rEFLections
Vol 32, No 2, May - August 2025

Developing a Model for Learner Autonomy Capacity Measurement in EFL Learning

TIN T. DANG
Faculty of Foreign Languages, Ho Chi Minh City University of Technology and Education, Vietnam
Author email: tin.dang@hcmute.edu.vn

Article information

Article history:
Received: 19 Mar 2025
Accepted: 25 Aug 2025
Available online: 26 Aug 2025

Keywords:
Learner autonomy
Model development
Measurement
Dimension
EFL

Abstract

Learner autonomy has been considered an essential goal of English as a Foreign Language (EFL) education. This capacity empowers students to actively engage in learning activities and gives them greater control over their learning environment. Existing research on learner autonomy has proposed six conceptual models, yet these frameworks have limited employment for measuring this capacity. This study aims to identify the core dimensions of learner autonomy and develop an adaptable model for measurement purposes. Employing a quantitative approach, this study developed a 62-item questionnaire and collected data from 562 EFL undergraduate students across four regions of Vietnam. Exploratory factor analysis identified a four-dimensional model of learner autonomy, highlighting the distinction between technology-supported and traditional learning activities. Statistical analyses confirmed significant correlations among all dimensions, emphasizing the dynamic and interdependent nature of learner autonomy. The proposed model offers a framework for measuring autonomy, with future research needed to refine it based on contextual influences.

INTRODUCTION

Learner autonomy has long been identified to be a cornerstone of education, particularly in English as a Foreign Language (EFL) contexts, where it is often confirmed as an ultimate goal (Benson, 2009, 2011; Dang, 2010; McClure, 2001; Waterhouse, 1990). This capacity fosters students' active participation in learning activities (Benson, 2007) and ability to control their learning space (Dang & Le, 2022), a perspective validated across diverse EFL settings (Aoki, 2001; Hart, 2002; Luke, 2006; Smith, 2001, 2003a). Research highlights its contributions to enhanced productivity, motivation, knowledge retention, and reduced frustration (Al-Shboul et al., 2023; Dickinson, 1987; Gardner & MacIntyre, 1991; Holec, 1987; Komonniramit & Tepsuriwong, 2023; Namaziandost et al., 2024), underscoring its direct impact on learning processes and outcomes.

Learner autonomy aligns seamlessly with the communicative language teaching (CLT) approach, which emphasizes communicative competence and student-centered learning (Nunan, 1988, 1991; Tarone & Yule, 1989). Students under CLT must actively engage in tailored communicative scenarios, take risks with the target language, and self-assess their progress

(Dam & Legenhausen, 2010; Kołsut & Szumilas, 2023; Pellegrino, 1994), all of which hinge on a robust autonomy capacity (Breen & Mann, 1997; Littlewood, 1997; Nunan, 1997). This aligns with The United Nations Sustainable Development Goal (SDG) 4's aim to ensure inclusive, equitable, and quality education by promoting lifelong learning opportunities, as autonomous learners are better equipped to adapt and thrive in dynamic linguistic environments. More recent research also affirms that autonomy in EFL enhances learners' ability to navigate complex communicative demands, reinforcing its relevance in modern pedagogical shifts (Susanti et al., 2023), cultivates reflective learners, and improve knowledge construction (Şener & Mede, 2023). Thus, learner autonomy not only accelerates individual learning outcomes but also contributes to systemic educational quality and equity.

Learner autonomy in EFL education generally reveals six conceptual models, categorized into two types: those focusing on developmental stages (Littlewood, 1999; Nunan, 1997; Scharle & Szabo, 2000) and those emphasizing areas of control (Benson, 2011; Littlewood, 1996; Macaro, 2008). The stage-based models, such as Nunan's five-level framework (awareness to transcendence) and Scharle and Szabo's three-phase approach, outline progressive learner behaviors but assume a linear development that does not hold across diverse contexts, as evidenced by Sinclair (2009) with Chinese learners. Similarly, Littlewood's reactive-proactive distinction offers broad insights but lacks specificity. In contrast, control-based models such as Littlewood's communicator-learner-person framework and Macaro's competence-choice triad identify domains like language use, learning strategies, and personal agency. However, their dimensions overlap significantly, and their interrelated nature prevents a solid establishment of the clear and measurable boundaries (Benson, 2011). The current study therefore addresses this gap by aiming to identify the core dimensions of learner autonomy and develop an adaptable model for measurement. This aligns with calls for precise assessment tools in EFL autonomy research (Oxford, 2015), enhancing both pedagogical application and empirical rigor.

LITERATURE REVIEW

Learner autonomy in EFL education has gained significant attention over the past three decades. It is often linked to students' ability to take charge of their learning, leading to greater engagement, motivation, and efficiency. However, these claims lack consistent empirical support (Nguyen, 2009), necessitating a deeper exploration of its conceptual complexity and variations in practice. Research has shown that learner autonomy is a multifaceted construct influenced by psychological, behavioral, and contextual factors (Smith & Ushioda, 2009). It manifests in diverse learning behaviors that vary depending on socio-cultural settings (Dang, 2024). A learner may demonstrate autonomy in one situation but not in another, even under similar circumstances. This variability highlights the need to understand how students enact autonomy within their learning environments.

The concept of learner autonomy

Provided with the complicated and context-driven nature of learner autonomy, scholars have examined learner autonomy through multiple perspectives: technical, psychological, socio-cultural, and political-critical (Benson, 2006; Oxford, 2003; Sinclair, 2000). The technical perspective emphasizes learning environments, while the psychological perspective focuses on self-regulation and intrinsic motivation (Dang, 2012). The socio-cultural perspective highlights social interactions, whereas the political-critical perspective views autonomy as a means for empowerment. These perspectives are complementary, contributing to a holistic understanding of learner autonomy (Oxford, 2003). Given the growing emphasis on socio-cultural influences, this study adopts a socio-cultural lens to understand learner autonomy by exploring students' perceptions of this capacity.

At its core, learner autonomy is the capacity to control one's learning process (Dang, 2012). Many countries now incorporate it into their educational policies to foster independent and adaptable learners. Two essential attributes of learner autonomy are awareness and reflection (Chinpakdee, 2021; Lamb, 2008). The cognitive dimension pertains to learners' internal readiness to accept responsibility for their learning (Little, 1991), while the behavioral dimension focuses on observable self-management actions (Holec, 1981). Recognizing the interplay between these dimensions is essential for understanding how learner autonomy is enacted in different educational contexts.

Models of learner autonomy

The conceptualization of learner autonomy varies across different interpretations and perspectives, leading to the development of six models which fall into two broad categories. The first group focuses on the developmental progression of autonomy, and the second group emphasizes the areas of learner control. The former group attempts to conceptualize autonomy as a gradual process, while the latter examines the dimensions through which learners exercise control over their learning. They are all specifically analyzed in the section which follows.

