

THE RELATIONSHIP BETWEEN LEARNER AUTONOMY AND STUDENTS' ENGLISH LEARNING STRATEGIES IN THE CONTEXT OF ONLINE LEARNING AT NANNING UNIVERSITY*

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Abstract

The objectives of this research were: 1) to study students' learner autonomy at Nanning University, 2) to study students' English learning strategies in the context of online learning at Nanning University, and 3) to study the relationship between learner autonomy and students' English learning strategies in the context of online learning at Nanning University. This study adopted a quantitative method to explore the relationship between learner autonomy and English learning strategies in the context of online learning. A total of 379 students were selected using purposive sampling to identify eligible participants, followed by simple random selection based on the Krejcie and Morgan (1970) sample size determination table. The research instrument was a self-designed questionnaire. The statistical analyses included descriptive statistics (frequency, percentage, mean, and standard deviation) and Pearson's product-moment correlation coefficient.

The research results were as follows:

1. Learner autonomy at Nanning University in 5 aspects was at a high level ($\bar{X}$ =4.187, S.D.=0.778). Considering the results of these 5 research aspects were as follows: the highest rank was "Understanding teaching objectives and learning requirements" ($\bar{X}$ =4.277, S.D.=0.738), indicates a high level, followed by "Setting learning goals" ($\bar{X}$ =4.180, S.D.=0.777), whereas "Monitoring the learning process" was the lowest rank ($\bar{X}$ =4.151, S.D.=0.794).

2. English learning strategies in the context of online learning at Nanning

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University in 6 aspects was at a high level ($\bar{x}$ =4.128, S.D.=0.797). Considering the results of these 6 research aspects were as follows: the highest rank was “Memory Strategies” ($\bar{x}$ =4.144, S.D.=0.787), indicates a high level, followed by “Social strategies” ($\bar{x}$ =4.139, S.D.=0.788), whereas “Metacognitive strategies” was the lowest rank ($\bar{x}$ =4.113, S.D.=0.803).

3. It was found that the relationship between learner autonomy and English learning strategies has a positive correlation at the very high level with statistical significance level at .01 (r =0.906).

These findings provide empirical evidence of the positive relationship between learner autonomy and English learning strategies in the context of online learning, and they help clarify the interaction between these two variables in online learning settings.

Keywords: Learner Autonomy, English Learning Strategies, Nanning University

Introduction

With the rapid development of information technology, English learning in higher education has increasingly extended beyond traditional face-to-face classrooms into technology-mediated environments. In such environments, learners frequently engage in self-regulated study beyond formal classroom instruction. Viberg and Kukulska-Hulme (2021) note that direct teacher supervision is often reduced in these contexts. Consequently, learners are required to assume greater responsibility for planning, monitoring, and evaluating their own learning. This shift highlights the importance of self-regulation and autonomy in sustaining effective language development, a view also emphasized by Benson (2011) and Zimmerman (2015). Learner autonomy has therefore become a central concept in language education, commonly defined as the capacity to take control of one’s own learning and make informed decisions about goals, methods, and evaluation, a definition articulated by Little (1991) and further discussed by Benson (2011).

Meanwhile, language learning strategies and learner autonomy have long been regarded as closely related constructs in second language acquisition research. Oxford (2017) argues that language learning strategies provide

systematic ways for learners to regulate cognition, motivation, and behavior during learning. Through such regulation, learners can enhance learning efficiency and strengthen self-directed development. Benson (2007) further associates autonomy with learners' ability to plan, monitor, and evaluate learning activities. He also emphasizes the importance of strategic engagement in language tasks. However, Ou (2017) points out that previous studies have often examined these constructs separately. Many investigations have also focused primarily on traditional classroom settings. Empirical research exploring their relationship in technology-supported or online environments remains comparatively limited.

In the EFL context of China, learner autonomy has become an important focus following curricular reforms emphasizing learner-centered approaches in college English education. Nevertheless, Ou (2017) indicates that further empirical research is needed to clarify how autonomy interacts with learning behaviors and strategy use. With the normalization of online learning in higher education, this research gap has become more salient. Therefore, it is necessary to systematically investigate university students' English learning strategies and their levels of learner autonomy in online environments and to analyze the relationship between these constructs. (Meng, C. et to all., 2023; Zimin, Z., et to all., 2023, Zhonghua. et to all., 2023)

Based on this research background, the present study aims to explore the relationship between learner autonomy and English learning strategies among undergraduate students at Nanning University within the context of online learning. Drawing on existing theoretical and empirical perspectives, it is hypothesized that learner autonomy is positively associated with students' English learning strategies, and that this relationship will reach statistical significance at the .05 level. The findings are expected to contribute to theoretical discussions on learner autonomy and strategy use and to provide empirical insights for improving online English teaching practices and fostering learner autonomy in higher education.

