



Enhancing Student Self-efficacy in EFL Learning through Organization Development Intervention: An Action Research of JSSNU in China

Ying Fu¹ and Leehsing Lu²

¹Ph.D. Candidate, Graduate School of Business and Advanced Technology Management, Assumption University, Thailand

²Associated Dean of Overseas Projects. Graduate School of Business, Advanced Technology and Management, Assumption University of Thailand

¹Email: fuying0305@126.com, ORCID ID: <https://orcid.org/0000-0002-9966-5867>

²Email: leehsinglu@au.edu, ORCID ID: <https://orcid.org/0000-0002-4818-1440>

Received 29/09/2024

Revised 05/10/2024

Accepted 05/11/2024

Abstract

Background and Aim: The action research aimed to evaluate the impact of the Organization Development Intervention (ODI) on self-efficacy in English as a Foreign Language (EFL) learning among non-English-significant students at JSSNU. The study involved a purposive, nonprobability sample of 60 non-English majors. These students, who were actively involved in the data collection before and after the ODI, played a crucial role in the success of this study. A conceptual framework was developed based on the preliminary diagnosis and theoretical foundation.

Materials and Methods: This study used mixed research methods to gather and analyze data and test hypotheses. To assess changes, a questionnaire was administered before and after the ODI. The participants were exposed to intervention techniques, and the hypotheses were tested using a paired sample t-test, revealing significant differences in several variables before and after the ODI.

Results: The study found that ODIs significantly improved students' self-efficacy in learning English as a foreign language by influencing autonomous learning, classmate influence, academic commitment, and student engagement. The findings provide meaningful recommendations for enhancing students' self-efficacy in EFL learning and suggest areas for future research.

Conclusion: The quantitative and qualitative results of the study demonstrate a significant correlation between the independent and dependent variables. This research underscores the efficacy of specific organizational development (OD) interventions in enhancing students' self-efficacy in learning English as a foreign language (EFL), offering a broader applicability model in English education.

Keywords: Autonomous Learning; Classmate Influence; Academic Commitment; Student Engagement; Self-efficacy

Introduction

Background

As the global lingua franca, English is crucial in higher education. Most cutting-edge research findings are written and documented in English, making proficiency in the language essential for university students. However, despite years of studying English, students still face numerous challenges.

Rahimi and Abedini's (2009) results offer valuable insights for educators in foreign languages. They suggest that students' self-beliefs regarding their language abilities can either positively or negatively impact their language achievement based on the intensity of their confidence in their abilities.

This case study is based on China's Jiang Su Second Normal University (JSSNU), which is the working unit of the researcher. The teaching goal of normal universities is to train qualified future teachers. These future educators, by mastering English and possessing an international perspective, will be more beneficial for the development of education. Therefore, enhancing students' self-efficacy to improve their ability and outcomes in EFL learning is an urgent priority in English teaching.

Through interviews and observations with teachers and students at JSSNU, the researcher found that most students lack enthusiasm in class, struggle with fluent oral expression, exhibit negative learning attitudes, and show weak autonomy in their studies. In fact, after years of learning and training, most students have a solid foundation in English. Yet, due to a lack of a rich language environment, inappropriate learning methods, and insufficient confidence, their English learning outcomes remain unsatisfactory. Therefore, it is critical to improve students' English learning strategies, facilitate





communication, and boost their self-efficacy.

Therefore, enhancing students' performance in EFL learning by improving their self-efficacy is crucial. However, there is a lack of research on self-efficacy with the application of organization development interventions. Thus, the researcher conducted action research with organization development interventions, such as group dynamics, appreciative inquiry, goal setting, coaching, team building, and team activities, to reveal the factors that affect students' self-efficacy in EFL learning. The research findings will provide information for administrators to formulate relevant teaching policies, help teachers improve the effectiveness of their teaching practices, and can be applied to more subjects, not just in the context of English instruction.

Research Problem Statement

The study aims to tackle the issue of enhancing student's self-efficacy in EFL learning. It involves designing training and activities focused on autonomous learning, peer influence, academic commitment, and student engagement as part of an intervention program with 60 participants. The action research seeks to evaluate how self-efficacy in EFL learning can be improved by applying these intervention strategies.

Research Questions:

RQ1: What is the current situation of students' autonomous learning, classmate influence, academic commitment, student engagement, and self-efficacy at JSSNU?

RQ2: What appropriate Organizational Development Interventions (ODIs) can be developed and implemented to enhance student self-efficacy in EFL classes?

RQ3: Is there a significant difference between the pre-and post-ODI in autonomous learning, classmate influence, academic commitment, student engagement, and self-efficacy?

RQ4: What is the insight about students' self-efficacy in EFL class from interviews between pre-ODI and post-ODI?

Significance:

The majority of existing literature focuses on the factors or components of self-efficacy, with limited research on how to improve self-efficacy through organization development interventions. Thus, this study's academic contribution lies in developing a framework to boost students' self-efficacy in EFL learning. Practically, it offers a set of strategies to assist students in enhancing their self-efficacy. The research findings will provide information for administrators to formulate relevant teaching policies, help teachers improve the effectiveness of their teaching practices, and can be applied to more subjects, not just in the context of English instruction.

Literature Review

Self-efficacy

Bandura (1997) defined self-efficacy as the belief in one's ability to organize and execute actions necessary to achieve specific outcomes. Self-efficacy is positively associated with academic performance (Bong, 2001; Gore, 2006; Chemers et al., 2001; Lane & Lane, 2001), and persistence in academics (Wright et al., 2013).

In an educational setting, Zajacova et al. (2005) proposed that self-efficacy is often perceived as a domain-specific belief in students' capability to excel in a particular subject (Dalgety & Coll, 2006). Self-efficacy impacts performance as it dictates the resources, such as time and effort, and individuals opt to invest in tasks (Beck & Schmidt, 2015).

Carroll (2000) indicated that English learning self-efficacy is defined as the students' subjective judgment about whether they can complete the learning tasks and take specific actions in English learning. It consists of two independent components: English learning capabilities self-efficacy and English learning behavior self-efficacy.

Autonomous Learning and its Relationship with Self-efficacy

Many researchers often argue that university education demands students to develop autonomy in



their learning (Bryde & Milburn, 1990; Stephenson & Laycock, 1993; Chemers et al., 2001). Ponton et al. (2000) indicated that autonomous learning entails taking personal initiative to interact with learning, seeking out resources and opportunities, and demonstrating persistence in learning. Koryakovtseva (2001, 2010) defines autonomous learning activities as an individual's ability to manage the learning process independently. This includes having a positive attitude towards learning, employing cognitive strategies and tactics, and self-managing the learning process—from setting goals to evaluating outcomes.

