# ASIA PACIFIC JOURNAL OF EDUCATION

Volume 40, Number 2, 2025 https://doi.org/10.21315/apjee2025.40.2.11



Research Article:

# Personalised English for Specific Purposes in Indonesian Higher Education: A Look Through the Teachers' Lens

# Noni Mia Rahmawati<sup>1</sup>, Yazid Basthomi<sup>1\*</sup>, Utami Widiati<sup>1</sup>, Nurenzia Yannuar<sup>1</sup>, Suharyadi Suharyadi<sup>1</sup> and Mohd Iqbal Ahamat<sup>2</sup>

<sup>1</sup>Department of English, Universitas Negeri Malang, 65145 Malang, Jawa Timur, Indonesia <sup>2</sup>Centre for Fundamental and Continuing Education, Universiti Malaysia Terengganu, 21030 Kuala Nerus, Terengganu, Malaysia

\*Corresponding author: ybasthomi@um.ac.id

#### **ABSTRACT**

Despite extensive studies on personalised learning (PL), its implementation in higher education (HE) English for Specific Purposes (ESP) classes remains underexplored. This study addressed the paucity by exploring HE ESP teachers' views of PL based on their teaching experiences and their preferences among its three types (i.e., personalisation, differentiation, and individualisation) in Indonesia, where ESP courses are often characterised by heterogeneous and large classes. Through semi-structured interviews with eight purposively selected Indonesian HE ESP teachers and document analysis, this study employed Matthew B. Miles et al.'s qualitative data analysis framework to uncover key insights. Findings showed that while the participants acknowledged the potential of implementing PL in HE ESP classes, its implementation centred on certain prerequisites. Challenges such as learners' lack of autonomy and teachers' heavy workload further complicated its feasibility. Considering Phillip Kerr's outline on the types of PL, the participants expressed a preference for individualisation. The findings underscored the need for targeted professional development and institutional policies that support PL-based ESP classes, ensuring their practical integration into Indonesia's HE classes.

**Keywords:** English for Specific Purposes, higher education, Indonesian context, personalised learning, teacher perspectives

Published: 30 September 2025

To cite this article: Rahmawati, N. M., Basthomi, Y., Widiati, U., Yannuar, N., Suharyadi, S., & Ahamat, M. I. (2025). Personalised English for specific purposes in Indonesian Higher Education: A look through the teachers' lens. *Asia Pacific Journal of Educators and Education*, 40(2), 237–258. https://doi.org/10.21315/apjee2025.40.2.11

© Penerbit Universiti Sains Malaysia, 2025. This work is licensed under the terms of the Creative Commons Attribution (CC BY) (http://creativecommons.org/licenses/by/4.0/).

#### INTRODUCTION

Many countries have adopted English for Specific Purposes (ESP) to meet learners' communicative needs (Hyland, 2022). It was initially developed to help second or foreign English learners to enter or advance their work or study (Basturkmen, 2021) so that discussions on ESP constantly centre on the needs of learners, highlighting their roles in work and study contexts (Basturkmen, 2010). Thus, tailoring the materials and goals to learners' specific needs is a significant characteristic of an ESP course (Dou et al., 2023). However, previous studies found that persistent challenges related to ESP teachers, the learners, course design, material development, and institutional support cause many ESP programmes to struggle to conform to such characteristics.

Studies performed in different countries find similar results about universities' ESP teachers' and learners' challenges that impact course design and material development. ESP teachers who have English Language Teaching (ELT) background may lack familiarity with content knowledge (Nezakatgoo & Behzadpoor, 2017) because of transitioning from General English (GE) to ESP teachers without specific training (Luo & Garner, 2017; Meristo & Árias, 2020; Pei & Milner, 2016), while others who are subject teachers do not possess sufficient knowledge on language teaching (Pazoki & Alemi, 2020). Learners' low English proficiency is also a significant challenge that often forces teachers to move from teaching ESP to teaching GE, creating a mismatch between course objectives and learners' real-life tasks (Pazoki & Alemi, 2020; Petraki & Khat, 2022). Inappropriate needs analysis causes the mismatch (Nezakatgoo & Behzadpoor, 2017), resulting in less updated and attractive course content that can be irrelevant to learners' culture and needs (Pazoki & Alemi, 2020). The situation leads to learners' lack of motivation to learn English (Petraki & Khat, 2022). At the institutional level, limited time allocation and large classroom sizes are some issues related to policy-making in teaching ESP (Nezakatgoo & Behzadpoor, 2017; Pazoki & Alemi, 2020). Moreover, increasing workload is also a challenge for ESP teachers that can lower their motivation in teaching ESP (Meristo & Arias, 2020; Petraki & Khat, 2022).

In the Indonesian higher education (HE) context, teaching ESP also encounters parallel challenges. ESP learners regard linguistic competence as the most challenging factor in learning English (Suherman, 2023). Indonesian HE ESP classes tend to consist of learners with wide gaps in English proficiency (Poedjiastutie, 2017) and various learning needs and interests, although most of them are still at the beginner and pre-intermediate level of English proficiency (Yoestara, 2017). This situation results in a discrepancy between learners' limited English ability and complex subject materials containing specific terminologies, which lowers their motivation to learn English specific to their area (Poedjiastutie, 2017). Indonesian HE ESP teachers have inadequate qualifications to design and teach ESP courses effectively, including performing proper and systematic needs analysis (NA), due to limited experience and background knowledge caused by the absence of ESP-specific training (Poedjiastutie & Syafinaz, 2020). The teachers also must manage large ESP classes (Iswati & Triastuti, 2021; Kher, 2022), which often coerce them to return to employing GE materials (Poedjiastutie, 2017).

The concept of ESP, which puts its weight on learners, is equal to the concept of personalised learning (PL) as an instructional approach. While the concept of PL is not recent (Bray & McClaskey, 2013; Keefe, 2007), it has currently emerged as a key goal in the educational system (Zhang et al., 2020). PL is a learner-centred instructional approach that provides instructional content focusing on attending to learner needs and interests (Alamri et al., 2020). Proponents of PL regard the approach as helpful for elevating learners' motivation, engagement, and understanding (Pontual Falcão et al., 2018) and growing their strengths

and focuses on developing real skills to lessen cognitive weaknesses (Keefe, 2007) that leads to increased learners' satisfaction and learning efficiency and effectiveness (Gómez et al., 2014). Considering these benefits, PL presents a viable way to manage the abovementioned challenges of teaching ESP, including in Indonesia's HE ESP context, and conforming to the characteristics of ESP, which focuses on learners' specific needs.

Addressing the issue of teaching ESP to learners with wide gaps of English proficiency and their various learning needs and interests, when teachers differentiate or individualise instructions in a PL environment, learners are identified based on their challenges in specific subjects or skills (Bray & McClaskey, 2015). Considering managing large ESP classrooms, various approaches to PL can be implemented in different sizes of groups of learners; that is, PL can be applied to each learner, small groups of learners and larger groups of learners by adjusting the approach to suitable parameters (Walkington & Bernacki, 2014). Implementing PL can also elevate ESP learners' motivation in learning English, since when they own and drive their learning, they are motivated and challenged so that they may work harder than their teacher (Bray & McClaskey, 2015). Moreover, the development of technology platforms and digital content in ELT offers PL a higher possibility to be implemented in ESP classes, as using technology enables learners to set their own learning path and pace to meet their own learning needs (Grant & Basye, 2014).

Although studies delving into PL are prevalent on various aspects (technology-enhanced PL (e.g., Leshchenko et al., 2023; Schmid et al., 2022); practices of PL (e.g., McCarthy et al., 2020; McHugh et al., 2020); teachers' perceptions of PL (e.g., Courcier, 2007; Underwood & Banyard, 2008); teachers' professional development on PL (e.g., Kennett et al., 2022; Yang et al., 2021), those which focus on implementing PL in HE contexts are limited (e.g., Alamri et al., 2020, 2021; Strauss, 2022). As far as can be found, most performed studies on PL took place in elementary and middle school contexts (e.g., Dumont & Ready, 2023; McHugh et al., 2020). Moreover, those which explore the implementation of PL in the ELT context, including in the English as a Foreign Language (EFL) context, are also hard to encounter (e.g., Dağdeler, 2022; Liman Kaban, 2021). Yuyun and Suherdi (2023) reported that between 2011 and 2021, 67.5% of studies on PL performed in higher education occurred in the non-EFL context and 32.5% in the EFL context. In the ESP context, despite PL offering a feasible solution to address the challenges in teaching ESP, studies on PL are very scarce (e.g., Harwood, 2014; Xu et al., 2020).

