Pedagogical Translanguaging in Language Education: Constructing Translanguaging Space to Reduce Cognitive Load in Support of Sustainable Development Goals (SDGs)

Harjuli Surya Putra
Atma Jaya Catholic University of Indonesia
Email: harjuli82@gmail.com

Setiono Sugiharto
Atma Jaya Catholic University of Indonesia
Email: setiono.sugiharto@atmajaya.ac.id

Anna Marietta Da Silva
Atma Jaya Catholic University of Indonesia
Email: anna.silva@atmajaya.ac.id

Trisnendri Syahrizal
Atma Jaya Catholic University of Indonesia
Email: trisnendri@gmail.com

Abstract
This study aims to investigate how pedagogical translanguaging in language education constructs a translanguaging space to mediate and reduce extraneous cognitive load in EFL classrooms. Using a descriptive qualitative design, classroom observations and video-stimulated recall interviews were conducted with Indonesian university students. Data were analyzed through Multimodal Conversation Analysis combined with Interpretative Phenomenological Analysis. Results show that teacher-led pedagogical translanguaging connects multiple languages, addresses linguistic insecurity, and incorporates multimodal resources. These practices reduce cognitive load because they allow students to process new information by using their full linguistic repertoire, lowering stress and enhancing engagement. Constructing a translanguaging space fosters an inclusive environment, enabling students to participate more actively, retain content better, and develop metalinguistic awareness. The findings support the integration of pedagogical translanguaging into EFL teaching as a means to promote equity, linguistic diversity, and quality education, in alignment with Sustainable Development Goal 4.

Keywords: Pedagogical translanguaging; translanguaging space; cognitive load; EFL learning

Introduction

In the rapidly evolving landscape of global education, language classrooms have become increasingly diverse in terms of the linguistic, cultural, and social backgrounds of learners. This diversity presents both opportunities and challenges for English as a Foreign Language (EFL) teaching. Many reports regarding English and EFL have been well-documented (Damayanti and Santosa, 2024; Olutola and Gift, 2025; Damkam and Chano, 2024; Oya, 2024; Nadtayay and Wongsaphan, 2025; Lestari, 2024; Nabiyeva and Abduramanova, 2025). While multilingualism is often regarded as a valuable resource for broadening communication and cognitive skills, in many contexts it has historically been treated as an obstacle to be overcome rather than an asset to be leveraged (Cenoz and Gorter, 2022). In Indonesia, the prevalence of English-only instructional policies in some educational settings has reinforced the perception that the use of local languages in the classroom may hinder English acquisition. However, this monolingual approach often disregards the fact that learners bring with them a wealth of linguistic repertoires, cultural knowledge, and communicative practices that can be mobilized to enhance learning outcomes. Recognizing and strategically integrating these resources into classroom practice is central to creating inclusive and equitable educational environments.

The challenge of effective EFL instruction becomes more pressing when considering cognitive load theory, which emphasizes the limitations of working memory in processing new information. In many classrooms, teachers (often with the best intentions) overload students with new vocabulary, complex grammatical structures, and cultural references, all delivered in the target language (Paas *et al*., 2003). While immersion has its pedagogical merits, excessive cognitive demands can lead to extraneous load, diverting learners' mental resources away from essential processing. When the instructional design does not adequately account for students' prior knowledge or linguistic background, learners may become disengaged, anxious, or even resistant to participating in classroom activities. This situation is particularly acute in Indonesian higher education, where English is primarily learned in formal settings and rarely used in daily life, limiting exposure and practice opportunities.

Pedagogical translanguaging has emerged as a promising approach to address these issues by reframing multilingualism as an asset in language learning. Translanguaging refers to the strategic use of multiple languages and semiotic resources to facilitate meaning-making, participation, and learning (Wei and García, 2022). In a pedagogical context, translanguaging involves intentional teacher-led practices that encourage students to draw upon their full linguistic repertoire (including their home languages, Indonesian as the national lingua franca, and English as the target language) within classroom interactions. This approach is not merely about code-switching but about creating a translanguaging space: an environment where languages coexist, interact, and support one another in the learning process (Wei, 2011). Such a space enables learners to build connections between languages, scaffold new concepts, and express themselves more fully, thereby reducing unnecessary cognitive strain.

The relevance of pedagogical translanguaging extends beyond linguistic competence. It is deeply intertwined with educational equity and social justice, as it recognizes and validates students' linguistic identities. In doing so, it aligns with Sustainable Development Goal 4 (SDG 4), which calls for inclusive and equitable quality education and the promotion of lifelong learning opportunities for all. By embracing learners' multilingual and multicultural backgrounds, teachers can foster an environment where all students (regardless of their English proficiency) have equitable access to learning and participation. This approach also reflects the broader shift in language education towards culturally responsive pedagogy, which seeks to integrate students'

lived experiences into the learning process (Dovchin, 2021).

However, despite growing recognition of its benefits, research on pedagogical translanguaging in EFL contexts has often focused on learners' language practices in terms of fluid and dynamic language use (Tai and Zuo, 2024; Rajendram, 2022). While such studies provide valuable insights into the nature of multilingual communication, they often overlook the cognitive dimension, specifically, how translanguaging can mediate cognitive load in language learning. Given that language processing is inherently a cognitive activity and that the strategic use of multiple languages can either increase or decrease mental effort, there is a need to examine translanguaging from this perspective. Addressing this gap can provide a more comprehensive understanding of how translanguaging functions not only as a sociolinguistic practice but also as a cognitive tool.

