

The Correlation Between Flipped Classroom Implementation and EFL Students' Learning Motivation in an Indonesian Senior High School

S Aminatus sa'diyah^{1*}, Daniar Sofeny², Irmayani³

English Language Education, Islamic University of Darul Ulum Lamongan, Indonesia¹²³

*Email Korespondensi: s.2022@mhs.unisda.ac.id

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ABSTRACT

Learning motivation is a fundamental factor impacting students' engagement and success in learning English as a foreign language (EFL). The flipped classroom has emerged as a student-centered instructional approach that coordinates pre-class learning with interactive classroom exercises to foster active engagement and learner independence. This study aimed to examine the relationship between the usage of the flipped classroom strategy and students' motivation in learning English among twelfth-grade students at SMA Negeri 1 Sukodadi, Indonesia. A quantitative correlational design was utilized, including 40 students chosen through purposive sampling. Data were collected using structured questionnaires and analyzed using descriptive statistics and Pearson Product-Moment Correlation. The findings revealed a strong positive and statistically significant relationship between the usage of the flipped classroom strategy and students' learning motivation ($r = 0.742$, $p < 0.001$). These findings show that students who experienced better implementation of the flipped classroom tended to illustrate higher levels of motivation in learning English. This study contributes observational evidence supporting the use of technology-enhanced, student-centered learning to cultivate students' motivation in Indonesian EFL classrooms and recommends that the flipped classroom may serve as a compelling guideline technique for English language teaching.

INTRODUCTION

English has become a fundamental language for worldwide communication, higher education, and professional advancement. In Indonesia, where English is taught as a Foreign Language (EFL), students are expected not only to achieve etymological competence but also to develop communication abilities that empower them to take an interest in scholastic and international settings. In any case, the success of English language learning is unequivocally affected by students' learning motivation, which determines their eagerness to take an interest, persevere, and accomplish learning objectives. Despite persistent educational program advancements, English instruction in numerous Indonesian senior high schools continues to rely on teacher-centered practices that constrain students' dynamic interest and independence. Such learning situations may decrease students' engagement and motivation, influencing the effectiveness of English language learning. Thus, imaginative instructional approaches that empower dynamic learning and learner independence are progressively required to address these challenges.

The urgency of addressing this issue in the Indonesian context is considerable. Indonesia continues to rank among the lower tiers of English proficiency indices in Asia, and this gap is most visible in secondary education, where large class sizes, uneven access to digital infrastructure, and heavy reliance on lecture-based delivery remain common outside major urban centers. Twelfth-grade students, in particular, face compounding pressures: they must prepare for national assessments, university entrance requirements, and, increasingly, English proficiency benchmarks demanded by higher education and the labor market, all within a limited instructional timeframe. When learning environments do not sufficiently support students' sense of autonomy and engagement, motivation tends to decline precisely at the stage when it is most needed. Semi-urban and regional schools, such as SMA Negeri 1 Sukodadi in Lamongan, East Java, are rarely represented in the EFL research literature, which has tended to concentrate on flagship urban schools or higher-education settings. Investigating the flipped classroom-motivation relationship in this underrepresented context therefore carries direct practical urgency: it generates evidence that can inform teacher training and instructional policy in precisely the settings where teacher-centered practices are most entrenched and where the risk of motivational decline is highest.

Motivation for learning is among the most important psychological factors in the process of learning the English language, as it determines the readiness of students to participate in different classroom activities, cope with learning difficulties, and be persistent in the process of learning. Motivation differs from academic achievement in that the latter implies learning outcomes manifested at any particular point in time. Future success in language learning. In addition, previous studies have reported that many Indonesian EFL students continue to experience difficulties in English learning, particularly in reading comprehension, vocabulary mastery, and understanding learning materials. These challenges often reduce students' classroom participation and learning motivation. Therefore, English teachers must adopt more engaging and student-centered instructional strategies that facilitate active learning and improve students' learning experiences (Sofeny et al., 2022).

