A STUDY ON LEARNING STUDENTS' AUTONOMY AND LEARNING SATISFACTION AMONG CHINESE LANGUAGE MAJORS AT Y COLLEGE IN ZHENGZHOU, CHINA

Xuechen Liu [1*]

Tzu-Shan Cheng [2]

[1] Master Candidate in Educational Administration, Stamford International University of Thailand

[2] Stamford International University of Thailand

[*] **Corresponding Author, E-mail**: liuxuechenwork@163.com

Abstract: This study aimed to explore the relationship between learner autonomy and learning satisfaction among university students at Zhengzhou Y University in China, and to analyze the differences in student autonomy and learning satisfaction based on various demographic variables. Through a questionnaire survey and quantitative research methods, this study collected data from the university's enrolled students, ultimately gathering 306 valid responses. The research findings show that the students at Zhengzhou Y University have a relatively high overall perception of both learner autonomy and learning satisfaction. Gender and grade level show significant differences in learner autonomy and learning satisfaction, while family structure (i.e., being an only child) and class leader status do not significantly affect learner autonomy and learning satisfaction. A significant positive correlation exists between learner autonomy and learning satisfaction. Finally, this paper discusses the research findings and provides suggestions based on the differences in demographic variables, aiming to assist Zhengzhou Y University in enhancing students' learner autonomy and learning satisfaction, and to promote the development of educational management practices.

Keywords: Learning Autonomy, Learning Satisfaction, Teacher Support for Autonomy, Higher Education

Introduction

Since the 1970s, learner autonomy has evolved into a crucial area of research in language education, gaining significant momentum in the early 2000s due to global changes in education policies (Little, 2020). As global education assessments have become more comprehensive, learner autonomy and learning satisfaction have emerged as vital indicators for evaluating higher education quality. Learner autonomy is defined as students' ability to independently control, regulate, and make decisions about their learning process (Little, 2007). In contrast, learning satisfaction encompasses students' overall attitudes and perceptions of various learning elements, such as course content, teaching methods,

and learning environments (Chang & Chang, 2012).

Contemporary studies highlight the importance of both learner autonomy and learning satisfaction in enhancing students' learning outcomes and the quality of education. Research suggests that higher learner autonomy is linked to increased student engagement and, in turn, greater learning satisfaction (Hyun et al., 2017; Lee & Sun, 2010; Mohammadi et al., 2023). Specifically, in language learning, promoting learner autonomy is a key teaching strategy that enhances both autonomy and satisfaction (Benson, 2007; Fan & Tian, 2024).

In China, the rapid development of higher education and the ongoing educational reforms have made learner autonomy and learning satisfaction central to contemporary research. In the context of quality education and innovation, fostering autonomous learning and improving learning satisfaction have become key goals in educational reform. This is particularly evident in Zhengzhou and surrounding areas, where educational resources and demographics reflect a typical representation of the broader educational landscape. As educational standards rise, especially in applied technology and comprehensive universities, the interplay between learner autonomy and learning satisfaction has garnered significant attention.

In conclusion, fostering learner autonomy and improving learning satisfaction are critical research topics in Chinese universities, especially in Zhengzhou. By enhancing students' autonomy—through increasing intrinsic motivation and self-regulation—academic performance and overall learning experiences can be optimized, ultimately boosting learning satisfaction. Therefore, exploring the relationship between learner autonomy and learning satisfaction among language majors is of both theoretical and practical significance.

Research Objectives

(1) To assess the level of learner autonomy among and learning satisfaction these Chinese language majors.

(2) To explore how demographic variables, affect the differences in learner autonomy and learning satisfaction among Chinese language majors.

(3) To investigate the correlation between learner autonomy and learning satisfaction among Chinese language majors.

Literature Review

Concept of Learning Autonomy

Learning autonomy refers to students' ability to independently control, regulate, and make decisions throughout their learning process. Initially, research focused on observable behaviors such as students' capacity to choose learning content and methods. Early definitions, like Knowles (1975), emphasized learners' independence from teacher intervention. Holec (1981) similarly defined autonomy

as the ability to take charge of one's learning. Over time, the concept evolved to incorporate deeper psychological mechanisms like intrinsic motivation and self-regulation (Little, 2007).

