



## Socioeconomic status as a predictor of vocabulary knowledge in Bangladeshi EFL tertiary students

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### Abstract

This study investigates the relationship between socioeconomic status (SES) and the vocabulary range of tertiary-level EFL learners, a crucial yet unexplored area, particularly in developing countries. Therefore, by applying Bourdieu's (1986) cultural capital theory, this study aims to identify the extent to which SES can predict the vocabulary range of learners and determine the most influential SES factors contributing to learners' vocabulary range, thus addressing a gap in research of advanced-level EFL learners. The study employed a quantitative research design, collecting data from 366 students at the tertiary level. The data was analyzed using SPSS, Pearson correlation, multiple regression, and ANOVA. The results of the study indicate that there is a modest but significant correlation between SES and vocabulary range of tertiary-level EFL learners, with father's occupation, learner's school location (studied in schools of urban or rural areas), and educational background (English medium schooling or Bangla medium schooling) emerging as the strongest predictors. Thus, these findings extend Bourdieu's theory in the South Asian context and offer valuable insights to Bangladeshi ELT policymakers and EFL educators in designing effective pedagogical interventions and vocabulary enrichment programs to facilitate disadvantaged learners.

**Keywords:** Socioeconomic status, vocabulary range, tertiary education, Bangladeshi EFL, cultural capital

## Introduction

English has a strong presence in Bangladesh due to its colonial history, and English has been introduced as a compulsory subject from primary education onwards in the National Curriculum and continues to dominate secondary, higher secondary, and tertiary-level education (Hamid & Erling, 2016; Hasan, 2022; Hamid & Sultana, 2024). Therefore, English language learning receives utmost importance and one's ability to communicate in English proficiently is considered to play a pivotal role in lifting them out of poverty (Erling et al., 2012; Hamid & Sultana, 2024). English is a foreign language in Bangladesh (Rahman & Pandian, 2018; Rahman et al., 2019a; Hasan, 2022; Sikder, 2024), and in the EFL (English as Foreign Language) context, vocabulary is crucial for achieving communicative competence as it enhances one's listening skills, speaking skills and enables them to express themselves more clearly and also helps them to understand others better (Richards, 2015).

Moreover, vocabulary breadth refers to how many words or the total number of words that are known to a learner (Schmitt, 2014), and depth of vocabulary knowledge is the comprehensive understanding of a word, which includes its form, meaning, and use, that enables the learners to employ the word accurately and appropriately in different linguistic contexts (Teng, 2022). Thus, learners' language proficiency can be definitively predicted by their depth of vocabulary knowledge, as learners possessing a wider vocabulary range demonstrate advanced language skills compared to learners with a limited vocabulary range (Meara, 1996). At the tertiary level in Bangladesh, as the medium of instruction is English, learners with a limited vocabulary range are often at a disadvantage as there is a strong correlation between learners' academic reading success and their depth of vocabulary knowledge (Hasan & Shabdin, 2017).

A critical factor influencing vocabulary acquisition is socioeconomic status (SES). Socioeconomic status is a multidimensional construct that refers to the social and economic position of an individual or a family, typically measured by factors, such as income, educational attainment, and occupation, where low SES is characterized by limited income, lower educational attainment, less prestigious occupation, mid-SES represents individual with moderate income, a higher level education, stable occupations, and high-SES includes individuals with high income, advanced education, prestigious occupations; thus, SES is often associated with access to better healthcare, education, and opportunities (Bradley & Corwyn, 2002; Maguire et al., 2018). Learners' vocabulary ranges have often been associated with learners' socioeconomic status (SES) and children belonging to mid or high-SES homes seem to possess a wider range of vocabulary ranges compared to children belonging to low-SES homes (Hart & Risley, 1995; Hoff, 2006; Levine et al., 2020). Although several studies suggest the gap in vocabulary range widens as children complete school years (Fernald et al., 2013; The Oxford Language Report, 2018; Levine et al., 2020), some studies advocate that proper schooling and systematic intervention targeting vocabulary knowledge can help to mitigate this gap (von Hippel et al., 2018; Schneider et al., 2023). However, a large number of studies on vocabulary range and SES focus on very young children learning their L1 (Maguire et al., 2018); thus, a dearth of research has been found in terms of the impact of SES on vocabulary range among more advanced-level learners, such as college or tertiary-level learners, particularly in the EFL context. Tertiary-level EFL learners can enhance their English proficiency by learning independently with the support of their surroundings, intrinsic motivation, learning preferences, and technological resources (Tram & Kha, 2022), although vocabulary learning is often considered by learners as a monotonous or tedious task (Pradheepa et al., 2025) and vocabulary learning often yields unsatisfactory outcomes (Lee, 2023); therefore, it is of urgent importance to research the impact of SES on vocabulary range of tertiary-level EFL learners.