Moreover, limited research has explored the role of teacher agency in constructing translanguaging spaces. Teachers are not merely facilitators but active agents who design and implement learning environments that can either support or hinder translanguaging practices. Teacher agency involves the capacity to make professional judgments, adapt instructional strategies, and respond to students' needs in real time. In the context of translanguaging, this means creating opportunities for students to integrate their multiple languages into classroom activities in ways that are pedagogically meaningful. This includes designing tasks that invite multilingual input, validating students' linguistic choices, and using multimodal resources such as gestures, images, and digital media to reinforce understanding.

Equally important is the role of multimodality in translanguaging spaces. Communication in the language classroom is not limited to verbal exchanges; it encompasses a range of semiotic modes, including body language, facial expressions, visual aids, and physical artifacts (Samuelson, 2017). Multimodal resources can work synergistically with translanguaging to reduce cognitive load, particularly for learners with lower proficiency in the target language. For example, visual cues can anchor meaning and help students process complex information more efficiently, while gestures can bridge gaps in understanding without interrupting the flow of communication. By integrating multimodality into translanguaging practices, teachers can create richer, more accessible learning experiences that cater to diverse learner needs.

In the Indonesian context, these considerations are especially pertinent. Students often come from ethnolinguistically diverse backgrounds, speaking regional languages at home, using Indonesian in public domains, and learning English primarily in formal educational settings. This layered linguistic environment provides fertile ground for translanguaging practices, yet it also poses challenges in balancing language exposure, cognitive demands, and equitable participation. Many students report feelings of linguistic insecurity when required to speak exclusively in English, fearing mistakes and judgment from peers or instructors. Such anxiety can further increase cognitive load, reducing the mental resources available for processing new content (Buchner *et al.,* 2022). Pedagogical translanguaging offers a way to address these affective barriers by normalizing the use of multiple languages and providing scaffolds that ease the cognitive burden.

From a cognitive load theory perspective, translanguaging can be found as a means of managing intrinsic and extraneous load while optimizing germane load, the mental effort devoted to learning. By allowing learners to process information in their stronger language and then transfer it to the target language, teachers can reduce the unnecessary strain associated with comprehension and production in a less familiar code. This approach also enables learners to build stronger conceptual foundations, which can later support more advanced language use. Importantly, the goal is not to reduce cognitive load to the point of eliminating challenge, but to maintain it at an

optimal level where learning is both accessible and stimulating.

The intersection of translanguaging, cognitive load, and SDG 4 underscores the importance of pedagogical strategies that are both linguistically inclusive and cognitively informed. Such strategies recognize that effective language education is not solely about maximizing exposure to the target language but about designing learning experiences that respect learners' cognitive capacities, linguistic repertoires, and socio-cultural identities. By situating this study within this intersection, it contributes to the growing body of literature advocating for more nuanced, context-sensitive approaches to EFL teaching in multilingual settings.

In light of these research gaps, this study aims to explore how teacher-led pedagogical translanguaging can construct a translanguaging space that reduces extraneous cognitive load in an Indonesian EFL classroom. The research adopts a descriptive qualitative design, combining classroom observations with video-stimulated recall interviews, analyzed using Multimodal Conversation Analysis and Interpretative Phenomenological Analysis to capture both interactional and experiential dimensions of translanguaging practices (Tai and Li, 2021). The novelty of this study lies in linking pedagogical translanguaging explicitly to cognitive load management, highlighting how linguistic and multimodal resources can be strategically mobilized to balance students' mental effort and participation. This approach not only advances the theoretical understanding of translanguaging in language education but also provides actionable insights for fostering inclusive and equitable learning environments. By doing so, the study contributes to Sustainable Development Goals (SDGs), which emphasizes inclusive, equitable, and quality education that values linguistic diversity as a key asset in the teaching–learning process (Cenoz and Gorter, 2022; Wei and García, 2022).

Literature review
Pedagogical translanguaging in linguistically diverse classrooms

In recent years, EFL teachers and students have been alternating between languages to promote learning. Switching languages is more of an ideological choice. Pedagogical translanguaging is more than just allowing EFL learners to employ other languages; it is about appreciating all students' languages as precious assets and deploying them to make English learning more interesting, accessible, and engaging (Wei and García, 2022). Thus, translanguaging practices can be used by EFL teachers as pedagogical strategies to meet the needs of the broad community of bi/multilingual learners in EFL classrooms. To date, multilingualism in Indonesia is frequently viewed as a hurdle. English-only policies were prevalent. It was believed that English was the only acceptable language in the EFL classroom, and the use of other languages was prohibited or sometimes penalized. Whereas, when learners are permitted to deploy their home language at school and teachers promote the use of their home language rather than discouraging them, the process of language teaching can recognize and harness the rich linguistic and multimodal resources students bring with them.

Although pedagogical translanguaging represents a bold and potentially disruptive approach; nonetheless, when a teacher can implement it thoughtfully, it can significantly enhance students' learning experiences, foster connections, and positively influence their perceptions of education. Since English teaching and learning do not necessarily need to be done through one dominant language, other languages can also hold significance and be effectively utilized. In addition, a pedagogical translanguaging approach is grounded in the conviction that acknowledging and appreciating the diverse languages deployed by students may enhance their participation in the classroom discussion (Dovchin, 2021). This perspective views multilingualism

as an asset and a chance for growth, rather than a challenge to be fixed. It provides a framework for incorporating all a student's semiotic resources into classroom activities.

Considering the concept of pedagogical translanguaging (Cenoz and Gorter, 2022), this approach integrates the insights derived from the previous studies on linguistic awareness and learner strategies (Tai and Wong, 2022; Straszer, Rosén, and Wedin, 2022; Shepard-Carey, 2022; Zhang, 2021). These studies suggest that teachers should consider translanguaging as an approach that allows multilingual learners to access lesson content more easily by applying translations and explanations in their home languages. This, in turn, may promote social justice and empower learners' home language and regional dialects to the same status and value purposefully in the EFL classroom to support English learning.

