

# READY FOR TAKE OFF? TEACHING AVIATION ENGLISH: INSIGHTS FROM THE CLASSROOM

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## Abstract

Aviation English is a specialised language domain used mainly in the aviation sector, covering areas such as aircraft maintenance. Aviation English pedagogy is complex compared to general English language teaching as it emphasises the individual needs of learners and the pragmatic use of the language in the aviation context. Consequently, the main aim of this study was to explore the teaching experiences of English lecturers specialising in aviation English, as they play a central role in the development and delivery of relevant courses and modules for aviation students. Semi-structured interviews were conducted with three English lecturers working in different aviation schools in Malaysia. The data collected was thematically analysed and organised the collected data, facilitated by the utilization of ATLAS.ti software. The results revealed two themes: knowledge of aviation English and implementation of content knowledge. This study provides valuable insights into pedagogical practises, particularly in the area of English language teaching in aviation, and offers perspectives on improved teaching methods and enriching language learning experiences for students pursuing careers in aviation.

**Keywords – Aviation English, English lecturers, Knowledge, Pedagogy**

## Introduction

Teaching English for Specific Purposes (ESP), especially in the context of aviation English, is more challenging than teaching general English. Aviation English, a subset of ESP, is specifically designed for aviation students and employees for use in the workplace. ESP is a teaching concept that directly relates to the syllabus, methods, and activities (Hutchinson, 1987). The ESP model emphasises three components—necessities, lacks, and wants (Hutchinson, 1987). Hutchinson and Waters explain that "necessities" refer to the kinds of needs dictated by the demands of the target situations, such as what students need to know in their intended environment. "Lacks" refer to the gaps between what students currently know and the necessary knowledge they need to acquire. Finally, "wants" refer to the aspects that students want to learn. Identifying these needs can influence the choice of resources and activities in the

classroom and thus improve the quality of ESP teaching.

One of the biggest challenges for English language lecturers is to find ESP practices that effectively bridge the gap between English taught in the classroom and English used in the workplace (Othman et al., 2017). They face various challenges from stakeholders who require engineers to have competent language skills (Othman et al., 2017). They also need to keep pace with the rapid advances in engineering education over the past two decades (Bracaj, 2014). Consequently, English lecturers need to focus not only on improving their students' language skills, but also on integrating current engineering knowledge and practices into their teaching methods. In addition, Yusof et al. (2017) identified several challenges that English teachers face in their daily teaching, including problems related to students, lack of time, insufficient resources, and inadequate training. These

challenges may be related to teachers' lack of preparation for the curriculum changes, which in turn affects their teaching practice (Iswati & Triasuti, 2021; Yusof et al., 2017). This suggests that addressing the gaps in teacher preparation, particularly in adapting to curriculum changes, is critical to improving their ability to deal with classroom challenges and increasing overall teaching effectiveness.

According to Podolsky and Darling-Hammond (2019), teaching experience is positively related to student achievement growth through a teacher's career. The voices of English lecturers should be heard as they are experts in the language and important in meeting the needs of students, including course design and the selection of appropriate topics and materials. For countless years, this problem has been perceived as a phenomenon that will continue to worsen and recur. Therefore, this paper explores the experiences of English lecturers teaching English to aviation students, particularly in aircraft maintenance courses.

The aim of this study is to uncover the experiences of English lecturers in teaching English to aviation students in Malaysia. Therefore, the research question underlying this study is: How do English lecturers experience teaching English to aircraft maintenance students?

The insights gained from English lecturers' experiences can help both lecturers and educational institutions develop solutions that better meet the needs of English lecturers and aircraft maintenance students.

### **Methodology**

To gather information about lecturers' experiences of teaching aviation English in Malaysian aviation schools, this study utilised semi-structured interviews, a common method in qualitative research that usually involves a small number of participants to thoroughly capture the phenomenon at hand (Bloomberg &

Volpe, 2008; Creswell, 2012). Qualitative research methods often aim for a comprehensive understanding of a phenomenon or focus on the meaning and heterogeneity of meaning — usually the how and why of a particular problem, process, method, cause, environment, subculture, setting, or group of social interactions (Dworkin, 2012).

Three English lecturers who were selected through purposive sampling participated in this study. They currently teach English at three different Malaysian aviation schools that are accredited by the Civil Aviation Authority of Malaysia (CAAM) as approved training organizations. Each lecturer has more than ten years of teaching experience. Pseudonyms have been used to protect their identities. A pseudonym is a fictitious name typically used by researchers to protect the confidentiality of participants (Allen & Wiles, 2016). The interviewees were Dr Sa from institution A, a lecturer with a PhD and 15 years of teaching experience, and Madam. Zue from Institution B and Dr. Thi, from institution C with 10 and 15 years of teaching experience respectively.