Globally, in the ESL (English as Second Language) or EFL context, particularly in many countries in Asia, social divisiveness can be observed due to learners' proficiency in English since learners from urban areas belonging to high-SES families have better access and opportunities to learn English compared to the rural learners with low-SES backgrounds (Tupas, 2011; Zou & Zhang, 2011; Feng, 2012; Hossain, 2016; Hoque et al., 2023). In China, urban learners from rich coastal provinces and well-developed city areas are privileged with a higher quality English learning environment compared to learners from poor inland provinces, and it is directly correlated with SES background (Zou & Zhang, 2011; Feng, 2012). Similar situations can be observed in Hong Kong and Singapore as children with high SES receive better English education and educational inequality and divisiveness can affect social justice and political stability (Lin & Man, 2009; Tupas, 2011; Zou & Zhang, 2011).

In a developing country, like Bangladesh, the situation is even more dire as children from high-SES backgrounds living in metropolitan cities often receive English medium education, and their English language proficiency is much more advanced, rather incomparable, than the students residing in rural areas from low-SES background receiving Bangla medium or Madrasa (Islamic school) education (Hossain 2016, Hamid & Erling, 2016, Hoque et al 2023). Although vocabulary is the most consistently reported area of language difficulty for learners belonging to low-SES homes (Maguire et al., 2018), and limited vocabulary among low-SES tertiary EFL learners hinders academic success, yet SES's impact remains understudied.

Therefore, this current study aims to address how SES impacts the vocabulary range of tertiary-level learners, using L2. Furthermore, the present study investigates the different factors of SES to identify the most contributing predictor of the vocabulary range of tertiary-level learners using L2, additionally, shedding light on the urban and rural context. The findings may inform targeted vocabulary interventions for low-SES learners. Furthermore, this study focuses on tertiary-level EFL learners, a group often overlooked in SES research, thereby advancing the existing body of knowledge by providing critical insight into South Asian educational policy. However, this study is limited to selected Bangladeshi institutions, and findings may not be generalized to other EFL contexts. This paper reviews the literature, presents a mixed-methods analysis of SES and vocabulary, and offers policy recommendations.

## Research Questions

The following research questions have been formulated for the current study.

- RQ1. To what extent is socioeconomic status (SES) related to the vocabulary range of tertiary-level EFL learners?
- RQ 2. To what extent does SES contribute to predicting the vocabulary range of tertiary-level EFL learners?
- RQ3. Which SES factors (income, parental education, or occupation) most strongly predict the vocabulary range among these learners?

## Research Hypothesis

The following hypothesis is developed for the purpose of the study.

- $H_0$ : There is no significant relationship between SES and tertiary-level EFL learners' vocabulary range.
- $H_1$ : There is a significant relationship between SES and tertiary-level EFL learners' vocabulary range.

## Literature Review

### *Theoretical Framework*

Sociolinguistics, a branch of linguistics, examines the use of language in society and considers language as a social and cultural phenomenon (Saputra et al., 2019). In the field of sociolinguistics, socioeconomic status (SES) has often been associated with language learning, and many studies focus on the correlation between learners' language proficiency and their SES (Hoff, 2003; Shurovi et al., 2022). This study employs Bourdieu's (1986) cultural capital theory to analyze how SES affects learners' vocabulary range. According to Bourdieu (1986), cultural capital refers to non-financial social assets, such as knowledge, skills, educational background, and how it can influence a person's success in society. Bourdieu's (1986) cultural capital theory classifies cultural capital into i. Embodied capital (knowledge, skill, and habit one acquires from their environment or social interactions, such as language proficiency, and etiquette); ii. Objectified capital (physical objects that can reflect cultural value, such as books, educational resources, and artworks), and iii. Institutional capital (formal recognition of cultural competence, such as educational degrees, and credentials).