Encouraging learners' positive identity and sense of belonging to their home language promotes greater interaction with peers and teachers. When used for planning, pedagogical translanguaging appears to improve speaking competence in English during classroom discussion. This implies that translanguaging should be part of the learning process to promote equity and inclusion in the EFL classroom. Encourage the teachers to explore learners' full semiotic repertoires by constructing the classroom atmosphere into a friendly space for translanguaging. To put it another way, constructing a translanguaging space entails more than merely stimulating EFL learners to deploy their diverse semiotic repertoires. Further, it fosters their participation in classroom discussions without inducing feelings of reluctance or shame (García *et al*., 2021).

Translanguaging space as an interplay between students' and teachers' agency

In a space for translanguaging, EFL learners can think in multiple languages and multimodal resources simultaneously. This, in turn, will stimulate them to deploy their home language as a vehicle to learn English. For instance, an EFL learner could be speaking in English, yet in their brain, they are also engaging in thought processes and establishing connections in their home language. They may initially annotate in their home language or compose their speaking activities in their home language before determining how to translate those responses into English. Literature (Wei, 2011) defines a translanguaging space as a space wherein the interactions of bilingual and multilingual students with "different identities, values, and practices simply co-exist, but combine to generate new identities, values and practices".

An English teacher has professional agency towards constructing and developing a space for translanguaging, including participating in numerous activities that intentionally promote translanguaging in the classroom. For instance, providing vocabulary in various languages and facilitating collaborative translation tasks. The aim is to motivate students' agency to embrace translanguaging as a practice that can improve speaking skills, promote engagement, and assist in various English pursuits. Teacher agency is the ability to act, which enhances understanding of how both experience and environment can influence teachers' success in their instructional practices. Teacher agency functions as an essential competency that not only allows learners to participate in translanguaging for improving students' speaking skills but also helps them ultimately outperform their monolingual friends since they become more dynamic and flexible in using language in classroom activities.

To put it in a nutshell, teacher agency in the creation of translanguaging space is the best way to decolonise English Language Teaching, in which learners' linguistic diversity is a supporting fact to give home language the same status as English and to employ both languages hand in hand (Lin and Leung, 2023). Therefore, an interactive learner–teacher understanding of how English learning brings with their linguistic assets that must be nurtured for the overall

teaching and learning process, will confer meanings to the agentic acts, strongly resting on whether the teacher acknowledges and adapts the instructional English context accordingly. In turn, the EFL learners stand to gain from a classroom welcoming of translanguaging, as few employ English at home, irrespective of their native language. In addition, the teacher can navigate the challenges of cognitive overload with the best strategy of constructing a friendly space for translanguaging. Since it is pivotal to manage cognitive load efficiently to enhance English learning.

Cognitive load in the EFL classroom

In multilingual classrooms, EFL learners have access to and use various languages. This, in turn, made a teacher experience both challenges and opportunities in conducting full English as a medium of instruction in multilingual settings. Most language teachers push their students to learn English quickly, which in turn makes the teachers attempt to give their students as much information as possible during English lessons. However, EFL learners may only remember so much of what you teach them in the class, as they can retain only a limited quantity of information. Considering that working memory is essential to a learner's learning process. However, it possesses a finite capacity and is susceptible to becoming overwhelmed, particularly when confronted with complex new concepts in English learning. Thus, one significant factor in managing and developing EFL classrooms is cognitive load, how EFL students can handle new information about their existing knowledge.

The Cognitive Load determines how many resources the brain needs. It is the weight of information, to put it another way. Cognitive load is the mental effort required by the brain to comprehend information. Working memory is the mechanism through which learners temporarily retain small amounts of information (Baddeley, 2010). This type of memory is engaged when they focus on specific details in a classroom setting. Essentially, cognitive load represents the demand placed on both the information and the brain as it resides in their working memory.

During English teaching and learning, the learners are attempting to assimilate a substantial amount of new or intricate information, which requires necessary to retain it within their working memory, a task that demands considerable effort. This situation results in a significant cognitive load, which can be likened to a burdensome weight that encumbers learners' mental capacity. Therefore, one way to get around this obstacle is to implement pedagogical translanguaging by providing a friendly space for EFL learners to employ translanguaging. This approach can make English learning easier and more interesting for both the learners and teachers, as a fact that EFL students have not only a limited amount of short-term memory available, but also a limited capacity to keep long-term memory as well. This situation makes learning English as a foreign language in Indonesia may appear straightforward to some; however, for numerous students, it presents a significant challenge. The pressure to achieve rapid progress can hinder the learning process in various ways. The difficulties encountered may not stem from a singular source but rather result from a cumulative impact of multiple factors, such as learners' first language, the extent of their exposure to English, the regularity or irregularity of their speaking and learning practices, and the strategies they employ for comprehension.

However, the combination of cognitive load theory and pedagogical translanguaging may help EFL teachers become aware of and comprehend how their students process new information in learning English. Teachers can reflect on their translanguaging space environment and ways of teaching. The subtle changes made through translanguaging practices based on the cognitive load theory can enhance EFL learners' learning. In a friendly classroom atmosphere, the learners can engage in translanguaging activities, utilizing their linguistic diversity to foster understanding

without fear of judgment from their teacher or peers (Canagarajah, 2011). Thus, translanguaging encompasses a range of semiotic resources, such as oral communication, gestures, facial expressions, and other embodied forms, allowing multilingual speakers to fully utilize and appreciate their complete linguistic repertoire in their communicative interactions (Samuelson, 2017). This, in turn, may reduce cognitive load in the EFL Classroom. On top of this, if the cognitive load is constantly stable, it can be very helpful to increase motivation to keep learning English.