Similarly, studies focusing on PL in Indonesia's HE EFL context, including in the ESP context, are very rare. Herawati's (2023) study, which focused on EFL lecturers in private universities, revealed that the participants had positive attitudes toward the implementation of PL. Yet, there were acknowledged challenges, such as learners' lack of motivation and lecturers' lack of knowledge about PL. Yuyun et al. (2024) conducted a similar study on the benefits and challenges of implementing PL from learners' views. Some identified benefits were about learners' learning, skills, ability, thinking, mindset, and personality traits, and the challenges were about time management, task/assignment submission, assistance in collaborative work, late feedback, technical problems, and instruction understanding. Meanwhile, other studies centring on PL in Indonesia's ESP context are more limited than those in the EFL context. One accessible study was a systematic literature review that focused on the implementation of differentiated instruction (DI) or differentiation, one of the PL types, at vocational high schools (Irawan et al., 2024). The study found inconsistency in applying DI as teachers encountered challenges because of large classroom sizes, insufficient training, and limited resources.

Given the scarcity of studies specifically addressing PL in Indonesia's ESP context, particularly in the HE context, this study is performed to provide initial insights into how PL can be implemented in Indonesia's HE ESP context from ESP teachers' views

based on their experiences in teaching ESP. Understanding the teachers' views can provide information on their current ESP teaching strategies, learners' characteristics, challenges they encounter, and how PL should be implemented in Indonesia's HE ESP classes, which are mostly heterogeneous and large, as the basis of developing PL-based HE ESP courses and refining policies that are apt to personalising teaching ESP in HE context. As many studies investigating the implementation of PL revolve around the use of technology (e.g., Chen et al., 2021; Peng et al., 2019; Shemshack & Spector, 2020), Kerr's (2016) personalised adaptive learning framework is used in this study. The following research questions are addressed in this study:

- 1. How do Indonesia's HE ESP teachers view the implementation of PL based on their teaching ESP experiences in the HE context?
- 2. What type of PL is preferred to be implemented by Indonesia's HE ESP teachers?

#### LITERATURE REVIEW

The concept of personalised learning (PL) as an instructional approach is not recent, as it has been around for decades (Bray & McClaskey, 2013; Keefe, 2007). Despite its length of occurrence as an instructional approach, there is still not yet one common definition of the approach among proponents of PL (e.g., Bray & McClaskey, 2013; Pane et al., 2015; Shemshack & Spector, 2020; Watson & Watson, 2016) as the many meanings of the concept depend on the experience and point of view of the proponent (Keefe, 2007). PL is promoted under the premise that each learner is unique, for each has a unique experiential background, a set of innate talents and personal interests; thus, learning for everyone is also unique (Keefe, 2007; Nandigam et al., 2015). It is used as an alternative to the one-size-fits-all instruction (Bray & McClaskey, 2015; Demski, 2012; McCombs, 2008). Its goal is to ensure each learner's educational experience is responsive to his/her talents, needs, and interests (Pane et al., 2015; Watson & Watson, 2016).

The term "personalisation" in PL is associated closely with the terms "individualisation" and "differentiation" related to instruction (Bray & McClaskey, 2015; Kerr, 2016; Watson & Watson, 2016). Although the three terms focus on instruction (Bray & McClaskey, 2013), they are different regarding the focus and roles of the teachers and learners. This is because "personalisation" focuses more on the learners' participation in deciding their own learning path, while "individualisation" and "differentiation" focus on the teachers' role in instructing the learning process (Bray & McClaskey, 2015). Thus, "personalisation" is more learner-centred than "individualisation" and "differentiation," of which, since learners own and drive their learning, they may work harder than their teacher as they are motivated and challenged to learn (Bray & McClaskey, 2015). It requires and promotes learner autonomy and responsibility because learners need to make choices based on their needs, interests, and talents to make their learning meaningful so that they can experience satisfaction and success (Keefe, 2007).

Walkington and Bernacki (2014) mention that PL can be adapted based on three dimensions: depth, group size, and learner ownership. First, PL can occur at various degrees of depth in which instructional tasks and environments capture the extent of the lived, authentic experiences of individual learners. Second, PL can occur at different grain sizes of groups of learners; that is, the experience is personalised for each learner, for small groups or larger groups of learners, based on more suitable parameters. Third, PL can vary at the level of ownership, which teachers can set the degree to which learners have control and choice in each learning environment. These dimensions suggest the flexibility of PL as an instructional approach in accommodating diverse learning needs while balancing

teacher guidance and learner autonomy, making PL applicable not only for small classes but also for heterogeneous large classes. However, in teaching ESP context, particularly in Indonesia's HE heterogeneous large ESP classes, the possibility of implementing these three dimensions has not been explored, which is evident from the scarcity of previous studies discussing the dimensions in the context.

PL has had its hype since the role of technology has become more prevalent in transforming PL as an approach (Watson & Watson, 2016), when big data and learning analytics can transform personalised learning once again (Shemshack & Spector, 2020), although "the use of technology to personalise learning in education is not new" (Basham et al., 2016, p. 127). It indicates technologies as enablers of PL (Pane et al., 2015) that facilitate learners in controlling and designing their learning to meet their learning needs (Grant & Basye, 2014). Peng et al. (2019) mention that the advancements of technology have made PL more adaptable and adaptive learning more personalised. Kerr (2016) outlines how adaptive technologies can personalise instruction based on the three types of PL: (1) individualisation, (2) differentiation, and (3) personalisation, of which personalisation is the type that tailors all aspects of instruction (i.e., learning objectives, pace, order, instructional methods, additional resources, feedback, hints, and progress) to individual needs by utilising adaptive technologies. These insights show how technology enhances the flexibility and responsiveness of PL to meet individual learning needs, making it more practical for teaching ESP context, including Indonesia's HE ESP context.

In the context of teaching ESP, meeting specified learners' needs in designing the content and method of teaching is the foremost key characteristic of teaching ESP (Dudley-Evans & St. John, 1998; Paltridge & Starfield, 2013; Strevens, 1988). Thus, performing analysis on learners' needs is critical in ESP. Needs analysis (NA) is vital to be performed in addressing the needs of the ESP learners for presenting authentic materials and providing meaningful activities to them (Dudley-Evans & St. John, 1998). It is the first step to be completed to design a syllabus, including developing materials and activities, and for identifying the goals that learners would like to achieve while taking a course (Ismagilova & Polyakova, 2014). Since the syllabus is designed based on learners' needs, it is motivating for them, for they can see the significance of what they are studying (Basturkmen, 2006). NA should include (1) the target situation analysis, which provides information about the objectives and the skills as well as the language needed for the context in which learners will use the second/foreign language; (2) the learning situation analysis, which provides information about subjective needs; and (3) the means analysis, which provides information about the educational contexts (Benavent & Sánchez-Reyes, 2015). NA is also useful for evaluating an existing program, and if any deficiencies are found, it can help in establishing the need for introducing a change and what kind of change may appropriately match the needs of the learners and simultaneously be acceptable to instructors (Boroujeni & Fard, 2013).

Besides providing input for course design, another significant benefit of conducting NA is that the gathered resources can be used as authentic, needs-specific course materials and task stimuli (Belcher, 2009). The analysis of written and spoken texts produced by learners throughout an ESP course, as well as any extra expert texts gathered, can help designers create "data-driven" materials using learner/expert corpora that have been assembled by the instructor (Johns, 1991). When instructed to act as ethnographers, that is, to find and learn from data in their own fields of interest, learners can, in fact, offer major course materials on their own and therefore advance their own academic (or occupational) literacy (Belcher, 2009). Thus, they take an active role in shaping their learning experiences, which aligns with PL as learners personalise their academic or occupational literacy through authentic, field-specific materials and tasks.

