

Trialing Project-Based Learning  
in a new EAP/ESP course:  
A collaborative reflective practice  
of three College English teachers

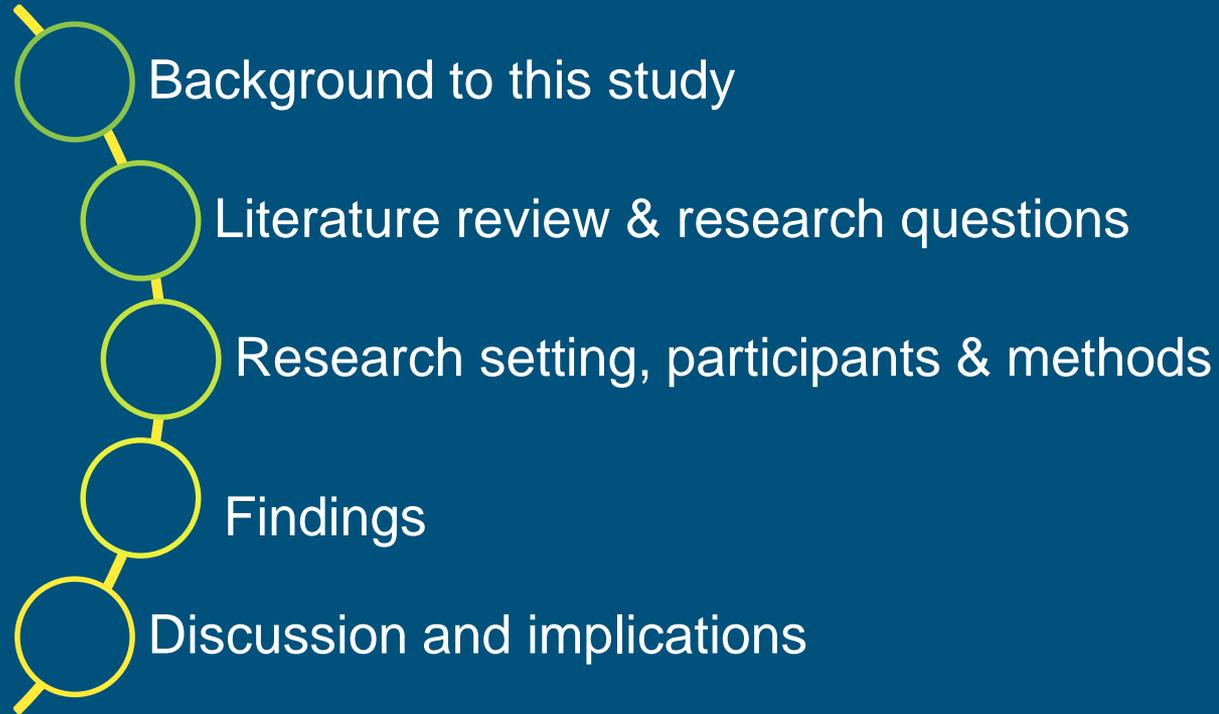
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# Outline



# Background



- Traditional College English course being ‘marginalized’, replaced or even removed
- A new course created at X university called 学科 English
- NOT subject-content-based; NOT the same as EAP or ESP

# Course outline & specifications

Courses	Semester	Credits per course	Credits in Total
College English Listening & Speaking	<b>S1 &amp; S2</b>	<b>2</b>	<b>12</b>
College English Reading & Writing	<b>S1 &amp; S2</b>	<b>4</b>	
Follow-up Skill-boosting Courses	<b>S3</b>	<b>3</b>	
<b>学科英语 (ESAP)</b>	<b>S4</b>	<b>3</b>	