All participants were interviewed individually as part of the data collection process. Each interview lasted approximately 40-60 minutes, and the questions focused on the participants' experiences of teaching Aviation English. Following the interviews, the recordings were transcribed verbatim and sent to the participants so that they could edit, refine, elaborate or revise as necessary.

Data analysis followed the six-step thematic analysis approach (Braun & Clarke, 2006), and ATLAS.ti was used to support data management and presentation.

### **Finding and Discussion**



Figure 1: Network view of English lecturers' experiences in teaching aircraft maintenance students.

From the above figure, it can be seen that the main themes are the lecturers' knowledge of aviation English and the implementation of content knowledge. To be more specific, each theme and its subthemes are shown in table form, corresponding to the ATLAS.ti network view shown above. The details are explained below.

Table 1. Findings for English Lecturers' Experiences in teaching aviation English

RQ	LECTURERS' EXPERIENCES IN TEACHING AVIATION ENGLISH		
Theme	Theme 1- Knowledge of teaching aviation English		
Subtheme	<u>Long learning process</u>	<u>Sources of aviation knowledge</u>	<u>Requirement for teaching aviation English</u>
Sub-subthemes	No aviation background Experience by teaching	Ask instructor or industry player Get information from books/internet/magazines Discuss with colleagues Ask students	Teacher's needs Teaching needs
Theme	Theme 2- Implementation of content knowledge		
Subtheme	<u>Activities and material preparation</u>	<u>Integrated with the technical part</u>	<u>Real life content</u>
Sub-subthemes	Lecturers' explanation Creative in teaching -Interesting activities -Collaborative learning Exercise preparation		

Table 1 shows the two main themes related to the lecturers' experiences of teaching aviation English to aircraft maintenance students. This section begins by exploring the initial stages that lecturers go through when they have no prior knowledge of aviation and explores their requirements for effective aviation English teaching. It concludes by discussing how

they integrate content knowledge into their English teaching practice.

### Theme 1: Knowledge of aviation English

All these three participants from the three different aviation institutions are aware of the importance of aviation content for integration into English courses. Under the theme of lecturers' knowledge of aviation English, three subthemes emerge: the long learning process, the sources of aviation knowledge and the requirements for teaching aviation English. The details of these subthemes are elaborated below.

#### a. Long learning process

The English lecturers in this study reported that they went through a long learning process to move from non-aviation knowledge to the ability to teach basic aviation concepts to their students. As they came from Teaching English as a Second Language (TESL) and arts backgrounds rather than aviation or specialised English courses, they acquired their aviation knowledge primarily through lesson preparation and delivery.

Dr. Sa from Institution A highlighted her efforts to understand and teach aviation English, noting that she *did not initially have basic aviation knowledge or experience in teaching ESP* (Dr. Sa\_int). She emphasised the gradual and lengthy nature of this learning process and claimed that, while comprehensive aviation knowledge is not necessary, a *basic understanding is essential*. She said like below:

*But we must know the basic. Whatever, it is, we have to start from basic. Then, we can understand, if we do not understand the concept, hmm example, we do not know what is aircraft, what is function of aircraft part, so, when we want to teach the students, we ourselves, do not understand.*

(Dr Sa\_int)

Similarly, Madam Zue recounted her initial uncertainty in her first year of teaching English to aircraft maintenance students, which forced her to seek information and advice from others. After five years, she felt more confident and was able to participate in discussions about aviation. She explained like below.

*When I first started teaching here, I think.. I was lack of confident because I don't know what to teach and I don't know how to teach and I questioned myself. Am I teaching the right thing? As time goes on, I think what I mentioned is, very important to ask around. Now, this year will be my fifth year here.*

(Madam Zue\_int)

Meanwhile, Dr. Thi from Institution C shared a parallel experience, explaining that a basic knowledge of aviation is crucial for adequate students' preparation. Initially challenged by her unexpected role at an ESP-focused institution, she engaged in self-study to familiarise herself with relevant jargon and concepts. These efforts coincided with her lesson preparation and material development.

Teaching aviation English is a dynamic, ongoing process that requires constant interaction with the students. Given the lecturers' lack of expertise in this area, the long learning curve for teaching aviation English seems unavoidable. Despite these challenges, the lecturers managed to acquire the necessary knowledge and develop from beginners to confident lecturers in their respective institutions.

