As a result, universities seek to appease MEXT by showing numerically measurable EMI growth and internationalisation in other sectors of the university, rather than focusing on the contextualised micro-level implementation challenges. The implications for this research may require universities to reconsider unrealistic language proficiency targets and proposed increases in EMI programme numbers, lest they risk improper implementation at the micro level due to linguistic and pragmatic constraints. This will ensure future policy is informed by both top-down wants and bottom-up needs.

The current study also indicated that EMI teachers expressed difficulty in teaching in English, regardless of the level of their English proficiency. In other words, even high proficiency teachers at this case reported linguistic challenges. This finding does concur with research findings by Borg (2015) that highly proficient teachers in Iraq stated EMI implementation was challenging due to limited linguistic abilities. Thus, teaching challenges may be more pervasive in emerging EMI contexts, such as Japan and the Middle East, than in more mature contexts like Northern and Western Europe. Such findings indicate a need for EMI teacher training, because merely being proficient in English and being an expert in a subject area does not indicate that a lecturer is qualified to teach that subject area in an EMI setting.

# EMI in HK

Journal of Pan-Pacific Association of Applied Linguistics, 20(1), 135-155.

## **Fine-Tuning Medium-of-Instruction Policy in Hong Kong: Acquisition of Language and Content-Based Subject Knowledge**

**Anita Y. K. Poon\***

*Hong Kong Baptist University*

**Connie M. Y. Lau**

*Hong Kong Baptist University*

- Interviewing **11 teachers** from 2 different schools teaching Secondary 2 Mathematics, Science, Geography, and History.
- Interviewing **4 Secondary 2 students** from each school.

# From 2 HK Two-Medium Schools

Teachers' View	Students' View
Spend <u>a lot of time</u> on preparing of teaching content-based knowledge through English.	Generally <u>like</u> the idea of learning content-based subjects through English, and agreed <u>EMI helps to improve English proficiency</u> .
AT first, EMI class is more <u>quiet</u> than the CMI class, because students <u>afraid to voice out in English</u> .	<u>Extra</u> efforts and strategies are required.
Weaker students already had problems with understanding, EMI made their <u>learning slower</u> .	Most students admitted using their <u>L1 Chinese</u> to process knowledge and <u>higher-order thinking</u> , even when subjects are taught in English.
But agreed that students' <u>English improved</u> when learning content-based subjects through English.	If teachers use both English and Chinese together, it is <u>confusing</u> and <u>worse</u> as they need to remember two sets of words.
	Higher-ability students think English seems <u>easier to understand</u> .

# EMI in HK

## Recommendations:

1. Code-mixing and code-switching are useful strategies in helping students to make the transition from CMI to EMI in learning content knowledge. They are, however, temporary strategies only and should not be made permanent.
2. With the support of both content-based subject teachers and English teachers, students should continue to strengthen their English in order to reach the upper threshold level so that their CALP can be transferred between L1 and L2, thus facilitating the cognitive processing of subject knowledge.
3. Since metalinguistic is crucial for bilingual learning but content-based subject teachers are not language experts, it is essential to have collaboration between content-based subject panels and English language subject panel. Therefore, Language Across the Curriculum (LAC) is worth promoting as a school policy.

### 語碼轉換

( **code-switching** ) :  
指語言使用者在句間的語言轉換，主要發生在句子間的分界處。


### 語碼混用

( **code-mixing** ) :  
指語言使用者在句內的語言轉換，主要發生在句子內部。



# EMI in HK

## Recommendations:

4. Hong Kong has a long history of practising English-medium instruction without any awareness that EMI is, in essence, a model of CLIL. It is high time to make conscious efforts to promote CLIL, which requires close collaboration between content-based subject panels and English language subject panel, if the Hong Kong government wants to have effective implementation of the fine-tuning MOI policy.
- 



# EMI in China

## English-Medium Instruction in Engineering Education

Practices, Challenges, and Suggestions

Haiyun Gu

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Lei Ren

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- An academic course “Computer Networking” was taught to a 69-student class bilingually, and to another 72-student class in English.