# Challenges for CE teachers

- Given syllabus

- Ts' lack of experience in course designing

- Standard textbooks with enormous supplementary resources

- Extremely limited resources

- Lecturing-style teaching

- No previously-used mature lesson plans / teaching methods

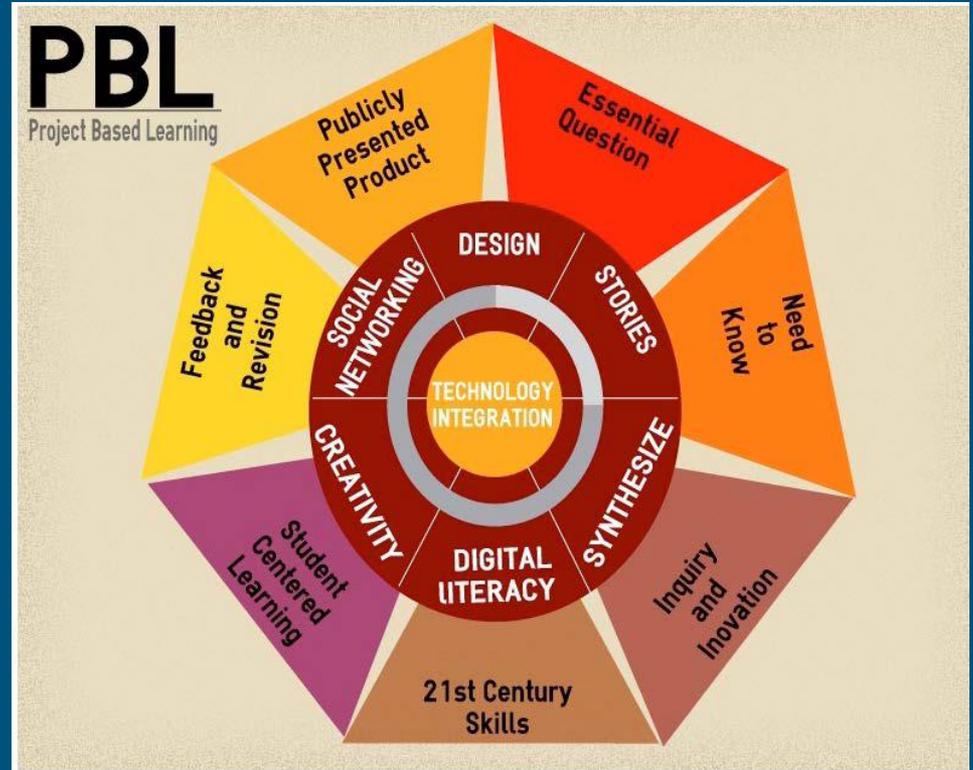
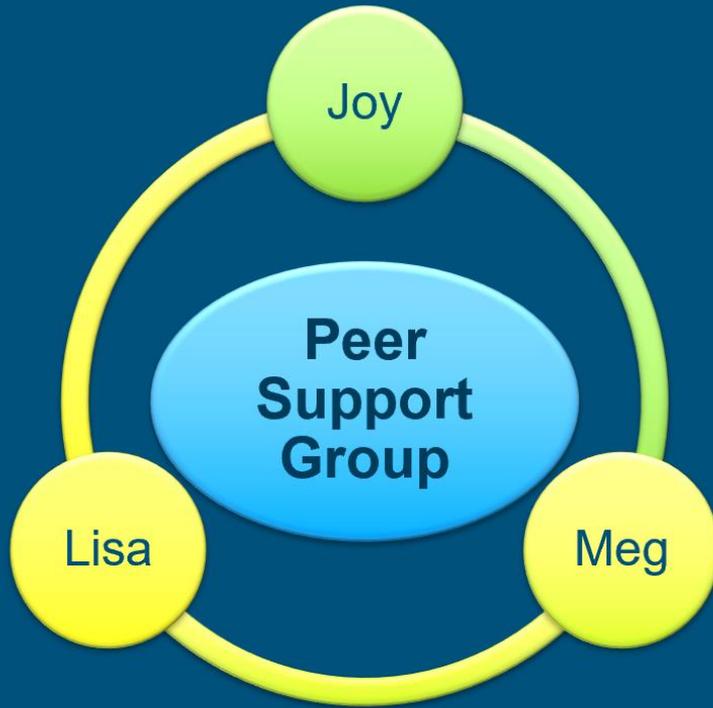
- No need of knowledge of ss' major studies

- Ts' lack of knowledge of ss' major studies

- Little of no change over years

- Ts' attitudes towards, and ability to, cope with changes

# This study



# Teachers' Profiles



Lisa

- MA in ESL teaching
- CE teaching 13 years
- Overseas study: 3 months in the USA



Joy

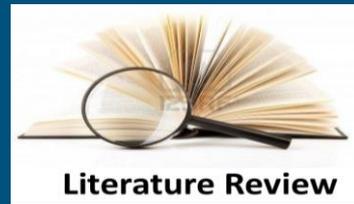
- PhD in Applied Linguistics
- CE teaching 20 years
- Overseas study: 5 years in NZ



Meg

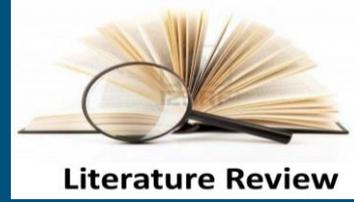
- MA in ESL teaching
- CE teaching 15 years
- Overseas study: 6 months in NZ

# Project-Based Learning (PBL)



- PBL is based on the use of authentic, significant projects which require students to work through an inquiry process, often across courses, cohorts and even programmes.
- Project-based learning aims to tap into students' decision-making abilities, curiosity and interests in 'real world' experiences that align with their own interests and vocational aims. (Thinglink, 2015).