#### b: Sources of Aviation Knowledge

All lecturers in this study stated that after being exposed to aviation English teaching at their institutes, they tried to improve their knowledge by asking and referring to the technical lecturers, some of whom had previously worked in the industry.

Dr Sa, in her interview mentioned that she had problems in understanding the jargon and pronouncing it. She preferred to turn to the *other lecturers* (technical lecturers) *that familiar with the terms, the content and how to pronounce certain words* (Dr Sa\_int).

The same approach was taken by Dr Thi, and Madam Zue who preferred to ask the technical lecturers for advice when they needed resources, and the technical lecturers cooperated and helped them.

In addition, all lecturers used technology extensively to access information and utilise the resources available to them to their advantage. Dr Sa emphasised the important role of modern technological capabilities for ESP lecturers, which have greatly simplified tasks such as *checking pronunciation* (Dr Sa\_int) compared to the past. She often relies on *Google* to understand different situations. Dr Thi also referred to the internet as her primary resource, supplementing it with books on aviation English and consultations with technical lecturers. She explained:

*Mainly internet sources. Whenever I attend book fairs, I also seek out books related to aviation English. Also, we have the main department here, so we can consult the aviation department lecturers if we need any resources.* (Dr Thi\_int)

This is supported by Madam Zue, who admitted that she *always 'googles' the information and uses it to this day.* (Madam Zue\_int). This is because *there are limited textbooks for aviation English* (Madam Zue\_int) and they are quite expensive.

Apart from this, the participants agreed that the discussion with their colleagues from the English department and with the students can also be considered as sources to help them acquire knowledge about aviation. They said like below:

*Most of the time, I will discuss with my colleague, Ain. Did your student perform well, by giving them this activity? So, when it comes the new semester, we discuss to change the activity since it didn't work well in last semester.*

(Dr. Sa\_int)

*Get help from the other lecturer who are teaching the same subjects and brainstorm together.*

(Dr Thi\_int)

*Sometimes I ask them directly, what module that you have learnt this week? So, when I was going to give them activities, I have to look at what modules that they learnt.*

(Madam Zue\_int)

English lecturers are seen as part of a community of practise in which they seek support and guidance from technical lecturers, colleagues and students, and use books and technology to improve their understanding of aviation English. Through these interactions and shared experiences, they develop a collective knowledge base and expand the information available for teaching English in the aviation context.

### c. Requirement for Teaching Aviation English

In the interview, the participants felt that the background of the general language lecturer was not sufficient to fulfil the duties of an aviation English lecturer. They felt that English lecturers also need to bring some aspects to ensure the success of aviation English courses. There are two sub-themes that arise from the requirement for teaching aviation English: which are lecturers' needs and teaching needs.

#### *i. Lecturers' need*

All English lecturers agreed that they must acquire at least basic aviation knowledge as have been discussed in the

first theme, knowledge of aviation English. For example, Dr Sa shared her experience of not being able to assess whether a presentation by one of her students on a particular process or function of the instrument was valid or not, as she had limited knowledge of it. She said like below,

*It was hard to understand because we do not understand the process. Each workshop is different. The functions also different. We did also in the hangar. But, the students could explain very well. Just, the English lecturers, could not verify. Is it correct or not.*

(Dr Sa\_int)

This is supported by Madam Zue from Institution B who reported her experience when she had to take over the aircraft maintenance programme from another lecturer. At the beginning she complained that she did *not understand, why the content should be like this, why like that?* (Madam Zue).

Each participant started with limited knowledge, but through years of teaching aviation English, they have become increasingly familiar with aviation topics, although their understanding remains basic. It is fair to say that the experience has enabled them to be better prepared and to continually improve their teaching skills.

#### *ii. Teaching needs*

All three participants agreed that aviation English lecturers need some form of instruction in teaching aviation English. They emphasized the need for sufficient training to familiarise themselves with the aviation English courses they are expected to teach, and the methods and strategies used in teaching aviation English. They reasoned that those who are expected to teach aviation English at their universities often have no prior knowledge of aviation.

One of the participants mentioned that the institution she works with no longer offers language training since the syllabus was changed to general English. She said that *language training in context would be better* (Dr Thi\_int) and she was motivated to prepare her students with the relevant aviation context in class, even if the training was not offered.