In EFL education, Bourdieu's cultural capital theory plays a significant role as it accounts for learners' experiences, access to resources, environment, socialization, and overall language proficiency, and some studies (Hart & Risley, 1995; Lin & Man, 2009; Feng, 2012) shed light on SES driven lexical inequities that echoes Bourdieu's cultural capital theory. Moreover, researchers (Wang & Freed, 2021) show a direct correlation between learners' access to or possession of cultural capital and their educational attainment. In Bangladesh, the language disparities in urban and rural areas (Hossain, 2016) and English medium and Bangla medium schooling (Hamid & Erling, 2016) also highlight how such gaps can perpetuate inequality, and the need for policy reforms and systemic interventions to bridge the gap (Hossain, 2016) mirroring Bourdieu's (1986) cultural capital theory.

### *Socioeconomic Status and Vocabulary in the EFL Context*

Socio-economic factors, including the academic attainment of the learner's parents, and their economic background, are often considered crucial in EFL learning (Ahmad, 2014; Shurovi et al., 2022; Saha, 2023). Furthermore, the emergence of the 'Deficit Theory' in the 1960s was an attempt to explain the high rates of failure in school among the children of disadvantaged families, and it was suggested that the children from low-SES homes are verbally deprived and enter school without the necessary verbal resources required for success (Eller, 1989). Conversely, many studies refuted the 'deficit theory' by suggesting that children from low-SES families can be highly competent language users if they are allowed to speak in their vernacular and their failure to demonstrate language competence are often affected by certain situations that make them reticent (Labov, 2006; Wang et al., 2021). However, there has been a resurgence of the concept of deficit theory with Hart and Risley's (1995) study that is widely known as the study of the '30-million-word gap'.

In their study, Hart and Risley (1995) claim that there is a direct correlation between learners' vocabulary range and socioeconomic status as children by the age of three belonging to affluent families are exposed to approximately 30 million more words than children from lower SES families. Although this study's small sample and focus on L1 learners limit its applicability to EFL contexts, several studies concur with the notion of the 'word gap' and suggest that this gap often seems to widen as children grow up (Bradley & Corwyn, 2002; Hoff, 2006; Fernald et al., 2013; The Oxford Language Report, 2018; Levine et al., 2020). According to Hoff (2006), the impact of SES on children's language development and vocabulary range can be considered

substantial and evidently, children with higher SES possess advanced vocabulary skills, compared to children from lower SES backgrounds. Furthermore, vocabulary acquisition tends to be delayed in school children from lower SES homes in comparison to children from mid and higher SES homes, and SES-related language gaps are often believed to widen as children complete their school years, and the disparities can often be predictive of later academic success or failure (Bradley & Corwyn, 2002; Hemphill & Tivnan, 2008; Fernald et al., 2013; Levine et al., 2020).

### **Contradictory Findings**

Contradictory studies challenge the ‘word gap’ notion. Many studies (Johnson, 2015; Romeo et al., 2018; Sperry et al., 2018; von Hippel et al., 2018; van der Kleij et al., 2022; Schneider et al., 2023) present contradictory findings concerning vocabulary and SES. A few studies (Johnson, 2015; Sperry et al., 2018) argue the ‘word gap’ overgeneralizes low-SES learners’ capabilities and debunk the notion of the ‘30-million-word gap’, finding it lacking in scientific merit and having negative educational and social implications. Romeo et al. (2018) argue that SES is not the only determining factor of vocabulary development, rather factors like genetics and neural language processing also play a vital role in language or vocabulary development and should be included in the discussion of the ‘word gap’. Moreover, as children complete school years, the impacts of SES on vocabulary and overall language development and academic achievement do not widen (van der Kleij et al., 2022), rather these gaps tend to shrink during school years (von Hippel et al., 2018). Furthermore, the heterogeneity in the language samples suggests that many children from low-SES backgrounds possess strong vocabulary knowledge, and systematic interventions targeting vocabulary range can benefit young children from low-SES homes (Schneider et al., 2023). These inconsistencies necessitate further research, particularly in EFL settings.

### **Bangladeshi Context**

Since the 1990s, Bangladeshi National Curriculum and educational policies focused more on developing all four language skills (i.e. reading, writing, speaking, and listening) and overall English language competence (Kirkwood & Rae, 2011, Hamid & Erling, 2016; Hamid & Sultana, 2024). After several revisions in the education policies, English has become a compulsory subject in primary, secondary, and higher secondary school, and English is the medium of instruction at the tertiary level (Chowdhury & Kabir, 2014; Hasan, 2022). Although English learning has received utmost importance in the national curriculum, English proficiency among Bangladeshi learners is still not satisfactory (Chowdhury & Kabir, 2014; Hamid & Erling, 2016; Sikder, 2024), and the situation is particularly dire in rural areas due to some existing challenges in the education system (Hossain, 2016). Challenges intensify for learners of low-SES backgrounds as they struggle with low parental engagement, lack of necessary resources, and limited scope for tutoring (Saha, 2023).