The concept of the flipped classroom has received attention in the field of teaching. It involves students learning in advance with the help of technology, while in the classroom, students would be assisted with subject matter discussions, problem-solving, and other activities (Bergmann & Sams, 2012; Bishop & Verleger, 2013). Research has shown that the flipped approach greatly increases student participation and motivation, as it allows for increased engagement in the learning process (Fisher et al., 2024; Ridha et al., 2024). Self-determination theory supports the idea of student motivation, as the proper learning environment encourages independence, competence, and social interaction (Ryan & Deci, 2020). Thus, applying the idea of the flipped classroom is a perspective approach to enhancing students' motivation in English language learning. In addition, technology-supported learning has increasingly been recognized as an effective approach to promoting learner autonomy and active engagement in English language learning. Learning activities that encourage students to prepare independently before classroom instruction provide greater opportunities for meaningful classroom interaction and collaborative learning, which are essential characteristics of student-centered instruction (Irmayani et al., 2023).

A closer, more critical reading of this literature, however, shows that the evidence is not uniform. While Akçayır and Akçayır (2018) and Fisher et al. (2024) report consistently positive associations between flipped learning and student engagement, other syntheses paint a more mixed picture. The systematic reviews conducted by Liu and Mohamed (2024) and Hairuddin et al. (2025) note that the strength of the

relationship between flipped classroom implementation and motivation varies considerably across studies, with a number of them reporting only modest or statistically non-significant associations, particularly in settings with limited digital infrastructure, insufficient teacher scaffolding, or students who lacked prior experience with independent, self-paced learning. Nguyen (2023) similarly observed, in the Vietnamese EFL context, that outcomes of flipped classroom implementation differed across schools depending on institutional readiness and student autonomy levels. These inconsistencies suggest that the benefits of the flipped classroom for motivation are not automatic but depend on contextual and implementation factors that many earlier, more descriptive reviews have not fully unpacked. Most of these studies focused on the impact of flipped learning on language learning outcomes, language skills, learner engagement, and students' attitudes and employ experimental or quasi-experimental methodologies (Fisher et al., 2024; Nguyen, 2023), rather than examining the correlational structure between implementation quality and motivation directly. The present study responds to this gap by treating motivation as the central outcome of interest and by situating the analysis in an Indonesian senior high school context that remains comparatively underexamined, particularly with respect to twelfth-grade learners.

Based on these considerations, this research assesses the association between the practice of the flipped classroom method and students' motivation in learning English among 12th-grade learners of SMA Negeri 1 Sukodadi. Therefore, the research examines the problem: Does the practice of the flipped classroom idea have a significant influence on learners' motivation in learning English? Consequently, this study aims to establish if these two variables are connected. This research contributes to the increasing number of studies on the use of technology in teaching English as a foreign language by providing solid proof from the context of EFL in Indonesia, particularly in senior high school education. Moreover, this research is expected to help English teachers choose student-centered instructional approaches.

RESEARCH METHOD

The research used a quantitative methodology that used a correlational survey approach to investigate the link between the application of flipped classroom methodology and motivation in learning English. A quantitative correlational approach was employed since the focus of the study was on establishing the existence of the relationship between variables without changing learning circumstances. By employing this approach, researchers can establish the relationships that exist among different variables while employing statistical methods to arrive at conclusions regarding their relationships.

The research was conducted at SMA Negeri 1 Sukodadi, Lamongan, East Java, Indonesia, in the academic year 2025/2026. The participants were 40 students in the 12th grade who had used English learning through the flipped-classroom method for one month. The participants were selected by purposive sampling due to meeting the criteria of having experience learning directly with the teaching method in question. Specifically, students were included in the sample if they had participated in English lessons using the flipped classroom method for at least one month and had attended these lessons regularly, ensuring that their responses reflected genuine, first-hand experience with the instructional approach under investigation. Students who had not experienced the flipped classroom method, or who had only partial or irregular exposure to it, were excluded from participation. This purposive sampling strategy was considered appropriate because the study specifically required participants with direct and sufficient exposure to the flipped classroom method, rather than a randomly drawn sample from the broader student population that