Oxford (2008) believes learners are responsible for planning and executing decisions in a setting that promotes autonomous learning. In contrast, in environments with lower levels of learner autonomy, individuals tend to make fewer decisions related to implementation.

According to Bandura's Social Cognitive Theory, Tilfarlioglu and Ciftci (2011) constructed the structure and relationship model of learner autonomy, self-efficacy, and academic success in the field of EFL. The research outcome shows that the connection between self-efficacy and learner autonomy is firmly established. It can be asserted that as an individual's self-efficacy grows, so does their capacity to become autonomous learners. The study's findings affirm that learner autonomy significantly contributes to academic success, particularly in the realm of language learning (Dafei, 2007; Yen & Lui, 2009).

Classmate Influence and its Relationship with Self-efficacy

Classmate influence commonly refers to situations where people are subtly persuaded to alter their behavior to align with their peers (Eder & Nenga, 2003). This refers to the indirect or understated influence exerted by a peer group, prompting individuals to adjust their attitudes, values, or actions to match those of their peers. Lavy and Schlosser (2007) observed that individuals tend to mimic behaviors within a group when they act in a manner expected to be embraced by the group. Brechwald and Prinstein (2011) suggested that adolescents may adopt certain attitudes or behaviors they believe will earn them approval from their peers. Classmate influence significantly shapes adolescents' behavior more than any other factor, surpassing the influence of counselors, teachers, and other prominent figures highlighted that (Okorodudu, 2013).

In a 2015 study conducted by Bankole and Ogunsakin, the impact of peer groups on students' academic performance was examined. The results revealed that student-peer relationships could influence academic performance. Kadir (2018) found that in his research on peer groups and students' anxiety in EFL learning, factors such as communication skill development, sharing diverse assumptions, and collaborative learning in peer groups can reduce students' anxiety.

Albert Bandura's Social Cognitive Theory (Bandura, 1986) posits that individuals learn through direct experiences and observational learning, modeling, and social interaction. In the context of classmate influence and self-efficacy, the theory suggests that individuals can acquire new behaviors and beliefs by observing and imitating the actions of others, particularly peers. Classmate influence, both positive and negative, plays a crucial role in shaping an individual's perceptions of their efficacy.

Jang et al. (2012) investigated peers affecting Korean adolescents' drinking refusal self-efficacy. The research results corroborate positive classmate influence can significantly impact students' self-efficacy in various ways. Kahn (2012) indicates that positive classmate interactions, such as collaboration and encouragement, significantly enhance students' self-efficacy in mathematics. This study provides valuable insights into the role of classmates in shaping self-efficacy beliefs, underscoring the need for educators to create environments that foster positive peer interactions.

Academic Commitment and its Relationship with Self-efficacy

Academic Commitment refers to a student's dedication and motivation towards their educational pursuits, which includes their engagement with the learning process, persistence in overcoming challenges, and the value they place on their academic achievements.

Since 2002, the literature has acknowledged that students are subject to negative and positive emotions, influencing their commitment to academic tasks. Schaufeli et al. (2002) emphasize that Academic Commitment comprises three key dimensions: vigor, dedication, and absorption. He

characterized Academic Commitment as a condition of positive and meaningful psychological well-being linked to academic studies. Christenson et al. (2012) pinpoint Academic Commitment as having three dimensions: behavioral commitment, emotional commitment, and cognitive commitment. Kahu and Nelson (2018) argue that Academic Commitment is an evolving notion encompassing various institutional practices and student behaviors that influence satisfaction and success.

The study examined the impact of self-efficacy on EFL students' academic commitment, highlighting the reciprocal relationship between these constructs. The influences of academic commitment on self-efficacy mainly focus on increased engagement, resilience in challenges, and setting goals. While higher self-efficacy can increase students' motivation and positive feedback.

AL Qadri and colleagues (2024) examined the roles of specific variables, such as academic commitment, academic self-efficacy, and learning outcome, which influence the academic success of university students in Yemen. Based on social cognitive theory, they studied the direct influence of academic self-efficacy and academic commitment on learning outcomes, and the relationship between academic self-efficacy and academic commitment. The research results show that there is a positive relationship between academic commitment and self-efficacy.

Student Engagement and its Relationship with Self-efficacy

The concept of 'student engagement' was initially introduced in Alexander Astin's studies on student participation (Astin, 1984). As Harper and Quaye (2009) state, engagement goes beyond simple involvement or participation, encompassing emotions, understanding, and active participation. Kuh et al. (2007) characterized student engagement as involvement in effective educational practices within and beyond the classroom, resulting in various measurable results. In contrast, Krause and Coates (2008) defined it as the degree to which students participate in activities that research in higher education has associated with superior learning outcomes. Likewise, Hu and Kuh (2001) described engagement as the effort students invest in purposeful educational activities that produce desired results.

Merging these two viewpoints, Kuh (2009a) defines student engagement as the time and dedication students devote to activities that are empirically connected to college outcomes and the measures institutions take to encourage student involvement in these activities. Defined as active involvement in academic and extracurricular activities and commitment to educational goals and learning, student engagement encompasses behavioral, emotional, and cognitive dimensions (Christenson et al., 2012). Behavioral engagement involves involvement, effort, focus, and persistence in learning activities, whereas emotional engagement encompasses students' emotions such as interest, excitement, curiosity, and pleasure. Cognitive engagement includes learning strategies and self-regulation (Ferrell, 2012; Reeve, 2012).

Previous studies have demonstrated that student engagement plays a crucial role in a student's academic success, cognitive growth, and the quality of their educational experience (Hu & Kuh, 2002; Kahu & Nelson, 2018; Zhou et al., 2019). The degree of involvement in academic tasks is a crucial criterion for assessing students' levels of engagement.

In Bandura's Social Cognitive Theory, a person's actions are shaped by their surroundings. For instance, the encouragement students get from their educators and classmates, along with feedback from teachers, influences their confidence and involvement in activities (Schunk, 1985, 1995). Beyond external influences, individual characteristics also impact students' behavior (Bandura, 1986). Self-efficacy is a pivotal personal aspect that influences students' participation in tasks; believing in one's abilities affects motivation, thinking processes, learning methods, and skill development (Schunk, 1985). Self-efficacy is central to determining student behavior (Pintrich & Schunk, 2002). It is widely recognized that self-efficacy is crucial in shaping student engagement in educational settings. Students with higher self-efficacy generally demonstrate increased engagement in activities, motivation, and cognitive function compared to their peers (Linnenbrink & Pintrich, 2003). There is a strong association between self-efficacy and student engagement. Students who believe they can complete tasks typically show more active cognitive and behavioral engagement in their studies (Lam et al., 2012).