Additionally, one of the crucial challenges Bangladeshi EFL learners face is learning vocabulary or enriching their vocabulary ranges (Rozario, 2021; Patra et al., 2022; Zakian et al., 2022), and Bangladeshi learners, particularly at the tertiary level, often struggle and fail to obtain desired results in their courses as they lack required vocabulary knowledge since classes, lectures, books, exams are all conducted in English (Jahan & Jahan, 2011). To read academic texts independently, L2 learners need to master 5000 to 8000-word families and make themselves familiar with 4000 to 8000-word families to adequately understand academic speech (Laufer & Nation, 2013; Dang & Webb, 2014). Unfortunately, despite years of foreign language study, a majority of learners fall short of reaching this benchmark, resulting in a substantial lexical gap that they find challenging to overcome (Smith et al., 2020).

Furthermore, in the Bangladeshi EFL context, some studies (Jahan & Jahan, 2011; Bristi, 2015; Rozario, 2021; Patra et al., 2022; Zakian et al., 2022) highlight some effective strategies for learning and teaching vocabulary for tertiary-level learners, and some studies (Hasan, 2010; Shurovi et al., 2022; Saha, 2023) emphasize the impact of SES on learner's English language proficiency. However, there is a significant gap in the empirical research that addresses the relationship and prediction of tertiary-level EFL learner's vocabulary range with SES.

Therefore, it is of urgent importance to conduct further studies on tertiary-level EFL learner's vocabulary range and SES. This current study aims to address the gap in the existing body of knowledge and resolve the inconsistencies found in the existing literature regarding the impact of SES on vocabulary. It seeks to offer a comprehensive analysis using multiple regression and ANOVA to model SES predictors. Additionally, this study attempts to extend Bourdieu's (1986) theoretical framework to the context of tertiary-level EFL learners in Bangladesh, especially in relation to SES and vocabulary range.

## Methodology

Aligned with the research questions, the researchers have employed a quantitative design (i.e., surveys) for examining the relationships between the independent variables (i.e. vocabulary range and SES) and applied Cohen's (1988) effect size guideline to measure the magnitude of the correlation as survey research can be a highly effective tool and provide valuable insights into various constructs by objectively scoring a large number of participants (Wagner, 2010; Creswell, 2014). Furthermore, stepwise regression was employed to identify significant SES predictors while controlling for multicollinearity. This method was used to evaluate how multiple SES factors (e.g., parental education, income, school location, etc.) collectively and individually predict vocabulary scores, while accounting for intercorrelations between predictors (Allison, 1999), and variance in vocabulary scores explained by SES (Keith, 2019).

## Participants

The number of participants selected for this study was 366; among them 66.5% were male and 33.5% were female. The participants were first-year undergraduate students from two private universities (i.e., United International University and Asia Pacific University) in Bangladesh. They had studied English as a foreign language for more than 12 years and completed their Higher Secondary Certificate (HSC) or equivalent exam. The participants were selected for the survey via random sampling technique to minimize bias (Creswell & Creswell, 2017). The sample size exceeds the guidelines for a correlation study (at least 30 participants), and population survey (at least 350 participants) suggested by Creswell and Creswell (2017), although the selection of only private university students and the exclusion of public university students may limit the generalizability of the study.

## Instruments

The survey questionnaire comprised two parts. The SES section has been adapted from Zeheen and Hossain (2016) and includes 14 items to elicit learners' information, such as the learner's parents' educational background, monthly income, location of residence (i.e., urban or rural) as this personal profile can provide a good overview of the learner's SES (Shurovi et al., 2022).

Furthermore, to measure learners' vocabulary range, 30 multiple-choice items from Cox-head's (1998) academic word list (AWL) have been randomly selected from 570-word families (targeting academic vocabulary) to assess the participants' vocabulary range in the EFL academic context (e.g., what is the meaning of the word 'evident'- a. oblivion, b. incident, c. obvious, d. exuberant). Established vocabulary wordlists, such as AWL, are widely used for the

assessment of the vocabulary range of university-level EFL learners (Coxhead, 2019, Smith et al., 2020; van der Kleij et al., 2022).

Additionally, the instruments are in alignment with Bourdieu’s (1986) cultural capital theory as the SES items reflect embodied capital (e.g., parental income, parental education), and institutionalized capital (e.g., school’s location, medium of instruction), and the vocabulary scale reflects language proficiency and knowledge (i.e., embodied capital). Thus, the instruments reinforce the theoretical framework.