might have included students lacking relevant experience with the intervention. It should be acknowledged, however, that this sampling technique, combined with the relatively small and single-school sample, constrains the extent to which the findings can be generalized to other schools or student populations, a limitation that is further discussed in the Study Limitation section. Before the data collection, permission from the administration of the school was obtained. The students were made aware of the purpose of the study and that their participation was voluntary. The questionnaire was filled out anonymously in order to guarantee confidentiality and encourage giving honest answers. The method of the flipped classroom was applied in the process of teaching English, making it possible for students to learn from digital media with the help of the flipped classroom method beforehand and to take part in group activities in class. This allowed the students to provide comments on the utilization of the flipped classroom method based on their learning experience, not on their assumptions (Cresswell & Creswell, 2023).

Two structured questionnaires using a five-point Likert scale were used for data collection. The first one sought to establish students' perceptions of the implementation of the flipped classroom method, while the second one gauged students' motivation to learn English. The questionnaires were constructed based on theoretical indicators of the flipped classroom method. The flipped classroom instrument was constructed based on the main characteristics proposed by Bergmann & Sams (2012) and Bishop & Verleger (2013). At the same time, the learning motivation instrument was based on Self-determination theory components such as autonomy, competence, and relatedness (Ryan & Deci, 2020). The flipped classroom questionnaire comprised 16 items in total, aiming to measure five factors, including pre-class learning, in-class activities, teacher role, students' engagement, and learning effectiveness. On the other hand, the learning motivation questionnaire also included 16 items in total, such as autonomy, competence, relatedness, learning interest, and persistence. Before the instruments were administered, the two professionals in English language teaching reviewed and assessed their content validity. The evaluation of instrument reliability was performed using Cronbach's alpha, while the reliability coefficients can be found in the Results section. The revisions were made according to the recommendations given to the authors before the questionnaires could be distributed to the participants (Cresswell & Creswell, 2023; Creswell & Guetterman, 2024).

The overall research procedure consisted of six stages: (1) research preparation, including instrument development and obtaining research permission; (2) implementation of the flipped classroom method during English lessons; (3) questionnaire distribution to the participants after the implementation period; (4) data collection; (5) statistical data analysis using IBM SPSS Statistics; and (6) interpretation of the findings and conclusion. The research procedure is summarized in Figure 1.

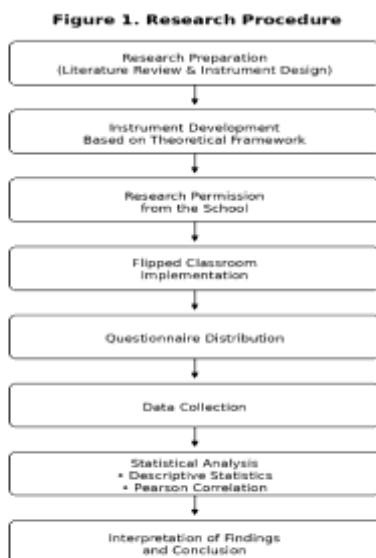


Figure 1. Research Procedure
Source: Developed by the researcher

The data were analyzed using descriptive and inferential statistics with the help of IBM SPSS Statistics. Initially, descriptive statistics were employed to obtain summary measures of students' responses, including mean and standard deviation. Then, the Pearson Product-Moment Correlation technique was used to establish the strength and direction of the relationship between the use of the flipped classroom technique and the motivation of students in learning English. The strength of the correlation coefficient was explained following Cohen's guidelines, according to which the correlation coefficient of approximately 0.10 shows weak correlation, 0.30 moderate correlation, and 0.50 strong correlation. Besides, the results were considered statistically significant at the level of 0.05. A positive and statistically significant correlation coefficient shows that better use of the flipped classroom technique leads to higher motivation of students in learning English (Cresswell & Creswell, 2023; Creswell & Guetterman, 2024).