# PBL for ESAP



- is a powerful way to help learners develop skills of research, autonomy and collaboration;
- can take many forms and can be completed internally or in partnership with external stakeholders;
- is applicable to a diversity of cultural contexts.  
(Thinglink, 2015)

# Research Questions

1. How was PBL implemented in the new ESAP course?
2. What challenges did the teacher encounter in the project implementation and how did they collaboratively respond to them?
3. How was the course received by students?

# Research setting, participants & methods



Six large classes  
(approximately 60 ss)  
of university 2<sup>nd</sup> year  
students studying  
mechanical engineering

# Methods

Before

- Collaborative course designing

During

- Teachers' reflective journals
- Ideas & resources sharing via WeChat

After

- Students' reflective journals
- Post-course survey

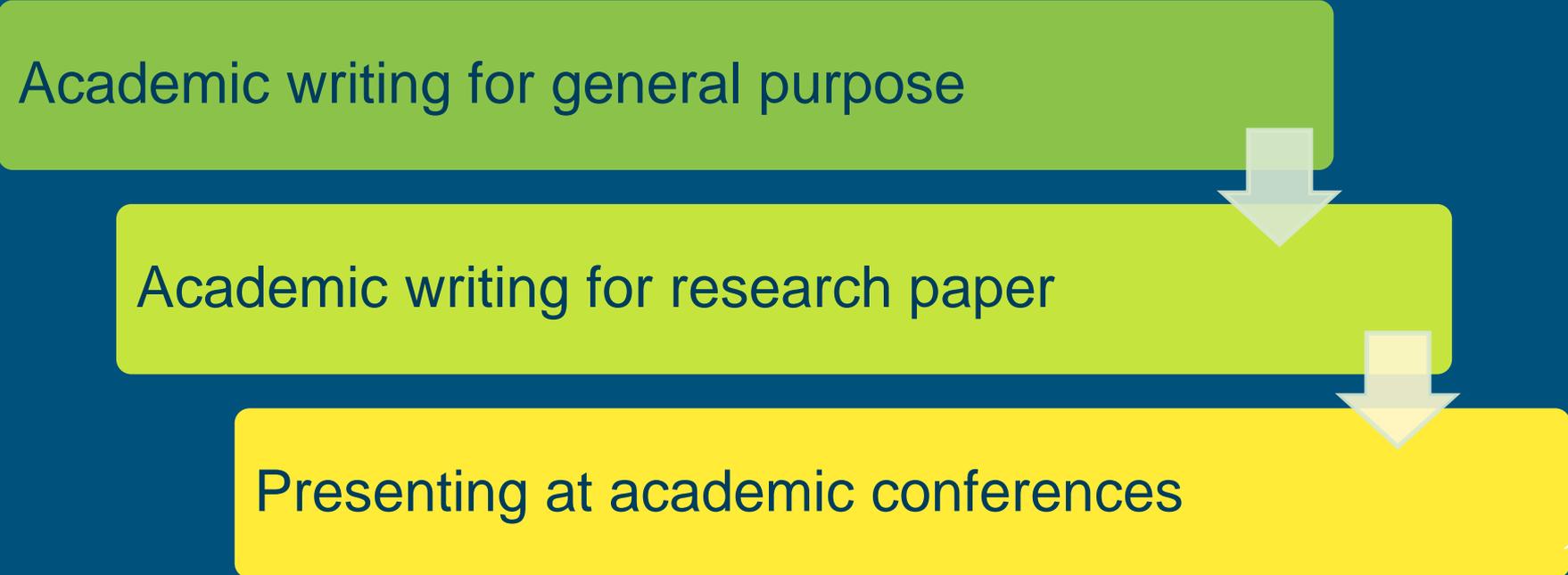


let the  
data  
speak

# RQ1: How was PBL implemented in the new EASP course?

Overall course designing: 3 learning outcomes

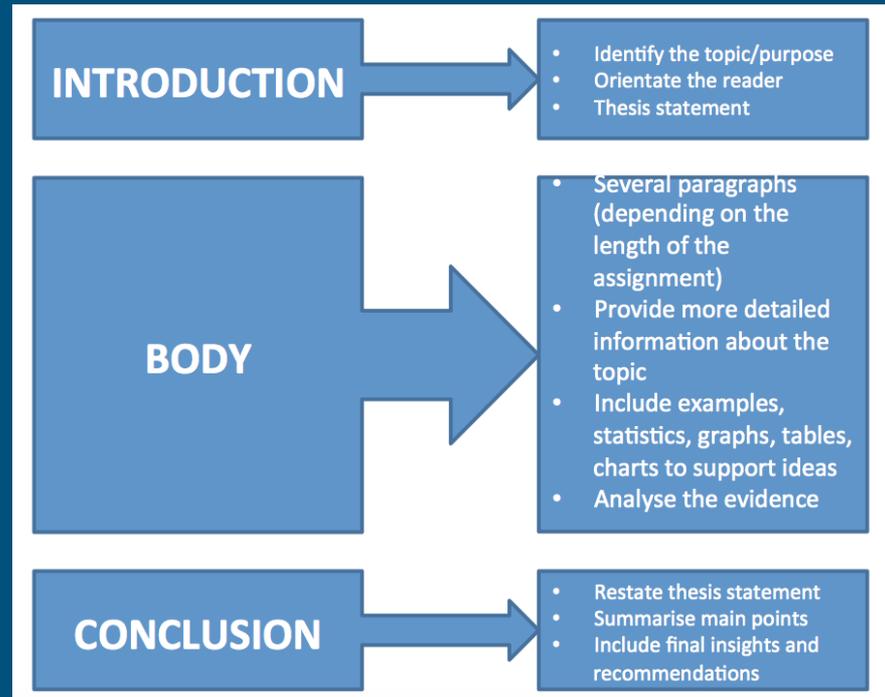
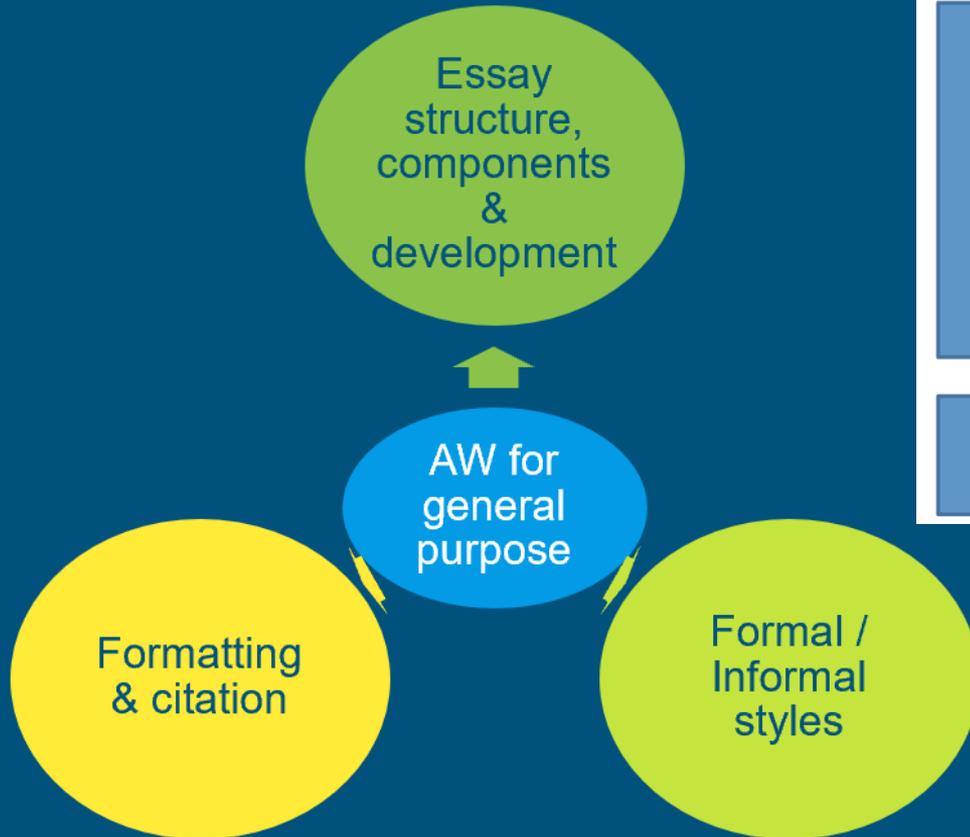
Academic writing for general purpose



