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‘VENTURE OUTSIDE YOUR COMFORT ZONE AND THE REWARDS ARE WORTH IT’: FRAMING COLLABORATIVE EAP TEACHER PROFESSIONAL DEVELOPMENT AT THE TAIWAN TERTIARY LEVEL

Abstract

This study explores the necessity of establishing a sustainable professional development (PD) structure for English for Academic Purposes (EAP) teachers in higher education institutions in Taiwan. With the rise of English as a Medium of Instruction (EMI) courses, there has been a growing demand for qualified EAP teachers to support students in developing the academic language skills needed to thrive in an EMI learning environment. The paper begins with a review of the evolution of EAP, teacher education for pre-service EAP teachers, and PD for in-service EAP teachers. It then presents the results of a needs and concepts analysis survey conducted with 167 university language teachers in Taiwan. The survey revealed that these teachers have optimistic attitudes towards EAP and diverse needs for EAP PD, particularly regarding EAP curriculum design. We propose a collaborative framework for EAP PD informed by these findings. This framework emphasizes the sharing of disciplinary literacy between EAP and EMI teachers, the importance of understanding academic language, and the integration of subject-specific knowledge and teaching strategies.

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Key words

EAP, EMI, professional development, higher education, Taiwan.

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1. INTRODUCTION

Following the implementation of the Taiwan Bilingual Policy 2030, there has been a significant increase in the availability of English as a Medium of Instruction (EMI) courses in higher education nationwide. One major challenge faced by Taiwanese students in EMI settings is the need to understand academic English, as highlighted by Hua (2019). Consequently, it has become essential to offer bridging courses that enhance students' linguistic competence and equip them with the necessary tools to effectively navigate the academic language demands of EMI classrooms.

English for Academic Purposes (EAP) courses provide learners with the skills required to adapt successfully to an EMI learning environment. Research indicates that students' EAP competency can predict their performance in EMI courses (Dimova, 2020; Kamaşak et al., 2021). However, one main concern has emerged: the need for qualified EAP teachers and a structured EAP training framework to adequately prepare instructors for facilitating disciplinary academic language for Taiwanese university students. Unfortunately, current solutions may be insufficient, as most university language teachers have been trained to teach general English instead of academic English (Campion, 2016).

Ensuring high-quality EAP instruction is critical for enhancing student achievement and maintaining the institution's reputation. However, the lack of professional development (PD) opportunities for EAP teachers, as well as other factors such as content teachers' language proficiency and pedagogical skills, institutional support structures, and broader EMI policy implementation in Taiwan, presents a significant challenge in preparing successful EMI learners (Huang et al., 2024). The EAP PD programme is designed to establish systematic and contextualised teaching methods that improve the quality of EAP training programmes (Leigh, 2020). Therefore, it is imperative to take immediate action to address this gap and equip EAP instructors with the necessary specialized language, skills, and resources to effectively meet the diverse needs of students in higher education. Effective PD programmes enable EAP instructors to design and implement customised, student-centered curricula that cater to their learners' specific requirements. Such an approach can significantly enhance university students' academic experiences and outcomes, facilitating their adaptation to the EMI context.

Thus, the current study aims to identify the professional requirements for becoming an EAP teacher and to propose a sustainable framework for an EAP PD programme that supports a conducive EMI learning environment in higher education in Taiwan.

2. LITERATURE REVIEW

2.1. The development of English for Academic Purposes (EAP)

EAP is viewed as a subdiscipline of ESP and a branch of English language education, focusing on academic contexts. The development of EAP was influenced by the aims and predispositions of different scholars in the field, and it is closely intertwined with the emergence of academic literacies as a field of study. Academic literacies investigate reading and writing in academia as social practices, drawing on critical theories and ethnographically oriented methodologies (Lillis & Tuck, 2016). This ideological concern highlights the relationship between linguistic conventions, institutional structures, and power relations within academic contexts. As Basturkmen (2024) argues, EAP/ESP, as the language-development engine within EMI, shares objectives and advocates for a more comprehensive integration to ensure that EMI students acquire the academic English necessary to excel in their disciplines.

In classroom practices, EAP is commonly associated with pre-sessional classes that prepare students for undergraduate study. However, it extends beyond short-term preparatory programmes and includes postgraduate study preparation, in-session courses, and foundation year programmes (EAP Foundation, 2023). EAP addresses the specific language needs of students engaged in academic study and research, focusing on academic writing, reading, listening, and speaking skills in disciplinary contexts to respond to the globalized demands of preparing learners for EMI education. The recent development of EAP has examined the field through multimodal and social lenses, recognizing viewing and designing as emerging literacies that reflect the evolving nature of academic and professional communication (Archer, 2022; Bradford, 2025).

Although EAP initially focused on English for Science and Technology (EST) in academic settings, over time, the research expanded to include vocational EAP (e.g., EOP), interlanguage, genre analysis, corpus-informed studies, and pedagogical approaches (Hyland, 2022; Johns, 2012). Recent corpus work further shows fine-grained disciplinary variation in lexis and phraseology, reinforcing the move toward discipline-specific EAP design (e.g., Deng et al., 2022). Today, EAP is characterized by variety, contextualization, complexity, and critiquing, indicating a constant evolution in topics, methodologies, and pedagogical practices (Hyland, 2022). Most importantly, it plays an essential role globally, as evidenced by numerous tertiary-level institutes providing EMI and ICLHE (Integrating Content and Language in Higher Education) courses, with the former stressing content through English and the latter focusing on explicit integration of content and language to facilitate students' learning and research through the medium of English and ongoing analyses of EMI systems and metrics (Rose et al., 2023; Wingrove et al., 2025). EAP is, thus, a vital waypoint in the continuum of English language learning in EMI and

can be planned and implemented contextually and collaboratively alongside EMI (Wei & Hricko, 2021) as learners need to acquire discipline-specific language when approaching content knowledge. Hence, given prominence by EMI, EAP is regarded as a bridge to equipping learners with proper disciplinary language and literacy and as an initiative to facilitate collaboration between language experts and content specialists in higher education (Airey, 2016).