**Published in:** 2017 IEEE 6th International Conference on Teaching, Assessment, and Learning for Engineering (TALE)

**Date of Conference:** 12-14 Dec. 2017

**INSPEC Accession Number:** 17486746

**Date Added to IEEE Xplore:** 11 January 2018

**DOI:** 10.1109/TALE.2017.8252338

# EMI in China

## III. DATA COLLECTION AND ANALYSIS

### A. Students' test scores

Table I shows the distributions of the students' test scores by calculating the percents of students in each grade. In 2016, with bilingual teaching method, the 69 students' scores were concentrated between 40 points to 80 points; in 2017, with applying EMI, the 72 students' scores were well differentiated, and it showed an overall improvement.

The students with better English abilities reflected that in the bilingual class, the Chinese explanations made them feel bored, and no pressure to read the textbooks after lectures. But we couldn't cover all the contents in the classroom, so the students only got the basic idea. In the EMI class, even less contents were covered in the lectures, but the students reflected that they were pushed to read more materials by themselves, so not only the academic knowledge but also their academic English have been improved.

But to the students whose English proficiency is not adequate, they did suffer a lot for EMI. My students were from many different parts of China, it is normal that their English abilities are in different levels. That will be an important factor to be considered for the course-selection policy maker.

TABLE I. THE DISTRIBUTIONS OF STUDENTS' TEST SCORES

Test Scores	Percents	
	2016	2017
A(100-90)	0	1.39
B(89-80)	0	13.89
C(79-70)	10.14	27.78
D(69-60)	46.38	33.32
E(59-)	43.48	23.62

# EMI in China

## B. Students' labs scores

Table II shows the students' labs scores and the percents of students in each grade. There is no significant difference between two years labs scores' distributions. During labs the students often preferred using Mandarin to interact with the teachers. But during the labs, EMI students were obviously more familiar with the English academic concepts and terms used in the specified software and devices.

In IT field, most of the academic developing tools are originally in English version. The students need to get used to them for the future study and work.

TABLE II. THE DISTRIBUTIONS OF STUDENTS' LABS SCORES

Labs Scores	Percents	
	2016	2017
A(100-90)	18.25	25
B(89-80)	22.22	33.34
C(79-70)	58.32	41.66
D(69-60)	1.21	0
E(59-)	0	0

TABLE III. THE SURVEY RESULTS OF THE STUDENTS ATTITUDES TO EMI

Students' Attitudes	Percents	
	<i>EMI should be promoted in engineering education.</i>	<i>I'd like to take a EMI academic course.</i>
Strong Agreement	22	10
Agreement	68	45
Disagreement	10	43
Strong Disagreement	0	2


TABLE IV. THE SURVEY RESULTS OF THE STUDENTS ENGLISH ABILITIES

Students' Attitudes	Percents	
	<i>My English is getting worse since I entered the college.</i>	<i>A specified English course is necessary.</i>
Strong Agreement	36	36
Agreement	39	59
Disagreement	23	5
Strong Disagreement	2	0



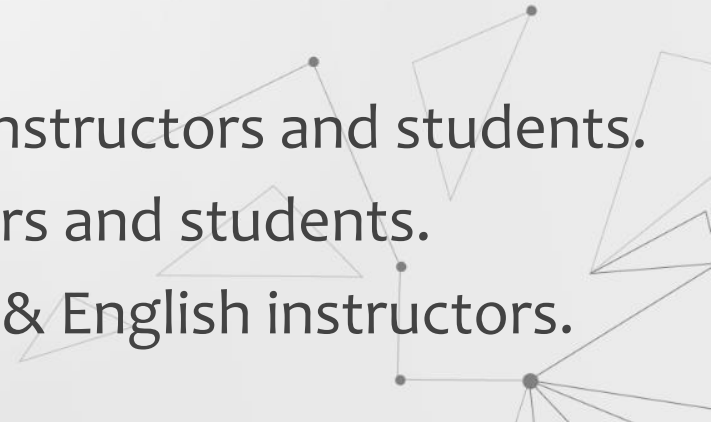
# EMI in China

## Challenges and Suggestions:

- Shortage of EMI instructors.
  - Lack of interaction in the classroom.
  - Teaching methods and teaching hours.
  - Performance assessment.
- 




# Summary from these 3 research

- **Mismatch** between what the top wants and what the bottom can deliver.
  - **Varied** language proficiency levels among students and faculty members.
  - **Shortage** of good EMI instructors.
  - Need a **change in cognition** for both instructors and students.
  - Need **continued support** for instructors and students.
  - Need **collaboration** between content & English instructors.
- 



# EMI in Taiwan – 困難與迷思

- **Varied language proficiency levels** among students and faculty members.
  - **Incompatible goals** between and among the government (agencies), university, faculty, students, parents, and society.
  - Cannot use Chinese at all.
  - **Priority** – English-focused or Subject/Content-focused?
- 

# Content Factor

## 1. Basic (Core) Subjects

- Increase compulsory hours, focus on building English competencies in Freshmen and Sophomore years before starting EMI courses in Junior and Senior years.