RESULT AND DISCUSSION

This section presents the findings of the study based on the data collected from 40 twelfth-grade students at SMA Negeri 1 Sukodadi through questionnaires measuring the implementation of the flipped classroom method and students' motivation in learning English. The findings are organized into three main sections: (1) the implementation of the flipped classroom method, (2) students' motivation in learning English, and (3) the correlation between the implementation of the flipped classroom method and students' learning motivation. Furthermore, the findings are interpreted and discussed in relation to self-determination theory and previous empirical studies to explain their educational significance and

implications for English language teaching.

Instrument Validity and Reliability

Before embarking on hypothesis testing, the researchers ensured that the tools they used could measure the desired variables. The validity test proved that all parts of the instrument met the validity requirements and thus could be used in further statistical tests. No section of the questionnaire was rejected during the process of validation. No questionnaire items were rejected during the validation process, indicating that the instrument accurately represented the theoretical indicators of the flipped classroom and students' learning motivation.

Table 1. Summary of Instrument Validity

Instrument	Number of Items	Valid Items	Interpretation
Flipped Classroom Method	16	16	Valid
Students' Learning Motivation	16	16	Valid

(Source: Research Data)

The next step was to check the reliability of the research instruments using Cronbach's alpha. As seen in Table 2, the flipped classroom questionnaire's Cronbach's alpha value is 0.901, while the value for the learning motivation questionnaire is 0.892. Both values are above 0.70, the recommended minimum threshold, confirming the internal consistency of the instruments and their appropriateness for measuring the variables of interest (Hair et al., 2022).

Table 2. Reliability Statistics

Variable	Cronbach's Alpha	Interpretation
Flipped Classroom Method	0.901	Excellent Reliability
Students' Learning Motivation	0.892	Excellent Reliability

(Source: Research Data)

The high reliability coefficients indicate that participants responded consistently to the questionnaire items. Consequently, the reliability of the instruments strengthens the credibility of the subsequent statistical analyses and reduces the possibility that the observed findings resulted from measurement error.

Descriptive Statistics

Descriptive statistics were calculated to examine students' perceptions of the implementation of the flipped classroom method and their motivation in learning English. The analysis revealed that both variables obtained high mean scores, indicating positive student responses toward the instructional approach and high levels of learning motivation.

Table 3. Descriptive statistics of research variables

Variable	Mean	SD	Min	Max	Category
Flipped Classroom Method	4.18	0.47	2.94	4.94	High
Students' Learning Motivation	4.09	0.51	2.88	4.94	High

(Source: Research Data)

The mean score of 4.18 indicates that students generally perceived the implementation of the flipped classroom positively. Students considered that learning materials provided before classroom meetings enabled them to prepare independently and participate more actively during classroom discussions. Likewise, the mean score of 4.09 demonstrates that students possessed a high level of motivation toward learning English. The relatively small standard deviations suggest that students' responses were relatively homogeneous, indicating consistent perceptions among participants.

Based on the five-point Likert scale interpretation, both variables fall within the high category, indicating that the implementation of the flipped classroom was positively received and accompanied by a high level of students' motivation. These descriptive findings provide preliminary evidence that the learning environment created through the flipped classroom supports positive student perceptions before inferential statistical analysis is conducted.

Correlation Between the Flipped Classroom Method and Students' Learning Motivation

To determine whether a significant relationship existed between the implementation of the flipped classroom method and students' learning motivation, Pearson Product-Moment Correlation analysis was performed. The results are presented in Table 4.

Table 4. Pearson Correlation Analysis

Variable	Pearson Correlation	Sig (2-tailed)	Interpretation
Flipped Classroom ↔ Learning Motivation	0.742	0.000	Strong Positive Correlation

(Source: Research Data)

The investigation showed a very strong positive relationship between the introduction of the flipped classroom technique and the motivation of the learners to learn ($r = 0.742$, $p < 0.001$). Since the level of significance was lower than the chosen level of significance of 0.05, the null hypothesis was overturned. Thus, the alternative hypothesis is accepted, stating a significant relationship between the introduction of the flipped classroom technique and the motivation of the learners.