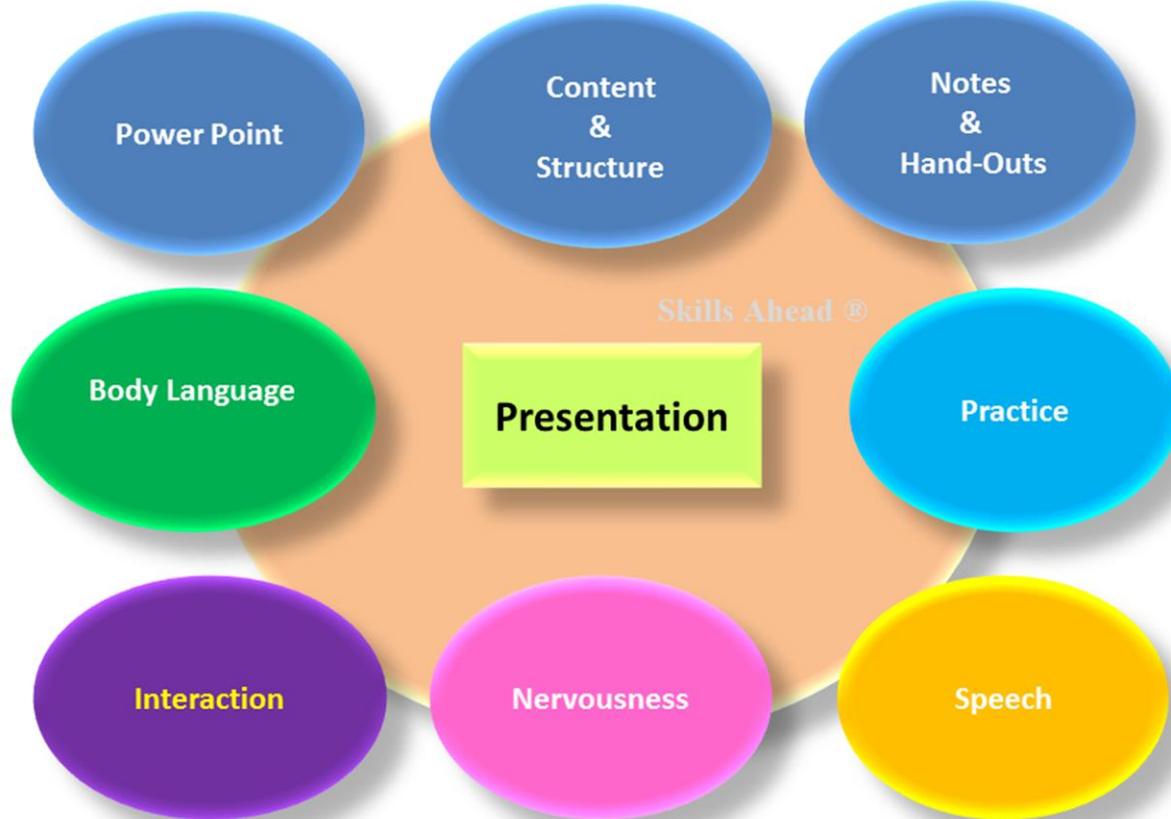
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graph TD; A[Academic writing for general purpose] --> B[Academic writing for research paper]; B --> C[Presenting at academic conferences];
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Academic writing for research paper

Presenting at academic conferences







### Giving a Presentation: Useful Phrases

#### 1. Starting a Presentation

- *Good morning / Good afternoon / Hello, everybody. Welcome to my presentation / speech on my favourite website Facebook.*
- *First off / Firstly / First of all, I would like to give you a short overview of my presentation. I will start with a short history of the development of Facebook and then talk about advantages and disadvantages of using the social network. Finally, I will tell you my own opinion of the site.*
- *Today, I would like to talk about...*
- *My subject today is Facebook.*
- *The subject of today's / my presentation is Facebook.*



#### 2. Phrases during a Presentation

- *Now, I would like to discuss / talk about / show you...*
- *On this chart / transparency, you can see...*
- *Let's move on to / I would like to move on to / I would like to continue with the next aspect of my presentation, the popularity of Facebook.*
- *As I've mentioned earlier,... / As I have already mentioned..., Facebook is getting more and more popular.*
- *As far as the popularity of Facebook is concerned, we can say / note / claim / state that it has rapidly increased during the last decade.*
- *What I find really / so interesting about Facebook is its highly addictive influence on people.*
- *Does anyone have an idea why / Can anyone tell me why / What do you think, why is it that people don't get bored on Facebook?*
- *Here are a few figures to show that Facebook is more popular today than it's ever been before.*
- *Let me tell you my opinion on the issue of illegal downloading.*
- *I think that... / I'm of the opinion that... / In my opinion,... / If you ask me,... / From my point of view,...*
- *It is terrible / outrageous to know that people illegally download warez all the time.*
- *It is great / fantastic to see how the popularity of Facebook is increasing.*