## 2. Resources

- Library and online free resources.
- Any type of content should be encouraged.
- English podcasts and Youtube videos.



**A new language is  
a new life.**  
Persian proverb

# Communication Factor

## 1. Start Now

- Start small and simple; and use it often.
- Switch between languages in the beginning.

## 2. Taiwanese-English or heavily accented

- So what?! We are not native speakers so we are bound to have accents.
- As long as we can get the idea across, it is good enough (as a start).

“To have another language is to possess a second soul”

Charlemagne





# Cognition & Cultural Factor

## 1. Throw away the clutches

- Stop relying on translated texts.
- By immersion; Learn / Lead by examples.
- Find your motivation(s).

## 2. Change in Expectation

- Don't be shy or be afraid of imperfection.
- Knowing some is better than knowing none.
- International Opportunities 與國際接軌

One who speaks only one language is one person, but one who speaks two languages is two people.

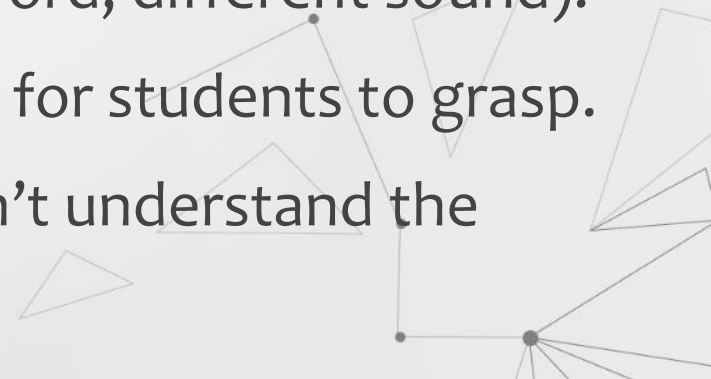
Turkish Proverb

[teamjapanese.com](http://teamjapanese.com)





# Concerns in Engineering & IT Education

- Beware of the jargon monster
    - Need to understand what the terms meant.
    - Need to remember them.
    - Need to apply them within appropriate situations.
    - Need to build on them to learn further.
  - Pronunciation / Accent (same word, different sound).
  - Content is difficult enough in L1 for students to grasp.
  - Understand the English but don't understand the concept.
- 



# 02

## How to FACE these challenges

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# Reference

 **CAMBRIDGE ENGLISH**  
Language Assessment  
Part of the University of Cambridge

## Cambridge English Teaching Science through English – *a CLIL approach*

CLIL - CONTENT AND LANGUAGE INTEGRATED LEARNING



# Content First

- ❖ Curricular content leads to language learning.
- ❖ Learners need to
  - ❑ **develop** accurate use of engineering and IT language.
  - ❑ **communicate** their knowledge of concepts, processes, functions, and purposes.
  - ❑ **ask** relevant questions, **analyze** ideas, **evaluate** experimental evidence, and **make** conclusions and justify them.

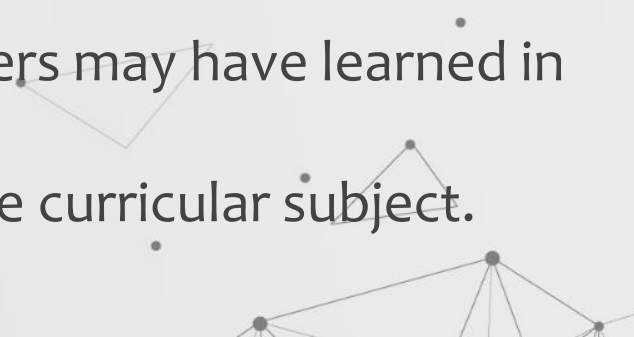


# Content First

- ❖ Learners need to know both **content-obligatory** and **content-compatible** language.
- ❖ “For every academic topic, certain language is essential for understanding and talking about the material.” (Snow, Met & Genesee, 1992).