Objectives

1. To study students' learner autonomy at Nanning University.
2. To study students' English learning strategies in the context of online

learning at Nanning University.

3. To study the relationship between learner autonomy and students' English learning strategies in the context of online learning at Nanning University.

Literature Review

The literature review explores two keys relevant to the research areas:

1. Learner autonomy

Learner autonomy has been widely recognized as a core construct in educational research, particularly within the framework of self-regulated learning (SRL), where it is understood as a multidimensional capability. Recent studies conceptualize learner autonomy as learners' ability to understand teaching objectives and learning requirements, set learning goals, apply appropriate learning strategies, monitor and regulate learning processes, and evaluate learning outcomes. Van Nguyen and Habók (2021) defined learner autonomy as a psychological capacity involving goal setting, planning, monitoring, and evaluation, emphasizing that a clear understanding of instructional objectives underpins effective self-regulation. While most studies converge in viewing learner autonomy as a self-regulatory capacity grounded in goal-directed behavior, they differ in emphasis: some foreground cognitive–metacognitive regulation, whereas others highlight contextual negotiation and learner agency. Research in technology-mediated learning contexts further indicates that learners who clearly perceive learning goals are better able to select suitable resources and regulate their learning processes. Empirical evidence from Raluy and Misláng (2022) shows that structured goal-setting practices and reflective tools, such as learning logbooks, enhance learners' understanding of learning requirements while supporting ongoing monitoring and evaluation. In contrast, classroom-based research stresses the social dimension of autonomy development. From a classroom perspective, Abd Rahman et al. (2022) reported that discrepancies between teachers' and students' perceptions and expectations regarding learner autonomy may hinder its development, as students tended to support higher levels of autonomy while teachers demonstrated more cautious endorsement. This divergence suggests that learner autonomy operates at both intrapersonal and interpersonal levels: internally as a regulatory competence and externally

as a negotiated classroom construct. At the strategic level, previous studies indicate that learner autonomy is strengthened through metacognitive strategy instruction, which facilitates planning, monitoring, and evaluation. Thus, across different contexts, a consistent pattern emerges: autonomy develops through regulatory engagement, yet the degree to which it is enacted depends on instructional structure and teacher–student alignment. Overall, existing research suggests that learner autonomy should be viewed as a dynamic and multidimensional capacity shaped by instructional conditions and interactional expectations.

2. English learning strategies in the context of online learning

In the context of online learning, research over the past decade has consistently highlighted the continued relevance of English learning strategies as a key mechanism through which learners regulate and optimize their language development. Oxford (2017) proposed a well-established taxonomy that categorizes language learning strategies into memory, cognitive, compensation, metacognitive, affective, and social dimensions, and recent studies suggest that these six strategy types remain integral in digitally mediated environments. Irdani et al. (2025) found that online English learners frequently employ memory strategies (e.g., repetition and association) and cognitive strategies (e.g., analyzing linguistic forms and practicing skills) to process and retain language input, while using compensation strategies such as inferencing from context and online resources to overcome gaps in linguistic knowledge. Although empirical studies consistently report the use of all six strategy categories, their findings differ in terms of strategic prominence. Some research emphasizes the dominance of cognitive and memory strategies for processing online input, while others underscore the pivotal role of metacognitive strategies in managing independent learning demands. For example, Fitrianti and Susanti (2021) reported that metacognitive strategies—particularly planning, monitoring, and self-evaluation—play a central role in supporting self-regulated learning in online courses where learners must manage their pace and objectives with limited teacher supervision. Djiwandono (2024) showed that affective strategies are widely used to regulate anxiety, sustain motivation, and address emotional challenges associated with online English learning, especially during emergency

remote instruction. Lip (2025) observed that social strategies remain salient as learners engage in online discussions, peer collaboration, and virtual interaction to negotiate meaning and enhance communicative competence. Collectively, these findings suggest that strategy use in online learning is adaptive rather than static: different instructional conditions foreground different strategic dimensions, yet all operate interactively to support language development. Rather than functioning as isolated techniques, strategies constitute an integrated regulatory system responding to cognitive, emotional, and social demands.