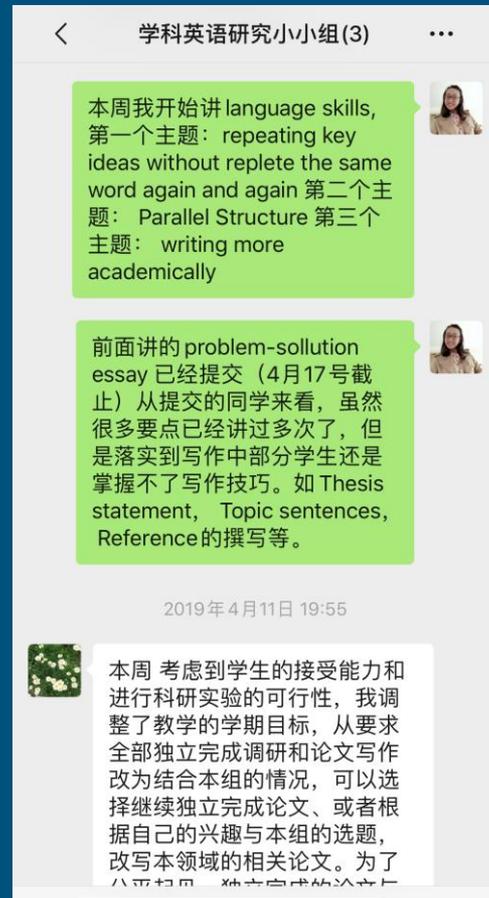
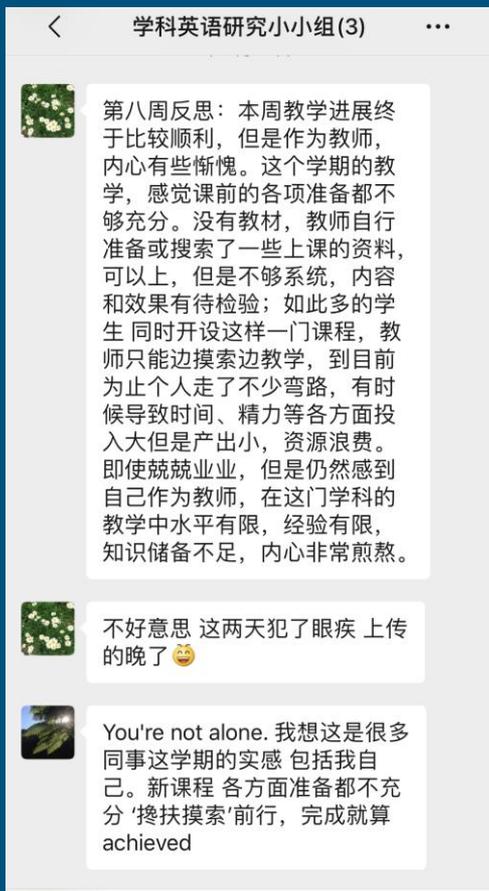
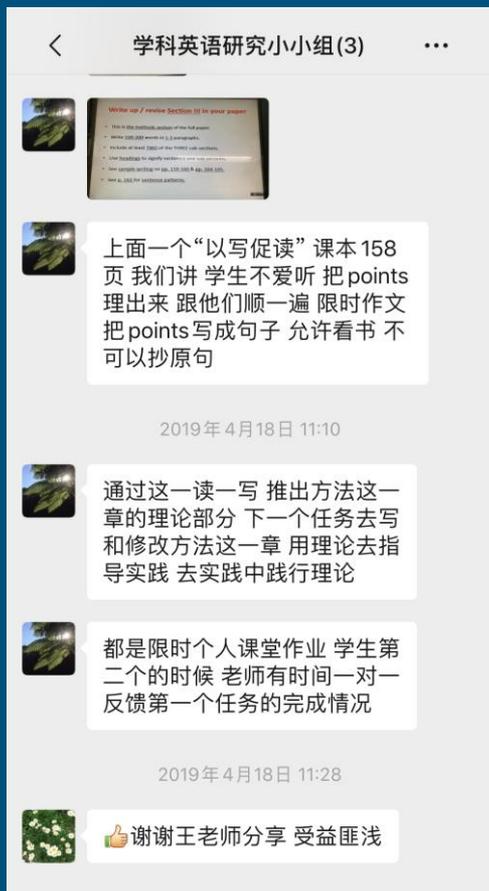
#### 3. Ending a Presentation