The other two participants shared similar experiences, noting that their institutions also do not offer specific training. They must consult with colleagues, students, and technical lecturers to ensure they are adequately preparing their teaching materials. Madam Zue, from Institution B, emphasized that she consistently seeks guidance from technical lecturers regarding the preparation of topics and lessons, because what the students *learnt in the university might not be the same with what the industry requires* (Madam Zue\_int). She stated:

*I think anyone, those who have the background, for example, TESL, we can teach English, but the most important thing is we need to know when to ask around, and we should always ask people who are in the industry.*

(Madam Zue\_int)

The requirements for teaching aviation English are closely linked to the need for a basic knowledge of aviation English and appropriate training. This training would familiarise English lecturers with the methods and strategies required for effective teaching of aviation English.

In this study, the English lecturers start their teaching career with little knowledge of aviation English, which is not one of their primary areas of competence. For them, teaching aviation English is an ongoing process that continues as long as they are in their position and engaged with the students. Understanding the history of aviation is a

lengthy process lecturers must master and incorporate into their teaching. Lampert (2010) characterises education as a "learning profession". Lecturers and teachers gain and grow when they allow their students to learn for themselves and with others. They grow when they use their past experiences to solve current professional difficulties and plan for a better future. Evans and John (1998) prefer the term "practitioner" to "teacher". According to them, an ESP practitioner must fulfil five roles: instructor, course creator and materials provider, collaborator, researcher and evaluator. It shows that English lecturers have to fulfil various tasks and roles in addition to teaching.

In this study also showed that the participants have undergone a rigorous learning process to acquire the information and skills required to effectively teach English for Aviation. This includes consulting with industry-experienced technical lecturers, researching books and the internet, talking with colleagues, and asking students about their learning preferences and relevant technical topics. The sources described above are examples of the concept of Communities of Practice (CoP). Eckert and McConnell-Ginnet (1992), referenced by Holmes and Meyerhoff (1999), define "communities of practise" as a group of people working together to achieve a common goal. Behaviours, styles of speech, beliefs, values and power relations are practised and develop as a result of this joint activity.

By collating information from numerous sources, the requirements of English lecturers and teachers can be determined. It is clear that sufficient training is required to give them at least a basic knowledge of teaching aviation English, which will immediately give them more confidence to teach in front of the class and help them prepare the teaching materials and lesson plan. The participants' uncertainty about whether

what they were teaching students met the needs of industry. It seems consistent with other research that has found that English teachers are at a loss when it comes to identifying the types of ESP practises that can bridge the gap between the use of English in the classroom and the English used in the workplace (Othman et al., 2017). It is critical to understand the connections between professional discourse, professional practise, and ESP instruction. Stakeholders want engineering students, especially aviation students, to be fluent in English, which presents a number of obstacles for English teachers (Othman et al., 2017).

The subthemes for understanding aviation English include the long learning process, sources of aviation information and the requirements for teaching aviation English. It describes the journey that English lecturers have taken from the beginning to gain a basic understanding of aviation that they can incorporate into their teaching methods. It also looks at how people get support and sources to gain this knowledge. In this theme, the requirements for teaching aviation English are also described.

## Theme 2: Implementation of Content Knowledge

The following is a discussion of how they have used the aviation English lesson materials in the classroom. These are activities and material preparations that are combined with the technical component and real-world learning.

### a. Activities and material preparation

Participants agreed that the best way for students to learn and meet their needs and requirements is through the activities and materials provided to them. Dr Sa mentioned that she can assess whether her students have understood the content of the lesson that day based on the activities done in class.

*I think through the activities in the class. Basically, based on the assignment that we had given them. Assisted them in understanding the content that they have compiled. And basically, we discussed most of the time to look into whether whatever that they have compiled, understand the content of them or not.*

(Dr Sa\_int)

She also mentioned that because there is *no specific textbook for aircraft maintenance* (Dr Sa), she made her own notes. She remarked that there is no *'straight forward'* to the students, so she did some efforts to create the notes and slides before collating and printing them out for the students.

Dr Thi supported this, explaining that she seeks out and creates materials based on the syllabus. She said, *we don't have textbooks. We have the syllabus, and we discover the materials ourselves* (Dr Thi\_int). She also said that she prefers her students to do a lot of collaborative learning, which includes working with their peers and doing pair work.

It can be stated that all English lecturers involved in this study incorporate collaborative learning activities into their lectures. Most of them stated that many of the assignments were designed for group projects as they found that their students enjoy working in groups. Madam Zue stated that she *prefers to have students work in groups for the writing exercises. Join the group with partners* (Madam Zue\_int).