Research method

This study is quantitative descriptive research involving two research instruments for data collection: observations and video-stimulated recall interviews. Detailed information regarding this method is explained elsewhere (Susilawati *et al.*, 2025). Video recordings of the observation were used to explore how teachers' pedagogical translanguaging can help learners reduce cognitive load in the EFL classroom. Video recordings of the interview were used to investigate learners' and teachers' rationales for perceiving translanguaging that was deployed in certain moments of activities. During the observation period, a video camera was positioned at the back of the classroom to capture the activities occurring within. Concurrently, while the observations were being digitally recorded, field notes were also taken. To improve the dependability of the data and reduce the likelihood of participants overlooking particular classroom interactions, the interviews were conducted during the same semester as the class observations, directly after the analysis of the translanguaging.

Data was gathered by observing 43 first-year Indonesian university students, ages 18 to 21, in an English course (see Table 1). The study was conducted in Medan, North Sumatra, Indonesia, at a prominent institution. The Batak community, one of the most well-known Indigenous tribes in North Sumatra, the remaining students are Malay, Chinese, and Javanese. Most of the time, they speak Indonesian as a lingua franca in public places and speak their heritage tongue at home. Otherwise, English serves as a foreign language in this regard. English is not used in learners' daily lives, and its use is mostly limited to diplomatic and tourism-related activities. Thus, it was discovered that many learners lacked English language competence after completing the multilingual profile form to gauge their level of multilingualism and English language competency. Table 1 provides data on the participants' demographics.

Table 1. The participants' demographics

Category	Characteristics	N	%
Students (n=43)	Gender		
	1. Male	21	48.8
	2. Female	22	51.2
	Age		
	1. 18 years old	2	4.7
	2. 19 years old	35	81.3
	3. 20 years old	5	11.6
	4. 21 years old	1	2.4
	Ethnicity		
	1. Malay	7	16.3
	2. Batak	15	34.9
	3. Javanese	11	25.6
	4. Nias	7	16.3
	5. Padang	2	4.6
	6. Chinese	1	2.3

Meanwhile, the teacher involved in this research possesses a substantial background, having taught English at this university for ten years. He was born and raised in Indonesia. He is a native speaker of Indonesian, while also being proficient in Arabic and English as foreign languages.

The observations were conducted in the university over the half-term of the 2023/2024 academic year. It was recorded, and field notes were written up at the same time during the observation. The observations that are ethnographic in approach (Erickson, 2010) would have the procedures as follows: (i) The observations were arranged once a week in the first half of the semester. The identification of the participants' activities and the ways of employing translanguaging practices were examined. (ii) The researcher observed how the participants' bodies and emotions were implicated in these translanguaging practices. Specific activity and linguistically diverse significant practices, both verbal and nonverbal, were noted down. Having conducted the classroom observation, the participants were instigated for interviewed to make sense of their interpretations of actual translanguaging practices. For the interview, the participants were determined based on non-random criteria, and not every student will have a chance of being included. Purposive sampling, as a type of non-probability sampling, was chosen to sort out the students. The interviews lasted for approximately 15-45 minutes, depending on how many instances of selected video recordings were to be discussed. The participants have time to reflect on and view the activities that they have participated in during the classroom interactions.

This study integrates Multimodal Conversation Analysis (MCA) with Interpretive Phenomenological Analysis (IPA) (Tai and Li, 2021) to investigate the translanguaging practices occurring in the EFL classroom. MCA was utilized to explore the intricate process through which the participants developed translanguaging practices. MCA emphasizes both linguistic and non-linguistic actions, referred to as "non-verbal behavior", which encompasses facial expressions, body movements, and gestures. These elements are essential for comprehending translanguaging practices (Tai and Li, 2021). The researcher initially reviewed the video recordings to pinpoint instances of translanguaging practices that encompass various linguistic structures and systems. Following this, the researcher manually transcribed the video, taking screenshots from the clips to illustrate the multimodal aspects present in the classroom interactions. To clarify the specific mechanism by which social actions are effectively organized and executed, a talk-in-interaction methodology was employed (Kasper and Wagner, 2014; Stivers, 2013). Additionally, the video transcription process utilizes an emic/participant-relevant perspective (Markee, 2012). Initially, the screenshots of the video recordings were transcribed following the transcription conventions (Jefferson, 2004; Mondada, 2018). Subsequently, after the transcription of the data, a detailed analysis of each line was performed to examine the various forms of discourse that allow the teacher to utilize a range of multimodal and multilingual resources within the classroom.

Meanwhile, Interpretative Phenomenological Analysis (IPA) was utilized to examine the video recordings of post-video-stimulated recall interviews. This approach was employed to understand the translanguaging practices that emerged during specific instances of classroom activities. The analysis of data obtained from video-stimulated recall interviews was structured around three core theoretical principles: phenomenology, hermeneutics, and idiography (Tai and Li, 2021). Phenomenology serves as a philosophical methodology focused on investigating personal experiences and comprehending the ways in which individuals consciously perceive those experiences (Tai and Zuo, 2024). In contrast, hermeneutics is defined as a theory of interpretation, often characterized as the discipline or philosophy that addresses the processes involved in

interpretation and understanding (Sikka, 2008). Hermeneutics emphasizes the importance of dialogue in the pursuit of understanding, aiming to achieve a shared comprehension of the meanings derived from individual experiences. The third aspect is idiography, which involves an in-depth analysis of individual cases, concentrating on the unique perspectives of study participants within their contexts (Pietkiewicz and Smith, 2014).

This study adhered to ethical research guidelines. Ethical approval was obtained from the research ethics committee before the collection of data. Participants were made aware of the study's objectives, confidentiality of responses, and voluntary participation. Written informed consent was secured, ensuring that no personal identifying information was disclosed.