Models of learner autonomy regarding stages of development

The first major attempt to structure learner autonomy development was made by Nunan (1997), who categorized it into five stages, namely *awareness*, *involvement*, *intervention*, *creation*, and *transcendence*. This model aligns conceptually with structured learning processes, in which learners sequentially progress through cognitive and behavioral adaptations. Initially, learners become aware of their goals and strategies, then gradually assume responsibility by selecting tasks, modifying learning approaches, and ultimately developing new independent learning strategies. More details are presented in Table 1.

Table 1

Five-level model of learner autonomy (Nunan, 1997, p. 195)

Level	Learner Action	Content	Process
1	Awareness	Learners are made aware of the pedagogical goals and content of the materials they are using.	Learners identify strategy implications of pedagogical tasks and identify their own preferred learning styles/strategies.
2	Involvement	Learners are involved in selecting their own goals from a range of alternatives on offer.	Learners make choices among a range of options
3	Intervention	Learners are involved in modifying and adapting the goals and contents of the learning program.	Learners modify/adapt tasks.
4	Creation	Learners create their own goals and objectives.	Learners create their own tasks.
5	Transcendence	Learners go beyond the classroom and make links between the content of classroom learning and the world.	Learners become teachers and researchers.

While Nunan's framework provides a structured index for learner autonomy development, it assumes a linear progression that may not apply universally. For instance, some learners may exhibit higher-order skills, such as content creation and task design (Levels 4 and 5), without demonstrating the ability to select from alternatives (Level 2) (Sinclair, 2009). This challenges the assumption that autonomy develops in fixed stages, reinforcing the argument that learner autonomy is a non-linear, context-dependent construct (Little, 2007).

The second model, proposed by Littlewood (1999), conceptualizes autonomy as a self-regulatory process, distinguishing between *reactive* and *proactive* autonomy. *Reactive autonomy* enables learners to organize resources independently after receiving structured guidance, whereas *proactive autonomy* allows learners to set their own learning directions, affirm their individuality, and take initiative in their educational journey. Notably, *reactive autonomy* is not necessarily a precursor to *proactive autonomy* but may exist independently. This distinction has influenced curriculum design, supporting structured approaches to autonomy development without requiring fundamental pedagogical changes (Benson, 2006).

The third framework, introduced by Scharle and Szabo (2000), outlines three stages of autonomy, namely *raising awareness*, *changing attitudes*, and *transferring roles*. The initial stage involves recognizing learning objectives and self-monitoring progress. The second phase shifts the focus toward modifying learning behaviors, incorporating self-selected strategies and reflective thinking (Tassinari, 2012). The final stage, *transferring roles*, signifies full learner independence, where minimal external guidance is required. This model closely mirrors Nunan's stages but presents them in a more streamlined manner.

In summary, these three models effectively map autonomy onto developmental stages, offering a benchmark for measuring progression (Benson, 2006). However, they rely on linearity, which may not fully encapsulate the dynamic nature of autonomy development. This has led researchers to propose alternative models focusing on specific domains of learner control.

Models of learner autonomy regarding areas of control

Instead of focusing solely on stages of development, another set of models examines autonomy in relation to areas of learner control. These frameworks emphasize how learners manage different aspects of their learning process rather than prescribing a step-by-step progression.

The first of these models, proposed by Littlewood (1996), identifies three dimensions of autonomy, namely *autonomy as a communicator*, *autonomy as a learner*, and *autonomy as a person*. These dimensions correspond to different learning contexts, including language use, learning strategies, and personal development, respectively (Benson, 2006). *Autonomy as a communicator* involves strategic language use in communicative situations, *autonomy as a learner* emphasizes self-directed engagement in learning activities, and *autonomy as a person* extends to broader cognitive and affective domains, such as self-expression and learning personalization. While these categories suggest a developmental sequence, they also highlight the interdependence of various aspects of learner autonomy.

Macaro (1997, 2008) proposed a similar three-aspect model, delineating *autonomy of language competence*, *autonomy of language learning competence*, and *autonomy of choice and action.* The first aspect pertains to linguistic ability, the second to the transfer of language skills across contexts, and the third to strategic learning decisions and critical thinking. This framework acknowledges that linguistic mastery does not necessarily precede the ability to develop learning strategies, emphasizing that different components of autonomy may evolve independently.

The third model, introduced by Benson (2011), organizes autonomy into *learning management*, *cognitive processes*, and *learning content*. This model moves beyond specific language skills to encompass broader aspects of self-regulated learning. *Learning management* involves strategic decision-making regarding time, resources, and activities. *Cognitive processes* refer to metacognitive awareness and self-reflection, which influence learners' ability to plan, monitor, and evaluate their learning (Lamb & Reinders, 2008). *Learning content* relates to learners' control over the subject matter they engage with, shaping their ability to personalize and internalize knowledge. Importantly, these dimensions are interconnected. This means enhanced cognitive awareness fosters better learning management, and effective content control strengthens metacognitive engagement.

While these three models vary in emphasis, they share significant conceptual similarities. For example, *autonomy as a learner* (Littlewood, 1996) closely aligns with *autonomy of language learning competence* (Macaro, 1997) and overlaps with *learning management* (Benson, 2011). Similarly, *autonomy of choice and action* in Macaro's framework parallels *learning content control* in Benson's model. These overlaps reflect the inherently interrelated nature of learner autonomy and the difficulty of categorizing its components in rigid, separate domains.

Discussion on the models

When these two groups of models are synthesized, it shows two key dimensions of learner autonomy, namely *performance areas* and *performance levels*. Performance areas, such as cognitive processes, demonstrated behaviors, and situational management, serve as overarching indicators of autonomy. Within these categories, different levels of autonomy can be identified, reflecting progressive learner capabilities.

However, a key limitation of these models is their reliance on developmental sequences, which may not fully capture the fluid, context-dependent nature of autonomy. The assumption that learners progress through fixed stages does not account for individual differences, diverse educational backgrounds, or external influences on learning autonomy (Tassinari, 2012). Instead, a more flexible perspective is needed, the one that acknowledges the interplay between cognitive, behavioral, and situational factors in shaping autonomous learning.

Ultimately, while stage-based and control-based models enrich theoretical understanding, learner autonomy should be viewed as an evolving construct, shaped by dynamic interactions between the learner, the learning environment, and external support systems. However, their lack of distinct and operationalizable dimensions limits their utility for measurement in varied EFL settings.

Dimensions of learner autonomy

Empirical research on learner autonomy, though employing different perspectives and interpretations of the construct, has identified several dimensions of this concept. These dimensions can be categorized into three distinct processes, namely initiating, monitoring, and evaluating. This process-oriented model is not contradictory, but complementary to the stage-oriented and area-oriented models. Each stage or area of control is suggested to include different groups of processes. Each group encapsulates specific behaviors and capacities that collectively define how learners exercise autonomy in EFL contexts, offering an initial framework for understanding and measuring this multifaceted construct.