Contemporary views highlight the teacher's role in fostering autonomy, suggesting that learning autonomy is not only about individual behavior but also about learners' reflective awareness of the learning process. This idea recognizes that teacher guidance, alongside supportive learning environments, plays a critical role in developing students' autonomy (Little, 2002; Smith, 2008). Moreover, in the context of Chinese language education, teacher autonomy support is considered essential for promoting learners' autonomy (Sinclair, 1999).

Dimensions and Measurement of Learning Autonomy

Learning autonomy has evolved from a simple behavioral construct to include multiple dimensions such as intrinsic motivation, self-regulation, and decision-making (Benson, 2010). Measurement tools have been developed to assess various aspects of autonomy, notably Benson's Learning Autonomy Scale, which evaluates learners' self-regulation and engagement. Murase (2015) extended this view, integrating affective and cognitive factors.

Key dimensions of learning autonomy include: Interpersonal Autonomy: The ability to independently manage interactions with teachers and peers (Firat, 2016).Environmental Autonomy: The capacity to regulate one's learning environment (Murase, 2015).Process Autonomy: The ability to control learning pace and goals (Mavroidis & Giossos, 2019).

Concept of Learning Satisfaction

Learning satisfaction is a critical variable in educational research, originally derived from customer satisfaction theory. It reflects students' overall perception of their learning experiences. Early definitions centered around the discrepancy between expectations and actual experiences. However, modern definitions recognize learning satisfaction as multidimensional, including course content, teaching methods, and peer interaction (Oliver, 1993).

Contemporary research suggests that learning satisfaction also encompasses students' self-regulation, access to resources, and adaptability to learning environments (Petersen & Nortvig, 2018). The emotional, behavioral, and psychological aspects of learning satisfaction now form a comprehensive evaluation of the overall learning experience (Chang & Chang, 2012).

Dimensions and Measurement of Learning Satisfaction

Learning satisfaction is a multidimensional construct, typically including: Learning Environment: Availability of resources and a supportive atmosphere (Alqurashi, 2019).Learning Process: Students' engagement with strategies and efforts in relation to the course structure (Topala & Tomozii, 2014).Social Interaction: Interaction with peers and instructors (Hostetter & Busch, 2006).Wu's (2023) Learning Satisfaction Survey Scale, grounded in these dimensions, is used to assess student satisfaction, particularly in Chinese universities, making it relevant to this study.

Research on the Influence of Demographic Variables on Learning Autonomy

Learning autonomy is influenced not only by educational models but also by demographic variables such as gender, family background, and academic experiences. Studies show that female students generally exhibit higher levels of autonomy than male students (Komlosi-Ferdinand, 2019). Family background, including parental education and socioeconomic status, also affects autonomy, as students from higher socioeconomic backgrounds tend to have more resources and support for autonomous learning (Bukhari & Larik, 2024).

Additionally, leadership experience (e.g., serving as a class leader) has been found to enhance autonomy, as students develop leadership skills and greater understanding of autonomous learning (Watkins, 2021). Academic grade level is another influencing factor, with older students typically exhibiting higher levels of autonomy than freshmen (Ozer & Yukselir, 2023).

Research on the Influence of Demographic Variables on Learning Satisfaction

Demographic variables also affect learning satisfaction. Gender differences in satisfaction are mixed; some studies show that females report higher satisfaction (Li, 2019), while others find no significant differences (Pham & Nguyen, 2021). Family background, particularly socioeconomic status, plays a significant role, with students from wealthier families generally reporting higher satisfaction (Bukhari & Larik, 2024). Leadership experience, such as being a class leader, has been linked to higher learning satisfaction, as these roles foster a deeper connection to learning (Cao, 2022).

Research on the Relationship Between Learning Autonomy and Learning Satisfaction

Learning autonomy and learning satisfaction are closely interrelated. Studies indicate that increased autonomy enhances student motivation and engagement, which in turn boosts satisfaction (Lee & Sun, 2010). Research also shows that teacher autonomy-support strategies significantly improve both learning autonomy and satisfaction (Tadić, 2015; Shen et al., 2009). The relationship between these two variables is mutually reinforcing, with both factors contributing to improved academic achievement and self-efficacy (Vallerand, 1988; Hyun et al., 2017).

In summary, learning autonomy and satisfaction are deeply interconnected, with both playing pivotal roles in student motivation, engagement, and overall academic success.