Results

Pedagogical translanguaging has been purposely implemented by the teacher to provide a space for translanguaging for the students. The students' various semiotic repertoires in this translanguaging space were demonstrated as plurilingual competence interlaced with personal trajectories of language users. Thus, the discussion is based on insights derived from the triangulated MCA analysis and post-video-stimulated recall interviews analyzed through IPA, leading to the identification of three primary premises that support a teacher's pedagogical translanguaging can help learners of reducing their cognitive load in studying English: (i) Establishing connections between languages, (ii) Addressing linguistic insecurity, and (iii) Expressing cultural identity and safeguarding local culture. Three instances were found in the dataset that demonstrate how pedagogical translanguaging has a role as a mediator to reduce cognitive load in the EFL classroom to support English learning. Typical instances that highlight these interactional phenomena and show how pedagogical translanguaging contributes to reducing cognitive load among students are included in representative extracts 1 and 2.

Establishing connections between languages

In the case of language practices among students related to establishing connections between languages, the pedagogical translanguaging can be detected in representative extract 1. In this extract, the teacher (T) taught English through English inscriptions written on public signs. The teacher explained public signs that are usually displayed in the students' local surroundings and provided instances and discussed the inscriptions with the students, such as billboards, advertisements, banners, murals, graffiti, and snack packaging. It is evident that the teacher's pedagogical translanguaging functions to build on students' unitary linguistic repertoire, making use of both Indonesian and English to negotiate specific communicative interactions and making meaning, as presented in line 20. The teacher attempted to stimulate students' participation by deploying pedagogical translanguaging:

> *(19) T: [look!]*
> *+T pointed to the pictures again*
> *T: Look at the English written on this billboard? (0.1) Don't quit, you are on the right track, tunjukan pesonamu? ((show your charm))*
> *(20) T: What do you think about the text on this billboard? (0.2) ada yang bisa menjelaskan? ((can anyone explain))*

This teacher's pedagogical translanguaging functions for stimulating students' attention and motivating them to engage in the discussion. Moreover, this translanguaging practice may build students' unitary linguistic repertoire, making use of both Indonesian and English, and other

languages to negotiate specific communicative interactions and make meaning. As presented in this extract, the student's metalinguistic awareness can be noticed from their ability to concentrate on English inscriptions and to alternate between the text written on the signs and their meaning. They also attempted to convey their interpretation and understanding of the emergence of English text on the billboard. As presented in this extract, line 21, the student stood up and attempted to answer T's question by nodding her head. In line 24, she gave his opinion regarding the English text on the billboard. She assumed that the billboard was trying to promote a product and attract the consumer to buy cigarettes as their product. Then, in line 26, she attempted to give more explanation by switching to Indonesian:

> (*26*) *S1: mmm, I think this ad ad…. iklan ini menyuruh orang untuk tidak berhenti merokok ((This ad tells people not to quit smoking))*

Keep pointing at the picture on the slide, and the student attempted to reconstruct the meaning written on the billboard. The translanguaging practice, as presented in the excerpt, line 26, showed that the student provided a supportive translanguaging strategy to answer the teacher's question and solve problems. This translanguaging practice, as presented in this excerpt, sheds light on the student's attainment of metalinguistic awareness, concerning how she thoughtfully analyzed the meaning of the billboard, understood, and interpreted about contextual meaning of the English on the sign.

The perspective on how the students describe their translanguaging practices is extrapolated from the analysis of interviews with participating students. During the interview, students admitted that translanguaging enabled them to deploy different languages interchangeably and used each language during classroom discussion equally, including their first language and English as the target languages. The students revealed that establishing connections between these languages may help them participate in classroom interaction. They also acknowledged that these languages do not have to compete with one another to work well together. As presented in the video-stimulated-recall-interview for extract 1, when the researcher asked the student to elaborate on the rationale for doing translanguaging, the student then clarified that his translanguaging is one strategy to make connections across the language fluidly from Indonesian, as their first language, in their repertoire by drawing on their prior knowledge. Mostly, the students employed expressions such as making connections and comparing.

> *(4). S: Oh, that is, I suppose that is just a reflex, mmmm, I just make use of both English and Indonesian to make a connection. And…eee, my English is not good, so I just connect the meaning in Indonesian and English. It just suddenly comes out of my mind, so suddenly I use Indonesian. Hopefully, the teacher and other friends understand what I am saying.*

It is noticeable in this extract that the student's translanguaging practices were characterized by creativity that helped her not only to become more conscious of her linguistic repertoire but also to make use of it during classroom interaction. Eventually, the student's linguistic repertoire has the potential to tease out the connection between her linguistic repertoire and the classroom content she discussed. Therefore, when multilingual students are engaged and facilitated to use their entire language repertoire through using LL as input, their metalinguistic awareness and multimodal literacy competence become more developed (Cenoz and Gorter, 2022). Further, it is noticeable that translanguaging as an effective strategy may alleviate students' cognitive burden, as one significant factor in developing EFL classrooms is cognitive load.

Providing a space for translanguaging enables EFL students to freely engage in classroom discussion about their existing knowledge.

During the interview, the teacher also justified that by allowing translanguaging in the classroom, this can stimulate students to participate in the subject content, as presented in the teacher's perspectives for extract 1.