Conceptual Framework

The study aims to use ODI to improve students' autonomous learning, academic commitment, classmate influence, and student engagement to enhance self-efficacy in EFL learning.

According to Social Cognitive Theory, autonomous learning, academic commitment, and student engagement are closely related to self-efficacy in students' EFL learning. Autonomous learning enhances students' autonomy and sense of control over their learning, academic commitment drives persistence toward learning goals, and student engagement directly influences the positivity and continuity of the learning process. Together, these factors impact students' self-efficacy, boosting their confidence and ability to succeed in learning tasks. Recent studies by Human-Vogel and Rabe (2015) and Sökmen (2021) further support these views, emphasizing the critical role of these factors in improving EFL learning outcomes.

Social learning theory suggests that the influence of classmates and self-efficacy are strongly connected to learning English as a foreign language. Through observation and interaction with classmates, students can build confidence in their abilities and imitate successful learning strategies, enhancing their self-efficacy. Bandura noted that students learn from peer models, boosting their self-efficacy and fostering positive learning behaviors. Recent studies by Jungert & Rosander (2010) and Soyer (2019) further confirm the importance of classmate influence in improving EFL learners' self-efficacy.

Self-determination theory indicates that student engagement and academic commitment are strongly connected to self-efficacy in learning English as a Foreign Language (EFL). When students are actively engaged in their learning and committed to their academic goals, they are more likely to develop a stronger sense of competence and control over their learning, which enhances their self-efficacy. Recent research by Alamer (2022) and Ghanizadeh and Jahedizadeh (2017) further supports the connection between these factors in the context of EFL learning, demonstrating that higher engagement and commitment contribute to improved self-efficacy.

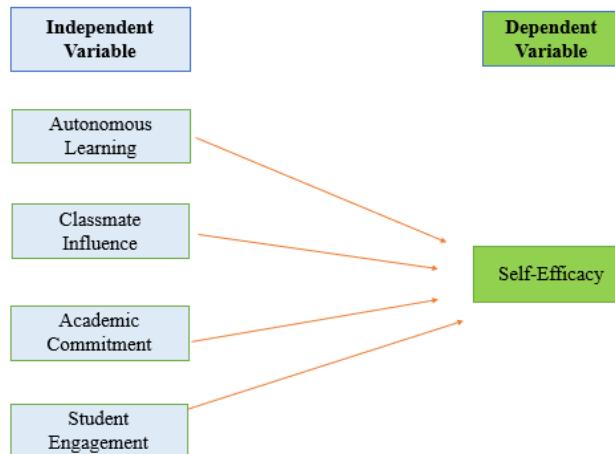


Figure 1 Conceptual Framework

The conceptual framework (Figure 1) is derived from the theoretical framework. In this framework, the independent variables include autonomous learning, the influence of classmates, academic commitment, and student engagement, while the dependent variable is self-efficacy. The goal is to enhance students' self-efficacy in English as a Foreign Language (EFL) learning by intervening in autonomous learning, classmate influence, academic commitment, and student engagement.

The study investigates four main factors: autonomous learning, classmate influence, academic commitment, and student engagement, and how they affect self-efficacy. A questionnaire survey and interviews were carried out to evaluate the current status of these variables before the organization

development intervention. Based on the results, the intervention aimed to improve autonomous learning, classmate influence, academic commitment, and student engagement through group dynamics, appreciative inquiry, goal setting, team building, coaching, and team activities to boost students' self-efficacy.

Research Hypothesis

Based on the above conceptual framework, the research hypotheses are as follows.

- H1o: No statistically significant difference exists in autonomous learning pre- and post-ODI.
- H1a: There is a statistically significant difference in autonomous learning pre- and post-ODI.
- H2o: No statistically significant difference exists in classmate influence pre- and post-ODI.
- H2a: A statistically significant difference in classmate influence pre- and post-ODI.
- H3o: There is no statistically significant difference in academic commitment pre- and post-ODI.
- H3a: There is a statistically significant difference in academic commitment pre- and post-ODI.
- H4o: No statistically significant difference exists in student engagement pre- and post-ODI.
- H4a: A statistically significant difference exists in student engagement pre- and post-ODI.
- H5o: There is no statistically significant difference in self-efficacy pre- and post-ODI.
- H5a: There is a statistically significant difference in self-efficacy pre- and post-ODI.

Methodology

Research Design

This study utilized a mixed-method approach combining qualitative and quantitative research methods. A questionnaire survey facilitated the quantitative analysis, while qualitative research included various forms, like literature reviews and interviews with 60 students from JSSNU. The research design adhered to the action research framework within the field of organizational development, featuring pre- and post-tests.

After identifying issues, the researcher implemented an organization development intervention (ODI) focused on group dynamics, appreciative inquiry, goal setting, team building, coaching, and team activities to influence students' learning habits and methods. The same questionnaire was then used to assess changes after the ODI.

Research Sample

The population of JSSNU is around 13,000 students, and the research sample is around 2950 freshmen. A Quasi-experimental design was conducted, so nonprobability purposive sampling was selected. The study's sample size is 60 students from different majors.

The sample for this study comprises 60 freshmen majoring in non-English who were allocated randomly by the university administration to a single class taking College English.

Research Instrument

The quantitative research instrument is a survey conducted during the pre- and post-ODI phases. Based on the literature review and the previously verified questionnaires by other researchers, the researcher designed a questionnaire to evaluate students' autonomous learning, classmate influence, academic commitment, engagement, and self-efficacy in EFL learning.

The instrument includes a 5-point Likert Scale of 27 items related to five variables. The scoring follows this standard: 1 for Strongly Disagree, 2 for Disagree, 3 for Uncertain, 4 for Agree, and 5 for Strongly Agree. Before the questionnaire survey was filled out, the researcher informed the students that the information provided would be kept strictly confidential, and the final result anonymously aggregates everyone's for statistical analysis only.

Data Collection

Before the organization development intervention was conducted, questionnaires were distributed to 60 participants, and data was collected and analyzed. After the three-month ODI, the same questionnaire was administered again, and the data provided by the same participants were collected for analyzing changes before and after the intervention.