Methodology

This study utilized an electronic questionnaire survey targeting all 1,432 undergraduate students majoring in Chinese at Y College in Zhengzhou, China, during the Fall semester of the 2025 academic year. To ensure reliability and validity, the sample size was determined using the Krejcie and Morgan (1970) table. Based on this, 306 questionnaires were distributed. The survey was conducted online, with links shared through online learning communities and the internal email system of Zhengzhou Y University. To accommodate students without internet access, paper-based questionnaires were also distributed in key campus areas such as academic buildings and the library. Follow-up reminders were

sent to students who had not yet responded, and all returned questionnaires were screened for validity, excluding duplicates and incomplete responses.

Data collected via the survey were analyzed using SPSS 23.0. The analysis followed these steps: Descriptive Statistics: Frequencies and percentages were used to report participants' demographic information and provide an overview of students' learning autonomy and satisfaction. Hypothesis Testing: Independent sample t-tests and one-way ANOVA were employed to examine group differences across various demographic groups. Correlation Analysis: The Pearson correlation coefficient was used to investigate the relationship between students' learning autonomy and learning satisfaction.

The questionnaire was based on validated scales from existing literature: Learning Autonomy Status Scale (Chen, 2022) Learning Satisfaction Scale (Wu, 2023) These scales, widely used in educational research in China, were adapted to assess students' learning autonomy and satisfaction in the context of teacher autonomy support. The final questionnaire was divided into two main sections: Demographic Information: This section collected personal data such as gender, place of origin, only-child status, grade level, and class leader status to explore potential demographic differences in learning satisfaction and autonomy.

Learning Satisfaction and Learning Autonomy Scales: Learning Autonomy Scale: Includes three dimensions—Psychological Autonomy Characteristics, Learning Autonomous Behavior, and Environmental Autonomy Adaptation (23 items in total).Learning Satisfaction Scale: Includes three dimensions—Learning Environment, Learning Process, and Social Interaction (12 items).Both scales use a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). The scoring and interpretation guidelines are presented in the questionnaire.

Reliability: Cronbach's alpha was used to assess internal consistency. The scales demonstrated good reliability, with Cronbach's alpha coefficients above 0.70 for all dimensions. Factor Analysis: To test the validity of the scales, factor analysis was conducted. The Learning Autonomy Scale had a Kaiser-Meyer-Olkin (KMO) value of 0.975, indicating excellent suitability for factor analysis. Bartlett's Test of Sphericity showed significant correlations among items (Chi-square = 2721.794, $p < 0.05$), and the cumulative variance explained reached 78.444%, indicating high construct validity. Similarly, the Learning Satisfaction Scale showed a KMO value of 0.873, with a cumulative variance of 80.797%, demonstrating strong construct validity.

Results

Demographic Analysis of Questionnaire Participants

In this study, a total of 306 valid questionnaires were collected from Chinese language undergraduate students at Zhengzhou Y University. The demographic distribution of the sample was as follows: 49.0% were male and 51.0% were female, indicating a balanced gender representation. Most respondents (75.2%) came from urban areas, while 24.8% were from rural backgrounds.

The sample included students from all grade levels: 25.2% were freshmen, 23.5% were sophomores, 30.4% were juniors, and 20.9% were seniors. This provided a comprehensive view across academic years. Most students (89.2%) had siblings, while 10.8% were only children, a factor that might influence their learning autonomy. Additionally, 16.7% of the students had served as class leaders, which might also affect their learning behaviors. Overall, the sample was diverse and reflected the general student body of the university, providing a solid foundation for analyzing learning autonomy and satisfaction.

Table 1: Demographic Distribution of Sample

Demographic Variables	Group	n	Percentage (%)
Gender	Male	150	49.0
	Female	156	51.0
Residence	Urban	230	75.2
	Rural	76	24.8
Family Structure	Only Child	33	10.8
	Non-Only Child	273	89.2
Grade	Freshman	77	25.2
	Sophomore	72	23.5
	Junior	93	30.4
	Senior	64	20.9
Class Leadership	Class Leader	51	16.7
	Non-Class Leader	255	83.3
Total		306	100.0

Descriptive Analysis of Learning Autonomy and Learning Satisfaction

Table 2 presented the descriptive statistical analysis results of students' learning autonomy and mental learning satisfaction. As shown in Table 2, the mean score for learning autonomy was 3.67 with a standard deviation of 0.79, indicating a high level. The mean score for learning satisfaction was 3.72 with a standard deviation of 0.82, also showing a high level. All dimensions of both learning autonomy and learning satisfaction reached high levels as well.