#### **METHODOLOGY**

# Design

This study employed an interpretive qualitative design, as it explored Indonesia's HE ESP teachers' views on the implementation of PL based on their experiences in teaching ESP in the HE context and uncovered the teachers' preferences among the three types of PL: individualisation, differentiation, and personalisation, to be implemented in their HE ESP classrooms. Applying this design, the researchers were interested in understanding a phenomenon, a process, or a particular point of view from the perspective of participants involved (Ary et al., 2010). The purpose of this design is to understand how participants make sense of their lives and experiences; that is, (1) how they interpret their experiences, (2) how they construct their worlds, and (3) what meaning they attach to their experiences (Merriam & Tisdell, 2016). First, the study explored how Indonesia's HE ESP teachers interpret their experiences, including the encountered challenges, in teaching ESP. Then, it delved into how they view PL as an instructional approach and whether the approach can help them manage the challenges they encountered in their ESP classes. Lastly, the study investigated how their contexts influence their views of implementing PL in Indonesia's HE ESP classes.

# **Setting and Participants**

Eight ESP teachers from different HE institutions in four different regions in Indonesia participated in the study. They were from the Sumatra, Kalimantan, Java, and East Nusa Tenggara regions. These four regions represent the western, central, and eastern parts of Indonesia. Two participants were selected for each region to lessen the subjectivity of the findings, and as allowed by the authority of the HE institutions in each region. They were selected by using purposive sampling. Purposive sampling selects sample components from the population that are thought to be typical or representative (Ary et al., 2010). Specific criteria to select the participants were:

- Having more than three-year experiences of teaching ESP in HE institutions to ensure that they have proper inferences on the characteristics of their learners and classes.
- 2. Teaching ESP classes with heterogeneous learners' English proficiency shown from the learners' grades.
- 3. Willing to participate voluntarily by signing the provided participant consent form before conducting the interviews.

Their demographic information can be seen in Table 1, with the use of pseudonyms to retain the confidentiality of all data.

Table 1. Participants' demographic data

Pseudonym	Age	Gender	Years of teaching ESP	Background of education	Region
Tika	31	Female	6	Master's in English Language Teaching (ELT)	Java
Yuni	34	Female	5	Master's in English Language Teaching (ELT)	Java

(Continued on next page)

Table 1. (Continued)

Pseudonym	Age	Gender	Years of teaching ESP	Background of education	Region
Karen	40	Female	15	Master's in English Language Teaching (ELT)	Kalimantan
Yanto	33	Male	7	Master's in English Language Teaching (ELT)	Kalimantan
Nisa	31	Female	6	Master's in English Language Teaching (ELT)	Sumatra
Winny	33	Female	8	Master's in English Language Teaching (ELT)	Sumatra
Cecilia	36	Female	9	Doctor in Education	East Nusa Tenggara
Daniel	49	Male	16	Doctor of Philosophy in English Education	East Nusa Tenggara

#### **Data Collection**

To gather the data, we employed in-depth one-on-one semi-structured interviews and analyses of the participants' HE ESP courses' syllabuses. The interviews contained ten questions, which were divided into two sections. The first section had six questions related to participants' challenges encountered in teaching ESP in the HE context, which were developed based on previous studies' findings (e.g., Iswati & Triastuti, 2021; Marwan, 2017; Poedjiastutie, 2017). The second section consisted of four questions that focused on participants' views on implementing PL in their ESP classes as well as their preferences among the three types of PL, which were developed from Kerr's (2016) outline of personalisation of language learning through adaptive technology. The outline was used as recent studies on personalised language learning focused on the use of technology, and it offers clear descriptions on how to differentiate the implementation of personalisation, differentiation, and individualisation through adaptive learning. Prior to performing the interviews, the participants were asked to give their consent by signing the provided informed consent form. Seven interviews were performed online by using Zoom, while another interview was carried out offline due to the instability of the participant's Internet connection. The interviews lasted for 1–1.5 hours and were conducted in Bahasa Indonesia (the participants' first language) to ease the participants into expressing themselves. All interviews were recorded for transcription purposes. For analysing the participants' syllabuses, each participant sent the file of the syllabus of one of their ESP courses through WhatsApp. Like the interviews, Kerr's (2016) outline of personalisation of language learning through adaptive technology was also employed to collect the data from the documents.

### Data Analysis

To analyse the data, we adopted the steps of qualitative data analysis proposed by Miles et al. (2014) (see Figure 1). For analysing the interviews, we selected excerpts from each interview that fit with the objectives of our study, that is, to find the participants' views and preferences of the types of PL in their HE ESP classes. Next, we transcribed the selected excerpts from Bahasa Indonesia into English. Then, we formed a matrix display by inserting the excerpts into a table. We performed similar steps for analysing the data collected from the participants' ESP courses' syllabuses. We selected items from each syllabus which

correspond to the items in Kerr's (2016) outline of personalised language learning through adaptive technology. Then, we transcribed the particular items from Bahasa Indonesia to English and put them into a table as a matrix display. To draw conclusions, we clustered the data that appeared in the tables based on the variables of the study.

To ensure the trustworthiness of the study, we applied triangulation using two methods of data collection (i.e., interviews and documents) and investigator triangulation. The data gathered from the interviews were checked against the data collected from the participants' syllabi. "Investigator triangulation occurs when there are multiple investigators collecting and analysing data" (Merriam & Tisdell, 2016, p. 245). The investigator's triangulation was carried out by assigning different roles for each researcher involved in this study. The first researcher gathered the data by performing the interviews. The first, fourth, and fifth researchers transcribed and selected suitable excerpts from the data. They also created the matrix display from the condensed data. The second and third researchers, who are professors in ELT, helped with deciding the method of the study as well as verifying the findings. The sixth researcher reviewed the completed text to ensure that all of the presentations, including the participant excerpts and findings, were relevant. All researchers were involved in drawing the conclusions. Besides doing triangulation, we also employed member checking by sending back the analysed data to the participants for verification (Birt et al., 2016). The feedback from the participants showed that our interpretations confirmed their viewpoints.

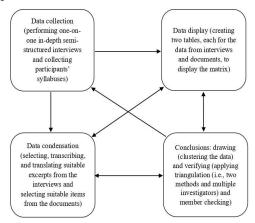


Figure 1. Steps of Qualitative Data Analysis (Adopted from Miles et al. [2014])

#### RESULTS

### Indonesia's HE ESP Teachers' Views of Implementing PL

The descriptions of the participants' views on the implementation of PL in their HE ESP classes are divided into three parts: (1) PL as an approach, (2) the implementation of PL in Indonesian HE ESP classes, and (3) the teaching activities suitable for PL-based ESP classes.

#### PL as an approach

Being asked whether they knew PL, only two participants answered that they had some

knowledge about the approach prior to the interviews. However, after reading Kerr's (2016) outline of personalisation of language learning through adaptive technology, all participants considered PL to be a good approach implemented in Indonesian HE ESP classes. Tika said that in PL, learning processes are not only seen from the teacher's point of view, but also from those of the learners. It makes the teachers map their learners' needs and proficiency for designing the course and its materials. Moreover, Daniel in excerpt (1) viewed PL as the ideal ultimate goal of every learning. He believed that teachers should appreciate the individuality of their learners and be innovative so that learners can improve their language proficiency in the best possible way.

(1) In my view, all kinds of learning should be oriented towards personalisation. That is the ideal expected type of learning. It is not something new. Each teacher is expected to be creative and appreciative of their learners' uniqueness so that the learners can also be creative in developing themselves based on what they need. (Daniel)

Nisa, in excerpt (2), added that PL is a good approach since it also enables the learners to develop their metacognitive skills. The learners can learn more independently and develop their learning strategies. Meanwhile, the teachers' role is to facilitate those who struggle in their learning process.

(2) PL is actually very good to be implemented as it also focuses on developing learners' metacognitive skills. They can develop their own learning strategies and become more independent in learning. The teachers can suggest other easier materials to the learners when they struggle with some materials. (Nisa)

Karen, as shown in excerpt (3), also regarded PL positively as the approach that personalises each learner's learning process, addresses learners' needs directly, so that it can motivate the learners more. Similarly, in excerpt (4), Yanto believed that since PL is a "learner-centred approach", each learner can perform the learning process suitable to their learning pace and style.