Qualitative research methods were also used to understand the research more profoundly. Ten interviewees from the 60 participants were selected randomly with an online number generator. They were interviewed before and after ODI to check the differences. With the permission of the participants, interview contents were recorded and analyzed.

Data Analysis Method



This study used quantitative data analysis tools, such as descriptive statistics and the Paired Sample T-test, with SPSS before and after ODI.

The interview data were analyzed using content analysis, which generated codes and then extracted categories and themes. Before ODI, recorded information from interviews was coded, categorized, and themed by three experts in the organization development field. After ODI, the feedback was recorded and analyzed by the three experts again.

ODI Design

Based on the action research framework, the research design was conducted in three stages: Pre-ODI, ODI, and Post-ODI.

In the pre-ODI stage, the researcher conducted semi-structured interviews with five English teachers and ten students randomly from JSSNU to explore the current situation of students' English learning in EFL. Based on the analysis and research, a questionnaire was designed.

During the ODI phase, based on the pre-ODI questionnaire and interview findings, the researcher created an OD intervention plan featuring key strategies such as dynamics, appreciative inquiry, goal setting, coaching, team building, and team activities.

In the post-ODI phase, the same interview questions and questionnaires were utilized to assess autonomous learning, classmate influence, student engagement, academic commitment, and students' self-efficacy in EFL. The gathered data were statistically analyzed to test the hypotheses presented in this study and identify effective OD interventions for enhancing students' self-efficacy.

Results

Quantitative Results

Table 1 Results of Paired Sample T-test

		Paired Samples Test							
		Paired Differences			95% Confidence Interval of the Difference		t	df	Sig.(2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	ALpre-	-.86667	.64799	.08365	-1.03406	-.69927	-	59	.000
ALpost							10.360		
Pair2	Clpre-	-.54333	.46881	.06052	-.66444	-.42223	-8.977	59	.000
CIPost									
Pair3	ACpre-	-.80667	.46718	.06031	-.92735	-.68598	-	59	.000
ACpost							13.375		
Pair4	SEpre-	-.71944	.38509	.04972	-.81892	-.61996	-	59	.000
SEpost							14.471		
Pair5	SfEpre-	-.85000	.29224	.03773	-.92549	-.77451	-	59	.000
SfEpost							22.530		

The initial pair of mean values for autonomous learning was compared before and after the ODI, revealing a mean value of 0.86. The standard deviation was 0.64, with a T value of -10.36 and a P value of 0.00. Thus, there is a statistically significant difference in autonomous learning between the pre- and post-ODI phases. The null hypothesis (H1o) was rejected, while the alternative hypothesis (H1a) was accepted.

The second set of mean values for classmate influence was analyzed before and after the ODI, showing a mean of 0.54. The standard deviation was 0.46, accompanied by a T value of -8.97 and a P value of 0.00. This indicates a statistically significant difference in classmate influence between the pre-ODI and post-ODI phases. Consequently, the null hypothesis (H2o) was rejected, and the alternative hypothesis (H2a) was accepted.

The third pair of mean values for academic commitment was compared before and after the ODI, revealing a mean value of 0.80. The standard deviation was 0.64, with a T value of -13.37 and a P value of 0.00. Thus, there is a statistically significant difference in academic commitment between the pre- and post-ODI phases. The null hypothesis (H3o) was rejected, while the alternative hypothesis (H3a) was accepted.

The fourth pair of mean values for student engagement was compared before and after the ODI,

revealing a mean value of 0.71. The standard deviation was 0.38, with a T value of -14.47 and a P value of 0.00. Thus, student engagement is statistically different between the pre- and post-ODI phases. The null hypothesis (H4o) was rejected, while the alternative hypothesis (H4a) was accepted.

The last pair of mean values for self-efficacy was compared before and after the ODI, revealing a mean value of 0.85. The standard deviation was 0.29, with a T value of -22.53 and a P value of 0.00. Thus, there is a statistically significant difference in self-efficacy between the pre- and post-ODI phases. The null hypothesis (H5o) was rejected, while the alternative hypothesis (H5a) was accepted.

Qualitative Results

Table 2 Themes Results

Variables	Themes
Autonomous Learning	Improved language skills Enhanced engagement and motivation Effective self-directed learning
Classmate Influence	Enhanced learning through tools and techniques: Collaboration and peer Interaction
Academic Commitment	Effective use of resources and techniques Collaborative and goal-oriented learning
Student Engagement	Enhanced engagement through collaboration and interaction Personalizing learning and building motivation
Self-efficacy	Application of learning tools Engagement and personal growth

The findings from qualitative research, which included observations and interviews, suggest that the ODI is effective, as reflected in the interview notes. As students' learning skills, engagement, and motivation improved, their autonomous learning also increased. Classmates influenced one another more positively through enhanced collaboration and interaction. As more students began to effectively utilize learning resources and techniques while engaging in collaborative and goal-oriented learning, their academic commitment grew. Through working together and interacting with peers, students became more engaged in their English learning and developed personalized approaches and motivation. With the enhancement of these factors, students' self-efficacy in EFL learning is expected to improve as well.

Table 3 Juxtaposing Data Results

	Juxtapose Quantitative and Qualitative					
	Quantitative		Qualitative Themes			
	Pre-ODI Mean	Post-ODI Mean	Pre-ODI	Post-ODI	ODI Activity	Key Ideas
Autonomous Learning	2.16	3.03	Insufficient self-directed learning, Unclear learning methods limited practice	Improved language skills, Effective self-directed	Appreciative Inquiry, Goal setting, Coaching	Learning methods, Self-directed motivation and ability
Classmate Influence	3.07	3.62	Classmate interaction on learning, Effective study strategies and resources	Enhanced learning through tools and techniques, Collaboration	Group dynamics, Team building, Team activity	Peer interaction, Collaboration

				and peer interaction		
Academic Commitment	2.82	3.62	Learning challenges, Effective strategies, Resource utilization	Effective use of resources and techniques, Collaborative and goal-oriented learning	Goal setting, Coaching, Team activity	Learning strategies, resources usage
Student Engagement	2.63	3.35	Challenges in learning and participation, Strategies for effective engagement	Enhancing engagement through collaboration and interaction, Personalizing learning and building motivation	Group dynamics, Appreciative inquiry, Team building, Team activity	Interaction, Collaboration, Motivation
Self-efficacy	2.65	3.50	Challenges in language skills, Growth and improvement	Application of learning tools, Engagement and personal growth	Dynamics inquiry, appreciative inquiry, goal setting, coaching, team activity	Learning challenges, learning tools, Engagement, improvement

Firstly, after the preliminary test, the research problems were identified with SWOT, SOAR, and interview analysis. Variables of the research were summarized based on the problems. Secondly, with the research literature review, the relationship between each variable was determined, and the theoretical and action research frameworks were designed. Thirdly, the OD interventions, including group dynamics, appreciative inquiry, goal setting, coaching, team building, and team activities, were applied during the research according to the diagnosis at the pre-ODI stage. In addition, the same questionnaire and interview were conducted during the post-ODI stage with the same participants. The quantitative data were analyzed with SPSS, and after summarizing the code, category, and theme from the interview records by three experts, qualitative results were concluded. Finally, the quantitative and qualitative results were analyzed and compared between the before and after ODI stages.