2.2. Teacher education for pre-service EAP teachers

Although EAP teachers nowadays are more qualified and more deeply committed to evidence-informed teaching and ongoing PD than ever (Gao & Cui, 2024; Nazari & Karimpour, 2024), compared to ELT teacher training, there is still a lack of information specific to EAP teacher education, and its provision is usually situated within the broader ELT structure (Ding & Campion, 2021; Wingate, 2025). Due to the growing number of incoming international students and the provision of internationalization at home for local students in multilingual higher education settings, offering specialised training for EAP teachers to move beyond generic English support to multilingual, discipline-sensitive academic literacy work embedded within EMI environments has become necessary (British Council, 2023). It is because EAP courses require a specific focus on academic language skills and critical thinking (Kalinowski et al., 2019), that EAP teachers are expected to be equipped with the knowledge and pedagogical skills to effectively teach these skills and support students' academic success (British Council, 2023).

Currently, most universities do not require teachers to hold certificates to demonstrate their qualifications and abilities to teach EAP. However, at the same time, a range of accredited teacher-education options exists – from short BALEAP-aligned TEAP courses (around 30 hours or 12 weeks) to OFQUAL-regulated qualifications like the Trinity CertPT (around 100 hours) and Cambridge DELTA (modular, advanced), and credit-bearing postgraduate modules such as NILE's 2-week, 30-credit EAP module. Regardless of their different formats, the sound design of EAP teacher education programmes should consider theoretical foundations and practical applications. A comprehensive programme would cover critical areas such as needs analysis, syllabus and curriculum design, materials development, assessment strategies, and pedagogical approaches. Recent studies further emphasize the need to prepare EAP teachers for the demands of disciplinary discourse and multilingual classroom interactions (Dafouz & Smit, 2020). Key competencies of EAP teacher preparation education now also include teacher assessment literacy (Xu & Brown, 2016), intercultural and transcultural awareness (Baker, 2021), and inclusive design guided by Universal Design for Learning (UDL) principles (CAST, 2018). These are most effectively developed through focused, research-informed training combined with mentored teaching, peer observation, and structured reflection (Farrell, 2019; Kirk & King, 2022). In addition, EAP teacher

training programmes should recognise the role of technology in EAP teaching, as digital tools and online resources now play a significant role in academic contexts (RMIT University, 2023). Collaborative learning and PD opportunities should be included to foster a supportive community of practice among EAP teachers (Surrey University, 2023). Critical approaches to EAP have emphasized the need to address social inequalities and consider the broader societal contexts in which EAP is taught. These advancements have influenced the structure and substance of EAP teacher education programmes (Taylor Bjour, 2020).

However, there is still a lack of visibility of description and analysis in providing EAP teacher training courses or degree-based programmes. Before practising, novice EAP teachers are usually ill-prepared, resulting in marginalized teaching status and little sound PD to shape their professional values as EAP practitioners (Ding & Campion, 2021; Hall, 2013). Therefore, more efforts are urgently needed to make training courses not only visible and accessible but also workable and sustainable for EAP communities, especially in Taiwan, where a formal and contextualised EAP PD is still vacant.

2.3. Professional development (PD) for in-service EAP teachers

Professional development enhances teachers' knowledge, skills, and pedagogical practices, improving classroom instruction and student learning outcomes, and is extensively addressed in ELT teacher education. It involves formal and informal learning experiences, including PD programmes, teaching research groups, collaborative planning, and mentoring (Kalinowski et al., 2019; Postholm, 2018). Effective PD is characterized by being job-embedded, contextualised, and sustained over time (Postholm, 2018). It emphasizes the importance of schools as the environment for teachers' development, with solid evidence supporting subject-specific PD (Kalinowski et al., 2019; Postholm, 2018). A positive school-based PD culture relies on the existence and coordination of systems, values, and connections inside the school (Walker, 2007).

Although EAP PD should address teachers' responsibilities in establishing learning environments to enable students to achieve academic language and literacy standards, the effects of such PD, unfortunately, still remain unclear (Kucharz et al., 2014). It is indicated that EMI content teachers may be deficient in the resources or pedagogical tools necessary to address the varied language levels of students (Bunch, 2013). Furthermore, some teachers do not perceive language development support as a fundamental aspect of their duties within EMI classrooms (Meltzer, 2002). This may lead to diminished expectations for students lacking full fluency in the language of instruction (Godley et al., 2006). The identified challenges underscore the need for effective PD structures for EMI instructors. This development should enhance capacity for language-aware teaching, incorporate practical EMI pedagogy, and promote collaboration with EAP specialists.

Although collaboration between EAP and EMI instructors is crucial for promoting students' academic language development, their PD objectives should be viewed as complementary rather than interchangeable. EAP-focused PD can enhance teachers' proficiency in academic language instruction and materials design; however, altering EMI teachers' beliefs, attitudes, or professional identities is better suited to EMI- or institution-specific training frameworks. Clarifying these distinct roles prevents an undue burden on EAP practitioners and fosters a more equitable and collaborative approach to facilitating students' language development throughout the curriculum.

Researchers and PD trainers have identified standard features associated with successful teacher training by analyzing teacher PD across different disciplines. These features can be categorized into three groups: structural, content-related, and didactic (Kalinowski et al., 2019). First, structural features include the framework and structure of the intervention. The primary relevant structural element is the duration of the PD provision (Kalinowski et al., 2019). While the relationship between PD duration and success is not straightforward, extended PD periods are required to effectively modify instructors' deeply ingrained beliefs, professional expertise, and classroom practices (Reinold, 2016). The second feature pertains to content and should prioritize the proficient instruction of academic disciplines and the enhancement of student learning processes (Lipowsky & Rsejak, 2015), while the last feature, didactic, stresses providing opportunities for active learning and encouraging collaboration among teachers. Active learning can be fostered through collective participation, and effective EAP PD programmes should incorporate feedback, a combination of input, implementation of new knowledge in the classroom, and periods of reflection (Lipowsky & Rsejak, 2015).