The *initiating* process refers to learners' ability to take the first steps in managing their learning. This involves recognizing learning objectives and approaches, determining and establishing goals, creating study schedules or work plans, and seeking out resources. Gardner (2007) found that students in self-access learning centers in Hong Kong recognized customizing and personalizing learning processes as crucial to their autonomy. Similarly, Yang (2007) identified that Japanese EFL students considered self-initiative, planning, self-control, flexibility, and concentration as essential aspects of autonomous learning. In the Vietnamese higher education context, Trinh (2005) conceptualized autonomy as a self-regulating ability involving planning, monitoring, and regulating learning, further reinforcing the significance of goal-setting and planning in fostering autonomy.

The *monitoring* process involves learners actively engaging in their learning process by maintaining agendas, tracking progress, and selecting suitable strategies and materials. Learners

must also demonstrate flexibility, personalize their learning, and regulate their approaches accordingly. Studies have documented the importance of social interaction and collaboration in this stage. For instance, Lamb (2009) observed that UK secondary school students desired control over their learning but had varied perceptions of their responsibility and ability. This aligns with findings from Chinese EFL teachers (Sinclair, 2009), who valued critical reflection but were not always comfortable with full control over their learning. In Japan, Smith's (2001, 2003b) longitudinal study showed that students who engaged in group-based activities gradually took greater control over their learning by planning and implementing action-learning strategies. Similarly, Hart (2002) highlighted the importance of combining individual and collaborative activities, such as project work and reflective journals, in fostering autonomy. In another study, Naizhao and Yanling (2004) found that students working with teachers as facilitators, rather than knowledge transmitters, exhibited stronger learning awareness, goal-setting behaviors, and engagement in autonomous learning strategies.

The *evaluating* process focuses on learners critically reflecting on their learning process, evaluating their learning progress, and identifying areas for improvement. Learners must evaluate their outcomes, correct mistakes, and refine their strategies. The ability to reflect and self-assess has been noted in studies exploring various educational contexts. For example, Voller (2005) found that Hong Kong language teachers emphasized the role of reflection, negotiation, and strategy use in fostering autonomy. Similarly, Braine (2003) observed that Chinese undergraduate students developed self-evaluative skills through peer feedback in a writing course, increasing their engagement in autonomous learning. Moreover, Nguyen (2009) emphasized self-regulation and self-initiation in learner autonomy, highlighting the importance of structured opportunities for students to assess their progress.

It appears that most of prior studies employ the terms *controlling and/or managing learning processes* to describe the exercise of learner autonomy (e.g., Lamb, 2009; Luke, 2006). Moreover, various dimensions of learner autonomy are consistently highlighted across multiple studies. Some of these differ only in wording. For instance, Gardner (2007), Luke (2006), and Sinclair (2009) use *personalizing*, *customizing*, and *tailoring*, respectively. A closer look also reveals that certain dimensions can be subsumed under others. For example, *choosing appropriate materials* (in Blin, 2004) and *applying effective learning strategies* (in Hart, 2002 and Voller, 2005) could be considered part of *personalizing learning*.

In addition, the term *dimension* is not uniformly applied in the previous research. It can denote either a broad or a specific facet of learner autonomy. To address this inconsistency in terminology, the term *attribute* is adopted to encompass both the general and specific dimensions. These attributes are then organized to conceptually define the concept of learner autonomy. A thematic analysis suggests that these attributes can be divided into three types of processes: *initiating*, *monitoring*, and *evaluating* learning. This classification aligns with Little's (2003) suggestion. As a result, the attribute index of learner autonomy is structured into three categories, as shown in Table 2.

Table 2

Attribute index of learner autonomy

Processes	Attributes	Source Examples
Initiating	making plans or work agendas	Wang et al. (2024)
	identifying goals and setting goals	Aoki (2001)
	looking for resources	Nguyen (2009)
	being aware of learning goals and strategies	Yang (2007)
Monitoring	identifying and employing suitable strategies	Luke (2006)
	maintaining agendas and keeping track of learning	Ismail et al. (2023)
	selecting appropriate materials	Khaerudin & Chik (2021)
	being flexible and regulating learning	Lamb (2009)
	concentrating on learning	Yang (2007)
	collaborating and interacting with others	Dang (2024)
	tailoring, customizing and personalizing learning	Gardner (2007, 2009)
	expressing opinions and negotiating with peers taking	Trinh (2005)
	actions or implementing agendas	Nguyen (2009)
Evaluating	evaluating learning outcomes	Little (2003)
	reflecting critically	Chong & Reinders (2025)
	correcting mistakes	Sinclair (2009)

These three processes appear distinct, but they are inherently interconnected and often overlap in practice. Effective monitoring of the learning process requires students to evaluate their current strategies and identify new learning opportunities. Likewise, initiating a learning activity may stem from an evaluative purpose. For instance, an EFL student engaging in conversation with native English speakers could be seen as both initiating a learning opportunity and assessing their language proficiency. Furthermore, the development of these processes can be either interdependent or independent. A student proficient in monitoring their learning may also excel in evaluation, but this is not always the case. Ultimately, these three dimensions are best understood as complementary elements in a continuous cycle, reinforcing one another throughout the learning process. It is therefore important to validate these processes for a more comprehensive and measurable model of learner autonomy.

METHODOLOGY

As the current research primarily aims at generating a measurable model of learner autonomy, it employs the positivism paradigm, collecting quantitative data from a large sample and using exploratory factor analysis for the development of patterns (Dornyei, 2007). The concept generation is based on EFL students' perceptions of learner autonomy.

Participants

This study targeted Vietnamese EFL undergraduate students majoring in English-related fields, including American and British culture, American and British literature, TESOL Studies, English linguistics, and English translation and interpretation, at public universities in Vietnam. Given the aim to conduct exploratory factor analysis (Cohen et al., 2018), a sample size of 400 to 600 participants was sought. To capture socio-cultural diversity, students from four key regions of Vietnam (Mekong Delta, South, Central, and North) were included, as regional differences in lifestyle and local norms may influence their perception of learner autonomy.

Following phone invitations to seven major English language education universities, four institutions (one per region) were selected and agreed to participate. Each university assigned a lecturer coordinator to facilitate the process, ensuring clear communication about the questionnaire and its administration. The coordinators distributed the questionnaire to all eligible EFL students, who completed it voluntarily in class.

After data screening, 562 valid responses were obtained (71 males, 491 females), with regional distributions of 26.7% (North), 41.1% (Central), 14.8% (South), and 17.4% (Mekong Delta). The participants, aged 19–25, were in their first, second, or third year, following a quite standardized national curriculum. Fourth-year students were excluded due to curriculum variations.

Instrument development

The questionnaire was designed to assess local EFL students' perceptions of learner autonomy, comprising 62 statement items. Each item began with "*Students who succeed best with learning English*" followed by verb phrases reflecting autonomy behaviors (e.g., "*use time effectively,*" "*want to communicate with foreigners in English*"), derived from a synthesis of contemporary learner autonomy attributes. Participants rated their agreement on a five-point Likert scale, ranging from 1 (never/almost never true) to 5 (always/almost always true). Three open-ended items were appended to capture additional autonomy behaviors suggested by respondents.