Table 2: The Levels of Learning Autonomy and Learning Satisfaction

Dimension	n	M	SD	Interpretation
Psychological Autonomy Characteristics	377	3.73	0.80	High
Learning Autonomous Behavior	377	3.66	0.84	High
Environmental Autonomy Adaptation	377	3.61	0.84	High
Learning Autonomy	377	3.67	0.79	High
Learning Environment	377	3.73	0.86	High
Learning Process	377	3.74	0.85	High
Social Relationship	377	3.70	0.83	High
Learning Satisfaction	377	3.72	0.82	High

Table 3 showed that there were significant differences in learning autonomy, learning satisfaction, and all their dimensions between male and female students. Thus, gender had a significant effect on both learning autonomy and learning satisfaction.

Table 3: Independent Sample T-Test Analysis of Learning Autonomy and Learning Satisfaction by Gender

Dimension	Male (n=150)		Female (n=156)		t	p
	M	SD	M	SD		
Psychological Autonomy Characteristics	3.89	0.82	3.58	0.75	3.49	.001
Learning Autonomous Behavior	3.86	0.86	3.46	0.76	4.20	.000
Environmental Autonomy Adaptation	3.79	0.91	3.43	0.74	3.80	.000
Learning Autonomy	3.85	0.83	3.49	0.713	4.03	.000
Learning Environment	3.90	0.88	3.57	0.80	3.38	.001
Learning Process	3.94	0.86	3.53	0.80	4.31	.000
Social Relationship	3.94	0.83	3.47	0.77	5.15	.000
Learning Satisfaction	3.93	0.82	3.53	0.76	4.44	.000

As shown in Table 4, no significant differences were found in the total scores of learning autonomy and learning satisfaction between urban and rural students. For learning autonomy, urban students (M = 3.66, SD = 0.76) and rural students (M = 3.69, SD = 0.87) showed similar scores, t(306) = -0.27, p = .789. For learning satisfaction, urban students (M = 3.73, SD = 0.79) and rural students (M = 3.70, SD = 0.89) also showed no significant difference, t(306) = -0.26, p = .794. Therefore, students' place of residence had no significant effect on learning autonomy or learning satisfaction.

Table 4: Independent Sample T-Test Analysis of Learning Autonomy and Learning Satisfaction by Residence

Dimension	Urban (n=230)		Rural(n=76)		t	p
	M	SD	M	SD		
Psychological Autonomy Characteristics	3.73	0.95	3.74	0.77	-0.13	.895
Learning Autonomous Behavior	3.64	0.93	3.70	0.82	-0.57	.572
Environmental Autonomy Adaptation	3.61	0.95	3.62	0.82	-0.08	.939
Learning Autonomy	3.66	0.76	3.69	0.87	-0.27	.789
Learning Environment	3.74	0.83	3.71	0.93	0.21	.835
Learning Process	3.74	0.83	3.72	0.91	0.16	.873
Social Relationship	3.71	0.80	3.67	0.92	0.38	.703
Learning Satisfaction	3.73	0.79	3.70	0.89	0.26	.794

Table 5 presented the total scores of learning autonomy and learning satisfaction by family structure. No significant differences were found between only-child students (M = 3.52, SD = 0.92; M = 3.68, SD = 0.77) and non-only-child students (M = 3.69, SD = 1.11; M = 3.64, SD = 1.17). The t-test results showed t(306) = -1.10, p = .273 for learning autonomy and t(306) = -0.39, p = .700 for learning satisfaction. Therefore, family structure had no significant effect on learning autonomy or learning satisfaction.