Although PD is recognized as crucial for EAP teachers, there has been minimal empirical examination of the features characterizing effective PD, specifically in academic English support across various curricula. Based on Kalinowski et al.'s (2019) review, effective PD for EAP teachers should be extensive, involve language experts, and encourage collaboration among language specialists and content teachers to facilitate input, practice, and reflection. This collaboration can help EAP teachers gain deeper insight into the disciplinary literacies and genre conventions which students are expected to develop, enhancing the relevance and effectiveness of EAP instruction in EMI. Moreover, effective PD for EAP teachers should incorporate a variety of delivery formats, such as workshops, coaching, and classroom demonstrations. It should also integrate the use of students' L1 and cultures to help them connect what they already know in their L1 to parallels in the target language (Genesee, 2017). Furthermore, PD should coach teachers on developing EAP materials independently, enabling them to present complex content concepts with appropriate language scaffolding more straightforwardly. However, it might be a significant challenge, as many disciplines either lack suitable textbooks or have outdated materials, indicating that EAP teachers must create or adapt

resources themselves, which represents a substantial workload and extends beyond their typical responsibilities.

Following Lo's (2020) proposal for designing PD for CLIL practitioners, PD for in-service EAP practitioners can also be designed as two models at the tertiary level in Taiwan. The first model is L2-content cross-curricular collaboration, which requires language experts and content specialists to work together at different intensities (e.g., levels of interaction, interdependence, and effort of the two parties) to increase the effectiveness of EAP teaching. For example, content teachers can help identify discipline-specific language and conventional genres in pedagogy and research, so that language teachers know what academic vocabulary, sentence patterns and academic skills can benefit EAP learners. Other alternatives include co-planning the curriculum, language objectives, and teaching materials, as well as co-teaching the lessons.

The second model is the provision of in-service PD programmes for EAP teachers. Longer programmes in different formats can facilitate EAP teachers' learning and changes in their teaching beliefs, classroom practices, and students' achievements (Opfer & Pedder, 2011). For instance, PD lasting for more than one year, including continuous instruction monitoring and formative assessment of teacher improvement, is considered more effective. On the other hand, intensive PD training, including activities such as workshops, online coaching or demonstrative teaching, which can last from one week to one month, can quickly build the knowledge of in-service teachers in EAP concepts, features of academic language and skills, and teaching strategies and activities for engaging learners in dialogic interaction in EAP classrooms.

The complexity of the EAP practitioner's role and the importance of adequate PD training have been highlighted (Sharpling, 2002). However, research focused on EAP instructors remains limited, underscoring the need for more investigations driven by teachers and motivated by practical concerns (Du et al., 2022). Furthermore, there is an urgent demand for in-house, continuous PD programmes to support EAP practitioners as they transition to teaching English for Specific Academic Purposes (ESAP) in emerging EMI contexts (Hakim, 2023).

To address these needs, a systematic and sustainable approach to EAP PD should be created, incorporating job-embedded, contextualised, continuous, and technology-based elements. This paper proposes developing a sustainable PD framework for Taiwanese EAP teachers to prepare them for teaching in EMI contexts. Specifically, we aim to investigate the following three questions:

1. What are prospective EAP teachers' beliefs about EAP and attitudes toward professional development?
2. What do prospective EAP teachers need for their professional development?
3. What components should be included in planning and offering contextualised EAP professional development training to support prospective EAP teachers as they enter the teaching profession in Taiwan?

3. RESEARCH METHODOLOGY

3.1. The context and participants

As aforementioned, EMI courses have been proliferating in Taiwan's higher education due to the promotion of the 2030 Bilingual Policy; however, a significant challenge reported by EMI teachers and learners is the students' academic English proficiency, which can seriously hinder learners' comprehension of content instruction (Hua, 2019). Furthermore, EMI teachers' feedback on the need for essential training on how to teach EAP to EMI learners after offering EMI PD was received (NCKU, 2025). Thus, an EAP PD is apparently indispensable in preparing qualified teachers to instruct EAP courses and learners to master their EMI courses. To understand teachers' needs regarding the provision of EAP PD, an EAP PD needs analysis questionnaire was distributed to university language and EMI teachers in Taiwan's tertiary institutions for over three months, from November 2023 to January 2024, and 167 teachers successfully responded. As expected, participants were highly educated. The teachers in the survey came from various educational institutions and taught language or content courses. In terms of experience, 83.8% of respondents had over a decade of teaching experience; however, the experience of teaching EAP showed more significant variation. Less than half of the respondents believed their previous EAP training was effective and practical. Their disciplinary backgrounds, ranked from most to least, were business management, social sciences, mechanics, arts and humanities, natural sciences, economics, nursing care, medical sciences, and law (see Table 1 for the detailed backgrounds of the respondents).

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| Question items | Types | Response | Percentage |
|---------------------|-----------------|----------|------------|
| Gender | Male | 68 | 41% |
| | Female | 99 | 59% |
| Degree obtained | Doctorate | 126 | 75% |
| | Master | 41 | 25% |
| University type | Comprehensive | 98 | 59% |
| | Polytech | 69 | 41% |
| Teaching experience | Over 20 yrs | 74 | 44% |
| | 11 to 20 yrs | 66 | 40% |
| | Under 10 yrs | 27 | 16% |
| Subjects taught | Language | 64 | 38% |
| | Content | 42 | 25% |
| | Both | 53 | 32% |
| | Other | 8 | 5% |
| Position | Lecturer | 39 | 23% |
| | Assistant Prof. | 56 | 34% |
| | Associate Prof. | 43 | 26% |
| | Full Prof. | 29 | 17% |

| | | | |
|-----------------------------------|--------------|----|-----|
| EAP teaching experience | Over 20 yrs | 12 | 7% |
| | 11 to 20 yrs | 42 | 25% |
| | Under 10 yrs | 99 | 59% |
| | N/A | 14 | 8% |
| Perception of EAP training | Effective | 87 | 52% |
| | Ineffective | 21 | 13% |
| | N/A | 59 | 35% |