> *(8). T: Sure, as you can see, I set them free to explore their linguistic resources and demonstrate various gestures. Even though they often compared English and Indonesian simultaneously. You know…I don't want to burden students too much to speak English, as if their brain is overloaded and afraid of participating in the classroom interaction, surely, they will be quiet and not involved in class discussions*

The teacher needs to ensure that classroom interaction runs smoothly. The teacher's pedagogical translanguaging not only provides students the opportunity to engage in classroom discussion but also reinforces the knowledge the teacher wants them to retain. When students attempt to establish a connection between English and Indonesia during classroom communication, they also engage in practicing English. The more likely the students are given the freedom to explore their linguistic resources, the more English as the target language the students retain, as deploying translanguaging does not mean not learning English, rather it supports English as the target language (Zhang, 2021).

Tackling linguistic insecurity

Providing a space for translanguaging is one of the possible ways of perceiving and communicating emotions for EFL students in a multilingual classroom. The teacher's stimulation to explore the students' diverse linguistic resources is an essential part to address linguistic insecurity among the EFL students. Linguistic insecurity might arise from the outer or inner world as a response to classroom interactions that are significant for EFL students. Accordingly, the teacher's translanguaging is an important pedagogy in transmitting emotions and addressing students' linguistic insecurity, which in turn helps them explore their semiotic repertoires to deploy their linguistic competence in the classroom interactions. Eventually, the teachers can manage how they present the classroom content to the students and bridge students' various linguistic resources to avoid an extraneous cognitive load. In the case of minimizing linguistic insecurity among students during English learning, the teacher's pedagogical translanguaging usually means a lot related to the students' engagement in the classroom interaction, as presented in representative extract 1, line 31. The teacher considered implementing pedagogical translanguaging to attract the students' participation in classroom discussion.

> *(30) T: good idea*
> *+T walked slowly to the student*
> *(31) T: Yeah, as we can see, this billboard is a cigarette advertisement. They attempted to persuade, yah mengajak orang untuk tetap merokok. ((invite people to keep smoking))*
> *(32) T: Any more ideas?*

In this extract, the teacher gave students verbal cues through translanguaging, "yah mengajak orang untuk tetap merokok (invite people to keep smoking)) about what they also understood from the English inscription on the billboard. By doing so, the teacher attempted to give the students a space to speak up and built routines that enable the classroom to be safe by

deploying translanguaging early to build a positive classroom atmosphere and relationships. This also helped students to bravely offload their opinions. Thus, they had new insight to hold in their working memory at once. Shortly after, a student raised his hand and nodded his head, attempting to answer the question. As presented in line 34, a student nodded his head to show that he wanted to respond to the teacher's question. In line 36, he attempted to convey his opinion regarding the English text on the billboard. He assumed that the billboard was trying to persuade people to keep smoking. It is observable that the student was attempting translanguaging since he experiences a restricted linguistic proficiency of English, accompanied by various gestures such as pointing her hands on her chest and contingently pointing his hand to the slide.

> *(34) S2: Iya, sir. ((yes sir))*
> *   +S2 nodded head*
> *(35) (0.4)*
> *(36) S2: Yes, sir, I agree the billboard asks people to smoke*
> *   +S2 pointed at the picture*
> *(37)   (0.1)*
> *(38)   S2: I think also this billboard…*
> *menjelaskan bahwa orang yang merokok itu keren.*
> *(39) (0.2)*
> *(40) S2: So, it persuades people to smoke, mengajak orang merokok.*
> *   S pointed her hands on her chest.*

This extract is evidence that multimodality is an approach that enables communication to be more than about language. The wide range of communicational forms the student demonstrated, such as gestures, head movement, and images, may help them relax, which in turn reduces the students' cognitive load to comprehend the teacher's question and try to answer it systematically. Thus, starting with the teacher's pedagogical translanguaging, this has a positive impact on students, which in turn makes them less embarrassed to explore their diverse linguistic resources. Eventually, the student's translanguaging was therefore demonstrated as a process where EFL students draw on their various semiotic resources in communication (Wei, 2022).

During the interview, the teacher also acknowledged that translanguaging may avoid feelings about speaking in the classroom. This annoying feeling has a trigger: linguistic insecurity. This insecurity emerges when the students realize that there is a distance between their local language and English as the target language. Linguistic insecurity faced by the students is socially constructed and can lead to a reluctance to speak English because of anxiety or fear of making mistakes, as presented in teacher perspectives for extract 1.

> *(6). T: They generally responded to my questions and got involved in the classroom discussion. As you can see, they have tried to improve their language skills. Although sometimes they answer my questions in Indonesian, it is ok, as most of them have limited English proficiency. So, by combining English with Indonesian, I assume that they are addressing their linguistic insecurity of being afraid to make mistakes.*

The teacher admitted that he perceived translanguaging to foster a more inclusive classroom atmosphere and address students' linguistic insecurity. Thus, through translanguaging, the teacher assumed that the students were stimulated to learn English more effectively and contribute much to their L2 acquisition. Again, it is evident that a bait from the teacher in the form of translanguaging practice becomes an effective pedagogy that enables the students to confidently

demonstrate their semiotic resources and participate in meaningful discussions. Consequently, translanguaging practices not only enhance language acquisition but also stimulate confidence and active engagement in the EFL classroom (Sugiharto, 2024). These finding underscores the need to strengthen English exposure to enhance students' English acquisition. Nevertheless, balancing the benefits of translanguaging practices with the need for students' English exposure remains a crucial attention for EFL teachers (Zhang, 2021), as the teacher should be aware that learning English is not just about exposure, yet it is about how the students enjoy and gain confidence to overcome their linguistic insecurity.