- (3) I think implementing PL can motivate learners more ... since when implementing PL, learners can directly try to achieve their targets in learning ... the learning process cannot be the same for each learner... (Karen)
- (4) Since PL is a learner-centred approach, teachers can pay more attention to each learner who learn at their own pace and style. (Yanto)

#### The implementation of PL in Indonesian HE ESP classes

The participants' positivity on PL as an approach was overshadowed when we asked them about implementing PL in their ESP classes. As shown in excerpt (5), the hesitations appeared since they needed to implement PL in their large ESP classes, which consisted mostly of low-level English proficiency learners and low motivation in learning English. Moreover, the learners were deemed not to know their needs in learning English.

(5) It would be amazing if I could apply PL in my ESP class. However, the challenge is how to apply it in such a big class, and the learners still do not know what they really need. ... It is possible for us to face learners who do not know what they want, or others who have very different needs. It is going to be a big challenge to apply PL in ESP classes. It is very interesting, but I do not know how it will work. (Cecilia)

The participants supposed that Indonesia's HE ESP classes are mostly characterised by (1) large classes, (2) low-proficiency learners, and (3) learners' low motivation in learning English. Yanto, in excerpt (6), revealed that he had ever taught 40 learners due to the faculty's decision to combine two classes into one ESP class.

(6) Actually, there can be 20 learners in a class in the Department of Psychology, but maybe they thought the numbers were too small for a class, so they decided to combine two classes into one, and I taught 40 learners. (Yanto)

Cecilia in (7) mentioned a more extreme case than Yanto's case as she had ever taught 180 learners in an ESP class since there was an increase in the number of learners who enrolled in the department where she taught ESP, while there were limited numbers of available classrooms so that the faculty put learners of the same batch into one large ESP class.

(7) Nowadays, the faculty of economics and business has become one of the favourite faculties in our university. However, there are limited numbers of classrooms for their learners, so they have to combine the learners of the same batch into one large class. I usually teach them in the campus hall by using an audio system. (Cecilia)

Most participants' learners were also of low English proficiency level, while only a few of them were of the intermediate level. Such low proficiency brought learners' low motivation to learn English. Tika, in excerpt (8), supposed that her learners' motivation was mostly low because they were not the English department's learners, so they had no interest in learning English, as they thought English was impractical for them when they graduated from their department.

(8) My learners' motivation tends to be low because they are not English department learners, so they think learning English is useless for them, and it has no use for them after they graduate. ... English is just a compulsory subject for them. (Tika)

Ayu, as shown in excerpt (9), encountered similar circumstances as Tika, but for a different reason. She mentioned that her learners lacked learning resources because her campus was in a rural area. This situation affected her learners' motivation to learn English, especially the low-level learners.

(9) I think because our campus is in a rural area, we lack resources for learning English, and it affects my learners' motivation to learn English. Moreover, most of my learners have low proficiency in English, even very low. (Nisa)

These situations lead to participants' inability to know their learners' progress. Cecilia found it hard to know her learners' progress as she had a very big class, while Daniel, in excerpt (10), tended to be satisfied when their learners were motivated in learning English, which they confirmed through their learners' quality of assignments.

(10) ... I can say that I am satisfied when my learners show me good-quality projects for their assignments. It tells me whether they are motivated in learning English or not. (Daniel)

Meanwhile, Yanto, in excerpt (11), thought that their learners had good English skills as long as the situations presented to them were similar to the given samples during their

learning process. Yet, if their learners encountered different situations from the sample, the learners did not know how to handle those situations.

(11) As long as it is still about memorising the language from the sample situations, my learners can do it well. However, when they are faced with new situations, they will find it hard to handle. (Yanto)

Presented with the discussion on utilising technology and digital contents, more participants supposed that the use of technology and digital contents made PL more possible to be applied in ESP classes. In excerpts (12) and (13), Karen and Yanto agreed that the use of learning technology, such as the Learning Management System (LMS), is a must for applying PL in their large ESP classes, as technology allows them to store various learning resources.

- (12) I think I can implement PL in my ESP class by using learning technology such as LMS. Maybe one day I will try to implement PL. (Karen)
- (13) It is hard for me to imagine applying PL in my large ESP classes without using learning technology. By using the technology, for example, LMS, I can store many learning resources for my learners. (Yanto)

Cecilia, in excerpt (14), mentioned other conditions besides applying technology for PL to take place in her ESP classes. She believed that reducing the number of learners in an ESP class and giving ESP teachers more understanding of PL would make the approach feasible.

(14) PL is very possible to be applied if there is a smaller number of learners in an ESP class. ... The question is only how to do it. However, if the teachers are given more understanding about the approach, I believe we can apply PL. (Cecilia)

In contrast, Yuni and Winny were still sceptical about implementing PL in their ESP classes, although technology has been used in the learning process. As shown in excerpt (15), Yuni was not confident about applying PL as she judged herself to be incapable of implementing PL in her ESP classes due to difficulties in managing her time. She believed that having to teach around seven to nine classes in a semester makes it challenging for her to personalise her classes, in addition to the administration tasks that she also has to manage as a faculty member. For her, PL can be applied when teachers have a strong commitment to implement it.

(15) If I only teach one to two classes, I think it is fine to apply PL. However, applying PL is challenging for me when I teach seven to nine classes in a semester and do other administrative tasks. ...It is not that PL is not effective or interesting to apply. ... The teachers must have a strong commitment to implement it. (Yuni)

In excerpt (16), Winny's doubt about applying PL in her ESP classes was due to her learners' low proficiency and lack of learner autonomy (LA). She argued that there should be certain minimum standards on learners' proficiency and LA to enable teachers in selecting appropriate digital platforms and contents for personalising the learning process. However, she believed that her learners' capacity was still below such a minimum standard.

(16) In PL, I think we still need to create a minimum standard. We cannot have low-proficiency learners for implementing PL, and they need to be ready for it, even if we use learning technologies, because the learners need to select their own materials. I think the learners in my classes are not ready for it. (Winny)

## The teaching activities suitable for PL-based ESP classes

Most participants perceived positively the implementation of project-based learning (PjBL) in pairs or groups for PL-based ESP classes. They believed that applying PjBL in pairs or groups enabled their learners to be active in performing learning activities. The participants' syllabuses also showed that most of them selected learning activities performed in groups, such as group discussions, group presentations, role-plays or simulations, and group projects. However, although most participants preferred to employ PjBL, only Cecilia explicitly mentioned having individual or group projects as one of the activities for the learners, as shown in an example of her teaching plan for weeks 12 and 13 in Table 2.

Table 2. An example of Cecilia's teaching plan

Week	Sub-unit learning objectives	Indicator	Learning materials (Sources)	Learning methods	Assessment criteria and form
12-13	Promotion and Marketing Division in Business and Banking  The students are able to understand and explain the concept of branding, promotion strategies, promotion and marketing campaign and advertising used in business and banking.	Comprehension of the concept branding, strategy promotion and campaigns marketing and advertising strategies used in business and banking (Listening and speaking skills practice)	• Forms of advertising and promotion in business and banking Source: Banking and Finance (Pramesworo & Evi, 2022)	<ul> <li>Face-to-Face Lecture and Discussion</li> <li>Exercises</li> <li>Task 5: Individual/ Group presentation exercise</li> <li>Project individual/ group</li> </ul>	Criteria:  Activeness in the learning process  Understanding material  Completion of the assignment Non-test form:  Questions and answers  Rubric

In grouping the learners, the participants gathered low-level learners with those of intermediate level, hoping to motivate the low-level ones. Daniel in (17) emphasised teachers' important role in activating the learners' participation as they completed the projects.

(17) Having group discussions is suitable for my class. I usually assign certain roles with specific tasks for each member of a group, so everyone needs to be active in their group discussions. The merrier the better. Lecturing is not suitable for my large class. (Daniel)

In implementing PL, large ESP classes containing learners of low proficiency and low capacity to self-direct their learning were the basis for the participants to choose PjBL in pairs or groups. They were not confident in fully personalising their ESP classes as they still felt the need to control the learning processes of their learners. Tika, in excerpt (18), believed that LA is needed in implementing PL, especially the personalisation type, while she judged her learners to be lacking in it.