Table 1. Backgrounds of the respondents (N=167)

To answer our three research questions, a questionnaire was designed, consisting of eight single-choice questions, eight multiple-choice questions, 17 Likert scale questions, and three open-ended questions, totalling 36 question items. The questionnaire demonstrated internal consistency (see the Appendix). The survey was designed to address three research questions by collecting both quantitative and qualitative data on the PD needs of EAP teachers in Taiwan. The question items were formulated based on insights from the literature review and feedback from EMI teachers who had previously participated in the researchers' EMI PD programs. The literature highlights significant gaps in EAP PD, particularly concerning academic language awareness, genre knowledge, and disciplinary literacy (Hyland, 2006; Hyland & Hamp-Lyons, 2002; Wingate & Tribble, 2012). To address these gaps, the survey focused on these dimensions to validate and specify teachers' perceived needs. The items are aligned with major constructs identified in previous research, ensuring content validity.

The Cronbach's alpha coefficient of .85 indicates a significant correlation between the items in the questionnaire, suggesting a high level of reliability overall. Nine of the 36 items were demographic questions covering relevant background information such as gender, education, affiliation, teaching experience, rank, courses taught, and prior experience in teaching EAP. This experience included the years spent teaching, the specific subjects covered, and the success of previous training.

The remaining items address focus areas for EAP PD, including curriculum development, teaching methodologies, assessment strategies, adaptation to industry needs, challenges faced in EAP instruction, resources used for skill enhancement in EAP teaching, essential disciplinary literacy to be fostered during PD, preferred training modalities, and the factors that motivate participation in EAP PD. Additionally, the last three open-ended questions asked respondents to identify the areas they wish to develop, their anticipated benefits, and their recommendations for improving EAP teacher training.

3.2. Data analysis

After gathering the data, we analyzed it using the statistical software SPSS 27.0. Our primary focus was on conducting a descriptive analysis of the responses to each

question, as the main aim of the current research is to identify the respondents' needs and the training dimensions to be included in EAP PD and then propose a viable PD framework for local EAP teachers. While we recognise the potential for disparities when comparing responses based on various background variables of the respondents, we chose not to perform a *t*-test or one-way ANOVA at this stage. Our main objective was to establish a systematic and sustainable framework for EAP PD for all EAP teachers at the tertiary level in Taiwan. Once this framework is implemented, we will assess its effectiveness and make any necessary adjustments for future applications. Following the initial implementation, we will refine the PD programme by considering individual factors, such as the teacher's gender, teaching experience, the university, and the specific discipline being taught, as well as the students involved in EAP instruction and the teachers' rank within the institution.

Given the open-ended nature of questions 34, 35, and 36 in the survey, which allowed respondents to comment on each subtheme, we implemented a process to extract valuable insights from the data. We began by filtering out responses that were zero, irrelevant, or duplicated. We also corrected typographical errors and ensured a uniform format throughout the responses. Next, we created a coding system to classify the replies according to predetermined subthemes. This classification was done manually by three experienced research assistants and confirmed by the researchers. Each assistant initially and independently coded one question and then cross-checked the other two questions. They identified and labelled questions in 100% of the responses, and the researchers screened and reviewed all the coded themes in order to achieve over 90% agreement on this subset with high reliability. All coding discrepancies had been discussed and resolved. As a result, we identified repeated patterns, prevailing trends, and overarching themes within the coded answers, allowing us to organise the data into meaningful classifications for further analysis. We also conducted a quantitative analysis by counting the frequency of replies within each subtheme or category to gauge their importance. This quantitative data supported or complemented the findings from the closed-ended questions.

4. RESULTS AND DISCUSSION

4.1. Positive beliefs about EAP and PD

Questions 10 to 21 featured teachers from both the 'EAP teaching concept' and 'EAP professional development training' levels, who expressed their views on the importance of EAP professional English teaching and PD, generally similar to Penjak and Zupan's (2025) findings.

The teachers who completed the questionnaires largely agreed on the 11 statements in this section (Q11-21), which can be categorized into two levels. The

first level pertains to the concept of EAP instruction. Respondents commonly viewed TESOL (Teaching English to Speakers of Other Languages) as inherently connected to EAP teaching principles, demonstrating their understanding that EAP instruction involves a specific level of English language teaching. Furthermore, most teachers recognise that EAP instructors must have expertise in particular disciplines and language teaching skills. They also acknowledged the importance of integrating professional industry skills and knowledge into EAP education, emphasizing the necessity to consider cross-cultural backgrounds. This endorsement aligns with the opinions expressed by most teachers in question 21. The participating teachers clearly understood that teaching EAP requires more than traditional language education; they need to combine knowledge and skills from specialised disciplines and professional environments while also being mindful of the cultural context within their respective fields. This approach enables them to effectively support students as they develop their academic or workplace expertise and skills, addressing their cross-lingual communication needs. Consequently, the teachers strongly believe EAP prepares students for EMI education, as evidenced by their responses to question 15.

The second level focuses on the professional growth of EAP teachers. There was a consensus among respondents that training opportunities for EAP teachers are lacking. They emphasized the need to expand these training programmes and highlighted the importance of making them systematic and comprehensive. Moreover, most respondents recognized that appropriate post-training could empower discipline-specific and TESOL teachers to become potential EAP instructors. However, when answering question 13, “EAP teachers should focus on their language development,” there was no clear consensus; 20% of respondents felt this viewpoint underscored the need to consider other aspects of EAP teaching when planning the EAP PD programme, and whether language development should be prioritized. This perspective was further highlighted by analyzing the feedback from the teachers who responded to question 10, which examined the similarities in training between EAP and TESOL teachers. Opinions on this matter varied, with 41.3% disagreeing, 29.4% agreeing, and 29.3% remaining neutral. Therefore, the design of EAP teacher training should adequately address the differences between EAP and TESOL teacher education.