Creating multimodal resources

Pedagogical translanguaging planned by the teacher in the EFL classroom provides access to a variety of ways to explore students' various multimodal resources (e.g., gesture, eye contact, proxemics, and images). Although translanguaging practice considers verbal sources as synergistic interactions to meaning making, it also considers how multimodal resources take part in students' communicative practice in the class (Lewis *et al*., 2012). During classroom interaction, the students might attempt to deploy different semiotic repertoires in translanguaging space. Pedagogical translanguaging practices conducted by the teachers inside the classroom may provide a chance and space to promote students' language competence stemming from the use of various multimodal sources (Cenoz and Gorter, 2022). As presented in line 21 (see extract 4), when the teacher was attempting translanguaging to stimulate students' participation:

> *(21)   T: any one can tell us about your images (0.2) you can explain about the meaning of the English inscription on the images. So, kamu dapat menjelaskan arti dari tulisan di gambar itu (0.2) $okay$. ((kamu dapat menjelaskan arti dari tulisan di gambar itu)).*

The teacher's translanguaging has played a crucial role in promoting the normalization of students' multimodal practices and stimulating their participation in a flexible use of multiple languages in the EFL classroom. As shown in this extract, the teacher's translanguaging "kamu dapat menjelaskan arti dari tulisan di gambar itu" (kamu dapat menjelaskan arti dari tulisan di gambar itu) helps provide context and relevance and deepen the understanding of the students to engage in the classroom discussion. When the teacher provided a space for translanguaging, students were encouraged to use their semiotic resources to fully participate in the discussion. It was evident that combining a native language and the target language flexibly promotes a wider engagement through various multimodal resources, as presented in line 28:

> *(28)   S: Ok (0,1) +er you (0.1)*
> *+ S raised his head and looked at the teacher*
> *(29)   S: Sir (0,1) +er (0.2), mmm, I have a picture I got from a shopping mall. (it's like a warning in the store))*
> *+S showed his images, extended her left hand outward, and extended her index finger pointing at the images*

It is evident that the employment of students' translanguaging and multimodal activities together made up a discursive learning practice which has a significant association with cognitive capacity and English proficiency to comprehend the interplay between multimodality and multilingual resources. This extract reveals that the student' translanguaging is integrated with diverse multimodal resources for meaning making. The student's hand gesture, through extending

her left hand outward and extending her index finger pointing at the images, indicates that she blends verbal and bodily dimensions to make meaning. Ensuring that all students have easy access to explore all their semiotic resources they need to engage in discussion, the teacher gives more attention by having ongoing discussions with students to help them honestly feel free from extraneous cognitive load. This is done with the aim that students actively interact with English as the target language they want to improve.

During the stimulated recall interview, the student acknowledged that deploying various multimodal resources may help them interact and engage in the classroom. Moreover, these diverse bodily movements can overcome students' anxiety and pressure to speak English. Translanguaging includes semiotic resources (e.g., gesture, oral, bodily movement, and facial expression) when a multilingual speaker's full linguistic repertoire is deployed and honored in communication (Canagarajah, 2011). They will feel safe to engage in the classroom, as presented in the students' perspectives in extract 2.

> *(12). S: Ahhahhah, as I told you, I was a bit nervous, and it is a burden. Eee... It's like there's pressure. So, to overcome my anxiety and pressure eeee, I suddenly made a lot of bodily movements. So that I don't look too nervous and afraid*

Providing a space for translanguaging can encourage students to adjust their studying by employing various multimodal resources while participating in the classroom discussion. The student admitted that through embracing their multimodal resources, they can create a dynamic and safe learning environment that helps them to minimize learning pressure and fosters a better understanding of the subject matter. Accordingly, providing a friendly translanguaging space enables students to use their existing language resiliently and explore various bodily movements to participate in classroom activities and reduce their apprehension of using their target language during class activities (Tai and Li, 2021).

Discussion

New insights are gained into the affordances of translanguaging for English learning through teachers' pedagogical translanguaging, which can be implemented in an EFL classroom to assist students in extending their full semiotic repertoire. In response to the research question, the consecutive analysis of the classroom interactions has revealed that the teacher's translanguaging space can be constructed through pedagogical translanguaging for reducing extraneous cognitive load to facilitate content learning in the English classroom and stimulating systematic and purposeful communication among the participants (see Extracts 1 and 2). Although the student deployed spontaneous translanguaging practices during classroom interactions, providing and facilitating a space for translanguaging revealed the language use features which were activated during the English learning process, which in turn leads to minimizing extraneous cognitive load in the EFL classroom. This result is consistent with previous research that providing a translanguaging space will be useful for EFL students to share their understanding and experiences, enhance their meta-cognitive skill, and deeply engage bravely in the learning activities (Cenoz and Gorter, 2022; Wei and García, 2022). English teacher should, however, attempts to eliminate, or at least minimize, the extraneous cognitive load among students by implementing the basics for minimizing that cognitive load.

First, maintaining student interest in establishing connections between the native and target language (Indonesian and English) is important in the EFL classroom. EFL Students will learn

better when they are provided with a safe space to support a better understanding of a new concept. Thus, the teacher should give students the freedom to students for activating and use their spontaneous translanguaging strategy to build associations between English and Indonesian. The cognitive load of having to speak full English can be lightened by making it simpler for the students' brains to connect English to Indonesian when having difficulty expressing complete sentences in English. The students need to learn how to strengthen their visualization and imagination when switching from English to Indonesian. Once English words or sentences are associated with Indonesian, the students will experience less cognitive energy attempting to convey in Indonesian. This finding is also supported by previous findings revealed by (Lin and Leung, 2023) that the various linguistic and non-linguistic resources employed by students in a translanguaging space can stimulate the development of a layered understanding of the classroom content, which in turn encourages students to get involved bravely during classroom activities.