The instrument's development began with the Learner Autonomy Inventory (Yang, 2007), a 56-item tool developed in Japan through collaboration with postgraduate students and validated with 593 EFL learners. This is the most comprehensive inventory identified in the literature. After review, five redundant item pairs were merged, reducing the total to 51 items. They were then recruited based on their relevance to the three core processes of learner autonomy, namely *initiating*, *monitoring*, and *evaluating*. This categorizing procedure allowed some overlaps (e.g., "*want to communicate with foreigners*" spanned *initiating* and *evaluating*), confirming content validity as every item linked to at least one process (see Table 3). As a result, the number of items yielded for *initiating*, *monitoring*, and *evaluating* is 24, 22, and 13, respectively. This reflects the adequate coverage of learner autonomy processes. These 51 items were reworded with input from two Vietnamese EFL lecturers and an Asian PhD student to make them more relevant to the EFL context of Vietnam.

Table 3

Sample of the 51-item list under three main processes

(1) Initiating (2) Monitoring (3) Evaluating			**Statement**
(1)	**(2)**	**(3)**	
x			try to find as many ways as they can to improve their English
x			look for opportunities to use English as much as possible
x			make their schedule so they will have enough time to study English
x			dream of being good English speakers
x			want to be good English learners
x			find information about English by themselves

(1) Initiating (2) Monitoring (3) Evaluating			Statement
(1)	(2)	(3)	
x		x	want to communicate with foreigners in English
x		x	practice English with people outside class
x	x		learn things that the teachers do not give as a task
	x		carry out the learning plans once they have been made
	x	x	write down their feelings towards English studies in a language learning diary
	x	x	check to make sure that they understood the lesson
	x	x	notice their mistakes and use that information to help them do better
		x	think about their progress in learning English
		x	check their English proficiency by taking TOEIC, TOEFL or IELTS voluntarily

Provided with the contemporary learning space, another 11 items relevant to the learning behaviors with technology were generated by adapting traditional behaviors (e.g., "*learn beyond teacher tasks*" became "*use the Internet for untaught content*"). The wordings of these items were validated with two education professors. These additions ensured relevance to digital learning environments, maintaining alignment with the three processes (Table 4). The final 62 items were randomized, with 13 (20%) phrased negatively to reduce bias, and three open questions included to enrich data collection.

Table 4

Statements about the learning in the technology-supported space

Process	Statement
Initiating	look for different resources on the Internet use the Internet to learn things which are not taught in class will use English to communicate if seeing a stranger on the Internet
Monitoring	try to do some online activities even with limited time share their feelings towards English studies with friends online pay more attention when they see an English website want to improve English by taking part in online communities such as forums, blogs, chat rooms go online as a way of learning English like to study with computers
Evaluating	check their English level by comparing it with the skills of others on the Internet will do a search on the Internet if they have a question about English

Procedures

The questionnaire, initially drafted in English, was translated into Vietnamese to enhance participants' understanding. To verify its accuracy, a back-translation process was utilized. The Vietnamese version was provided to two Vietnamese university lecturers and a doctoral student in Australia, all experienced in EFL teaching, who separately translated it back into English. Differences between the original and back-translated texts were examined, resulting in improved wording in both languages.

The finalized Vietnamese draft was tested with eight individuals in Vietnam, including two first-year and three second-year EFL students, two twelfth-grade students, and one university graduate (five females and three males), none of whom were involved in the main study

sample. The pilot test confirmed that participants comprehended and completed the questionnaire without issues, indicating no need for additional changes. The final version was subsequently distributed to the study participants. The gathered data was entered into SPSS 26, with incomplete cases removed and negatively phrased items recoded positively before analysis.

RESULTS

The questionnaire collected valid responses from 562 students, distributed across universities located in the four main regions of Vietnam. The sample was predominantly female, with 87.4% (491 participants) compared to 12.6% (71 participants) male, reflecting the gender distribution typical in EFL studies within the local context. This imbalance, while not ideal for statistical balance, mirrors the contemporary realities of EFL education in Vietnam and the practical constraints encountered during data collection. Geographically, the distribution showed a higher representation from the Central region (231 participants) and the North (150 participants), with fewer from the South (83) and the Mekong Delta (98) as summarized in Table 5.

Table 5

Distribution of residence and gender

Residence	Gender		Total
	Female	Male	
North (University A)	138	12	150 (26.7%)
Central (University B)	206	25	231 (41.1%)
South (University C)	67	16	83 (14.8%)
Mekong (University D)	80	18	98 (17.4%)
Total	491 (87.4%)	71 (12.6%)	562 (100%)

Description of the dataset

The participants' ratings on 62 items of autonomous learning behaviors ranged from 5 (always or almost always true) to 1 (never or almost never true) across all the items. The mean scores for these behaviors ranged from 2.56 to 4.64, with standard deviations between 0.88 and 1.39, indicating varied engagement levels. As partly extracted in Table 6, 59 of the 62 items had skewness values within the acceptable range of -2 to +2, suggesting a reasonably normal distribution for the total sample (Bryne, 2010; Hair et al., 2010). However, three items 45, 55, and 58 exhibited negative skewness beyond this range, implying that participants rated these behaviors more highly, potentially indicating stronger perceived importance or frequency.

The study notes that, despite some skewness, the normal distribution of the dataset was statistically sufficient for inclusion in exploratory factor analysis, a critical foundation of the data robustness for identifying underlying dimensions of learner autonomy.

Table 6

An extract from the descriptive statistics of the 62 questionnaire items

No	Question items in brief	Min*	Max*	Mean	SD	Skew
1	study English voluntarily	1	5	4.18	.929	-1.204
2	give themselves a reward or treat when they do well in E	1	5	2.73	1.088	.320
45	want to be good English learners	1	5	4.64	.912	-2.857
47	do things actively	1	5	4.25	1.076	-1.348
54	try to complete the things they have decided to do	1	5	3.64	1.056	-.506
55	think English is important for their future	1	5	4.62	.956	-2.640
56	have plans about how to learn English	1	5	4.41	1.076	-1.852
57	check their E profi by taking TOEFL or IELTS voluntarily	1	5	3.23	1.394	-.323
58	are aware of their studies	1	5	4.52	1.005	-2.208
61	find information about English by themselves	1	5	4.36	1.063	-1.706
62	know the method which suits them best and use it	1	5	3.99	1.067	-.938

* Min and Max values rated by the participants (1 = never or almost never true; 5 = always or almost always true)
Shading: items with a skew value out of the range between 2 and -2

Three open-ended questions (items 63, 64, and 65) included towards the end of the questionnaire to capture additional autonomous learning behaviors attracted few responses, and most were repetitions of existing items, failing to indicate any newly emergent behaviors. Consequently, data from these open entries were excluded from further analysis.

Construction of the model

Given the reasonably normal distribution of the data sample, an exploratory factor analysis was conducted using the 62 behavior items to extract potential dimensions for the model. As presented in Table 7, the strong partial correlations (Kaiser-Meyer-Olkin measure = .92) and statistically significant correlations (Bartlett's test $p < .01$) among the 62 items indicated the possibility for factoring the dataset (Coakes et al., 2009). A scree plot with eigenvalues greater than one proposed three or four factors (Cohen et al., 2018) as shown in Figure 1, leading to the extraction of four factors from the extraction method of Principal Component Analysis, accounting for 36.91% of total variance (Table 8).