(18) Seeing my learners, I think I cannot let them learn completely individually yet. From what I catch about PL, learners need to have a sense of autonomous learning....I am afraid they will not be able to learn if I do not put any control over them.... In my classes, PL can be applied, but not fully individually. I give the same instructions to all learners in groups. (Tika)

In addition, Tika and Karen, as shown in excerpts (19) and (20), argued that PL can be applied in ESP classes in certain parameters by making use of groups. For example, when there was a group of low-level, intermediate-level, and high-level learners, those of the intermediate level could be the parameter in setting the goal of the group.

- (19) For large classes, PL can only be applied by setting parameters, such as by having group discussions. Having groups in large classes makes the teaching process easier. (Tika)
- (20) ... I think if we have mixed-ability learners in a group, we can set the goals from the viewpoint of the intermediate learners. Both the advanced and low learners can match their learning goals with the intermediate learners' goals. (Karen)

Different from the others, Winny, in excerpt (21), argued that there is no certain teaching instruction or method for teaching ESP. ESP teachers need to adopt different kinds of instructions appropriate to the topics given to the learners.

(21) In teaching ESP, we need to adopt different kinds of instruction throughout the semester. We may change it from time to time, according to the topic we teach at that time. (Winny)

In selecting teaching instructions that match the learning topics, the participants had different experiences of performing NA. Nisa, Winny, Daniel and Cecilia identified their learners' needs by asking their learners orally in the beginning or middle of the course (e.g., as shown in excerpts (22) and (23)), while the others stated that they had conducted surveys for their learners for NA, although they did not perform it regularly.

- (22) I orally ask my learners to analyse their needs, such as asking them what they want to do after graduating from this study program. Maybe because they are still in the first or second semester, they do not know what they need to learn in my ESP classes. (Nisa)
- (23) I performed needs analysis in the middle of the course ... I usually ask the learners to write about whether they enjoy my class or about whether they want to learn something different from the topics that I have shown them. (Cecilia)

# Preferences of Types of PL for Indonesia's HE ESP Classes

Among the three types of PL, all participants preferred individualisation for implementing PL in their ESP classes. They believed that their learners' characteristics and their classes' current situations made it impossible to directly apply personalisation. All participants viewed that most of their learners were of low-level proficiency and had low motivation in learning English. They believed that such characteristics made them unable to give the learners maximum control during the learning process. Tika in excerpt (24) believed that the personalisation type was not suitable for her ESP classes because it needs high LA, and her learners lacked such capacity. She said that due to her learners' low motivation, they still had to be guided for learning to take place. Thus, she preferred to have individualisation, especially when the focus was on developing learners' productive skills, because they did not have sufficient background knowledge and proficiency to develop such skills personally.

(24) For the learners, if there are no verbal instructions from me, they will not learn, or they will not do it seriously. I think they still lack the sense of autonomous learning. ... Thus, I preferred having individualisation for my classes. I still need to map their needs. They can tell me how they want to learn. ... However, I do not think they can learn entirely individually. ... From the materials that were provided in the LMS, developing the learners' reading and listening skills can be more personalised. However, looking at their motivation, I do not think I can let them develop their speaking and writing skills without my guidance. (Tika)

Karen viewed individualisation as the start of getting into personalisation. Karen, in excerpt (25), mentioned that she prefers to start personalising her ESP classes with individualisation, move to differentiation, and finally achieve personalisation. She argued that her low-level learners would find learning English more difficult if she suddenly applied personalisation. She added that the use of LMS and the application of group work would be suitable when she implemented individualisation in her classes.

(25) It is more applicable to start with individualisation, then move to differentiation, and finally get into personalisation. That way is more acceptable for the learners. It [personalisation] cannot be done so suddenly. I choose to personalise my classes step-by-step because if I go directly with personalisation, it will be difficult for the low-level learners. Thus, I start with implementing individualisation by making use of LMS and having group work." (Karen)

Daniel supposed that all three types had taken place in his ESP classes with individualisation applied to most of his learners. He believed that a few of his learners had applied personalisation because they were more independent in learning than the others. As shown in excerpt (26), Daniel emphasised the role of the teacher in motivating the learners in learning for PL to take place.

(26) There are learners who have applied personalisation in my class. When I motivate them by saying they have good English, that can benefit them when they find a job, they will also learn outside their classrooms. I can see that because they completed their projects excellently, beyond my expectations. However, not all learners are like that. ... Most learners in my classes apply individualisation, while only a few have applied personalisation. It is important for the teacher to motivate their students so that they can get into personalisation." (Daniel)

From the participants' points of view, individualisation is the type most suitable to be implemented in Indonesian HE ESP classes. They argued that most of their ESP students were not autonomous learners yet, as they still depended on the teachers' lead to guide them to learn. As individualisation is the type of PL that allows greater teachers' involvement during students' learning processes, the participants opted for that particular type to be implemented in their ESP classes.

#### DISCUSSION

The participants positively view PL as a good instructional approach. By applying PL, the participants are compelled to map their learners' needs, interests, and proficiency. The participants also perceive PL as an approach that can develop LA, while the teachers' role is to facilitate the learning process. Such views fit the shift in the definition of LA, which suggests that instead of merely the learners, social factors, including the teachers' role, are also responsible for determining what and how to learn (Khotimah et al., 2023). A learning environment that offers learners choices to accommodate their various learning preferences is beneficial, and implementing "hybrid-flexible" courses and giving learners feedback on their learning strategies can promote LA in higher education (Fujii, 2024). Since PL is about personalising the learning process, it is believed to be able to elevate ESP learners' motivation as they can perform the process based on their own pace and proficiency. The ability of learners to self-pace their learning is important in PL as it offers flexibility to them in managing their learning (Ulfa, 2021). Implementing personalised learning principles in HE has the potential to support learners' psychological need satisfaction, including autonomy and intrinsic motivation, since learners view the PL interventions as engaging and effective in fulfilling their learning needs and interests (Alamri et al., 2020).

Despite the participants' positive views on PL as an approach, they have mixed views about implementing PL in their ESP classes. Those who view PL positively argue that PL needs to be implemented in Indonesia's HE ESP classes with constraints. First, involving technology is a must. Having to deal with large heterogeneous learners in a class, in terms of their interests, needs, and proficiency, the use of technology platforms and digital content aids teachers in designing their ESP courses and getting more personal with their students. Bernacki et al. (2021) discovered that most applied PL instructions require the use of learning technology, either in an entirely digital or hybrid environment. Second, certain parameters need to be set to personalise learners' learning. PL can be implemented in several sizes of groups of learners, including in large groups of learners, by making use of appropriate parameters (Walkington & Bernacki, 2014). It will be too challenging for teachers if they have to design their ESP courses tailored to each individual's needs due to the large number of learners in a class. Performing PjBL in pairs or groups is decent, for it enables ESP teachers to personalise their classes. The participants deemed that PjBL in pairs or groups can facilitate their learners to be more actively engaged in the learning activities, as well as to ease their burden in managing large ESP classes. PjBL has a positive impact on collaborative learning, disciplinary subject learning, iterative learning, and authentic learning, which can finally engage learners in learning (Almulla, 2020). Besides that, setting the achievement of the intermediate-level learners as the parameter of the overall learning goal can also be employed when completing PjBL in groups or pairs. Third, PL is more feasible in an ESP class if the number of learners is smaller than what the participants currently have in their classes. Although PL is plausible for large groups of learners, it is best applied to a small group of students. Keefe (2007) mentions that personalisation is organised for a small group of learners to participate in small-group projects or activities.