According to Cohen's (1988) interpretation of correlation coefficients, the obtained correlation coefficient ($r = 0.742$) represents a strong relationship between the two variables. This finding indicates that students who experienced higher-quality implementation of the flipped classroom also tended to report

higher levels of motivation toward learning English.

To estimate the practical significance of the identified relationship, the coefficient of determination (r^2) was calculated as follows:

$$r^2 = (0.742^2) = 0.551 \text{ (55.1 \%)}$$

The coefficient of determination indicates that approximately 55.1% of the variation in students' learning motivation is statistically associated with the implementation of the flipped classroom method, while the remaining 44.9% may be explained by other factors outside the scope of this study. Based on Cohen's (1988) interpretation, this represents a substantial practical effect, suggesting that the identified relationship is not only statistically significant but also educationally meaningful.

Discussion

The significant positive relationship identified in this study indicates that the implementation of the flipped classroom is associated with higher levels of students' motivation in learning English. Rather than merely demonstrating a statistical association, these findings suggest that the learning environment created through the flipped classroom encourages students to become more actively engaged, responsible, and autonomous throughout the learning process. As students receive learning materials in advance, they can study at their own pace, revisit complex topics, and arrive at class prepared, which allows teachers to devote classroom time to discussion and joint problem-solving rather than direct explanation (Weimer, 2002). This finding is consistent with Irmayani (2023), who emphasized that technology-supported learning encourages learner autonomy and active engagement in English language learning.

The current results are consistent with the self-determination theory postulated by Ryan & Deci, (2020), which states that students' motivation emerges only when three basic psychological needs, namely, autonomy, competence, and relatedness, are satisfied. In this study, learner autonomy was achieved by conducting self-researching pre-class assignments that provide students with the power to manage the pace and order of their learning. Competency is created through discussion, joint work, and instant feedback from the instructor. In truth, relatedness is obtained through proper interaction between students and between pupils and the instructor in the classroom. Meeting these psychological needs explains why students engaged in the flipped classroom approach claimed to be more motivated to learn English. The emphasis on learner autonomy reported by Irmayani (2023) also supports the assumptions of Self-Determination Theory, particularly regarding students' opportunities to regulate their own learning process before participating in classroom activities.

Beyond confirming SDT's general applicability, these findings carry more specific theoretical implications. Most prior validations of self-determination theory in language education have been conducted in higher-education or Western instructional settings, where learners typically possess greater prior experience with autonomous study habits. The present results suggest that the theory's basic needs framework also operates in a secondary-level, teacher-centered EFL culture such as Indonesia's, provided that the instructional design rather than the technology itself actively scaffolds autonomy, competence, and relatedness. This extends SDT's explanatory reach to a population and instructional context in which it has been comparatively under-tested, and it implies that motivation theories developed largely from Western or higher-education samples may need contextual qualification when applied to secondary EFL learners in

collectivist, exam-oriented education systems. Theoretically, the results also reinforce the view that motivation should be understood as an emergent property of the learning environment rather than a fixed learner trait: the same twelfth-grade students who operate under teacher-centered instruction in other subjects reported markedly higher motivation once the psychological needs specified by SDT were deliberately addressed through the flipped format. This lends support to environment-centered accounts of motivation over purely dispositional ones, and it suggests that future theorizing on learner motivation in EFL contexts should more explicitly incorporate instructional design quality as a moderating variable rather than treating technology adoption as a proxy for autonomy support.