Research Framework

In this study about the relationship between learner autonomy and English learning strategies in the context of online learning at Nanning University, the independent variable refers to learner autonomy, which includes understanding teaching objectives and learning requirements, setting learning goals, applying appropriate learning methods and strategies, monitoring the learning process, and evaluating learning outcomes, drawing on established theories of learner autonomy and self-regulated learning (Holec, 1981; Zimmerman, 2000). These dimensions align with contemporary student-centered learning frameworks that emphasize learners' active engagement, self-regulation, and responsibility for learning outcomes. The dependent variable is English learning strategies in the context of online learning, encompassing 1) memory strategies, 2) cognitive strategies, 3) compensation strategies, 4) metacognitive strategies, 5) affective strategies, and 6) social strategies. This classification is based on Oxford's (1990) widely accepted framework of language learning strategies, which emphasizes learners deliberate and strategic efforts to facilitate language acquisition. These strategy categories are particularly relevant in online learning environments, where learners are required to regulate their learning processes and actively engage with digital resources and peers.

The research framework can be illustrated in the following figure:

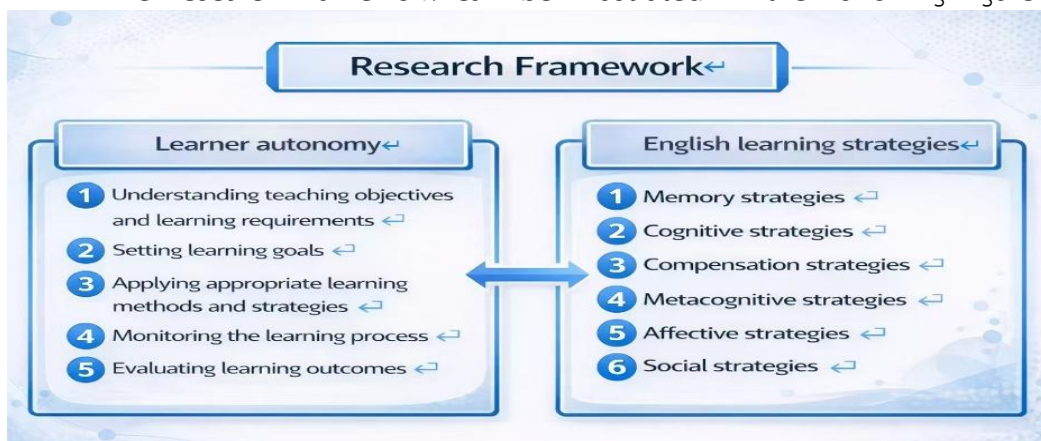


Figure 1 Research Framework

Methodology

This study adopts a quantitative research method to systematically explore the relationship between learner autonomy and English learning strategies in the context of online learning. The research process includes population and sample determination, research instrument design, data collection, and data analysis.

5. Population and the Sample Group

Population

The research population is 22,555 students from Nanning University.

Sample

The sample group of this study is 379 freshmen who enroll in English course of Nanning University according to Krejcie and Mogan table (1970) by accidental random sampling.

6. Research Instrument

The research instrument is a questionnaire with 3 parts:

Part 1: General Information. This section has 4 questions to gather background information on the respondent's gender, age, weekly English learning time, and academic disciplines.

Part 2: Learner Autonomy. This section uses a 5-point Likert scale with the standardized labels: “The Least Agree (1)” to “The Most Agree (5)” —an academic norm for measuring attitudes and perceptions. It contains statements related to learner autonomy, organized into 5 dimensions: 1) Understanding teaching objectives and learning requirements, 2) Setting learning goals, 3)

Applying appropriate learning methods and strategies, 4) Monitoring the learning process, and 5) Evaluating learning outcomes.

Part 3: English learning strategies in the context of online learning. it is 5 rating Scales. This main section has English learning strategies in the context of online learning statements measured on a 5-point Likert scale ranging from "the least agree" to "the most agree". It is organized into 6 dimensions: 1) Memory strategies; 2) Cognitive strategies; 3) Compensation strategies; 4) Metacognitive strategies. 5) Affective strategies; 6) Social strategies.

All statements display consistency with the measurement target as evidenced by an average score of 0.67 to 1.00 on the acceptable consistency index (IOC). The reliability of a pilot test of questionnaires assessed using Cronbach's α , a statistic measuring internal consistency, with α value of 0.995, indicating excellent internal consistency.