On the other hand, other participants who view PL negatively believe that Indonesia's HE ESP classes, which are characterised by large classes, mostly of low-proficiency learners, low-motivation learners and difficulties in knowing learners' progress, prevent them from implementing PL. Besides that, learners' lack of LA and participants' difficulties in time management (TM) are other factors that make them hesitate to implement PL, as based on their understanding, implementing PL requires their students to be autonomous learners and teachers' good TM skills. Susanti et al. (2023) mention that LA "is not yet a concept in Indonesian education" (p. 2) because of some factors such as culture, lack of access to learning resources and technologies, family and environment. Indonesian learners tend to be recipients and passive as they believe that teachers are the sole giver of knowledge; therefore, they have no willingness to develop LA. Yet, implementing PL can support learners' psychological need satisfaction, one of which is LA (Niemiec & Ryan, 2009). Khulaifiyah et al. (2023) found that as long as learners are offered choices related to the topics, such as learning objectives, learning strategies, and supporting materials, they will be gradually trained to decide when and how they learn. Providing learners with such choices is the core of PL. Thus, instead of being an obstacle, learners' lack of LA is a motive for implementing PL as the approach is believed to cater to learners' LA development. Related to teachers' TM skills, Gul et al. (2021) mention that technology is used to facilitate teachers' work and that teachers should have a positive attitude toward time, which is possible by providing training on TM skills. Hence, it can be supposed that adaptive PL can be practised by Indonesia's HE ESP teachers if they enhance their TM skills.

Supporting learners' LA development by implementing PL leads to increased learners' intrinsic motivation and academic achievement (Niemiec & Ryan, 2009) as well as enhanced learners' English proficiency (Khotimah et al., 2023) since PL is efficient in elevating learners' engagement and understanding (Pontual Falcão et al., 2018). In ELT, including teaching ESP, teachers should offer teaching activities that can improve learners' motivation to learn, acquire, and use the language since motivated students are likely to achieve better (Dja'far et al., 2016). In deciding teaching activities, the participants still need to perform NA, although, as mentioned above, PjBL in groups or pairs is the preferred instruction in implementing PL. Performing NA is inevitable in teaching ESP. It is the initial stage of ESP course design and is carried out to determine a course's "what" and "how" (Hyland, 2022). Performing NA is closely related to the concept of PL as both consider learners at the core of the teaching and learning processes.

That being said, it is still too challenging for the participants to fully personalise their classes. Individualisation is considered the most suitable type of adaptive PL for Indonesia's HE ESP classes. In implementing individualisation, learners still rely on teachers' support to learn, yet they can adapt their learning pace. The type also accommodates teachers' heavy workload, for it does not require them to personalise learning order, instructional methods, or provide learners with additional resources. Thus, individualisation is appropriate with the characteristics of Indonesia's HE ESP learners who are mostly of low proficiency, have low learning motivation and lack LA. It is also suitable for participants who are burdened with heavy workloads. However, individualisation can act as the first step for personalising ESP classes since teachers can gradually guide learners to learn more autonomously. Learners will have independent access and self-direction in their learning once they comprehend how to choose and use suitable tools for performing their tasks (Bray & McClaskey, 2013).

#### **CONCLUSION**

PL and ESP share similar characteristics as an approach; that is, both are learner-centred approaches that focus on learners' needs, interests, and talents. The HE ESP teacher

participants have mixed views of implementing the approach. Due to having to teach large ESP classes which contain low-proficiency learners with low motivation in learning English, the participants who view implementing PL positively argue that PL needs to be implemented under certain constraints. They are (1) involving learning technology and digital content, (2) setting teaching and learning parameters and (3) having a smaller number of students. Meanwhile, others who have negative views, they believe that learners' lack of LA and teachers' heavy workload are factors that hinder the implementation of PL. However, implementing PL, which is led by the teachers, can train learners to improve their LA. HE ESP teachers can apply personalised adaptive learning and get training in TM skills to cope with the issue of managing their heavy workload. Among types of PL, individualisation is the preferred type, with PjBL as the teaching instruction mostly chosen by the participants. Despite that, performing NA is still vital in designing ESP courses, including in selecting teaching instructions.

The findings of this study bring several insights into the implementation of PL, particularly in HE ESP classes. First, ESP teachers need to have a better understanding of the concept and implementation of PL through workshops or seminars. Second, university or faculty management can support the implementation of PL in ESP classes, one of which is by reducing the number of learners in a class to make it easier to implement the approach. The management can also aid teachers in coping with their TM issues by organising training on developing teachers' TM skills. Lastly, the study may serve as the ground for conducting further studies on implementing PL in HE ESP classes, for example, by investigating ESP learners' readiness for PL to be applied in their classes or designing ESP courses by making use of PL as an approach. Further studies may also be performed in different contexts of teaching ESP, as the current study was limitedly focused on the HE ESP context. Similar studies, then, can be performed in different educational institutions of different levels, such as in vocational high schools.

This study adds to both the theory and practice of PL, specifically on teaching ESP in HE environments. First, this study enriches the literature on the implementation of PL in HE ESP contexts, which is still under-explored, as it probes into ESP teachers' insights and inclinations on the implementation of PL in HE settings. It delivers a better understanding of promoting the implementation of PL in HE ESP classes, particularly in those with settings comparable to Indonesia's HE ESP classes. Second, this study identifies the type of PL that should be implemented in HE ESP classes, where learners with varying levels of English proficiency, needs, abilities, and interests are present. However, the study's limited number of participants may have disregarded diverse experiences and viewpoints. Hence, further studies with a larger and more diverse sample are required. Time limitations may have also influenced the comprehensiveness of the data collected. Future investigations into the implementations of PL in HE ESP classes should include other data collection techniques, such as focus group discussions and observations, to gain a more nuanced insight.

# **ACKNOWLEDGEMENTS**

The authors would like to thank the Research and Community Service Institute (*Lembaga Penelitian dan Pengabdian kepada Masyarakat/LPPM*), Universitas Negeri Malang, Indonesia, for providing financial support (grant number 5.4.754/UN32.20.1/LT/2023). The funder was not involved in the design of the study, the gathering and analysis of data, the publication decision, or the writing of the manuscript.

#### REFERENCES

- Alamri, H., Lowell, V., Watson, W., & Watson, S. L. (2020). Using personalized learning as an instructional approach to motivate learners in online higher education: Learner self-determination and intrinsic motivation. Journal of Research on Technology in Education, 52(3), 322-352. https://doi.org/10.1080/15391523.2020.1728449
- Alamri, H., Watson, S., & Watson, W. (2021). Learning technology models that support personalization within blended learning environments in higher education. TechTrends, 65(1), 62–78. https://doi.org/10.1007/s11528-020-00530-3
- Almulla, M. A. (2020). The effectiveness of the project-based learning (PBL) approach as a way to engage students in learning. SAGE Open, 10(3), 1-15. https://doi. org/10.1177/2158244020938702
- Ary, D., Jacobs, L. C., & Sorensen, C. (2010). *Introduction to research in education* (8th ed.).
- Wadsworth, Cengage Learning. Basham, J. D., Hall, T. E., Carter, R. A., & Stahl, W. M. (2016). An operationalized understanding of personalized learning. Journal of Special Education Technology, 31(3), 126–136. https://doi.org/10.1177/0162643416660835
- Basturkmen, H. (2006). Ideas and options in English for specific purposes. New Jersey: Lawrence Erlbaum Associates, Inc.
- Basturkmen, H. (2010). Developing courses in English for specific purposes. London: Palgrave Macmillan. https://doi.org/10.1057/9780230290518
- Basturkmen, H. (2021). ESP research directions: Enduring and emerging lines of inquiry. Language Teaching Research Quarterly, 23, 5-11. https://doi.org/10.32038/ ltrg.2021.23.02
- Belcher, D. (2009). What ESP is and can be: An introduction. In D. Belcher (Ed.), English for specific purposes in theory and practice (pp. 1–19). University of Michigan Press. https://doi.org/10.3998/mpub.770237
- Benavent, G. T., & Sánchez-Reyes, S. (2015). Target situation as a key element for ESP (law enforcement) syllabus design. Procedia - Social and Behavioral Sciences, 173, 143-
- 148. https://doi.org/10.1016/j.sbspro.2015.02.044 Bernacki, M. L., Greene, M. J., & Lobczowski, N. G. (2021). A systematic review of research on personalized learning: Personalized by whom, to what, how, and for what purpose(s)? Educational Psychology Review, 33, 1675–1715. https://doi.org/10.1007/ s10648-021-09615-8
- Birt, L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member checking: A tool to enhance trustworthiness or merely a nod to validation? Qualitative Health Research, 26(13), 1802–1811. https://doi.org/10.1177/1049732316654870
- Boroujeni, S. A., & Fard, F. M. (2013). A needs analysis of English for Specific Purposes (ESP) course for adoption of communicative language teaching: A case of Iranian first-year students of educational administration. International Journal of Humanities and Social Science Invention, 2(6), 35-44. https://www.ijhssi.org/papers/v2(6)/ Version-3/H0263035044.pdf
- Bray, B., & McClaskey, K. (2013). A step-by-step guide to personalize learning. *Learning* & Leading with Technology, 40(7), 12-19.
- Bray, B., & McClaskey, K. (2015). Make learning personal: The what, who, WOW, where, and why. Corwin Press.
- Chen, X., Zou, D., Xie, H., & Cheng, G. (2021). Twenty years of personalized language learning: Topic modelling and knowledge mapping. Educational Technology & Society, 24(1), 205–222.
- Courcier, I. (2007). Teachers' perceptions of personalised learning. *Evaluation and Research in Education*, 20(2), 59–80. https://doi.org/10.2167/eri405.0