Most respondents acknowledged the need to improve teachers’ English teaching skills, highlighting the requirement for PD in EAP teaching. This improvement would enhance teachers’ ability to integrate disciplinary knowledge with workplace intelligence, enabling them to consider the cultural context of their academic or workplace settings. As a result, they can create a conducive learning environment that meets students’ needs for academic and professional growth and cross-cultural communication. This aligns with the findings of Mancho-Barés and Arnó-Macià (2017), who identified similar needs for integrating EMI lecturer training with EAP expertise.

Based on responses to questions 10-21, participating teachers generally believe that EAP instructors should adopt a broader, interdisciplinary approach. They emphasized that EAP teachers should possess extensive knowledge in their respective disciplines and be capable of designing curricula and instructional materials that align with specific academic fields and learning needs. This approach would enable students to naturally acquire domain knowledge through contextualization, thereby completing their learning tasks and objectives. Furthermore, teachers emphasized the importance of recognizing the cultural contexts of their students' majors to effectively support them in expanding their professional knowledge and skills in both academic and workplace settings, and addressing their needs for cross-linguistic communication in internationalized learning settings (Aguilar, 2018).

Although teachers recognise its significance, there is still a need for more clearly defined frameworks to implement cultural and disciplinary contexts. Additionally, the varying perspectives on the relationship between TESOL and EAP training highlight criticisms that TESOL often lacks the specificity required for EAP contexts (Basturkmen, 2014). However, as Roothoof et al. (2025) argue, linguistic skills still should be prioritized and thus they advocate for linguistic competence and explicit EAP support within internationalized learning contexts.

In summary, EAP PD training can enhance teachers' professional and domain-specific English proficiency, allowing them to deliver high-quality English language education. Additionally, EAP PD planning facilitates examining the current state of EAP education and potential future developments by comparing different types of teacher training. This approach generates new knowledge and directions for contextualised EAP teaching and learning.

4.2. Teachers' diverse needs for EAP PD

Questions 22 to 28 illustrate respondents' varying levels of expertise in three areas: knowledge and understanding of current EAP teaching principles and practices, experience creating EAP curricula, and collaboration with EMI teachers. Such collaboration is also supported by Arnó-Macià and Aguilar (2018), who found that EMI and EAP integration enhances curriculum internationalization in Catalonia.

Overall, the teachers who participated in the survey agreed with the six statements presented. Most of them demonstrated a high level of proficiency in teaching the specific English relevant to their disciplines. They also showed a strong interest in EAP PD courses and maintained a positive attitude toward investing in their professional growth in ESP. However, despite many teachers reporting a solid understanding of contemporary EAP principles and practices and expertise in developing EAP curricula and materials, many felt that their knowledge was insufficient, and they lacked adequate experience in course and curriculum development. Additionally, the level of collaboration among the participating

teachers and EMI teachers varied significantly, ranging from the strongest in contexts that reflect what Tatzl et al. (2024) describe as enabling conditions for productive EAP–EMI partnerships to the weakest in settings where EAP expertise remains siloed, peripheral, or only informally connected to EMI teaching, with limited policy support or incentives for sustained coordination. These findings align with existing research that underscores the complexity and specialization of EAP instruction (Basturkmen, 2014).

Further data analysis revealed that respondents generally lacked familiarity with current EAP instruction methods. While some teachers expressed confidence in teaching language skills within specialised disciplines, others showed uncertainty. There was also disagreement among teachers regarding the development of EAP courses and teaching materials. Furthermore, the levels of experience and collaboration between EAP and EMI teachers varied notably, indicating a fragmented approach to EAP teacher training and highlighting the necessity for localised and methodical EAP training programmes. As Arnó-Macià and Aguilar (2018) point out, effective collaboration between EAP and EMI teachers is essential for the seamless integration of language and content. Therefore, planning for the EAP training programme should consider the variations in PD needs across the three areas: EAP teaching principles and practices, experience in developing EAP curricula, and collaboration with EMI teachers. Consequently, arranging appropriate courses that cater to these diverse teacher needs is crucial.

Based on the available data and existing literature, the proposed EAP needs are derived from teachers' self-reported knowledge, experience, and responses to the open-ended questions in the survey. Therefore, EAP PD in Taiwan should prioritize the following aspects. Firstly, the EAP PD programme should address contemporary EAP teaching principles and practices, incorporating case analysis and practical scenarios. It should encourage sharing knowledge and experience among teachers and provide individualized feedback to ensure that participants with diverse needs can fully benefit from the programme. The EAP PD should also offer more challenging material for confident teachers. In contrast, for those with lower confidence, the programme should include opportunities for practical exercises and targeted positive feedback to enhance their sense of accomplishment and self-assurance.

Moreover, the EAP PD programme should be flexibly tailored to suit the varying demands of teachers with different experience levels. The courses should teach techniques for facilitating collaboration between EAP instructors and EMI teachers. As Dudley-Evans and St. John (1998) suggested, extensive case studies should be included to help teachers navigate the complexities of EAP instruction while adapting to localized needs. Practical scenarios should also be created to empower teachers with differing experience levels to share insights during discussions. By incorporating these elements, the EAP PD programme can effectively respond to the needs of teachers. Moreover, online or blended EAP PD workshops

have proven effective in meeting teachers' diverse PD needs as they suggest an inclination toward flexible and accessible training formats.

4.3. The curriculum design of the EAP PD programme

Questions 29 to 36 outline the specific training needs of teachers confronted with the difficulties of teaching EAP. The participants' responses offer a thorough guide for developing EAP PD courses in Taiwanese settings.