Table 7

KMO and Bartlett's test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.921
Bartlett's Test of Sphericity	Approx. Chi-Square	12718.769
	df	1891
	Sig.	.000

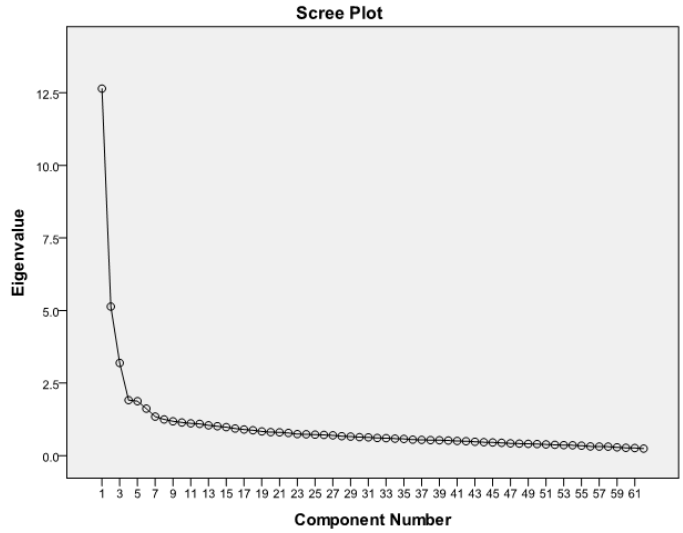

Figure 1 Scree plot test with Eigenvalues greater than 1

Table 8

An extract of the total variance explained

Total Variance Explained							
Component		Initial Eigenvalues			Extraction Sums of Squared Loadings		
		Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
dimension	1	12.645	20.394	20.394	12.645	20.394	20.394
	2	5.134	8.281	28.675	5.134	8.281	28.675
	3	3.192	5.148	33.823	3.192	5.148	33.823
	4	1.912	3.084	36.907	1.912	3.084	36.907
	5	1.876	3.025	39.932			
	62	.242	.390	100.000			

Extraction Method: Principal Component Analysis

Given the assumed correlation among dimensions, Direct Oblimin rotation with Kaiser Normalization was applied for the four-factor solution. The initial analysis removed 12 items with loadings < .40, reducing to 50 items (41.063% variance explained). Further iterations removed item 53, settling on 49 items (41.487% variance explained), all with loadings ≥ .40. This cutoff level of the item loading is often accepted in social sciences (Pett et al., 2003). As the study was interested in producing factors with distinct concepts (Hardy & Reynolds, 2009), a cutoff was then applied: ≥.585 (Factor 1), ≥.560 (Factor 2), ≥.498 (Factor 3), ≥.446 (Factor 4), retaining 32 items (47.543% variance explained). Expert validation by two education professors removed seven items (30, 56, 47, 61, 28, 27, 54) for conceptual misalignment, leaving 25 items.

The four-factor solution is finally employed for these 25 remaining strong items, and they accounted for a total of 50.21 percent of the total variance explained. This level of total variance is not ideal, but acceptable in social science research (Hair et al., 2010), indicating that the four factors can explain more than a half of the construct of learner autonomy. The factor loadings are fully presented in Table 9.

Table 9

Final factor analysis of the 25 items on learner autonomy

Structure Matrix					
Students who succeed best with learning English	**Component**				**Cumulative % of Variance**
	1	2	3	4	
Factor 1: Monitoring learning processes					26.794
37: use time effectively	.797				
32: make schedule so they'll have enough time to study E	.726				
49: study things which were not from their class	.725				
62: know the method which suits them best and use it	.712				
48: try to study English regularly even with limited time	.684				
6: make good use of materials & res when study E at home	.666				
38: notice mistakes & use that info to help them do better	.657				
36: reflect on what they learn and look for sth important	.643				
43: check to make sure that they understood the lesson	.627				
Factor 2: Goal-setting and evaluating learning					36.382
55: think English is important for their future		.728			
58: are aware of their studies		.727			
45: want to be good English learners		.714			
19: try to improve their weaknesses		.668			
60: practice English with people outside class		.618			
25: think about their progress in learning English		.614			
15: know their good points and weaknesses		.564			
Factor 3: Using technology for learning					44.787
31: like to study with computers			.757		
42: go online as a way of learning English			.692		
33: will do a search on internet if they have a question abt E			.664		
46: pay more attention when they see an English website			.520		
Factor 4: Initiating learning opportunities					50.207
4: want to communicate with foreigners in E				-.714	
9: try to find as many ways as they can to improve their E				-.678	
12: want to study in an E-speaking envi if having a chance				-.643	
7: look for opportunities to use E as much as possible				-.597	
41: want to find a job where only E is used in the future				-.524	

Extraction Method: Principal Component Analysis

Rotation Method: Oblimin with Kaiser Normalization

Factor loadings sorted by size

Other weaker loadings of each item were removed for clarity

The expert validation by two education professors was again employed to name the four factors or dimensions of learner autonomy. As a result, the four factors were called *Monitoring learning processes; Goal-setting and evaluating learning; Using technology for learning;* and *Initiating learning opportunities* respectively in order. The factor analysis process was carried out in multiple stages to identify four distinct dimensions of learner autonomy. Each of these dimensions contributes more than five percent to the total variance explained, highlighting their substantial influence on the concept of learner autonomy.

Reliability of the dimensions

To examine the dimension reliability, the internal consistency of items within each dimension was tested. Each item was examined using the item deleted method until the highest possible

alpha levels for their respective factors were achieved. As a result, no further items were removed, and the alpha levels ranged from .68 to .87 (Table 10), a level accepted for inclusion in the model (as suggested by Cohen et al., 2018).

Table 10

Internal consistency of the four factor scales

Dimensions of Learner Autonomy	No. of Items	Cronbach's Alpha
D1: Monitoring learning processes	9	.874
D2: Goal-setting and evaluating learning	7	.788
D3: Using technology for learning	4	.659
D4: Initiating learning opportunities	5	.683

To test the hypothesis that learner autonomy dimensions are correlated, a Pearson-product moment correlation test was conducted. Results showed statistically significant correlations between all pairs of the four dimensions ($.178 \leq r \leq .537$, $p \leq .01$, 2-tailed, Table 11). Five of the six correlations were moderate, indicating a common conceptual ground shared among dimensions such as *Monitoring learning processes* and *Initiating learning opportunities*. However, the correlation between Dimension 2 (*Goal-setting and evaluating learning*) and Dimension 3 (*Using technology for learning*) was weaker, suggesting limited association between technology use and evaluation activities.