# Content First

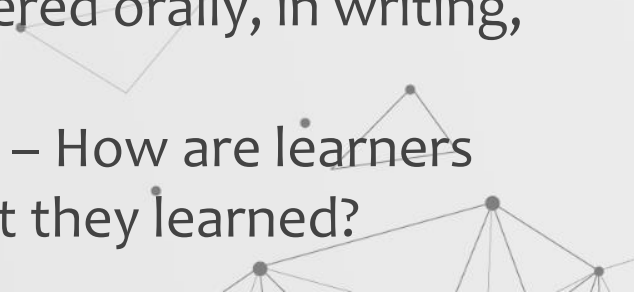
- ❖ **Content-obligatory** language:
    - ❑ Every subject has its own content-obligatory language associated with specific content.
    - ❑ Students need to know the **subject-specific vocabulary**, **grammatical structures**, and **functional expressions** in order to learn, communicate, and be a part of.
  - ❖ **Content-compatible** language.
    - ❑ Non-subject specific language that learners may have learned in their English classes.
    - ❑ Use to communicate more fully about the curricular subject.
- 

# When Planning a Lesson

## A. **Activating prior knowledge:**

- Learners may already know somewhat about a topic in their L1 but may have difficulty explaining this knowledge in L2.
- When brainstorming or having discussions, expect learners to use some L1 and then translate.

## B. **Input and Output:**

- Teachers need **to plan the input**, i.e. the information that is being presented in class – Will it be delivered orally, in writing, on paper, electronically?
  - Teachers need to plan for **learner output** – How are learners going to produce and communicate what they learned?
- 



# When Planning a Lesson

## c. **Wait Time:**

- Refers to the time teachers wait between asking questions and learners answering them.
- When subjects are taught in a non-native language, **a longer wait time** than usual is needed so that learners can process new subject concepts in a new language.
- This is especially important **at the start of new courses** so that all learners are encouraged to take part in classroom interaction.



# When Planning a Lesson

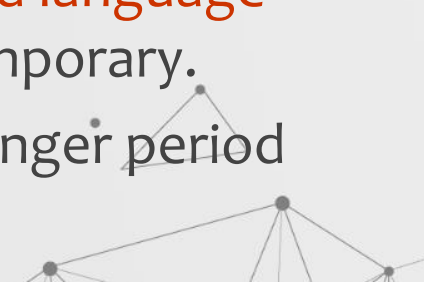
## D. Collaborative Tasks:

- Include tasks that involve learners in producing key subject-specific vocabulary and structures in meaning pair or group work activities.
- Let learners help each other learn.
- Activities and tasks should support the **processing of new concepts and language**.



# When Planning a Lesson

## E. Cognitive Challenge:

- Learners usually **need considerable support** to develop their thinking skills in a non-native language.
  - They need to communicate not only the everyday functional language practiced in many English classes, they also need to **communicate the cognitive, academic language of the subject** (engineering and IT).
  - Critical to **providing scaffolding**, i.e. **content and language support strategies** that are appropriate but temporary.
  - Learners might need more support and for a longer period of time in one subject than in another.
- 


# When Planning a Lesson

## F. **Developing Thinking Skills:**

- ❑ Teachers need to ask questions that encourage lower order thinking skills (LOTS), e.g. the **what, when, where, and which** questions.
- ❑ Teachers also need to ask questions that demand higher order thinking skills (HOTS). These involve the **why and how** questions, and therefore require the use of more complex language.
- ❑ In Engineering & IT, learners often have to answer higher order thinking questions at an early stage of learning.



# CLIL Challenges

- I. **Teachers need to feel confident about their English language level:**
    - Be able to present and explain concepts in their subject area clearly and accurately.
    - Check pronunciation of subject-specific vocabulary which may look similar to other words in English but have different pronunciations.
    - Be able to use appropriate classroom language to present new concepts, to question, paraphrase, clarify, encourage and manage their classes in English.
- 

# CLIL Challenges

## II. Use of L1 during lessons:

- It is recognized that some use of L1 by learners, and sometimes by teachers, is a bilingual strategy that helps learners communicate fluently.
- Moving between L1 and the target language, either mid-sentence or between sentences, is quite common for learners.
- Code-switching and code-mixing as temporary stop-gap measures.