Second, preventing the students from overloading enhances their participation during classroom interactions. Addressing linguistic insecurity is crucial in preventing burnout. This linguistic insecurity may lead to a loss of confidence in speaking English in the EFL classroom. The results reveal that teacher needs to foster students' linguistic security, which is considered confidence to speak English as the target language. It is noted that EFL students may fight back against English as a dominant language ideology. They can affirm their linguistic security in multiple languages and claim the legitimacy of their multiple language variety as multilinguals. One necessary means of fostering linguistic security is to develop students' awareness of the multiple languages used in the classroom. This aligns with the previous findings (Wei and García, 2022), which highlighted that a multilingual student might employ different languages and mix the languages for different purposes, especially to address linguistic insecurity. They believed that the objective of translanguaging here is to explore students' first and target languages to create a single linguistic repertoire. In this sense, the linguistic competence of multilingual students is not fixed; it is fluid and difficult to measure but real (Cenoz and Gorter, 2022), especially for meaning making and participation in the classroom.

Third, developing critical multimodal awareness enables students to explore their bodily communication. Critical translanguaging awareness can be developed through deploying various multimodal resources. The important role of EFL teachers in stimulating multimodality at the individual level during classroom interactions must be considered. Allowing the fear of making diverse bodily movements may impede speaking English. Therefore, EFL students tend to use various multimodal resources as communication strategies. Again, these extracts revealed that lower English ability students need opportunities to use translanguaging for working out problems during classroom interaction. Students with lower English ability need opportunities to explore their multimodal resources to help them in meaning-making and enhance participation. This finding consistently reflects (Dovchin, 2021) that when translanguaging practice is employed during the interactions, the EFL students were provided with an emotionally friendly space in which they were able to control their negative emotions by deploying different linguistic and multimodal resources.

Given the research findings in this study, pedagogical implications are highlighted for both EFL teachers and students. Based on the whole analysis section, it is evident that teachers' pedagogical translanguaging in the EFL classroom stimulates the students' engagement to explore their various semiotic resources and insight into the classroom discussion. This finding strengthens previous findings that, regardless of whether these pedagogical translanguaging practices are conducted systematically, spontaneous pedagogical translanguaging is naturally useful to

stimulate the students' participation during classroom interaction (Cenoz and Gorter, 2022). Teachers' pedagogical translanguaging bridges students' confidence and thoughts, as well as constructs a more friendly environment to reduce extraneous cognitive load during the English learning process, which in turn makes them appreciate this pedagogical practice as a helpful way to demonstrate their various semiotic repertoire without fear of restriction through exploring all linguistic resources during classroom interactions.

The findings of this study directly align with the targets of SDGs, which emphasize inclusive and equitable quality education, as well as the promotion of lifelong learning opportunities for all. This indeed adds new information regarding SDGs, as reported elsewhere (Nurramadhani *et al*., 2024; Krishnan *et al*., 2024; Djirong *et al*., 2024; Waardhani *et al*., 2024; Yustiarini *et al*., 2025; Merzouki *et al*., 2025; Namoussa *et al*., 2025; Glovatskii *et al*., 2025; Ragadhita *et al*., 2026). The construction of a translanguaging space in the EFL classroom contributes to SDG 4 by providing equitable access to learning for students with diverse linguistic backgrounds. As observed in the classroom interactions, teacher-led pedagogical translanguaging enabled learners to use their full linguistic and multimodal repertoires, thereby lowering extraneous cognitive load and enhancing participation. This inclusivity is essential because it ensures that students who may struggle with English-only instruction are not disadvantaged, thereby reducing inequality in learning outcomes (Wei and García, 2022). Moreover, the approach promotes linguistic diversity as an educational resource rather than a barrier, in line with SDG 4's call for culturally relevant pedagogy that respects local languages and identities (Cenoz and Gorter, 2022). By reducing cognitive overload through the strategic integration of students' home languages, teachers create a psychologically safe learning environment where learners can focus on meaning-making and skill development. This not only supports English language acquisition but also strengthens students' confidence, fostering lifelong learning habits. The pedagogical model demonstrated in this study offers a replicable framework for other multilingual contexts, making it a valuable contribution to the global agenda for sustainable, quality education.

Conclusion

This study attempted to explore teachers' pedagogical translanguaging in the EFL classroom of university-level students in Indonesia. When we started this study, an important research question raised seemed to be of interest for the exploration of providing a space for translanguaging in the EFL classroom through teachers' pedagogical translanguaging for facilitating students' participation in classroom interactions. Thus, a space for translanguaging enables EFL students to explore social spaces that have been constructed in which they purposefully deploy their semiotic resources to strategically communicate (Dobinson *et al*., 2023). In such a case, the students must exert extra effort to participate in English classroom discussion, where most of the EFL students have limited English language proficiency. Consequently, to enhance English learning, it is vital to manage cognitive load efficiently through teachers' pedagogical translanguaging by constructing a friendly, safe environment for students to deploy their full multilingual and multimodal resources.

The findings revealed that teachers' pedagogical translanguaging plays an important role as a bridge of willingness which enables students to demonstrate a range of their linguistic and multimodal resources, including (e.g., facial expression, body language or gesture, eye contact, proxemics, volume of voice, and images). In this way, translanguaging practices help EFL students to bravely participate in English classroom discussion and empower their confidence for exploring linguistic diversity and reduce extraneous cognitive load in knowledge construction. This prompts

the EFL teacher to provide equality of multiple languages in constructing educational practices upon the students lived experience, environment, and belief.

The limitation of this study is that it is restricted to the sample size of the qualitative study and one content subject in this university, and therefore, this sample cannot begin to cover the various diversity of EFL students in this university. For future study, the researchers suggest pursuing this line of investigation by investigating the teacher's pedagogical translanguaging in whole English classes. A longitudinal case exploring the role of the teacher's pedagogical translanguaging in stimulating students' various semiotic resources can be conducted to enrich our insight into how using a space of translanguaging can lead to effective outcomes on reducing students' cognitive load during English learning.

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