Table 5: Independent Sample T-test Analysis of Learning Autonomy and Learning Satisfaction by Family Structure

Dimension	Only-Child (n=33)		Non-Only-Child (n=273)		t	p
	M	SD	M	SD		
Psychological Autonomy Characteristics	3.65	0.94	3.74	0.79	-0.59	.555
Learning Autonomous Behavior	3.53	1.04	3.67	0.81	-1.76	.455
Environmental Autonomy Adaptation	3.39	1.02	3.64	0.82	-1.61	.108
Learning Autonomy	3.52	0.92	3.68	0.77	-1.10	.273
Learning Environment	4.03	1.01	4.09	0.97	0.10	.621
Learning Process	3.55	1.24	3.52	1.26	0.07	.819
Social Relationship	3.25	1.40	3.37	1.38	0.16	.452
Learning Satisfaction	3.69	1.11	3.64	1.17	0.39	.700

Table 6: ANOVA Analysis of Learning Autonomy and Learning Satisfaction by Grade

Dimension	① Freshman (n=77)		② Sophomore (n=72)		③ Junior (n=93)		④ Senior (n=64)		F	p	LSD
	M	SD	M	SD	M	SD	M	SD			
Psychological Autonomy Characteristics	3.61	0.89	3.61	0.75	3.51	0.61	4.33	0.71	18.13	.000	①②③<④
Learning Autonomous Behavior	3.51	0.90	3.52	0.73	3.41	0.70	4.35	0.69	22.72	.000	①②③<④
Environmental Autonomy Adaptation	3.46	0.90	3.43	0.80	3.43	0.65	4.25	0.77	18.62	.000	①②③<④
Learning Autonomy	3.53	0.86	3.52	0.70	3.45	0.61	4.31	0.70	22.04	.000	①②③<④
Learning Environment	3.62	0.98	3.48	0.76	3.53	0.66	4.33	0.68	25.55	.000	①②③<④
Learning Process	3.68	0.95	3.43	0.76	3.57	0.68	4.38	0.71	19.90	.000	①②③<④ ②<①
Social Relationship	3.61	0.92	3.45	0.71	3.50	0.64	4.40	0.70	23.88	.000	①②③<④
Learning Satisfaction	3.64	0.90	3.45	0.72	3.54	0.62	4.41	0.68	24.12	.000	①②③<④

Table 6 revealed significant differences across different grade groups in both learning autonomy and learning satisfaction. Significant differences were found in all dimensions, total learning autonomy, and total learning satisfaction. Therefore, post hoc comparisons were conducted. The results showed that, except for the learning process dimension, the total learning autonomy, total learning satisfaction, and other dimensions followed the same trend: freshmen, sophomores, and juniors scored lower than seniors.

Table 7 presented the total scores of learning autonomy and learning satisfaction by student leadership status. No significant differences were found between class leaders (M = 3.68, SD = 0.91; M = 3.68, SD = 0.96) and non-class leaders (M = 3.66, SD = 0.77; M = 3.73, SD = 0.78). The t-test results showed t (306) = 0.19, p = .848 for learning autonomy and t (306) = -0.03, p = .719 for learning satisfaction. Therefore, student leadership status had no significant effect on learning autonomy or learning satisfaction.

Table 7: Independent Sample T-test Analysis of Learning Autonomy and Learning Satisfaction by Class Leader

Dimension	Class Leader (n=51)		Non-Class Leader (n=255)		t	p
	M	SD	M	SD		
Psychological Autonomy Characteristics	3.80	0.95	3.71	0.77	0.67	.504
Learning Autonomous Behavior	3.65	0.93	3.66	0.82	-0.09	.927
Environmental Autonomy Adaptation	3.60	0.95	3.61	0.82	-0.10	.922
Learning Autonomy	3.68	0.91	3.66	0.77	0.19	.848
Learning Environment	3.67	0.98	3.74	0.83	-0.52	.607
Learning Process	3.68	1.00	3.75	0.82	-0.49	.629
Social Relationship	3.69	0.97	3.71	0.80	-0.05	.907
Learning Satisfaction	3.68	0.96	3.73	0.78	-0.03	.719

Correlation Analysis between Learning Autonomy and Learning Satisfaction

The correlation analysis between learning autonomy and learning satisfaction showed that total learning autonomy, including psychological autonomy, learning autonomous behavior, and environmental adaptation, was significantly positively correlated with each dimension of learning satisfaction ($p < .01$). The high correlation coefficients indicated a strong relationship, suggesting that these factors were closely connected in promoting the development of learning satisfaction across all dimensions.