- *Finally, I would like to say a few words on / that...; In the future, I think...*
- *Thank you / Thanks (so much, a million) for listening. I hope you now know a little bit more about / on the issue of...*

# RQ2: Challenges & coping strategies

Challenge 1	Strategy taken to cope with it
<p>Designing the course in accommodation to students' limited knowledge of their major studies and doing research</p>	<ul style="list-style-type: none"><li>• Ongoing online discussion for peer teachers learning and lesson plan modifications</li><li>• Supplementary physical meetings</li><li>• Teachers weekly reflective journals in WeChat group</li></ul>

# Discussions & Weekly reflective journals



## Challenge 2

## Strategies taken to cope with it

Getting every student involved and motivated in writing

- Group discussion
- Summarizing common problems of writing and sharing good samples via QQ during the process of writing
- Collaborative evaluation ( automatic grading, peer-evaluation and teacher evaluation)
- Multi-revision

### Challenge 3

### Strategies taken to cope with it

Managing the large number of 'audience' students and keeping them engaged while only a few were presenting

- Helping presenters to make engaging PowerPoint slides and improve language efficiency before presentation
- Occupying the audience with peer-evaluation
- Student reflective journals

# Presentations delivered by students majoring in material molding and control engineering

## Introduction

Grain refining of cast structures has been practically employed by adding inoculants to the melt in foundry processes.

One of the most important grain refiners in aluminum casting is the Al-Ti-B master alloy.

The fragmentation of Al<sub>3</sub>Ti particles by means of plastic deformation improves the grain refining efficiency of Al-5Ti and Al-5Ti-B master alloys.



The aim is to study the possibility of enhanced grain refinement of an aluminum cast metal by making the use of fragmented Al<sub>3</sub>Ti and TiB<sub>2</sub> particles in an Al-5Ti-B master alloy.

## Research Methods and Results

### Methods

Use an FeAl-type brittle but hard intermetallic compound (B2) as a strengthening second phase in high-aluminium low-density steel.

### Results

Alloying of nickel catalyses the precipitation of nanometre-sized B2 particles in the face-centred cubic matrix of high-aluminium low-density steel during heat treatment of cold-rolled sheet steel.

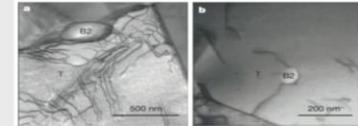


Figure 3 | Scanning TEM images of HSS after tensile deformation (0.5% strained) showing interaction of dislocations and B2 particles. The non-shearable nature of B2 particles is depicted. a, Dislocations pile up at the interface of B2 particle and austenite ( $\gamma$ ) matrix. b, A dislocation loops out at the B2/ $\gamma$  interface.

## Results

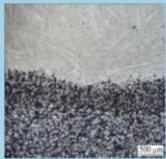


Fig. 1 Microstructure of annealed Al-5Ti-B master alloy showing gravity segregation of intermetallic particles.

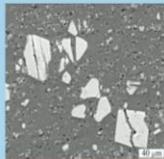


Fig. 2 Fragmentation of particles in Al-5Ti-B master alloys by cold rolling

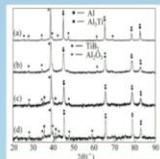


Fig.3 XRD patterns of Al-5Ti-B master alloy ball-milled for different times: (a) Starting material; (b) Ball-milled for 30 h; (c) Ball-milled for 60 h; (d) Ball-milled for 7 h

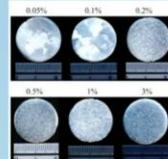


Fig. 4 Macrostructures of cast aluminum metals inoculated with as-received Al-5Ti-B master alloy with various mass fractions

## Conclusions of the Research

1. Provide a new alloy-design route to lightweight steels.
2. Demonstrate that the combination of specific strength and ductility accessible to steels is greater than previously thought.
3. Increase the density-compensated tensile damage tolerance of structural metal for terrestrial applications.
4. The attractive combination of physical and mechanical properties in the low-density steel described here is obtainable by simple thermal treatments.

## Students reflective Journals after presenting their research papers

S1: First, I had a full understand the structure and format of research paper. AW should be concise, accurate and logical. It's better for me to accumulate some sentence patterns to make the essay more academic and native.

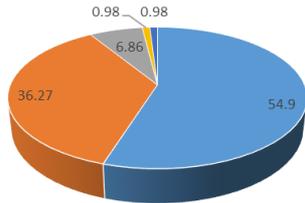
S2: **Achievement:** I have clarified the writing procedure of research paper, improved my presentation skills and accumulated professional words in my major.