**Validity and Reliability**

To ensure the validity and reliability of the study, the following measures were undertaken. For the SES measure, to ensure the construct validity of the instrument, which refers to how accurately a set of items can represent the construct it intends to measure (Stone, 2021), factor analysis was applied, as factor analysis can be used to determine the construct validity of the items of an instrument (Tavakol & Wetzel, 2020). The KMO test has been conducted to ensure the appropriateness of the data for factor analysis. KMO values closer to 1 are considered perfect while values less than .5 are considered unacceptable (Kaiser, 1974).

As the KMO value is 0.620, it is considered mediocre but acceptable because KMO values between 0.60 and 0.69 are classified as “mediocre,” but still acceptable for proceeding with factor analysis (Kaiser, 1974, Hutcheson & Sofroniou, 1999). Furthermore, Bartlett’s Test of Sphericity is highly significant ( $p < 0.001$ ), and this means that the correlations between the items are sufficiently large for factor analysis, and this indicates that the researchers can proceed with the factor analysis (Sürücü et al., 2024). Although acceptable, the KMO value (0.620) suggests moderate construct cohesion.

Moreover, for the vocabulary measure, to determine the reliability based on internal consistency, one of the most preferred, the Split-half method (Sürücü & Maslakçi, 2020) has been applied. To check the internal consistency of the items to measure the vocabulary range, the following Spearman-Brown formula has been applied.

$$\text{Reliability} = \frac{2 \times r}{1 + r}$$

Where  $r$  refers to the correlation of the two tests.  
The following are the findings upon performing the split-half reliability test using the Spearman-Brown correction:

$$\text{Reliability} = \frac{2 \times 0.489}{1 + 0.489} = \frac{0.978}{1.489} \approx 0.656$$

The Spearman-Brown corrected reliability coefficient is approximately 0.656. This indicates a moderate level of reliability for the full test. While it is below the commonly accepted threshold of 0.70 for good reliability, it is generally acceptable (Sürücü & Maslakçi, 2020); therefore, the test shows a moderate correlation and a reasonable level of reliability. Although moderate reliability may limit precision, it is sufficient for exploratory analysis.

**Ethical Considerations**

The study was conducted in accordance with the guidelines outlined in the Declaration of Helsinki. Prior to data collection, the Research Ethics Committee of United International

University exempted this study from formal ethics approval due to its non-clinical and minimal-risk nature. To ensure the ethical transparency of the study, several measures were taken during the different stages of data collection and analysis. Initially, the participants were informed thoroughly about the objectives, contexts, aim, scope, and possible outcomes of the research, and signed consent forms were collected prior to data collection. Participation was completely voluntary with no monetary or academic incentives; additionally, random sampling helped prevent selection bias. The participants had the right to withdraw from the study at any point without any penalties or negative consequences. To ensure confidentiality, privacy, and data protection, each participant was assigned a code only known to the researchers, and all personal identifiers were removed as suggested by Sandnes (2021). Moreover, during vocabulary testing sessions, proper supervision was ensured to maintain assessment integrity by restricting the use of dictionaries or other digital devices. All these measures demonstrate strict adherence to ethical standards throughout the research process.

Results

To answer the first research question, i.e., “To what extent is socioeconomic status (SES) related to the vocabulary range of tertiary-level EFL learners?”, a two-tailed Pearson correlation analysis has been done, using SPSS. The results are shown in Table 1.

Table 1. Intercorrelations matrix and relationship among variables of interest.

|     | VS       | GE      | FE       | ME       | FI       | FO     | MO      | MI     | SL     | SEB |
|-----|----------|---------|----------|----------|----------|--------|---------|--------|--------|-----|
| VS  | –        |         |          |          |          |        |         |        |        |     |
| GE  | 0.083    | –       |          |          |          |        |         |        |        |     |
| FE  | 0.030    | 0.197** | –        |          |          |        |         |        |        |     |
| ME  | 0.058    | 0.136** | 0.665**  | –        |          |        |         |        |        |     |
| FI  | –0.042   | 0.010   | 0.114*   | 0.111*   | –        |        |         |        |        |     |
| FO  | 0.149**  | 0.020   | –0.184** | –0.147** | –0.314** | –      |         |        |        |     |
| MO  | 0.038    | 0.145** | 0.217**  | 0.393**  | –0.024   | 0.099  | –       |        |        |     |
| MI  | 0.064    | 0.130*  | 0.193**  | 0.415**  | 0.193**  | 0.029  | 0.599** | –      |        |     |
| SL  | –0.170** | –0.106* | –0.174** | –0.144** | –0.024   | –0.053 | –0.029  | –0.049 | –      |     |
| SEB | 0.158**  | 0.116*  | 0.041    | 0.090    | 0.034    | 0.073  | 0.052   | 0.070  | –0.065 | –   |