Questions 29-33 can be broadly categorized into two distinct groups. The first category (questions 29 and 30) investigates the obstacles encountered and teachers' reactions to the current EAP instruction. According to the teachers who participated in the questionnaire survey, the main difficulties they faced while teaching EAP can be categorized into three areas: fostering student engagement and motivation, creating suitable instructional resources, and helping students effectively use their English in their specific domains. Recent work similarly emphasizes curriculum-embedded, discipline-aware academic literacies and closer EAP-content collaboration (Curle et al., 2024; Morton, 2024). Furthermore, teachers reported frequently using technology – websites, blogs, and GenAI – a direction long advocated for online language teaching (Hampel & Stickler, 2015) and now reinforced by syntheses showing GenAI's promise for feedback, personalization, and engagement (Lee, 2025; Li et al., 2025). They also expressed that the primary focal points of EAP PD should include curriculum development, technology integration in teaching, teaching methods, and comprehending the terminologies of the professional industry; in particular, AI technology integration has been highlighted to provide resources and an interactive learning environment in language instruction. Teachers' explicit support has been evidenced to shape EMI students' learning and increase their engagement in class (Moncada-Comas, 2022).

The second group (questions 31-33) pertains to teachers' motivation for engaging in EAP training workshops, their preferred workshop formats, and their specific teaching requirements. The primary incentive for teachers to participate in EAP training workshops is the prospect of enhancing their teaching, supporting students in preparing for EMI courses, and receiving financial support or compensation. Furthermore, teachers have shown a preference for the level of rigor in the workshop structure, ranking their preferences as follows: online workshops, observation of experienced EAP teachers, physical workshops, mixed workshops (combining online and physical components), and self-paced online courses. Online PD has become very popular with respondents due to its high flexibility and easy accessibility to meet individual needs.

It was found that teachers expressed a strong desire to enhance their teaching effectiveness by concentrating on four crucial areas in EAP PD, namely Course development, Integration of technology in teaching, teaching methods, and comprehension of industry-specific terminology. In addition, strategies for

enhancing students' learning motivation, creating suitable learning materials, designing EAP curricula, and helping students apply language skills in their respective disciplines are the priorities to address in the EAP PD.

The feedback above outlines the primary challenges encountered in teaching EAP at Taiwanese universities. These challenges include fostering students' intrinsic motivation to learn, creating instructional materials tailored to specific disciplines or industries, facilitating the practical application of language skills in real-life contexts, and addressing the variations in language proficiency levels and individual interests among students. These difficulties align with research by Hyland (2006), who stresses the dual demands of teaching language skills while addressing discipline-specific requirements, but highlights the need for EAP teachers with strong language teaching expertise and the ability to apply concepts from specialised disciplines.

In summary, the curriculum design of EAP PD for Taiwanese teachers is expected to enhance practical skills in developing teaching materials and designing EAP courses and curricula, as well as to address the integration of research skills, needs analysis, fundamental EAP theories and principles, evaluation design, and interdisciplinary collaboration (Arnó-Macià & Aguilar, 2018). Most importantly, the design of PD training should also be contextually flexible and locally tailored to meet teachers' diverse needs, motivations, and realities of classroom practices (Flowerdew, 2013).

4.4. A contextualised EAP PD framework to respond to globalized needs

Questions 34, 35, and 36 allowed respondents to comment on each of the predefined subthemes. Their feedback indicated that the predominant theme centers around the design of the EAP curriculum. Within this overarching topic, the subthemes focus significantly on:

1. A student-centered approach (20 occurrences), emphasising the need for techniques and strategies to enhance student motivation, engagement, and interest in EAP courses,
2. Designing the syllabus for EAP courses (13 occurrences), which includes practical elements such as creating instructional plans, structuring courses, and adhering to key concepts and theories of EAP, and
3. Analysis and evaluation of teaching materials (13 occurrences), highlighting the importance of creating, assessing, and modifying instructional resources to align with students' English proficiency levels. This also calls for teacher training in needs analysis and material adaptation to meet students' linguistic and disciplinary needs.

The respondents emphasized the importance of a student-centered approach to the design of EAP curriculum, with a particular emphasis on strategies that would increase student motivation, engagement, and interest. Although learner-centeredness has been a fundamental principle in ESP/EAP scholarship for a long time (Hutchinson & Waters, 1987), the current discovery provides context-specific nuance by demonstrating how these principles are interpreted and implemented within the local EMI/EAP environment. In our study, teachers conceptualized learner-centeredness as a response to the constraints of EMI policy implementation, varying English proficiency profiles, and distinctive motivational challenges, rather than merely as needs analysis or material selection. Their emphasis stresses the necessity of renewed, situated adaptations such as developing a structured, theory-informed curriculum that aligns with the realities of EMI classrooms and the disciplinary trajectories of students. Therefore, the respondents demonstrated how they operationalize learner-centeredness to satisfy local institutional, linguistic, and policy requirements.

However, the critical challenge remains in ensuring that the designed curriculum and materials are adaptable to diverse student proficiency levels, a recurring issue in EAP classrooms. Indeed, this challenge has intensified in EMI and multilingual university contexts, where widening participation policies and heterogeneous linguistic profiles require more flexible, locally responsive EAP curriculum design (Macaro, 2022). Addressing this issue now apparently extends beyond traditional needs analysis and material adaptation and involves equipping teachers with updated professional competencies, including data-informed learner profiling, genre-based materials development, and collaborative curriculum planning with discipline specialists (Morton, 2024). These developments underscore the need for continual curriculum adjustment in nowadays EAP practice to accommodate students' linguistic and disciplinary trajectories within rapidly evolving internationalized learning environments.

The second prominent theme focuses on enhancing professional growth in teaching methods across various disciplines and industries. The subthemes include:

1. Industry and discipline-specific literacy (26 occurrences), emphasizing the importance of gaining expertise in diverse fields, such as agriculture, business, engineering, and medical/nursing,
2. Development and implementation of teaching methods and strategies (11 occurrences), stressing the need for continued PD, instructional expertise, and knowledge transfer to the workplace, and
3. Collaboration and the ability to work across different disciplines (5 occurrences), highlighting the importance of fostering partnerships with content teachers and disciplinary staff to create interdisciplinary connections.