3. Data Collection

To ensure the systematic collection of data, the researcher implemented the following procedures:

Distribution: The online questionnaires were distributed to students at Nanning University via digital channels. Each respondent was informed of the research objectives, confidentiality, and their voluntary participation.

Platform Utilization: Data were collected through the "Questionnaire Star" (Wenjuanxing) online platform, which facilitated efficient data gathering and management.

Data Screening: Upon completion of the collection period, the raw data were screened. Invalid responses, such as incomplete forms or patterned answers, were excluded to ensure the integrity of the results.

Preparation for Analysis: The final valid datasets were coded and organized for statistical processing and analysis.

4. Data analysis

Part 1 To study students' learner autonomy at Nanning University, data analysis uses mean and stand deviation.

Part 2 To study students' English learning strategies in the context of online learning, data analysis uses mean and stand deviation.

Part 3 The relationship between learner autonomy and students' English

learning strategies in the context of online learning was analyzed by using the Pearson Product Moment Correlation Coefficient (r).

Results

Part 1: Learner Autonomy

Table 1 The mean ($\bar{x}$) and standard deviation (S.D.) of learner autonomy at Nanning University in 5 aspects

Learner Autonomy	$\bar{x}$	S.D.	Level	Ranking
9. Understanding teaching objectives and learning requirements (X1)	4.277	0.738	High	1
10. Setting learning goals (X2)	4.180	0.777	High	2
11. Applying appropriate learning methods and strategies (X3)	4.176	0.791	High	3
12. Monitoring the learning process (X4)	4.151	0.794	High	5
13. Evaluating learning outcomes (X5)	4.152	0.779	High	4
Total	4.187	0.778	High	

From Table 1 considering, the overall average of learner autonomy at Nanning University was at a high level ($\bar{x}$ =4.187, S.D.=0.778). Considering the results of these 5 research aspects were as follows: the highest rank was “Understanding teaching objectives and learning requirements” ($\bar{x}$ =4.277, S.D.=0.738), indicates a high level, followed by “setting learning goals” ($\bar{x}$ =4.180, S.D.=0.777), whereas “Monitoring the learning process” was the lowest rank ($\bar{x}$ =4.151, S.D.=0.794).

Part 2: English learning strategies in the context of online learning

Table 2 The mean ($\bar{x}$) and standard deviation (S.D.) of students’ comprehensive ability in 6 aspects.

English Learning Strategies in the context of online learning	$\bar{x}$	S.D.	Level	Ranking
7. Memory strategies (Y1)	4.144	0.787	High	1
8. Cognitive strategies (Y1)	4.135	0.798	High	3
9. Compensation strategies (Y1)	4.127	0.811	High	4
10. Metacognitive strategies (Y1)	4.113	0.803	High	6

English Learning Strategies in the context of online learning	$\bar{x}$	S.D.	Level	Ranking
11. Affective strategies (Y1)	4.124	0.787	High	5
12. Social strategies (Y1)	4.139	0.788	High	2
Total	4.128	0.797	High	

From Table 2 consideration, the overall average of English learning strategies in the context of online learning at Nanning University in 6 aspects was at a high level ($\bar{x}$ =4.128, S.D.=0.797). Considering the results of these 6 research aspects were as follows: the highest rank was “Memory strategies” ($\bar{x}$ =4.144, S.D.=0.787), indicates a high level, followed by “Social strategies” ($\bar{x}$ =4.139, S.D.=0.788), whereas “Metacognitive strategies” was the lowest rank ($\bar{x}$ =4.113, S.D.=0.803).

Part 3: The relationship between students’ learner autonomy and English learning strategies in the context of online learning at Nanning University.

Table 3 The relationship between students’ learner autonomy and English learning strategies in the context of online learning

English learning strategies in the context of online learning (Ytt)	Learner autonomy (Xtt)					
	X1	X2	X3	X4	X5	Xtt
Y1	0.756**	0.799**	0.850**	0.848**	0.874**	0.877**
Y2	0.741**	0.804**	0.844**	0.856**	0.868**	0.874**
Y3	0.726**	0.784**	0.823**	0.818**	0.845**	0.849**
Y4	0.744**	0.814**	0.838**	0.821**	0.866**	0.868**
Y5	0.750**	0.789**	0.836**	0.844**	0.860**	0.867**
Y6	0.740**	0.776**	0.808**	0.830**	0.845**	0.850**
Ytt	0.778**	0.833**	0.873**	0.876**	0.901**	0.906**

** refers to statistical significance level at .01

From Table 3, it is shown that the overall relationship between students’ learner autonomy and English learning strategies in the context of online learning has a positive correlation at a very high level with statistical significance level at

.01 ($r=0.906$), according to the correlation interpretation guidelines proposed by Hinkle, William, and Stephen (1998), coefficients ranging from 0.71 to 0.90 represent a high level of relationship, whereas coefficients between 0.91 and 1.00 indicate a very high level of relationship.