# CLIL Challenges

- II. **Use of L1 during lessons:**
  - Classroom observations show that use of L1 and the target language happens between learners in the following interactions:
    - Clarifying teachers' instructions.
    - Group negotiations/discussions.
  - It is important that teachers **avoid using L1** unless they are in a situation where using L1 would benefit or reassure learners.



# CLIL Challenges

## III. Lack of Materials:

- Not that applicable in the higher education context.
- Availability of 原文書 with presentation slides, examination questions, and additional online resources.
- Teachers might have to include L1 terminology (中文詞彙) to aid in understanding.





# CLIL Challenges

## IV. Assessment:

- Teachers are unsure whether to assess content, language, or both.
- There **should be consistency** in how learners are assessed across courses in each department.
- Learners, parents, and other colleagues need to know **what** learners are being assessed on and **how** they are being assessed.



# CLIL Challenges

## IV. Assessment:

- Performance assessment (PA) – involves learners in demonstrating their knowledge of content and language.
- Teachers observe and assess learners' performance using **specific criteria**.
- PA can also be used to evaluate **the development of communicative and cognitive skills** as well as **attitude towards learning**.



# How can Teachers overcome the challenges they face?

## A. What teachers can do:

- Use **online resources** (hear the pronunciation of vocabulary, use grammar reference book, use Youtube videos, etc.).
- Highlight the **subject-specific vocabulary** learners need and present new words in topic-related word banks rather than in alphabetical order.
- Make sure learners know the **functional language** needed to talk about their subject area.



# How can Teachers overcome the challenges they face?

## B. How can teachers plan for CLIL?

### a. Learning outcomes and objectives

- ✓ Teachers first need to consider the learning outcomes of each lesson, each unit of work and each course.
- ✓ **Learning outcomes are learner-centered** as they focus on what the learners can achieve rather than on what the teacher is teaching.

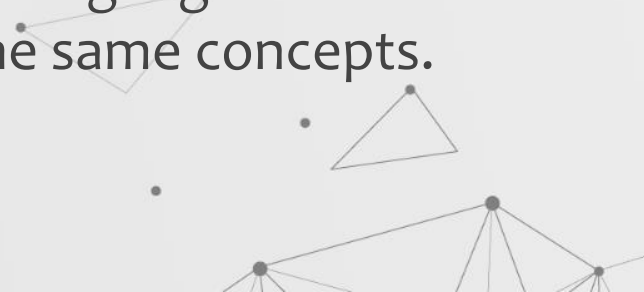


# How can Teachers overcome the challenges they face?

## B. How can teachers plan for CLIL?

### b. Subject content

- ✓ Learners need to **hear subject-specific language more than once**, so revisiting a new concept is necessary.
- ✓ To revisit concepts, teachers should present learners with different tasks that demand different language skills but are aimed at the communication of the same concepts.



# How can Teachers overcome the challenges they face?

## B. How can teachers plan for CLIL?

### c. Communication

- ✓ As CLIL promotes collaborative learning, teachers need to plan group work activities so that learners can communicate the language of the subject topic.
- ✓ Communicative activities should be integrated during the lesson, rather than left to the end of the class.

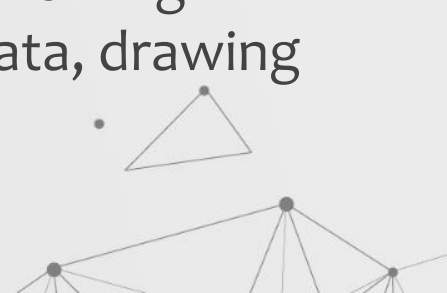


# How can Teachers overcome the challenges they face?

## B. How can teachers plan for CLIL?

### d. Thinking and learning skills

- ✓ Teachers need to plan and sometimes practice types of questions they will ask to develop both types of thinking.
- ✓ Teachers need to plan how to support learners in developing learning skills, such as planning, following instructions, making observations, handling data, drawing conclusions, and evaluating results.



# How can Teachers overcome the challenges they face?

## B. How can teachers plan for CLIL?

### e. Tasks

- ✓ Teachers need to think about the kind of tasks learners will do during the lesson and as a follow-up.
- ✓ It is important to plan a range of tasks that require different levels of challenges.





# How can Teachers overcome the challenges they face?

## B. How can teachers plan for CLIL?

### f. Language support

- ✓ Teachers need to plan to support the language of input and the language of output.
- ✓ Input – provide a C-E terminology definition and/or explanation.
- ✓ Output – word-level and sentence-level support.