Our second theme highlights the importance of industry-specific literacy and interdisciplinary collaboration. Teachers' desire for greater familiarity with discipline-specific literacy stresses that effective EAP PD must integrate the knowledge of the target discipline (Hyland, 2006). Moreover, fostering collaboration between language and subject-matter experts is critical for bridging gaps between linguistic and disciplinary content. The relatively low frequency of responses about interdisciplinary collaboration (5 occurrences) suggests that it is still lacking in Taiwan EAP teaching contexts; however, initiatives like team teaching and co-designing curricula with disciplinary experts can help strengthen interdisciplinary linkages.

The third prominent theme focuses on strategies for effective EAP instruction, which include:

1. Incorporation of AI tools and technology in teaching (9 occurrences), emphasizing the necessity of integrating new technologies into EAP instruction,
2. Design of training that fosters interaction between learners and instructors (4 occurrences), stressing the importance of engaging in question-and-answer activities, in-class discussions, and exercises that promote student involvement, and
3. Proficiency in delivering presentations and effective communication (2 occurrences), focusing on enhancing presentation skills to facilitate effective EAP instruction. Although responses in this category are relatively few, enhancing EAP teachers' instructional effectiveness to foster classroom interaction and deeper student engagement remains a core element of EAP PD.

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The strong desires to incorporate AI tools and technology into EAP instruction highlight teachers' recognition of the potential of online resources to enhance learning outcomes, foster engagement, and personalise language teaching (Hampel & Stickler, 2015). Training teachers in the pedagogical application of AI tools and interactive platforms can transform EAP classrooms into dynamic, student-centred environments. Nevertheless, relatively fewer responses about interactive teaching methods and presentation skills suggest a gap in these areas, as how teachers deliver and communicate in EAP classes greatly affects students' learning.

The fourth category highlights the necessity of English proficiency for teachers (7 occurrences) and students (3 occurrences). The subthemes stress the importance of EAP teachers' linguistic skills, specialised language for different industries, and strategies for improving English competence. The emphasis on English proficiency highlights the dual challenge of supporting teachers' linguistic development while improving students' language skills. As Richards (2008) and Roothoof et al. (2025) point out, explicit EAP support is expected by EMI learners

and thus, effective EAP teaching requires teachers to demonstrate advanced linguistic competence and mastery of industry-specific terminology. Similarly, addressing students' English proficiency involves equipping them with strategies for effective communication in their disciplines. Tailored PD programmes that balance these needs can bridge proficiency gaps and support mutual development.

The final theme emphasizes the need for effective assessment design, including evaluation rubrics and methods to assess students' understanding of EAP courses and to shape their learning outcomes. These limited responses reflect its relative underrepresentation compared to other themes. Nonetheless, Brown (2004) strongly emphasizes the need for robust evaluation rubrics and strategies. Therefore, PD programmes should include components to help teachers design authentic, discipline-specific assessments that measure linguistic and practical competencies.

Overall, the responses demonstrate a significant focus on designing an EAP curriculum that prioritizes the needs and interests of students and rethinking how to prepare qualified EAP teachers contextually. This includes integrating industry-specific knowledge, enhancing teaching methods, and utilising technology and AI tools in EAP classrooms. Additionally, there is an emphasis on improving English proficiency for teachers and students, as well as formulating effective assessment strategies. These responses align with the preferences expressed in closed-ended questions and highlight how Taiwanese EAP PD should be structured to meet the needs of teachers.

Building on the discussions and findings, we propose a structured and sustainable EAP PD framework for higher education in Taiwan, as illustrated in Figure 1 below. This contextualised and effective EAP PD programme, emphasising glocalization (Canagarajah, 2005), should be formulated based on the four key concepts derived from the primary findings. Each concept is interconnected to reflect global best practices and local educational needs, ultimately ensuring a systematic and sustainable approach.

Our multidirectional PD framework adopts a cyclical approach to accommodate teachers' dynamic, diverse, developing, and iterative needs while integrating multiple dimensions of teacher knowledge and PD over time. We aim to position our contextualised PD as a reflective and ongoing process that enables EAP teachers to modify and enhance their skills through peer coaching and professional feedback mechanisms.