Table 3 suggests notable improvement across various aspects of students' English learning after the ODI. The quantitative data shows a rise in mean scores post-ODI, indicating enhanced performance and attitudes. Qualitative themes reveal that before the ODI, students faced challenges such as insufficient self-directed learning, unclear learning methods, and limited practice. However, post-ODI, students reported improved language skills, more effective self-directed learning, enhanced peer interaction, better resource utilization, and increased engagement and motivation. Activities such as appreciative inquiry, goal setting, coaching, and team activities were crucial in fostering collaboration, interaction, and personal growth. Overall, the ODI interventions significantly improved students' self-efficacy and academic engagement in learning English.

Discussion

RQ 1: What is the current situation of students' autonomous learning, classmate influence, academic commitment, student engagement, and self-efficacy at JSSNU?

Table 4 Mean of Variables

Variables	Mean	Minimum statistic	Maximum statistic
Pre-Post Autonomous	2.16—3.03	2.02—2.87	2.32—3.15

learning	3.07—3.62	2.20—3.00	3.85—4.17
Pre-Post Classmate Influence	3.07—3.62	2.20—3.00	3.85—4.17
Pre-Post Academic Commitment	2.82—3.62	2.47—3.30	3.18—3.97
Pre-Post Student Engagement	2.63—3.35	2.32—3.08	3.60—3.82
Pre-Post Self-efficacy	2.65—3.50	2.85—3.60	2.40—3.37

The study analyzed the impact of Organizational Development Interventions (ODIs) on autonomous learning, classmate influence, academic commitment, student engagement, and self-efficacy.

The pre- and post-intervention statistical analysis reveals a consistent pattern of improvement across all variables. The mean scores for autonomous learning increased from 2.16 to 3.03, indicating a significant enhancement in students' self-directed learning abilities. This improvement is supported by the minimum and maximum statistics, which show that even the lowest-performing students experienced a boost in their learning capabilities.

Classmate influence also saw a notable rise, from a mean of 3.07 to 3.62, highlighting the positive impact of peer interactions on learning strategies and resources. The range of scores suggests that while some students benefited greatly, others need further development.

Academic commitment improved significantly, increasing from 2.82 to 3.62, with a clear trend towards more effective use of resources and collaborative learning techniques. The broad range of scores further emphasizes the varying levels of engagement among students, indicating that targeted interventions could be beneficial.

Student engagement scores rose from 2.63 to 3.35, reflecting enhanced participation and motivation through collaborative activities. The statistics suggest that initiatives aimed at personalizing learning can positively affect overall engagement.

Lastly, self-efficacy improved from 2.65 to 3.50, demonstrating growth in students' confidence regarding their language skills. The range of scores indicates that while many students reported increased self-efficacy, others still face challenges that require attention.

In conclusion, the overall positive shifts in these variables suggest that the interventions implemented fostered autonomous learning, enhanced classmate influence, boosted academic commitment, increased student engagement, and improved self-efficacy. These results highlight the importance of continued support and tailored strategies to enhance student outcomes in English language learning.

RQ 2: What appropriate Organizational Development Interventions (ODIs) can be developed and implemented to enhance student self-efficacy in EFL classes?

The quantitative and qualitative findings from the 60 participants supported each other, revealing that dynamic group work, appreciative inquiry, goal setting, coaching, and team activities were the key intervention strategies in this action research to improve students' autonomous learning, classmate influence, academic commitment, student engagement, and self-efficacy in EFL classes.

Based on the analysis of the pre-ODI results, the following interventions were proposed:

First, a dynamic group was used to improve classmate influence and student engagement.

Second, appreciative inquiry was used to improve autonomous learning and student engagement.

Third, goal setting was used to improve autonomous learning and academic commitment.

In addition, coaching was used to improve autonomous learning and academic commitment.

Finally, team building and team activity improved classmate influence and student engagement.

RQ 3: Is there a significant difference between the pre- and post-ODI in autonomous learning, classmate influence, academic commitment, student engagement, and self-efficacy?

A comprehensive evaluation and analysis of the quantitative data for each participant was conducted after the intervention. A paired sample t-test was performed to identify significant differences between pre- and post-ODI results, testing the hypotheses. The results, which indicated significant differences in autonomous learning, classmate influence, academic commitment, student engagement, and self-efficacy before and after ODI, are as follows:

H1a: There is a statistically significant difference in autonomous learning pre- and post-ODI.

H2a: A statistically significant difference in classmate influence pre- and post-ODI.



H3a: There is a statistically significant difference in academic commitment pre- and post-ODI.

H4a: A statistically significant difference exists in student engagement pre- and post-ODI.

H5a: There is a statistically significant difference in self-efficacy pre- and post-ODI.

RQ 4: What is the insight about students' self-efficacy in EFL class from interviews between pre-ODI and post-ODI?

By comparing and discussing the results of the qualitative analysis, the researcher aims to understand how students' self-efficacy is enhanced in EFL classes. The post-ODI interviews revealed a significant improvement in students' self-efficacy within these classes.