The results obtained correlate with the objectives set in previous empirical investigations of flipped learning in language education. (Akçayır & Akçayır, 2018) concluded that employing the flipped classroom method positively impacts learners' engagement, participation in class, as well as interest in achievement of the learning objectives since such learning environments foster more active learning. In turn, (Fisher et al., 2024) stated that flipped learning allows for using the classroom time for discussion, collaborative learning, and practicing higher-order thinking, thus improving students' involvement and motivation. Similarly, Ridha et al., (2024) stated that the use of technology in collaborative learning effectively helps students' motivation since learners' involvement in the knowledge construction process increases significantly compared to traditional learning. The fact that the results obtained are congruent with the results from other studies supports the idea that the flipped classroom is an effective learning approach in terms of increasing motivation among students in English language education.

At the same time, the strength of the correlation found in this study ($r = 0.742$) is notably higher than the modest or non-significant associations reported in some of the studies synthesized by Liu and Mohamed (2024) and Hairuddin et al. (2025), and it contrasts with Nguyen's (2023) observation of inconsistent outcomes across Vietnamese schools with differing institutional readiness. Several explanations may account for this discrepancy. First, the present sample consisted of students who had already demonstrated sufficient readiness to engage with the method, since purposive sampling required direct prior experience with the flipped format; studies reporting weaker or null associations often included learners with little or no prior exposure to independent, technology-mediated preparation, for whom the same activities may have increased cognitive load rather than motivation. Second, the one-month implementation period in this study, while sufficient to establish familiarity with the format, may also have coincided with a novelty effect noted as a confound in shorter flipped-classroom interventions elsewhere in the literature; longer-term studies have sometimes reported an attenuation of motivational gains once the novelty of the approach wears off. Third, contextual factors such as class size, teacher support during the transition to flipped instruction, and the quality of pre-class materials that are not uniformly reported across the reviewed studies plausibly account for why implementation quality translates into motivation more strongly in some settings than others. Rather than treating the present strong correlation as evidence that the flipped classroom straightforwardly improves motivation, this contrast with the mixed prior evidence suggests that implementation fidelity, learner readiness, and duration of exposure are boundary conditions that should be treated as core variables in future flipped classroom research, rather than as background assumptions.

The findings of the current investigation, while largely in line with earlier studies, constitute a new contribution to the literature. Earlier studies were mostly concerned with the effectiveness of the flipped classroom in relation to academic achievement, language proficiency, and learners' attitudes and

perceptions, using experimental designs (Akçayır & Akçayır, 2018; Fisher et al., 2024). The current paper instead investigates the relationship between the use of the flipped classroom approach and students' motivation through a quantitative correlational design. It provides evidence from Indonesian senior high school students, particularly twelfth graders, a relatively underreported context for research on flipped learning.

In terms of practical relevance, the results indicate the successful implementation of the flipped classroom depends not solely on the use of digital technology but also on the quality of instructional design. Providing online learning materials prior to class is not sufficient alone to boost learners' motivation; teachers must also ensure the clarity, accessibility, and appropriateness of pre-class materials and actively stimulate group discussion, provide positive feedback, and motivate participation during class. These practices allow technology to support, rather than replace, student-centered teaching, as also highlighted by Irmayani et al. (2023). English teachers are encouraged to integrate technology-supported learning activities that promote learner autonomy and active classroom engagement to help students become more responsible for their learning while improving classroom participation.

Study Limitation

This study has several limitations that should be considered when interpreting the findings. First, the research involved only 40 twelfth-grade students from a single senior high school, which may limit the generalizability of the results to other educational contexts. Second, the quantitative correlational design identified the relationship between flipped classroom implementation and students' learning motivation but did not establish a causal relationship between the variables. Third, this study focused solely on students' learning motivation and did not examine other educational outcomes, such as English proficiency, academic achievement, or self-regulated learning. Fourth, the one-month implementation period leaves open the possibility of a novelty effect that a longer intervention could help disentangle from sustained motivational change. Future research is recommended to involve larger and more diverse samples, employ experimental, longitudinal, or mixed-methods designs, and examine additional variables such as self-efficacy, digital literacy, and parental support to provide a more comprehensive understanding of the effectiveness of the flipped classroom in English language learning.