Table 8: Correlation Analysis of Learning Autonomy and Learning Satisfaction

	1	2	3	4	5	6	7	8
1. Psychological Autonomy	1							
2. Learning Autonomous Behavior	.852**	1						
3. Environmental Adaptation	.853**	.892**	1					
4. Learning Autonomy	.944**	.959**	.960**	1				
5. Learning Environment	.813**	.804**	.795**	.842**	1			
6. Learning Process	.834**	.820**	.810**	.861**	.888**	1		
7. Social Relationship	.871**	.877**	.859**	.910**	.884**	.897**	1	
8. Learning Satisfaction	.872**	.866**	.853**	.905**	.961**	.965**	.962**	1

Discussion

This study aimed to examine the relationship between learning autonomy and learning satisfaction among undergraduate students at Y University in Zhengzhou, China, with a focus on demographic variables such as gender, grade, student leadership, and family structure. The findings provided important insights into the dynamics between learning autonomy and satisfaction.

Influence of Demographic Variables on Learning Autonomy

The study found that gender significantly influenced learning autonomy, with male students scoring higher in "psychological autonomy" and "autonomous learning behavior" than female students. This contrasts with previous studies that suggested higher autonomy among females (Komlosi-Ferdinand, 2019; Kurt, 2024), indicating that gender-related factors in this study's sample may require further exploration. Regarding grade level, senior students demonstrated stronger psychological autonomy and self-directed learning behaviors compared to freshmen, likely due to the accumulation of academic experience and greater independence. However, no significant differences were found between student leaders and non-leaders in learning autonomy, especially in environmental adaptation, which contradicts findings by Watkins (2021). The study also found no significant differences between only-child and non-only-child students in terms of autonomy, suggesting that both groups receive similar levels of educational and familial support.

Influence of Demographic Variables on Learning Satisfaction

The analysis revealed significant gender differences in learning satisfaction, with female students reporting higher satisfaction in the "learning environment" and "learning process." This supports findings by Li (2019) that females generally express higher satisfaction with course content and teaching methods. Senior students also reported higher satisfaction, likely due to their accumulated academic experience, which allows for more comprehensive evaluations of their learning environment. On the other hand, no significant effect of student leadership roles on learning satisfaction was found, which differs from Cao's (2022) findings. This discrepancy may be due to the increased workload and

pressure experienced by student leaders, potentially leading to lower satisfaction in areas such as emotional support and social interaction. Furthermore, no significant differences were found between only-child and non-only-child students regarding learning satisfaction, indicating that other factors like teaching quality or classroom climate may play a more prominent role.

Relationship Between Learning Autonomy and Learning Satisfaction

This study confirmed a significant positive correlation between learning autonomy and learning satisfaction, supporting Hypothesis H3. Students with higher learning autonomy reported greater satisfaction, as autonomy fosters a sense of control and engagement in the learning process. This relationship is bidirectional, as increased autonomy support not only enhances satisfaction but also promotes more autonomous learning behavior, aligning with findings by Vallerand (1988) and Tadić (2015), who highlighted the mutually reinforcing effect between autonomy and satisfaction.

Conclusions

This study explored the relationship between learning autonomy and learning satisfaction among Chinese language majors at Y University in Zhengzhou, China. The main conclusions derived from the analysis of the collected questionnaire data are as follows:

Demographic Variables and Learning Autonomy: Gender and grade level were found to significantly impact learning autonomy. Male students scored higher than female students across all dimensions of learning autonomy, particularly in psychological autonomy and autonomous learning behavior. Senior students (Year 4) exhibited notably higher learning autonomy compared to those in lower years, likely due to accumulated academic experience and enhanced self-directed learning skills. However, only-child status and student leadership roles did not show significant effects on learning autonomy, suggesting that these factors have limited influence.

Demographic Variables and Learning Satisfaction: Gender and grade level also significantly affected learning satisfaction. Female students reported higher satisfaction in the learning environment and learning process, particularly regarding emotional support and classroom atmosphere. Senior students exhibited higher satisfaction, likely due to their greater academic maturity and ability to adapt to learning environments. However, only-child status and student leadership roles had no significant impact on learning satisfaction, indicating minimal influence of these variables in this study.