Table 5 Comparison of Themes and Categories between Pre-ODI and Post-ODI Interviews

Variables	Pre-ODI Stage	Post-ODI Stage	Changes
	Themes	Themes	
Autonomous Learning	<p>Theme 1: Insufficient Self-Directed Learning</p> <p>Theme 2: Unclear Learning Methods</p> <p>Theme 3: Limited Practice</p>	<p>Theme 1: Improved Language Skills</p> <p>Theme 2: Enhanced Engagement and Motivation</p> <p>Theme 3: Effective Self-Directed Learning</p>	Due to improved intrinsic motivation, students have mastered more effective English learning methods and skills, learning content, and increased engagement. In classes, students answered questions more actively.
Classmate Influence	<p>Theme 1: Impact of Classmate Interaction on Learning</p> <p>Theme 2: Effective Study Strategies and Resources</p>	<p>Theme 1: Enhanced Learning through Tools and Techniques:</p> <p>Theme 2: Collaboration and Peer Interaction</p>	Collaboration and communication among classmates have increased regarding English learning methods and techniques, learning content, and learning goals.
Academic Commitment	<p>Theme 1: Overcoming Challenges in Learning</p> <p>Theme 2: Effective Study Strategies and Resource Utilization</p>	<p>Theme 1: Effective Use of Resources and Techniques</p> <p>Theme 2: Collaborative and Goal-Oriented Learning</p>	Students have further developed effective English learning techniques, utilizing various learning resources to enhance their practical application skills and proficiency in English. They have also improved their learning autonomy and engagement by setting long-term goals.
Student Engagement	<p>Theme 1: Challenges in Learning and Participation</p> <p>Theme 2: Strategies for Effective Engagement</p>	<p>Theme 1: Enhancing Engagement through Collaboration and Interaction</p> <p>Theme 2: Personalizing Learning and Building Motivation</p>	By increasing communication among classmates, students have gained more learning techniques and developed personalized English learning strategies. Students engaged in more discussions and activities in EFL classes.
Self-efficacy	Theme 1: Challenges in Language Skills	Theme 1: Application of Learning Tools	Students have mastered learning content, methods, and goals that better suit their needs while strengthening effective communication in

Variables	Pre-ODI Stage	Post-ODI Stage	Changes
	Themes	Themes	
	Theme 2: Growth and Improvement	Theme 2: Engagement and Personal Growth	their studies. This has enhanced their English learning abilities and confidence, giving them greater assurance in continuing to learn English in the future.

The above charts show that students' status and performance in EFL classes have improved to varying degrees. The study revealed that students faced issues such as low autonomy in learning, limited peer interaction, low classroom engagement, and a lack of long-term learning goals, contributing to a lack of confidence in their English learning and poor academic performance. Students have improved their English learning through interventions during the ODI process, targeting autonomous learning, classmate influence, academic commitment, and student engagement.

The analysis of students' autonomous learning shows that the issue is not a lack of willingness to learn independently but rather a deficiency in ability and ineffective learning methods. Years of passive learning have left students without the skills to take initiative in their studies or to identify effective learning content. By understanding students' challenges, the researcher helped them recognize the importance of autonomous learning and equipped them with the necessary tools and strategies. This benefits their English studies and positively impacts other subjects and their future development.

Regarding classmate influence, the researcher found that while students generally communicate well in daily interactions, their exchanges about English learning were notably lacking. Most students did not proactively seek help from their peers for their English learning needs. They tended to search for answers online or ask their teachers. However, their classmates' learning methods and content are often more relatable and practical. Therefore, various group and team activities were introduced during the intervention phase to encourage collaboration and discussions about English learning among students. This approach proved effective, with many students benefiting by learning more efficient vocabulary memorization techniques, discovering more engaging reading materials, and setting more explicit learning goals and directions. Thus, classmate influence and collaboration are crucial for a convenient subject like English.

As to academic commitment, the main issue for students stems from not finding suitable learning content and methods, leading to less-than-ideal academic performance. Additionally, the lack of clear short-term and long-term goals in English learning results in most students studying passively and unenthusiastically to pass exams. The lack of interest, inappropriate methods, and unsuitable content contribute to their low commitment to learning. Through interventions focused on setting both long-term and short-term learning goals and adjusting the learning content, most students began to feel that English learning became more purposeful and motivating, with more engaging and exciting content. When English learning was no longer seen as a burden, students were more willing to dedicate time to studying the subject.

Regarding student engagement, the increased communication among classmates due to group and team activities has made many students no longer feel embarrassed about their English proficiency or make mistakes when answering questions. They have become more willing to participate in class discussions and answer questions. With this change in mindset and more effective learning methods, students' participation in EFL classes has significantly improved.

When it comes to self-efficacy, it is a multifaceted issue that requires students to have good learning habits and methods to achieve good results. Having clear learning goals leads to stronger motivation. This positive cycle improves English performance and practical application skills, enhancing self-efficacy. The researcher found that most students lacked confidence and interest in learning English. However, interventions such as group dynamics, appreciative inquiry, goal setting, coaching, team building, and team activities led to various improvements in autonomous learning, classmate influence, academic commitment, and student engagement. Changes in learning methods and content have improved students' performance and practical skills, increasing their interest and confidence in learning English, which in



turn has positively impacted their self-efficacy.

Qualitative data confirmed enhancements in autonomous learning, peer influence, academic commitment, student engagement, and self-efficacy following the OD intervention. Daily interactions and interviews revealed that most students reported substantial progress this semester.

Quantitative data also confirms the improvement after the OD intervention. Compared with the mean of each variable pre-ODI and post-ODI, autonomous learning increased from 2.16 to 3.03; classmate influences from 3.07 to 3.62, academic commitment from 2.82 to 3.62, student engagement from 2.63 to 3.35, and self-efficacy from 2.65 to 3.50. The results from the quantitative data were consistent with the qualitative data obtained through in-depth interviews with ten students.

Conclusion

This action research study explored the effect of ODIs on enhancing students' self-efficacy in EFL learning. A mixed-methods approach was employed, incorporating paired sample t-tests and content analysis. The study was structured to assess the impact of ODI on each independent variable, utilizing an action research model to influence the dependent variable by targeting the independent variables. Additionally, data analysis was used to address each research question. The study's positive results concluded that the ODI significantly enhanced students' autonomous learning, classmate influence, academic commitment, and student engagement in EFL classes, boosting their self-efficacy. It suggests that dynamic groups, appreciative inquiry, goal setting, coaching, team building, and team activities are influential OD interventions for improving these areas.

The study reached the following conclusions:

Firstly, the OD interventions notably improved students' autonomous learning, classmate influence, academic commitment, student engagement, and self-efficacy. As indicated in Table 5, the mean scores for each variable during the post-ODI phase increased when compared to the pre-ODI phase.

Secondly, dynamic groups, appreciative inquiry, goal setting, coaching, team building, and team activities were effective OD interventions for enhancing students' self-efficacy in EFL classes. The findings showed that these interventions led to significant improvements in students' autonomous learning, classmate influence, academic commitment, and student engagement, thus validating the effectiveness of the OD interventions employed in this research.

Thirdly, a positive correlation exists among autonomous learning, classmate influence, academic commitment, student engagement, and students' self-efficacy, reinforcing the findings of earlier studies.