  Dağdeler, K. O. (2022). EFL instructors' perceptions of personalized learning. *Journal of*
- History School, 15(59), 2588–2603. https://doi.org/10.29228/joh.52645

Demski, J. (2012). This time it's personal. T.H.E. Journal: Technological Horizons in Education, 39(1), 32–36. https://thejournal.com/Articles/2012/01/04/Personalized-learning.

aspx?Page=1

Dja'far, H. V., Cahyono, B. Y., & Basthomi, Y. (2016). EFL teachers' perception of university students' motivation and ESP learning achievement. Journal of Education and Practice, 7(14), 28–37. https://www.iiste.org/Journals/index.php/JEP/article/ view/30638/31477

Dou, A. Q., Chan, S. H., & Win, M. T. (2023). Changing visions in ESP development and teaching: Past, present, and future vistas. Frontiers in Psychology, 14, 1140659. https://doi.org/10.3389/fpsyg.2023.1140659

Dudley-Evans, T., & St. John, M. J. (1998). Development in English for specific purposes: A

- multi-disciplinary approach. Cambridge University Press.

  Dumont, H., & Ready, D. D. (2023). On the promise of personalized learning for educational equity. Npj Science of Learning, 8(1), 26. https://doi.org/10.1038/s41539-023-00174-x
- Fujii, A. (2024). Exploring autonomy support and learning preference in higher education: Introducing a flexible and personalized learning environment with technology. Discover Education, 3(1), 26. https://doi.org/10.1007/s44217-024-00111-z
- Gómez, S., Zervas, P., Sampson, D. G., & Fabregat, R. (2014). Context-aware adaptive and personalized mobile learning delivery supported by UoLmP. Journal of King Saud University - Computer and Information Sciences, 26(1), 47-61. https://doi. org/10.1016/j.jksuci.2013.10.008

Grant, P., & Basye, D. (2014). Personalized learning: A guide for engaging students with

technology. International Society for Technology in Education.

Gul, R., Tahir, T., & Batool, T. (2021). Impact of teachers' workload on their time management skills at university level. *Indian Journal of Economics and Business*, 20(3), 819–829. https://www.ashwinanokha.com/resources/ijeb%20v20-3-46.pdf

Harwood, C. (2014). Personal learning environments: Using SymbalooEDU in learning

English for academic purposes. ESP Today, 2(2), 199–215.

Herawati, A. (2023). Personalized learning in teaching English as foreign language: Limiting the challenges, increasing its effectiveness. In U. Widiati, M. Hidayati, N.Suryati, S. Suharyadi, A. N. Wulyani, I. L. Damayanti, N. A. Drajati, S. Karmina, L. Zen, L. Hakim, & P. Prihantono (Eds.), Proceedings of the 20th AsiaTEFL-68th E. TEFLIN-5th iNELTAL Conference (ASIATEFL 2022) (pp. 3-12). Atlantis Press. https://doi.org/10.2991/978-2-38476-054-1\_2

Hyland, K. (2022). English for specific purposes: What is it and where is it taking us? ESP

Today, 10(2), 202–220. https://doi.org/10.18485/esptoday.2022.10.2.1

Irawan, D., Sulistyo, U., & Abrar, M. (2024). Investigation of differentiated instruction model ESP based on students' needs at vocational high school in Palembang. PPSDP International Journal of Education, 3(2), 453–470. https://doi.org/10.59175/ pijed.v3i2.323

Ismagilova, L. R., & Polyakova, O. V. (2014). The problem of the syllabus design within the competence approach based on the course "English for master degree students in economics (advanced level)." Procedia - Social and Behavioral Sciences, 152, 1095-1100. https://doi.org/10.1016/j.sbspro.2014.09.281

Iswati, L., & Triastuti, A. (2021). Voicing the challenges of ESP teaching: Lessons from ESP in non-English departments. Studies in English Language and Education, 8(1),

276–293. https://doi.org/10.24815/siele.v8i1.17301

Johns, T. (1991). Should you be persuaded: Two examples of data-driven learning. *English Language Research Journal*, 4, 1–16.

Keefe, J. W. (2007). What is personalization? Phi Delta Kappan, 89(3), 217–223. https://

doi.org/10.1177/003172170708900312

Kennett, D. W., Gardner, A., Scott, L., Patterson, M. S., Zhang, L., & Carter, R. A. (2022). Choice and voice: Emerging questions of personalised professional learning. *PRACTICE*, *4*(2), 103–109. https://doi.org/10.1080/25783858.2022.2086061

- Kerr, P. (2016). *Personalization of language learning through adaptive technology*. Part of the Cambridge papers in ELT series. Cambridge University Press.
- Kher, D. F. (2022). Students' interest in learning English: A need analysis for teaching large English classes. *Lectura: Jurnal Pendidikan*, 13(1), 55–64. https://doi.org/10.31849/lectura.v13i1.9288
- Khotimah, K., Basthomi, Y., & Eliyanah, E. (2023). "I was never taught about it": Indonesian EFL pre-service teachers' perceptions of learner autonomy. *Issues in Educational Research*, 33(2), 653–672.
- Khulaifiyah, Widiati, U., Anugerahwati, M., & Suryati, N. (2023). Initial activities encouraging students' autonomous learning: Faculty teacher training and education program. *J-SHMIC: Journal of English for Academic*, 10(1), 1–12. https://doi.org/10.25299/jshmic.2023.vol10(1).11228
- Leshchenko, M., Lavrysh, Y., Halatsyn, K., Feshchuk, A., & Prykhodko, D. (2023). Technology-enhanced personalized language learning: Strategies and challenges. *International Journal of Emerging Technologies in Learning*, 18(13), 120–136. https://doi.org/10.3991/ijet.v18i13.39905
- Liman Kaban, A. (2021). EFL students' personalized reading experiences and its influence on engagement and online presences. *Shanlax International Journal of Education*, 9(4), 196–209. https://doi.org/10.34293/education.v9i4.4113
- Luo, J., & Garner, M. (2017). The challenges and opportunities for English teachers in teaching ESP in China. *Journal of Language Teaching and Research*, 8(1), 81–86. https://doi.org/10.17507/iltr.0801.10
- https://doi.org/10.17507/jltr.0801.10

  Marwan, A. (2017). ESP teaching challenges in an Indonesian vocational higher institution.

  The English Teacher, 38(1), 1–12.
- McCarthy, E. M., Liu, Y., & Schauer, K. L. (2020). Strengths-based blended personalized learning: An impact study using virtual comparison group. *Journal of Research on Technology in Education*, 52(3), 353–370. https://doi.org/10.1080/15391523.2020. 1716202
- McCombs, B. L. (2008). From one-size-fits-all to personalized learner-centered learning: The evidence. In *The FM Duffy Reports* (Vol. 13, Issue 2). https://www.academia.edu/download/53103253/Vol13\_No2\_PersonalizedLearning.pdf
- McHugh, D., Shaw, S., Moore, T. R., Ye, L. Z., Romero-Masters, P., & Halverson, R. (2020). Uncovering themes in personalized learning: Using natural language processing to analyze school interviews. *Journal of Research on Technology in Education*, 52(3), 391–402. https://doi.org/10.1080/15391523.2020.1752337
- Meristo, M., & Arias, F. J. L. (2020). Challenges in teaching English for specific purposes in Estonian universities. *Journal of Teaching English for Specific and Academic Purposes*, 8(3), 249–263. https://doi.org/10.22190/JTESAP2003249M
- Merriam, S. B., & Tisdell, E. J. (2016). Qualitative research: A guide to design and implementation (4th ed.). Jossey-Bass.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE Publications, Inc.
- Nandigam, D., Tirumala, S. S., & Baghaei, N. (2015). Personalized learning: Current status and potential. *IC3e 2014 2014 IEEE Conference on e-Learning, e-Management and e-Services*, 111–116. https://doi.org/10.1109/IC3e.2014.7081251
- Nezakatgoo, B., & Behzadpoor, F. (2017). Challenges in teaching ESP at medical universities of Iran from ESP stakeholders' perspectives. *Iranian Journal of Applied Language Studies*, 9(2), 59–82.
- Language Studies, 9(2), 59–82.