CONCLUSION

This study concludes that the implementation of the flipped classroom method is positively and significantly associated with students' motivation in learning English among twelfth-grade students at SMA Negeri 1 Sukodadi. Students who experienced better implementation of the flipped classroom tended to demonstrate higher levels of learning motivation, indicating that technology-supported and student-centered learning environments can effectively foster learner engagement and autonomy, provided that implementation quality, learner readiness, and adequate teacher scaffolding are attended to.

The findings contribute empirical evidence to the growing body of research on technology-enhanced English language teaching, particularly within the Indonesian EFL context. Practically, this study suggests that English teachers may adopt flipped classroom strategies to promote active participation and meaningful learning experiences. Future research is recommended to involve broader participant populations, different educational levels, and additional variables such as learning achievement, self-regulated learning, or digital

literacy to further explore the effectiveness of the flipped classroom approach.

The present study extends the application of self-determination theory to Indonesian senior high school EFL classrooms by demonstrating that students' motivation is closely associated with the quality of flipped classroom implementation rather than technology use alone. These findings also highlight that effective instructional design is a key condition for technology-enhanced language learning.

REFERENCES

- Akçayır, G., & Akçayır, M. (2018). The flipped classroom: A review of its advantages and challenges. *Computers & Education*, 126, 334–345. <https://doi.org/10.1016/j.compedu.2018.07.021>
- Bergmann, J., & Sams, A. (2012). *Flip Your Classroom: Reach Every Student in Every Class Every Day*. International Society for Technology in Education. <https://books.google.com/books?id=-YOZCgAAQBAI>
- Bishop, J. L., & Verleger, M. A. (2013). The Flipped Classroom: A Survey of the Research. *Proceedings of the 120th ASEE Annual Conference & Exposition*, 1–18. <https://doi.org/10.18260/1-2--22585>
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Creswell, J. W., & Creswell, J. D. (2023). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage Publications.
- Creswell, J. W., & Guetterman, T. C. (2024). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (7th ed.). Pearson.
- Fisher, R., Tran, Q., & Verezub, E. (2024). Teaching English as a Foreign Language in higher education using flipped learning/flipped classrooms: A literature review. *Innovation in Language Learning and Teaching*, 18(4), 332–351. <https://doi.org/10.1080/17501229.2024.2302984>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2022). *Multivariate Data Analysis* (8th ed.). Cengage Learning.
- Hairuddin, N. H., Halim, S., Sahriana, S., & Irmawati. (2025). Trends, challenges, and benefits of the flipped classroom model in EFL context: A systematic literature review. *Research and Innovation in Applied Linguistics*.
- Irmayani, Rozak, R. R., Amrullah, A. Z., & Maslakhatin. (2023). Extensive listening: Indonesian teacher educators' and student teachers' perspectives and experiences in initial teacher education context. *Edulitics (Education, Literature, and Linguistics) Journal*, 8(2), 38–46. <https://doi.org/10.52166/edulitics.v8i2.5414>
- Liu, D., & Mohamed, H. (2024). A systematic review of the impact of flipped classroom toward students' motivation in language teaching. *International Journal of Academic Research in Business and Social Sciences*, 14(2), 1–18.
- Nguyen, M. T. (2023). A systematic review on flipped classrooms in English language teaching in Vietnam. *Journal of Science Van Hien University*, 9(3), 49–62.
- Ridha, M., Rahman, F., & Islamy, M. I. (2024). Students' learning engagement in the flipped classroom: A systematic literature review. *Jurnal Inovasi Teknologi Pendidikan*, 11(3), 267–284.
- Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination

- theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, 61, 101860. <https://doi.org/10.1016/j.cedpsych.2020.101860>
- Sofeny, D., Arong, A., & Huda, K. (2022). An analysis of the reading comprehension difficulties faced by young learners. *Edulitics (Education, Literature, and Linguistics) Journal*, 7(2), 81–87. <https://doi.org/10.52166/edulitics.v7i2.3571>
- Weimer, M. (2002). *Learner-Centered Teaching: Five Key Changes to Practice*. Jossey-Bass.