Recommendation

Based on the analysis and discussion of the comparative data in Chapter 4, it is evident that improving students' self-efficacy in EFL learning through ODI is an effective and promotable strategy. According to this study, the following recommendations can be made:

Firstly, university administrators should establish a teacher training program and promote the strategy of enhancing students' self-efficacy through ODI,

ensuring that teachers are proficient in this strategy and its techniques.

Secondly, university administrators should implement the cross-disciplinary application of the ODI self-efficacy improvement strategy. They should consider applying similar ODI strategies in other subjects beyond EFL learning to enhance students' overall self-efficacy and academic commitment.

Thirdly, teachers should tailor ODI interventions to meet the specific needs of different student groups to maximize the impact.

In addition, teachers should integrate ODI strategies and adopt diverse teaching methods. Highly interactive teaching methods should encourage students' autonomous learning and active participation, fostering students' confidence and enthusiasm for learning.

Finally, teachers should provide timely, specific, and constructive feedback to help students recognize their progress, offering affirmation and encouragement to make them more confident in facing learning challenges.

Theoretical implications

Firstly, this study adopts an action research framework to develop an organizational project aimed at improving students' self-efficacy in EFL learning, offering empirical evidence for the investigation of self-efficacy. Secondly, it contributes to the understanding of self-efficacy in EFL learning and its connections with other variables, thereby enriching the literature on autonomous learning, classmate



influence, academic commitment, and student engagement.

Practical implications

Firstly, the suggested organizational development project could be executed to boost self-efficacy. Secondly, the specific ODI training activities that enhance students' self-efficacy in this study could be integrated more into teaching practices, rather than relying solely on traditional lectures.

Researcher Limitations

The researcher implemented OD interventions in this study to enhance students' autonomous learning, classmate influence, academic commitment, student engagement, and self-efficacy in EFL classes. The relationships among these variables were also explored, leading to several key conclusions. However, certain aspects of the research process still require further refinement.

Firstly, the research samples were drawn from a single university, with most participants being female students. This is because the university is a regular university, which tends to be a more popular choice for female students in China. As a result, the generalizability of the research findings is somewhat limited. Future research could consider selecting diverse research samples, such as students from various universities, and a more balanced gender distribution, leading to more comprehensive results.

Secondly, this study was conducted over three months, so the data and conclusions only reflect the intervention's effects within that timeframe. Future research could extend the study over a longer period, modify the intervention based on feedback, and strengthen its effectiveness. Additionally, exploring the relationship between the duration of the intervention and its outcomes can help identify the optimal length for intervention activities.

Thirdly, due to limitations in time and resources, this study did not take into account demographic factors such as students' family background, major, place of origin, gender, age, and other variables when exploring changes in autonomous learning, classmate influence, academic commitment, student engagement, and self-efficacy in EFL classes. Future studies could include these demographic variables for further analysis.

Reference

Alamer, A. (2022). Self-determination theory and motivation in foreign language learning: A review of recent research. *Language Teaching Research*, 26(2), 147–162.

AL-Qadri, A. H., Mouas, S., Saraa, N., & Boudouaia, A. (2024). Measuring academic self-efficacy and learning outcomes: the mediating role of university English students' academic commitment. *Asian-Pacific Journal of Second and Foreign Language Education*, 9(1), 35-36

Astin, A.W. (1984). Student involvement: a development theory for higher education. *Journal of College Student Development*. 4 (5), 518–529.

Bandura, A. (1986). *Social Foundations of Thought and Action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1997). *Self-Efficacy. The Exercise of Control*. New York: W H. Freeman & Co. Student Success.

Bankole E. T., and Ogunsakin F. C. (2015). Influence of peer group on academic performance of secondary school students in Ekiti State. *International Journal of Innovative Research and Development*, 4(1), 324-331.

Beck, J.W. & Schmidt, A.M. (2015). Negative Relationships Between Self-Efficacy and Performance Can Be Adaptive: The Mediating Role of Resource Allocation. *Journal of Management*, January 15, 1–34.

Bong, M. (2001). Role of Self-Efficacy and Task-Value in Predicting College Students' Course Performance and Future Enrollment Intentions. *Contemporary Educational Psychology*, 26, 553–579.

Brechwald, W. A., & Prinstein, M. J. (2011). Beyond Homophily: A Decade of Advances in Understanding Classmate Influence Processes. *Journal of Research on Adolescence*, 21(1), 166–179.

Bryde, J. F., and Milburn, C. M. (1990). You are helping to make the transition from school to college. In R. L. Emans (Ed.) *Understanding undergraduate education* (pp. 203-213). Vermillion, SD: University of South Dakota Press.

Carroll, D.V. (2000). *Psychology of Language*. Beijing: Foreign Language Teaching and Research Press,

Chemers, M.M., Hu, L., & Garcia, B.F. (2001). Academic self-efficacy and first-year college student performance and adjustment. *Journal of Educational Psychology*, 93(1), 55–64.



Christenson, S., Reschly, A. L., & Wylie, C. (2012). *Handbook of Research on Student Engagement* (Vol. 840). New York: Springer.

Dafei, D. (2007). An exploration of the relationship between learner autonomy and English proficiency. *Asian EFL Journal*, 24(4), 24–34.

Dalgety, J., & Coll, R. K. (2006). Exploring first-year science students' chemistry self-efficacy. *International Journal of Science and Mathematics Education*, 4(1), 97-116.

Eder, D., & Nenga, S. K. (2003). Socialization in adolescents. In J. Delamater (ed.), *Handbook of Social Psychology* (pp. 157-182). New York: Kluwer Academic.

Ferrell, A. (2012). *Classroom Social Environments, Motivational Beliefs, and Student Engagement*. Unpublished doctoral diss., University of Southern California.

Ghanizadeh, A., & Jahedizadeh, S. (2017). EFL learners' self-regulation, self-efficacy, and motivation: Exploring the relations. *Journal of Psycholinguistic Research*, 46(4), 1059-1074.

Gore Jr, P. A. (2006). Academic self-efficacy as a predictor of college outcomes: Two incremental validity studies. *Journal of Career Assessment*, 14(1), 92–115.

Harper, S. R., & Quaye, S. J. (2009). Beyond sameness, with engagement and outcomes for all. In S. R. Harper, & S. J. Quaye (Eds.), *Student Engagement in Higher Education* (pp. 1-15). New York and London: Routledge.