  Niemiec, C. P., & Ryan, R. M. (2009). Autonomy, competence, and relatedness in the classroom: Applying self-determination theory to educational practice. Theory and Research in Education, 7(2), 133–144. https://doi.org/10.1177/1477878509104318
- Paltridge, B., & Starfield, S. (2013). Introduction. In B. Paltridge, & S. Starfield (Eds.), *The handbook of English for specific purposes* (1st ed., pp. 1–4). Wiley-Blackwell. https://doi.org/10.1002/9781118339855

- Pane, J. F., Steiner, E. D., Baird, M. D., & Hamilton, L. S. (2015). *Continued progress:*Promising evidence on personalized learning. RAND Corporation. https://doi.org/10.7249/RR1365
- Pazoki, Š. J., & Alemi, M. (2020). Engineering students' motivation to learn technical English in ESP courses: Investigating Iranian teachers' and students' perceptions. *RELC Journal*, *51*(2), 212–226. https://doi.org/10.1177/0033688218811371
- Pei, X., & Milner, J. O. (2016). Problems in transforming EGP teachers in China's universities into ESP teachers. *Theory and Practice in Language Studies*, 6(11), 2102–2108. https://doi.org/10.17507/tpls.0611.06
- Peng, H., Ma, S., & Spector, J. M. (2019). Personalized adaptive learning: An emerging pedagogical approach enabled by a smart learning environment. *Smart Learning Environments*, 6(1), 9. https://doi.org/10.1186/s40561-019-0089-y
- Petraki, E., & Khat, K. (2022). Challenges and constraints in the design of an ESP course in Cambodia: Implications for higher education institutions. *Asia Pacific Journal of Education*, 42(2), 260–275. https://doi.org/10.1080/02188791.2020.1798738
- Poedjiastutie, D. (2017). The pedagogical challenges of English for specific purposes (ESP) teaching at the University of Muhammadiyah Malang, Indonesia. *Educational Research and Reviews*, 12(6), 338–349.
- Poedjiastutie, D., & Syafinaz, C. I. (2020). Curriculum innovation: Should ESP be given as an elective or compulsory course? (a case in Indonesia). *Jurnal Pendidikan Bahasa dan Sastra*, 20(2), 221–232. https://doi.org/10.17509/bs\_jpbsp.v20i2.33062
- Pontual Falcão, T., Mendes de Ándrade e Peres, F., Sales de Morais, D. C., & da Silva Oliveira, G. (2018). Participatory methodologies to promote student engagement in the development of educational digital games. *Computers & Education*, 116, 161–175. https://doi.org/10.1016/J.COMPEDU.2017.09.006
- Pramesworo, I.S., & Evi, T. (2022). Business English: English for finance and banking. Jakarta [sic].
- Schmid, R., Pauli, C., Stebler, R., Reusser, K., & Petko, D. (2022). Implementation of technology-supported personalized learning—its impact on instructional quality. *Journal of Educational Research*, 115(3), 187–198. https://doi.org/10.1080/0022067 1.2022.2089086
- Shemshack, A., & Spector, J. M. (2020). A systematic literature review of personalized learning terms. *Smart Learning Environments7*, 33. https://doi.org/10.1186/s40561-020-00140-9
- Strauss, J. D. (2022). Australian higher education implementations of personalized learning: Understanding motivations, outcomes & future opportunities. University of Pennsylvania.
- Strevens, P. (1988). ESP after twenty years: A re-appraisal. In M. L. Tickoo (Ed.), ESP: State of the Art (pp. 1–13). SEAMEO Regional Language Centre.
- Suherman, A. (2023). Students' perceptions of the challenges of ESP courses: A study from an Indonesian university. *Indonesian Journal of EFL and Linguistics*, 2(8), 193–205. https://doi.org/10.21462/ijefl.v8i2.645
- Susanti, Å., Rachmajanti, S., & Mustofa, A. (2023). Between teacher' roles and students' social: Learner autonomy in online learning for EFL students during the pandemic. *Cogent Education*, 10(1),2204698.https://doi.org/10.1080/2331186X.2023.2204698
- Ulfa, S. (2021). Optimalisasi pembelajaran daring melalui personalized learning di era teknologi disrupsi. In W. Kamdi, D. Saryono, S. Wonorahardjo, S. Ulfa, L. Yuliati, & Hardika (Eds.), Learner's characteristics and personalized learning platforms (Vol. 3, pp. 63–82). Universitas Negeri Malang.
- Underwood, J., & Banyard, P. (2008). Managers', teachers' and learners' perceptions of personalised learning: Evidence from Impact 2007. *Technology, Pedagogy and Education*, 17(3), 233–246. https://doi.org/10.1080/14759390802383850

- Walkington, C., & Bernacki, M. L. (2014). Motivating students by "personalizing" learning around individual interests: A consideration of theory, design, and implementation issues. In S. Karabenick, & T. Urdan (Eds.), *Advances in motivation and achievement* (Vol. 18, pp. 139–176). Emerald Group Publishing. https://doi.org/10.1108/S0749-742320140000018004
- Watson, W. R., & Watson, S. L. (2016). Principles for personalized instruction. In C. M. Reigeluth, B. J. Beatty, & R. D. Myers (Eds.), *Instructional-design theories and models:* The learner-centered paradigm of education (Vol. 4, pp. 93–120). New York: Routledge.
- Xu, X., Chan, F. M., & Yilin, S. (2020). Personal learning environment: An experience with ESP teacher training. *Interactive Learning Environments*, 28(6), 779–794. https://doi.org/10.1080/10494820.2018.1552872
- Yang, S., Carter, R. A., Zhang, L., Emerling, C. R., & Hunt, T. L. (2021). A path forward: Professional development as a means to support personalised learning. *Journal of Education for Teaching*, 47(2), 296–299. https://doi.org/10.1080/02607476.2021.18 85286
- Yoestara, M. (2017). Looking into the process of teaching and learning English for specific purposes (ESP) at the university level in Indonesia: Problems and solutions. *Journal of Scientific Information and Educational Creativity Jurnal Serambi Ilmu*, 18(1).
- Yuyun, İ., Lengkanawati, N. S., Damayanti, I. L., & Yusuf, F. N. (2024). A preliminary study of implementing personalized learning instruction in EFL classroom. Proceedings of the 7th International Conference on Language, Literature, Culture, and Education (ICOLLITE 2023) (pp. 215–229). Atlantis Press. https://doi.org/10.2991/978-94-6463-376-4
- Yuyun, I., & Suherdi, D. (2023). Components and strategies for personalized learning in higher education: A systematic review. In U. Widiati, M. Hidayati, N. Suryati, S. Suharyadi, A. N. Wulyani, I. L. Damayanti, N. A. Drajati, S. Karmina, E. L. Zen, L. Hakim, & P. Prihantoro (Eds.), Proceedings of the 20th AsiaTEFL-68th TEFLIN-5th iNELTAL Conference (ASIATEFL 2022) (pp. 271–290). Atlantis Press. https://doi.org/10.2991/978-2-38476-054-1\_23
- Zhang, L., Basham, J. D., & Yang, S. (2020). Understanding the implementation of personalized learning: A research synthesis. *Educational Research Review*, 31, 100339. https://doi.org/10.1016/j.edurev.2020.100339