Table 11

Positive correlation coefficient among the four dimensions

Correlations				
Dimension of Learner Autonomy Perception		**D2. Goal-setting & Evaluating Learning**	**D3. Using Tech for Learning**	**D4. Initiating Learning Opportunities**
D1. Monitoring Learning Processes	Pearson Correlation	.380**	.327**	.537**
	Sig. (2-tailed)	.000	.000	.000
	N	562	562	562
D2. Goal-setting & Evaluating Learning	Pearson Correlation		.178**	.300**
	Sig. (2-tailed)		.000	.000
	N		562	562
D3. Using Tech for Learning	Pearson Correlation			.382**
	Sig. (2-tailed)			.000
	N			562

**. Correlation is significant at the 0.01 level (2-tailed).

DISCUSSION

Contrary to the initial expectation, the dimension of technology-related learning emerged as distinct from those tied to the offline learning space. Thus, the current study suggested the learning processes in these two contexts to be fundamentally different. Attributes like initiating learning and selecting methods overlapped offline dimensions yet perceived independently, possibly due to distinct online skills (Jeon-Ellis et al., 2005; Wells, 2007). The technology-supported learning activities were not integrated seamlessly with traditional

learning processes, highlighting a contextual divergence in autonomy manifestation. This has not previously been confirmed as prior research typically examined learner autonomy within each space independently (Lamb, 2008), with few studies critically comparing autonomous behaviors across both.

In addition, the distinctly conceptual processes suggested by the literature are partly supported only. *Goal-setting* was indicated to be part of *Initiating learning* in literature, but it is combined with *Evaluating* in the current study. These similarities and differences are presented in Table 12.

Table 12

Dimensions identified from the current study with those in the literature

Dimensions Generated from the Current Study	**Core Processes Synthesised from the Literature**
Monitoring learning processes	Monitoring
Goal-setting and evaluating learning	Evaluating
Initiating learning opportunities	Initiating
Using technology for learning	(*integrated in other processes*)

There are three items related to goal setting and four to evaluation in this dimension, suggesting that students view these activities as closely intertwined, not distinct. This implies that setting a goal prompts an immediate concern for progress assessment, diverging from prior research. For instance, Rivers (2001) observed students setting goals before adjusting activities, while Aoki (2001) noted engagement preceding goal setting, linking goals more to engagement than evaluation. Earlier models by Littlewood (1999) and Nunan (1997) position goal setting and evaluation at opposite ends of the autonomy process, with intervening activities, suggesting a sequential rather than direct association.

This unified dimension may stem from Vietnam's exam-centric education system, where learning outcomes hinge on test scores, blending goal setting with evaluation (Le & Barnard, 2009; Tran & Baldauf, 2007). Therefore, their autonomous learning behaviors are significantly shaped by external pressures like exams (Phan, 2021), potentially merging these processes into one dimension. This finding highlights a context-specific adaptation of learner autonomy, differing from other frameworks.

The dimension model of learner autonomy identified in this context of Vietnam both aligns with and diverges from Yang's (2007) findings in Japan. Only four of Yang's dimensions, namely *self-initiative*, *making plans*, *self-control*, and *flexibility*, partially emerged in the current study. Thirteen of her 26 items across these dimensions were integrated into three dimensions of the current model. However, only the structure of the *Initiative* dimension, termed *Initiating learning opportunities* here and *Self-initiative* in Yang's study showed notable similarity. The factor loadings of other items varied; for instance, the item *notice mistakes and use that information to do better* shifted from *Planning* in Yang's study to *Monitoring* in this study, blending items from three of her dimensions into only one *Monitoring* dimension of this study.

It is also necessary to note that Yang's *Taking actions* and *Concentration* dimensions (4.41% and 4.40% variance, respectively) were absent in the current study, possibly due to their minor statistical weight or differing cultural perspectives. Vietnamese students may be less attentive in class and undervalue lectures, potentially diminishing concentration's relevance, whereas Japanese students prioritize focus and attendance (Yang, 2007). Recent research on Vietnamese students supports such contextual influences, again highlighting how cultural norms shape autonomous learning behaviors in EFL settings (Le et al., 2024), underscoring the need for further cross-contextual analysis.

The four-dimension model from this study also extends prior research. In the context of Vietnam, Trinh (2005) proposed three dimensions (planning, monitoring, regulating), while Nguyen (2009) identified two (self-initiation, self-regulation). The dimensions of *Monitoring* and *Initiating learning* in this study align with elements of both models, with the former resonating Trinh's three dimensions and Nguyen's self-regulation. *Monitoring* attributes like planning also mirror maintaining agendas in Smith (2003a), and selecting methods echo strategy use in Benson (2006) and Rivers (2001). These confirm the important contributions of the current study in developing a better model to understand the concept of learner autonomy.

CONCLUSION

The current study contributes to the understanding of learner autonomy by proposing a four-dimensional model that encapsulates key aspects of autonomous learning. These dimensions are named *Goal-setting and evaluating learning*, *Initiating learning opportunities*, *Monitoring learning processes*, and *Using technology for learning*. Unlike previous arguments, which often integrate both technology and non-technology supported learning activities into each dimension of learner autonomy, this study underscores the need to separate technology-supported learning as an independent dimension. The increasing role of digital tools in education necessitates this distinction, as technology not only facilitates access to resources but also shapes students' learning behaviors and autonomy in unique ways.

This study also merges goal-setting and evaluation into a single dimension, acknowledging their interconnected nature. Learners who set clear learning goals are more likely to engage in self-evaluation, and vice versa. This combination aligns with existing research suggesting that goal-setting is inherently tied to reflection and assessment of learning progress. In addition, the statistical analyses confirm significant correlations among all four dimensions, reinforcing the notion that learner autonomy is a dynamic and interdependent construct. While each dimension contributes uniquely to autonomy, their strong associations suggest that fostering one aspect can positively influence others. Future research should consider this model for measuring learner autonomy and further explore contextual factors in shaping a suitable model to understand the performance of this capacity in context.

ACKNOWLEDGEMENT

This publication is part of the Project number T2024-160, funded by Ho Chi Minh University of Technology and Education, Vietnam.

THE AUTHOR

Tin T. Dang, PhD, is an EFL and TESOL lecturer at both the undergraduate and postgraduate level in Vietnam. He currently works as Dean of the Faculty of Foreign Languages at Ho Chi Minh City University of Technology and Education, Vietnam. His research primarily focuses on learner autonomy, teaching methodology, curriculum development, and technology in education.
tin.dang@hcmute.edu.vn

REFERENCES

Al-Shboul, O. K., Rababah, L. M., Banikalef, A. E. A., & Mehawesh, M. I. (2023). Role of learner autonomy in intrinsic motivation in EFL writing. *International Journal of English Language and Literature Studies, 12*(2), 107–116. https://doi.org/10.55493/5019.v12i2.4756

Aoki, N. (2001). The institutional and psychological context of learner autonomy. *AILA Review, 15*, 82–89.

Benson, P. (2006). Autonomy in language teaching and learning. State-of-the-art Article. *Language Teaching, 40*(1), 21–40.

Benson, P. (2007). *Teacher and learner perspectives.* Authentik.