**Reflection:** During the process of doing project, I found my abilities of overcoming nervousness, presenting with academic words were greatly improved. I will show my great gratitude to the assistance of my teacher.

S3: The project of presentation at conference benefited me a lot . I learned to compose research paper. In terms of presentation, I thought I should find more opportunities to practice myself.

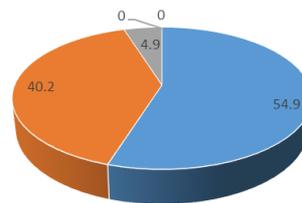
# RQ 3: Students' reception of the course (122 students)

EASP course was helpful for improving my English academic writing and presenting



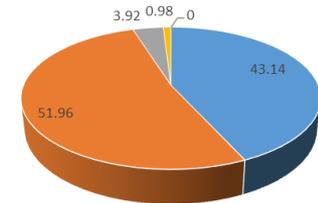
■ Total agree ■ Agree ■ Uncertainty ■ Disagree ■ Strongly disagree

I can master the structure and language skills of research paper writing



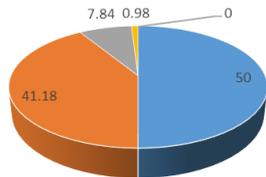
■ Total agree ■ Agree ■ Uncertainty ■ Disagree ■ Strongly disagree

I believe the instruction of AW for research paper was beneficial for my professional development



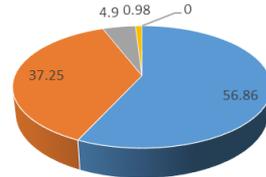
■ Total agree ■ Agree ■ Uncertainty ■ Disagree ■ Strongly disagree

The course design is reasonable and teaching methodology are appropriate to the second-grade students and meets the curriculum goals



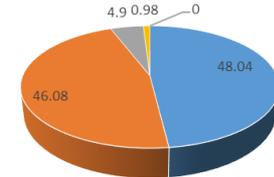
■ Total agree ■ Agree ■ Uncertainty ■ Disagree ■ Strongly disagree

"5-minute presentation" related to major studies is useful for my overall understanding my major and improved my ability of presentation



■ Total agree ■ Agree ■ Uncertainty ■ Disagree ■ Strongly disagree

Group discussion, collaborative evaluation, multi-revision in writing and personal instruction in presentation inspired my motivation of learning



■ Total agree ■ Agree ■ Uncertainty ■ Disagree ■ Strongly disagree



**Student's  
reflection on the  
course and  
suggestions to  
future students**

# Discussion and implications

- Collaborative reflective practice is supportive to ESAP course in course design, idea-sharing and resource-exchanging.
- Appropriate teacher support is crucial to effective use of PBL and improvement of academic writing and presenting.
- The instruction of academic writing for general purpose is fundamental before moving on to research paper writing for second-year students with limited knowledge of their major studies.

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# Thank You



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# Appendix: Post-course Questionnaire

	A	B	C	D	E	F	G	H
1	<b>题型 *</b> 单选:1 多选:2 问答:3 单选+其它:4 多选+其它:5 (注:除问答题型外,其它题型必须至少有两个选项)	<b>题干 *</b>	<b>选项1</b>	<b>选项2</b>	<b>选项3</b>	<b>选项4</b>	<b>选项5</b>	<b>选项6</b>
2		1 《学术英语》对我提升英语学术能力有很大帮助。	非常同意	同意	中立	不同意	非常不同意	
3		1 通识学术英语写作使我对学术写作规范、写作思路、语言特色	非常同意	同意	中立	不同意	非常不同意	
4		1 我能掌握通识学术写作的写作规范、写作思路及语言特色。	非常同意	同意	中立	不同意	非常不同意	
5		1 我认为研究论文写作教学内容对我未来学术生涯发展很有帮助	非常同意	同意	中立	不同意	非常不同意	
6		1 我能掌握研究论文 (research paper) 写作的框架及语言特色	非常同意	同意	中立	不同意	非常不同意	
7		1 教师的授课内容设计合理, 授课方式符合课程特色及学生学情	非常同意	同意	中立	不同意	非常不同意	
8		1 我认为学科小讲堂环节使我对本专业有所了解, 对演讲能	非常同意	同意	中立	不同意	非常不同意	
9		1 教师的教学方式及课堂管理使我增强了学习动力和学习热情。	非常同意	同意	中立	不同意	非常不同意	
10		3 你认为《学科英语》学习的最大困难是什么?						
11		3 你认为《学科英语》学习的最大收获是什么?						
12		3 你认为本课程使你哪方面能力有所提升?						
13		3 你认为《学科英语》还需要在哪些方面有所改善?						