Relationship Between Learning Autonomy and Learning Satisfaction: A significant positive correlation was found between learning autonomy and learning satisfaction. Students with higher learning autonomy reported greater satisfaction, particularly in the learning environment and process dimensions. This suggests that enhancing learning autonomy not only strengthens students' self-regulation and independent learning capabilities but also improves their overall satisfaction with the learning process and environment.

References

Alqurashi, E. (2019). Predicting student satisfaction and perceived learning within online learning environments. *Distance Education, 40*(3), 320-338.

Benson, P. (2007). Autonomy in language teaching and learning. *Language Teaching, 40*(1), 21-40.

Benson, P. (2010). Measuring autonomy: Should we put our ability to the test? *Testing the untestable in language education*.

Bukhari, S. G. A. S., & Larik, A. R. (2024). Impact of learner background factors on student satisfaction in universities of Pakistan. *Journal of Social, 14*(1), 54-65.

Chang, I. Y., & Chang, W. Y. (2012). The effect of student learning motivation on learning satisfaction. *International Journal of Organizational Innovation, 4*(3), 281-292.

Fan, J., & Tian, M. (2024). Satisfaction with online Chinese learning among international students in China: A study based on the fsQCA method. *Sustainability, 16*(3), 1086.

Firat, M. (2016). Measuring the e-learning autonomy of distance education students. *Open Praxis, 8*(4), 299-310.

Holec, H. (1981). *Autonomy and foreign language learning*. Oxford, UK: Pergamon.

Hostetter, C., & Busch, M. (2006). Measuring up online: The relationship between social presence and student learning satisfaction. *Journal of the Scholarship of Teaching and Learning, 6*(2), 13-28.

Hyun, J., Ediger, R., & Lee, D. (2017). Students' satisfaction on their learning process in active learning and traditional classrooms. *International Journal of Teaching and Learning in Higher Education, 29*(1), 108-118.

Knowles, M. S. (1975). *Self-directed learning*. New York: Association Press.

Komlosi-Ferdinand, F. (2019). Emotions, learning-autonomy and gender-specific attitudes in the ESL classroom. *Working Papers in Language Pedagogy, 13*, 65-81.

Lee, Y. M., & Sun, S. H. (2010). The relationship between autonomous motivation of course-taking and learning engagement on college students. *Journal of Research in Education Sciences, 55*(1), 155-182.

Li, K. (2019). MOOC learners' demographics, self-regulated learning strategy, perceived learning and satisfaction: A structural equation modeling approach. *Computers & Education, 132*, 16-30.

Little, D. (2002). Autonomy in language learning: Some theoretical and practical considerations. In *Teaching modern languages* (pp. 29-45). Taylor & Francis.

Little, D. (2007). Language learner autonomy: Some fundamental considerations revisited. *Journal of Innovation in Language Learning and Teaching, 1*(2), 122-136.

Little, D. (2020). Plurilingualism, learner autonomy and constructive alignment: A vision for university language centers in the 21st century. *Language Learning in Higher Education, 10*(2), 271-286.

Mavroidis, I., & Giossos, Y. (2019). Development of a scale for measuring the learner autonomy of

distance education students. *Journal of Open, Distance and E-Learning*.

Mohammadi Zenouzagh, Z., Admiraal, W., & Saab, N. (2023). Learner autonomy, learner engagement and learner satisfaction in text-based and multimodal computer mediated writing environments. *Education and Information Technologies, 28*(11), 14283-14323.

Murase, F. (2015). Measuring language learner autonomy: Problems and possibilities. In *Assessment and autonomy in language learning* (pp. 51-68). Springer.

Oliver, R. L. (1993). Cognitive, affective, and attribute bases of the satisfaction response. *The Journal of Consumer Research, 20*, 418-430.

Ozer, O., & Yukselir, C. (2023). 'Am I aware of my roles as a learner?' The relationships of learner autonomy, self-direction and goal commitment to academic achievement among Turkish EFL learners. *Language Awareness, 32*(1), 19-38.

Petersen, A. K., & Nortvig, A. M. (2018). A literature review of the factors influencing e-learning and blended learning in relation to learning outcome, student satisfaction and engagement. *European Journal of E-learning, 16*(3), 179-196.

Pham, T. N., & Nguyen, G. H. (2021). An investigation of student satisfaction in an online language learning course. *International Journal of Web-Based Learning and Teaching Technologies (IJWLTT), 16*(5), 121-136.