Benson, P. (2009). Making sense of autonomy in language learning. In S. Toogood, R. Pemberton, & A. Barfield (Eds.), *Maintaining control: Autonomy and language learning* (pp. 13–26). Hong Kong University Press.

Benson, P. (2011). *Teaching and researching autonomy in language learning* (2nd ed.). Routledge.

Blin, F. (2004). CALL and the development of learner autonomy: Towards an activity-theoretical perspective. *ReCALL, 16*(2), 377–395. https://doi.org/10.1017/S0958344004000928

Braine, G. (2003). From a teacher-centered to a student-centered approach: A study of peer feedback in Hong Kong writing classes. *Journal of Asian Pacific Communication, 13*(2), 269–288. https://doi.org/10.1075/japc.13.2.05bra

Breen, M. P., & Mann, S. (1997). Shooting arrows at the sun: Perspectives on a pedagogy for autonomy. In P. Benson & P. Voller (Eds.), *Autonomy and independence in language learning* (pp. 132–149). Longman.

Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Routledge.

Chinpakdee, M. (2021). Using learning journals to promote learner autonomy. *ELT Journal, 76*(4), 432–440. https://doi.org/10.1093/elt/ccab056

Chong, S. W., & Reinders, H. (2025). Autonomy of English language learners: A scoping review of research and practice. *Language Teaching Research, 29*(2), 607–632. https://doi.org/10.1177/13621688221075812

Coakes, S. J., Steed, L. G., & Ong, C. (2009). *SPSS: Analysis without anguish: Version 16 for Windows*. John Wiley & Sons Australia.

Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge.

Dam, L., & Legenhausen, L. (2010). Learners reflecting on learning: Evaluation versus testing in autonomous language learning. In A. Paran & L. Sercu (Eds.), *Testing the untestable in language education* (pp. 120–139). Multilingual Matters.

Dang, T. T. (2010). Learner autonomy in EFL studies in Vietnam: A discussion from socio-cultural perspective. *English Language Teaching, 3(*2), 3–9. https://doi.org/10.5539/elt.v3n2p3

Dang, T. T. (2012). Learner autonomy: A synthesis of theory and practice. *The Internet Journal of Language, Culture and Society, 35*, 52–67.

Dang, T. T. (2024). Cultural and situational constraints on undergraduate students' performance of learner autonomy in EFL learning. *Journal of Language Teaching and Research, 15*(6), 1791–1799. https://doi.org/10.17507/jltr.1506.04

Dang, T. T., & Le, H. T. Q. (2022). Learning place control: Vietnamese EFL students' appreciation and trust. *International Journal of Language Education and Applied Linguistics, 11*(2), 56–63. https://doi.org/10.15282/ijleal.v11i2.6597

Dickinson, L. (1987). *Self-instruction in language learning.* Cambridge University Press.

Dornyei, Z. (2007). *Research methods in applied linguistics.* Oxford University Press.

Gardner, D. (2007). *Integration and support.* Authentik.

Gardner, R., & MacIntyre, P. (1991). An instrumental motivation in language study: Who says it isn't effective? *Studies in Second Language Acquisition, 13(*1), 57–72. https://doi.org/10.1017/S0272263100009724

Hair, J., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Pearson Educational International.

Hardy, M., & Reynolds, J. (2009). Incorperating categorical information into regression models: The utility of dummy variables. In M. Hardy & A. Bryman (Eds.), *The handbook of data analysis* (pp. 209–236). SAGE.

Hart, N. (2002). Intra-group autonomy and authentic materials: A different approach to ELT in Japanese colleges and universities. *System, 30*(1), 33–46. https://doi.org/10.1016/S0346-251X(01)00053-7

Holec, H. (1981). *Autonomy in foreign language learning.* Pergamon.

Holec, H. (1987). The learner as manager: Managing learning or managing to learn. In A. Wenden & J. Rubin (Eds.), *Learner strategies in language learning* (pp. 145–157). Prentice-Hall Inc.

Ismail, S. M., Nikpoo, I., & Prasad, K. D. V. (2023). Promoting self-regulated learning, autonomy, and self-efficacy of EFL learners through authentic assessment in EFL classrooms. *Language Testing in Asia, 13*(1), 1–27. https://doi.org/10.1186/s40468-023-00239-z

Jeon-Ellis, G., Debski, R., & Wigglesworth, G. (2005). Oral interaction around computers in the project-oriented call classroom. *Language, Learning & Technology, 9*(3), 121–145. https://doi.org/10.64152/10125/44035

Khaerudin, T., & Chik, A. (2021). Evaluating supports for learner autonomy in ELT textbooks. *The Journal of Asia TEFL, 18*(1), 39–56. https://doi.org/10.18823/asiatefl.2021.18.1.3.39

Kołsut, S., & Szumilas, M. (2023). Exploring student engagement in task-based and communicative language classrooms. *Language Teaching Research.* Advance online publication. https://doi.org/10.1177/13621688231188800

Komonniramit, K., & Tepsuriwong, S. (2023). Learners' motivation to participate in course-adjunct English activities: A case study of a high- and a low-motivation learner. *rEFLections, 30*(3), 940–959. https://doi.org/10.61508/refl.v30i3.268951

Lamb, T. (2008). Leaner autonomy and teacher autonomy: Synthesising an agenda. In T. Lamb & H. Reinders (Eds.), *Learner and teacher autonomy: Concepts, realities, and responses*. John Benjamins.

Lamb, T. (2009). Controlling learning: Learners' voices and relationships between motivation and learner autonomy. In S. Toogood, R. Pemberton, & A. Barfield (Eds.), *Maintaining control: Autonomy and language learning* (pp. 67–86). Hong Kong University Press.

Lamb, T., & Reinders, H. (2008). *Learner and teacher autonomy: Concepts, realities, and responses*. John Benjamins.

Le, C. V., & Barnard, R. (2009). Curricular innovation behind closed classroom doors: A Vietnamese case study. *Prospect: An Australian Journal of TESOL, 24*(2), 20–33.

Le, X. M., Le, K. N., & Le, T. T. (2024). Factors hindering student participation in English-speaking classes: Student and lecturer perceptions. *SAGE Open, 14*(3). https://doi.org/10.1177/21582440241266297

Little, D. (1991). *Learner autonomy 1: Definitions, issues, and problems*. Authentik.

Little, D. (2003). *Learner autonomy and second/foreign language learning.* Centre for Languages Linguistics & Area Studies. Retrieved 30 December 2024, from http://www.llas.ac.uk/resources/gpg/1409

Little, D. (2007). Language learner autonomy: Some fundamental considerations revisited. *Innovation in Language Learning and Teaching, 1*(1), 14–29. https://doi.org/10.2167/illt040.0

Littlewood, W. (1996). "Autonomy": An anatomy and a framework. *System, 24*(4), 427–435. https://doi.org/10.1016/S0346-251X(96)00039-5

Littlewood, W. (1997). Self-access: Why do want it and what can it do? In P. Benson & P. Voller (Eds.), *Autonomy and independence in language learning* (pp. 79–92). Longman.