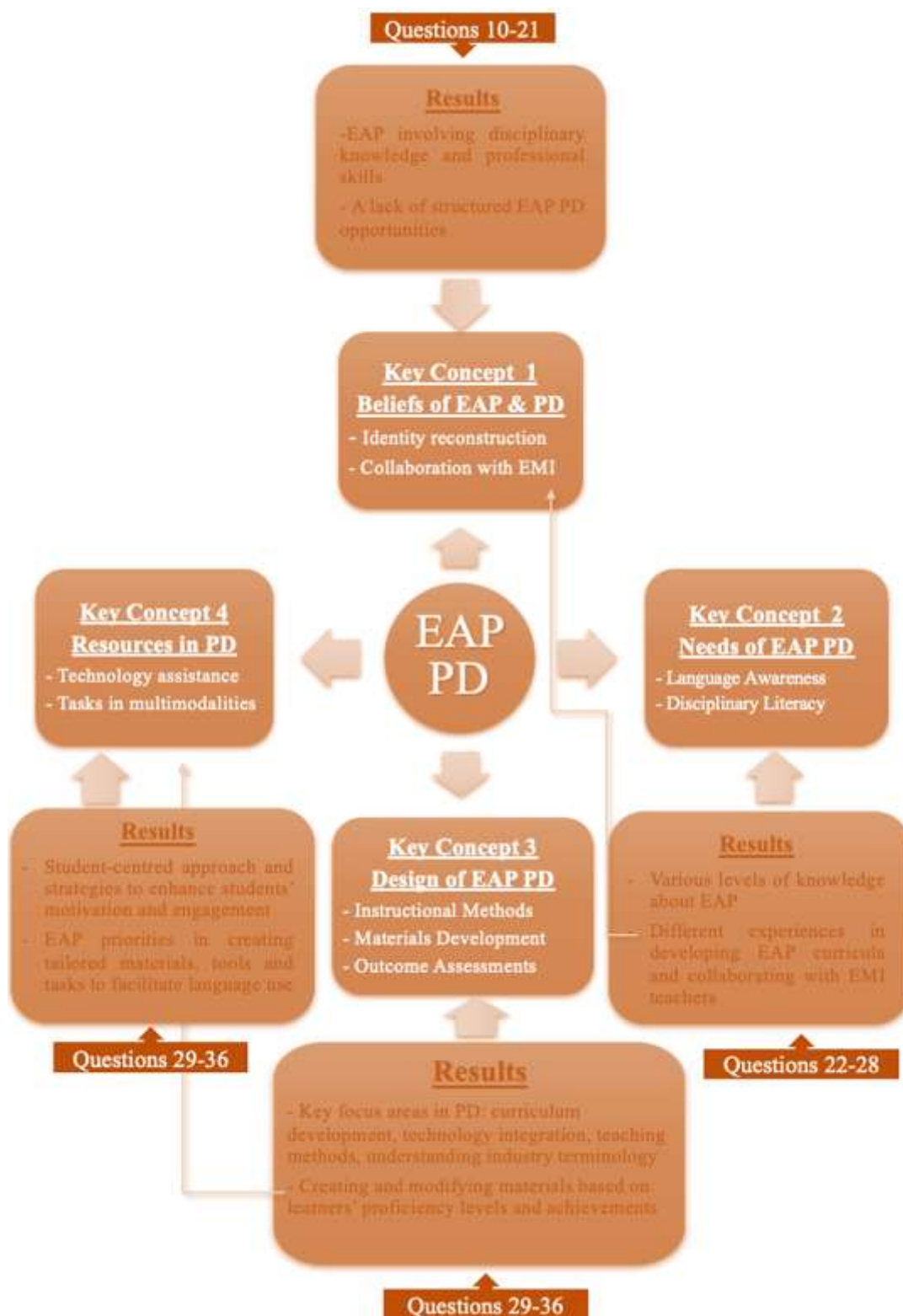


Figure 1. The contextualised EAP PD framework for higher education in Taiwan

5. CONCLUSION AND IMPLICATIONS

English learners who possess the necessary academic language skills thrive in EMI environments. However, the shortage of qualified EAP instructors and the limited availability of structured training opportunities pose significant challenges in preparing students for EMI learning. This study aimed to identify the training needs of EAP teachers and to propose a sustainable PD framework to support EMI learning in Taiwan.

Based on data collected through the survey, we identified several interconnected areas in which prospective EAP teachers may require PD. We highlighted the need for a comprehensive PD framework to strengthen EAP instruction, especially in light of the expanding number of EMI courses in Taiwan. Effective EAP PD should address disciplinary literacy, English language awareness, pedagogical effectiveness, technology integration, and collaboration between EAP and EMI teachers. Well-designed EAP PD programmes can equip instructors to develop customised, student-centered curricula that respond to learners' specific needs.

The pedagogical implication of our research is that a well-structured PD framework for Taiwanese EAP teachers should adopt a collaborative model. This model allows for fluid disciplinary literacy between EAP and EMI teachers, ultimately preparing EAP teachers and EMI learners more effectively. This collaborative approach should involve reconstructing the identities of EAP and EMI teachers, analyzing the needs of EAP teachers, linking these to intended learning outcomes in EMI, and unpacking and repacking disciplinary literacy as comprehensible inputs. Under this model, EAP teachers can help students transition from effective communication in discipline-related tasks to accessing content and cognition in disciplinary English.

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Appendix

The questionnaire for EAP PD

A. Beliefs of EAP (Likert-scale questions except for Q21)

10. The training of EAP teachers is similar to that of TESOL teachers.
11. TESOL teachers can become EAP teachers if provided with proper training.
12. Content teachers can become EAP teachers if provided with proper training.
13. The training of EAP teachers should focus on their language development.
14. The principles of TESOL can be applied to the teaching principles of EAP.
15. EAP can prepare students well for EMI education.
16. EAP teacher training should be systematic and rigorous.
17. Currently there are inadequate EAP teacher training opportunities in Taiwan.
18. EAP teachers must have language teaching skills and knowledge of specific subject domains.
19. The integration of industry-specific skills and knowledge in EAP teaching is important.
20. It is important to understand cultural contexts in EAP education.
- *21. Which of the following words can best describe EAP teacher's roles in higher education?

【multiple-answers question】

B. Needs of EAP PD (Likert-scale questions)

22. I am interested in developing curricula for specific areas, such as Business, Engineering, or Medicine.
23. I am familiar with current principles and best practices in EAP teaching.
24. I am confident in my ability to teach discipline-specific language skills.
25. I have experience in developing EAP curricula and materials.
26. I have experience collaborating with EMI teachers.
27. I am ready to commit myself to EAP professional development.
28. What areas in EAP PD do you need most urgently to improve your teaching?

C. The Curriculum Design of EAP PD

【multiple-answers question】

29. What are your biggest challenges in teaching EAP courses?
30. What resources do you currently use to develop your EAP teaching skills?
31. Which skills would you like to further develop in an EAP teacher training workshop?
32. Which of the following would you prefer to have in the EAP teacher training?
33. What motivates you to participate in professional development for EAP teaching?

【Open-ended question】

34. What particular aspects of EAP teaching do you feel you especially need to learn in order to teach effectively?
35. What do you hope to gain from professional development in EAP teaching?
36. What other suggestions do you have for effective professional development in EAP teaching?

Note: Our original survey version used ESP; however, to keep consistency, we modified it to EAP, which is the focus of the current proposed PD framework.