Discussion

1. Students' learner autonomy at Nanning University was at a high level overall, with "Understanding teaching objectives and learning requirements" ranking highest, followed by "Setting learning goals," while "Monitoring the learning process" ranked lowest. This indicates that instruction places strong emphasis on clarifying course objectives and requirements, which enhances students' goal awareness and planning-related autonomy, whereas less attention is given to training continuous self-monitoring and reflective learning skills. Consequently, students show stronger autonomy in planning than in process-oriented regulation. This finding is consistent with Raluy and Misleng (2022), who reported that students demonstrated relatively strong goal-setting abilities but limited engagement in monitoring goal attainment and evaluating learning outcomes. Similarly, Marsevani (2021) found that EFL learners demonstrated positive dispositions toward understanding instructional objectives and establishing learning plans, indicating stronger development of planning-related autonomy. In addition, Dang (2025) emphasized that learner autonomy capacity involves multiple interrelated dimensions, including goal setting, strategy use, and self-monitoring, and highlighted that imbalances across these dimensions may signal uneven development of autonomous learning competence.

2. English learning strategies in the context of online learning at Nanning University were at a high level overall, with memory strategies ranked highest, followed by social strategies, while metacognitive strategies were used least frequently. This pattern suggests that students rely heavily on system-guided online tools and peer interaction, which favor memorization and social engagement, whereas limited guidance in planning, monitoring, and evaluating learning constrains the use of metacognitive strategies. This finding is in line with Amir et al. (2025), who found an uneven distribution of strategy use, showing that affective, memory, and social strategies were well embedded in learning

practices, whereas metacognitive strategies were comparatively underutilized. Similarly, Chen et al. (2023) investigated language learning strategies used by students in online English courses and reported that learners employed diverse strategies, with social strategies used by all participants and memory strategies, along with several other types, showing significant correlations with academic achievement. In addition, Yunita et al. (2025) found learners primarily engaged teachers, more proficient peers, and classmates to practice and clarify grammar use, aiming to avoid errors, enhance understanding, share knowledge, and improve accuracy. These findings highlight the central role of interaction-based strategies in participation in language learning contexts.

3. A statistically significant and strong positive correlation was found between learner autonomy and English learning strategies in the context of online learning at Nanning University ($r=0.906$, $p<.01$). This indicates that students' clear understanding of teaching objectives and ability to set learning goals facilitates the frequent and purposeful use of learning strategies, while the prominence of memory and social strategies reflects adaptive responses to online learning demands, together contributing to the close relationship between autonomy and strategy use. This result aligns with the findings of Cheng et al. (2018), who reported significant positive correlations between learner autonomy, motivation, and language proficiency among Chinese university students. Similarly, Daflizar, Sulistiyo, and Kamil (2022) found that language learning strategy use was significantly associated with college students' autonomous learning practices. In addition, Liu (2015) further demonstrated that the use of language learning strategies was highly correlated with learner autonomy, with cognitive and metacognitive strategies showing the strongest associations, indicating that strategy engagement can serve as a significant predictor of autonomous learning behavior.

Recommendation

The implementation of the research results is as follows:

7. The findings show that students at Nanning University demonstrate a relatively low level of monitoring the learning process. Therefore, English teachers should introduce structured self-monitoring tools, such as weekly

learning logs, online progress checklists, and task completion trackers, to help students regularly review their learning progress in online English courses.

8. The results indicate that students make limited use of metacognitive strategies in online English learning. As a result, explicit instruction on metacognitive strategy use, including learning planning, progress monitoring, and self-evaluation, should be systematically integrated into college English teaching.

9. Given students' insufficient ability to monitor and evaluate their learning, teachers are encouraged to embed reflective activities into online learning platforms, such as post-task reflection questions and short self-assessment surveys, to guide students in identifying learning problems and adjusting learning strategies independently.

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