Littlewood, W. (1999). Defining and developing autonomy in East Asian contexts. *Applied Linguistics, 20*(1), 71–94. https://doi.org/10.1093/applin/20.1.71

Luke, C. L. (2006). Fostering learner autonomy in a technology-enhanced, inquiry-based foreign language classroom. *Foreign Language Annals, 39*(1), 71–86. https://doi.org/10.1111/j.1944-9720.2006.tb02250.x

Macaro, E. (1997). *Target language, collaborative learning and autonomy*. Multilingual Matters.

Macaro, E. (2008). The shifting dimensions of language learner autonomy. In T. Lamb & H. Reinders (Eds.), *Learner and teacher autonomy: Concepts, realities, and responses* (pp. 47–62). John Benjamins.

McClure, J. (2001). Developing language skills and learner autonomy in international postgraduates. *ELT Journal, 55*(2), 142–148. https://doi.org/10.1093/elt/55.2.142

Naizhao, G., & Yanling, Z. (2004). *An empirical investigation of learner autonomy in some EFL classes in China* [Paper presentation]. AARE 2004 Conference, Melbourne. http://www.aare.edu.au/04pap/nai04930.pdf

Namaziandost, E., Çakmak, F., Heydarnejad, T., & Rezai, A. (2024). The predictive effects of learner autonomy and academic engagement on willingness to communicate, foreign language learning self-esteem, and L2 grit in an EFL context. *Acta Psychologica, 250*, Article 104528. https://doi.org/10.1016/j.actpsy.2024.104528

Nguyen, T. C. L. (2009). *Learner autonomy and EFL learning at the tertiary level in Vietnam* [Doctoral thesis, Victoria University of Wellington]. Open Access Te Herenga Waka-Victoria University of Wellington. http://researcharchive.vuw.ac.nz/handle/10063/1203

Nunan, D. (1988). *The learner-centred curriculum.* Cambridge University Press.

Nunan, D. (1991). *Language teaching methodology: A textbook for teachers.* Prentice-Hall.

Nunan, D. (1997). Designing and adapting materials to encourage learner autonomy. In P. Benson & P. Voller (Eds.), *Autonomy and independence in language learning* (pp. 192–203). Longman.

Oxford, R. (2003). Toward a more systematic model of L2 learner autonomy. In D. Palfreyman & R. Smith (Eds.), *Learner autonomy across cultures: Language education perspectives* (pp. 75–91). Palgrave Macmillan.

Oxford, R. L. (2015). Expanded perspectives on autonomous learners. *Innovation in Language Learning and Teaching, 9*(1), 58–71. https://doi.org/10.1080/17501229.2014.995765

Pellegrino, V. (1994). At the risk of speaking: Risk management in second language use. *ACTR Letter, 22*(1-3), 6–13.

Pett, M. A., Lackey, N. R., & Sullivan, J. J. (2003). *Making sense of factor analysis: The use of factor analysis for instrument development in health care research*. Sage Publications.

Phan, T. T. T. (2021). Self-assessment and language learner autonomy: An exploratory study in a Vietnamese university. *Vietnam Journal of Education, 5*(3), 72–83. https://doi.org/10.52296/vje.2021.88

Scharle, Á., & Szabo, A. (2000). *Learner autonomy: A guide to developing learner responsibility*. Cambridge University Press.

Şener, B., & Mede, E. (2023). Promoting learner autonomy and improving reflective thinking skills through reflective practice and collaborative learning. *Innovation in Language Learning and Teaching, 17*(2), 364–379. https://doi.org/10.1080/17501229.2022.2047694

Sinclair, B. (2000). Learner autonomy: The next phase. In I. Mcgrath, B. Sinclair, & T. Lamb (Eds.), *Learner autonomy, teacher autonomy: Future directions* (pp. 15–23). Longman.

Sinclair, B. (2009). The teacher as learner: Developing autonomy in an interactive learning environment. In R. Pemberton, S. Toogood, & A. Barfield (Eds.), *Maintaining control: Autonomy and language learning* (pp. 175–198). Hong Kong University Press.

Smith, R. (2001). Group work for autonomy in Asia: Insights from teacher-research. *AILA Review, 15*, 70–81.

Smith, R. (2003a). Pedagogy for autonomy as (becoming-) appropriate methodology. In D. Palfreyman & R. Smith (Eds.), *Learner autonomy across cultures: Language education perspectives* (pp. 129–146). Palgrave Macmillan.

Smith, R. (2003b). Teacher education for teacher-learner autonomy. In J. Gollin, G. Ferguson, & H. Trappes-Lomax (Eds.), *Symposium for language teacher educators: Papers from three IALS symposia*. IALS, University of Edinburgh. https://warwick.ac.uk/fac/soc/al/people/smith/smith_r/pre-2002/smith_2003_-_teacher_education_for_teacher-learner_autonomy.pdf

Smith, R., & Ushioda, E. (2009). 'Autonomy': Under whose control? In R. Pemberton, S. Toogood, & A. Barfield (Eds.), *Maintaining control: Autonomy and language learning* (pp. 241–253). Hong Kong University Press.

Susanti, A., 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), 1–16. https://doi.org/10.1080/2331186X.2023.2204698

Tarone, E., & Yule, G. (1989). *Focus on the language learner*. Oxford University Press.

Tassinari, M. G. (2012). Evaluating learner autonomy: A dynamic model with descriptors. *Studies in Self-Access Learning Journal, 3*(1), 24–40. https://doi.org/10.37237/030103

Tran, T. T. T., & Baldauf, R. B. (2007). Demotivation: Understanding resistance to English language learning: The case of Vietnamese students. *The Journal of Asia TEFL, 4*(1), 79–105.

Trinh, Q. L. (2005). *Stimulating learner autonomy in English language education: a curriculum innovation study in a Vietnamese context* [PhD thesis, University of Amsterdam]. University of Amsterdam Digital Academic Repository. http://dare.uva.nl/document/102346

Voller, P. (2005). *Teachers, facilitation and autonomy* [Paper presentation]. 2nd Independent Learning Association Oceania Conference, Manukau Institute of Technology, Auckland, New Zealand.

Wang, X., Zhang, Q., Chen, H., Neitzel, A. J., & Davis, M. H. (2024). The effects of language learning strategy instruction on college students' English achievement and learner autonomy in mainland China: A meta-analysis. *International Journal of Educational Research, 127*, Article 102442. https://doi.org/10.1016/j.ijer.2024.102442

Waterhouse, P. (1990). Supported self-study across the curriculum. In I. Gathercole (Ed.), *Autonomy in language learning: Papers from a conference held in January 1990* (pp. 4–6). Centre for Information on Language Teaching and Research.

Wells, M. (2007). Collaborative online projects in a global community. In T. Townsend & R. J. Bates (Eds.), *Handbook of teacher education: Globalization, standards and professionalism in times of change* (pp. 657–674). Springer.

Yang, T. (2007). Construction of an inventory of learner autonomy. *On CUE, 15*(1), 2–9.