# How can Teachers overcome the challenges they face?

## B. How can teachers plan for CLIL?

### g. Materials and resources

- ✓ Many textbooks provide lessons slides and videos.
- ✓ Teachers need to familiarize themselves with the material and continue to modify it to suit the level and requirement of their learners.
- ✓ Teachers might need to create their own quizzes and classroom activities to help learners learn better.



# How can Teachers overcome the challenges they face?

## B. How can teachers plan for CLIL?

### h. Assessment

- ✓ It is important to link the assessment of learning to the attainment of learning outcomes for the lessons.
- ✓ Assessment criteria have to be transparent and consistent.



# Possible Strategies

Table 2. Teachers' Strategies Used in EMI Lessons

General/cognitive strategies	Language-specific strategies
<ul style="list-style-type: none"><li>- providing subject-specific vocabulary lists</li><li>- using visual aids (pictures/videos/models/diagrams)</li><li>- showing steps and procedures clearly &amp; systematically</li><li>- using Q and A (probing)</li><li>- using examples</li><li>- providing hints</li><li>- using repetitions</li><li>- providing notes</li><li>- providing worksheets</li><li>- providing a summary</li><li>- designing activities</li><li>- arranging group discussions</li><li>- making use of group dynamics (e.g. putting students of different abilities in the same group)</li></ul>	<ul style="list-style-type: none"><li>- using simple English</li><li>- teaching some phonics</li><li>- asking students to read aloud some English terms</li><li>- dictation of new terms</li><li>- rephrasing</li><li>- grammar</li><li>- code-mixing</li><li>- code-switching</li><li>- using Chinese to explain difficult concepts</li></ul>

Poon, A.Y., & Lau, C.M. (2016). Fine-Tuning Medium-of-Instruction Policy in Hong Kong: Acquisition of Language and Content-Based Subject Knowledge. *Journal of Pan-Pacific Association of Applied Linguistics*, 20, 135-155.

# Possible Strategies

Table 3: Students' Strategies Used in EMI Lessons

General/cognitive strategies	Language-specific strategies
Relying on teachers' design of lessons and worksheets	Using dictionary
Relying on teachers' explanation	Using L1
Using prior knowledge	Switching between L1 and L2
Identifying key words	Using simple words
Using examples	Watching English TV programmes
Using notes	Watching films
Asking teachers/ friends/private tutors	Reading subject-related materials on the Internet

# The use of Educational Technologies

1. To engage students and make them want to keep on learning (on their own).
2. To make lessons more memorable (thus more permanent).
3. To revise concepts taught, anytime anywhere.
4. To allow students to learn (relearn) at their own pace.



# The use of Educational Technologies

“Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is the most important.”

-Bill Gates

[www.goedonline.com](http://www.goedonline.com)



# Articles on Educational Technologies

1. [The 101 Hottest EdTech Tools According to Education Experts \(Updated For 2020\)](#)
2. [5 Terrific Technology-based Tools for the Foreign Language Classroom](#)
3. [6 Ed Tech Tools to Try in 2021](#)
4. [5 Technology Tools Reshaping Higher Education Classrooms](#)
5. [27 Tech Tools Teachers Can Use to Inspire Classroom Creativity](#)
6. [75 digital tools and apps teachers can use to support formative assessment in the classroom](#)






# The bulk of the load rests upon **Instructors**

1. We need to first overcome our own reluctance (and frustrations).
2. We need to be willing to work twice or thrice as hard to prepare for EMI courses and keep improving them.
3. We need to show the way and lead by example.
4. We need to collaborate and help each other.
5. Students will be able to sense and appreciate our efforts, eventually.



# Suggestions from a non-professional

1. Stop trying to be perfect! Just keep improving.
  2. Stop obsessing over accents and grammar!
  3. Start small and/or simple.
  4. Find something you like and do it consistently.
  5. Make full use of technology.
  6. Feel free to switch between English and Chinese. •
  7. Start reading aloud. Read like no one is listening. •
  8. Learn and grow together. Share resources.
- 



# Back to Taiwan's 2030 Goal

It will take longer than 2030 for Taiwan to achieve a “bilingual” status.

Yet, we have to start somewhere, some time, so why not let it be **NOW?!**

This goal **will NOT succeed** if all teachers do not support and dedicate themselves (ourselves) to it.

**缺一不可!! 真的就靠大家了!**