Hu, S. and Kuh, G.D. (2001). I was being (Dis)Engaged in Educationally Purposeful Activities: The Influences of Student and Institutional Characteristics. *Paper presented at the American Educational Research Association Annual Conference*. Seattle, WA, 10–14 April.

Hu, S., & Kuh, G. D. (2002). Being (dis)engaged in educationally purposeful activities: The influences of student and institutional characteristics. *Research in Higher Education*, 43(5), 555-575.

Human-Vogel, S., & Rabe, P. (2015). Measuring self-differentiation and academic commitment in University students: A case study of education and engineering students. *South African journal of psychology*, 45(1), 60-70.

Jang, S. A., Cho, N., & Yoo, J. (2012). I understand the antecedents of Korean high school students drinking refusal self-efficacy: parental influence, classmate influence, and behavior. *Global Journal of Health Science*, 4(1), 10-12.

Jungert, T., & Rosander, M. (2010). Self-efficacy and strategies to influence the study environment. *I taught in Higher Education*, 15(6), 647-659.

Kadir, H. (2018). *The influence of peer groups on students' anxiety in EFL learning*. Doctoral dissertation, FSD.

Kahn, H. E. (2012). Peer influences on students' self-efficacy in mathematics. *Educational Studies in Mathematics*, 79(3), 321-334.

Kahu, E. R., & Nelson, K. (2018). Student engagement in the educational interface: Understanding the mechanisms of student success. *Higher education research & development*, 37(1), 58–71.

Koryakovtseva, N. F. (2001). The autonomy of a student in learning a foreign language and culture. *Avtonomnost v praktike obucheniya inostrannym yazykam i kulturam*. M.: MGLU, 16-17.

Koryakovtseva, N. F. (2010). *Theory of Foreign Language Training: Productive Educational Technologies*. Academia Moscow.

Krause, K. L., & Coates, H. (2008). Students' engagement in first-year university. *Assessment & Evaluation in Higher Education*, 33(5), 493–505.

Kuh, G. D. (2009). What student affairs professionals need to know about student engagement. *Journal of College Student Development*, 50(6), 683–706.

Kuh, G.D. (2007). What student engagement data tell us about college readiness. *Peer Review*, 9(1), 4-8.

Lam, S. F., B. P. Wong, H. Yang, and Y. Liu. (2012). "Understanding Student Engagement with a Contextual Model." In *Handbook of Research on Student Engagement*, edited by S. L. Christenson, A. L. Reschly, and C. Wylie, 403–419. Boston, MA: Springer.

Lane, J. & Lane, A. (2001). Self-efficacy and Academic Performance. *Social Behavior and Personality*, 29 (7), 687–693.

Lavy, V., and Shlosser, A. (2007). *Mechanisms and Impacts of Gender Peer Effects at School*. NBER Working Paper 13292. National Bureau of Economic Research. Cambridge, MA.

Linnenbrink, E. A., and P. R. Pintrich. (2003). "The Role of Self-efficacy Beliefs in Student Engagement and Learning in the Classroom." *Reading & Writing Quarterly*, 19 (2), 119–137.



Okorodudu, G. N. (2013). Peer pressure and socioeconomic status as predictors of student's attitude to examination malpractice in Nigeria. *International Journal of Education*, 5(1), 36-52.

Oxford, R. L. (2008). Hero with a thousand faces: Learning autonomy, learning strategies, and learning tactics in independent language learning. In S. Hurd, & T. Lewis (Eds.), *Language learning strategies in independent settings* (pp.41–63). Clevedon: Multilingual Matters.

Pintrich, P. R., & Zusho, A. (2002). The development of academic self-regulation: The role of cognitive and motivational factors. In *Development of achievement motivation* (pp. 249-284). Academic Press.

Ponton, M. K., Carr, P. B., and Confessore, G. J. (2000). Learning conation: A psychological perspective of personal initiative and resourcefulness. In H.B. Long & Associates (Eds.), *Practice and theory in self-directed learning* (pp.65–82). Schaumburg, IL: Motorola University Press.

Rahimi, A., & Abedini, A. (2009). The interface between EFL learners' self-efficacy concerning listening comprehension and listening proficiency. *Novitas-ROYAL (Research on Youth and Language)*, 3(1).

Reeve, J. (2012). "A Self-determination Theory Perspective on Student Engagement." In *Handbook of Research on Student Engagement* (pp.149–172). Boston, MA: Springer US.

Schaufeli, W., Salanova, M., González-Romá, V., & Bakker, A. (2002). The measurement of burnout and engagement: A confirmatory factor analytic approach. *Journal of Happiness Studies*, 3, 71–92.

Schunk, D. H. (1995). "Self-efficacy and Education and Instruction." In *Self-efficacy, Adaptation, and Adjustment: Theory, Research, and Application*. edited by J. E. Maddux, 281–303. New York: Plenum Press.

Schunk, D. H., & Hanson, A. R. (1985). Peer models: Influence on children's self-efficacy and achievement. *Journal of Educational Psychology*, 77(3), 313.

Sökmen, Y. (2021). The role of self-efficacy in the relationship between the learning environment and student engagement. *Educational Studies*, 47(1), 19–37.

Soyer, M. K., & Kirikkanat, B. (2019). Undergraduates' achievement goal orientations, academic self-efficacy, and hope to predict their learning approaches. *European Journal of Educational Research*, 8(1), 99-106.

Stephenson, J., & Laycock, M. (1993). *Using learner contracts in higher education*. London: Kogan Page.

Tilfarlioglu, F. Y., & Ciftci, F. S. (2011). Supporting Self-efficacy and Learner Autonomy about Academic Success in EFL Classrooms (A Case Study). *Theory & Practice in Language Studies*, 1(10), 1284-1294. DOI:10.4304/tpls.1.10.1284-1294

Wright, S.L., Jenkins-Guarnieri, M.A., & Murdock, J.L. (2013). Career Development Among First-Year College Students: Self-Efficacy, Student Persistence, and Academic Success. *Journal of Career Development*, 40(4), 292–310.

Yen, C. J., & Liu, S. (2009). Learner autonomy as a predictor of course success and final grades in community college online courses. *Journal of Educational Computing Research*, 41(3), 347-367.

Zajacova, A., Lynch, S.M., & Espenshade, T.J. (2005). Self-Efficacy, Stress, and Academic Success in College. *Research in Higher Education*, 62(6), 677–706.

Zhou, K. C. H., Webster, B. J., King, R. B., et al. (2019). Higher education student engagement scale (HESES), Development and psychometric evidence. *Research in Higher Education*. 60, 219–244.