Furthermore, participants admitted that they prefer to use interactive learning in the classroom to keep up with the current trend of a technology-rich environment. Interactive learning is a technique that utilises technology to actively engage students in the learning process. During the interview, Dr Sa revealed that she uses different strategies to ensure that her students understand what she is teaching them in class. She usually shows videos to her students so that they

can visualise the explanations she gives. Same goes with Dr Thi and Madam Zue who said like below.

*... not encourage students to use slides in the presentation , but use canvas which more interactive (Dr Thi\_int).*

*I like to use Kahoot rather than the standard conventional type of testing (Madam Zue\_int).*

Overall, this suggests that English lecturers at these aviation institutions were driven to create teaching activities and materials such as exercises and exam questions. Despite their limited expertise and facilities, they have attempted to meet the needs and backgrounds of their students by obtaining materials from the Internet, consulting technical lecturers, planning different types of activities and so on. Nevertheless, they are sceptical whether what they have prepared is accurate.

#### b. Integrated with the technical part

In this study, participants mentioned that they use the integration approach to combine the general topics with the technical parts related to their students' background. They said like below.

*The product and services, when they do their presentation, I try my level best to tell them to talk about product and services that related to their field of study.*

(Dr Thi\_int)

*I know I need to include the technical jargon or technical vocab content in my subject”*

(Madam Zue\_int)

All participants also agreed that creativity in integrating the technical part into the syllabus needs to be discussed with the technical lecturer to make sure they are doing the right thing.

#### c. Real life learning

In this study, participants agreed that they had made some efforts to familiarise students with real-life issues related to their aviation context. One of the participants mentioned that she had the experience of taking her students to the hangar and workshop , so that the students could create the *presentation based on what they found in the workshop or hangar* (Dr Sa\_int).

This is supported by Dr Thi, who shared her experience of an activity that has worked well for her. She explained that she has done *innovative projects using recycled materials that can benefit students in their field of study* (Dr Thi\_int). In her opinion, project-based learning activities are the best way for students to interact and get creative.

Meanwhile, Madam Zue not only organised exciting learning activities such as *Kahoot*, games, puzzles and crosswords, but she also took her students to the library to discuss technical materials. She explained that she was '*very satisfied*' to teach this subject because she has to present physical documents to the students.

Participants in this study use a variety of strategies and approaches, including collaborative learning, interactive learning, integrated learning with a technical component, and hands-on learning. Collaborative learning is a teaching and learning technique in which groups of students work together to solve a problem, accomplish a task, or produce a product (Laal, 2012). This method allows students to improve their communication skills and learn how to accurately express their ideas and opinions. Interactive learning, on the other hand, refers to a variety of learning activities such as game-based learning (Weppel et al., 2012), web design, concept mapping (Koury et al., 2009), multimedia-based learning and robotics. Both strategies aim to actively involve students in the learning process.



Meanwhile, the integration of language and technical skills and real-life learning is critical to aviation education as it allows students to apply their knowledge and skills in real-life aviation circumstances. Herrington et al., (2003) presented 10 criteria for authentic activities or projects that, when applied as design guidelines, it can help bridge the gap between the classroom and the real world. They drew on their earlier research on authentic learning environments (Herrington et al. 2003). The term "relevance" often refers to learning experiences that are either directly related to students' personal ambitions, background, hobbies or cultural experiences, or that are in some way connected to real problems, challenges and situations (real relevance).

From the above results and discussion, it can be concluded that the participants have undertaken an extensive learning process to improve their knowledge of aviation English despite having no aviation background. Through this lengthy learning journey, they have recognised their personal needs and the requirements for effective teaching of aviation English. In addition, the results showed that the participants used their creativity to incorporate aviation content into their lessons. This included preparing activities and materials that were integrated with technical components and real-world content to provide a richer learning experience in the classroom.

### **Conclusions**

English lecturers at aviation institutions have undergone a comprehensive learning process to acquire expertise in aviation English, as this is not their area of specialisation. The study investigated the sources of aviation knowledge and the requirements for teaching aviation English with the aim of equipping students with the language skills they need to fulfil the demands of the industry. To teach this

knowledge effectively, the lecturers described the activities and teaching materials they had developed for their classes. The study emphasises the central role of English language lecturers as providers of the 'wants' element as defined in English for Specific Purposes (ESP) theory. By addressing these 'wants' — which relate to what learners want to learn — lecturers can better prepare aircraft maintenance students for success in the industry and equip them with the essential communication skills required in the aviation sector. This 'wants' element serves as the foundation and guiding principle of this entire study.

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