VS, Vocabulary Score; GE, Grade in English; FE, Father's Education; ME, Mother's Education; FI, Father's Income; FO, Father's Occupation; MO, Mother's Occupation; MI, Mother's Income; SL, School's Location; SEB, Student's Educational Background  
\* Correlation is significant at the 0.05 level (2-tailed); \*\* Correlation is significant at the 0.01 level (2-tailed)

As shown in Table 1, there is a low positive correlation between vocabulary score and father's occupation ( $r = 0.149, p = 0.004$ ), and a low negative correlation between vocabulary score and school's location ( $r = -0.170, p = 0.001$ ), and this indicates that students whose fathers have higher status occupations tend to have higher vocabulary range, and students of rural schools showed lower vocabulary range. These correlations indicate that the father's occupation and the school's location have a small but significant impact on student's vocabulary range

as these can influence access to better resources, better opportunities, or educational support that would contribute positively to student’s performance. In addition to that, a low positive correlation between vocabulary score and student’s educational background ( $r = 0.158, p = 0.002$ ) indicates a small but significant impact of student’s educational background (i.e. English medium, Bangla medium) on the student’s vocabulary range, and this implies that students who completed schools in English medium were likely to have wider vocabulary range than students who studied in Bangla medium school. Furthermore, father’s ( $r = -0.174, p = 0.001$ ) and mother’s educational backgrounds ( $r = -0.144, p = 0.006$ ) show significant but weak negative correlations with school location, and this indicates that more educated parents tend to send their children to urban schools as it is likely to ensure better access to necessary resources and positive educational environment.

To comprehensively address RQ2 and RQ3, a multiple regression analysis was conducted on SPSS with all SES predictors. To address the second research question, i.e., “To what extent does SES contribute to predicting the vocabulary range of tertiary-level EFL learners?”, multiple regression and ANOVA were conducted. The results are shown in Table 2.

**Table 2.** Prediction value of independent variables.

| <i>R</i> | <i>R</i> <sup>2</sup> | Adjusted <i>R</i> <sup>2</sup> | Std. error of the estimate | ANOVA     |             |          |          |       |
|----------|-----------------------|--------------------------------|----------------------------|-----------|-------------|----------|----------|-------|
| .267     | .071                  | .051                           | 5.372                      | <i>df</i> | Mean square | <i>F</i> | <i>P</i> |       |
|          |                       |                                |                            | 8         | Regression  | 99.012   | 3.431    | .001* |
|          |                       |                                |                            |           | Residual    | 28.859   |          |       |

a. Dependent Variable: Vocabulary Score. b.Predictors: (Constant), What is your mother’s monthly income (in BDT)?, What is your father’s occupation?, Was your school situated in, Your educational background, What is your father’s educational background?, What is your father’s monthly income (in BDT)?, What is your mother’s occupation?, What is your mother’s educational background?

Table 2 suggests that the model produced statistically significant results ( $F = 3.431, p = .001$ ), indicating that the socioeconomic factors collectively provide a meaningful explanation of the variance of the vocabulary scores. The  $R^2$  value (.071) indicates that the model explains 7.1% of the variance, suggesting a modest but meaningful relationship between SES factors and vocabulary range. While modest, these findings highlight actionable SES factors for EFL interventions. However, the value of  $R$  (.267) and mean square of residual (28.859) indicate that there is still a substantial amount of unexplained variance, pointing to the potential influence of additional factors (factors apart from SES) that were not accounted for in the model. This suggests that SES alone may not be a strong predictor of vocabulary range at the tertiary level of EFL learners, unlike elementary-level L1 learners. Other factors (e.g., motivation, and anxiety) may influence the vocabulary range of tertiary-level EFL learners, underscoring the need for further research.

To answer the third research question, i.e., “Which SES factors (income, parental education, or occupation) most strongly predict the vocabulary range among these learners?”, the standardized beta weights from the regression analysis were examined. The results are shown in Table 3.

**Table 3.** Coefficients of the predictor variables.

| IV <sup>1</sup> | Standardized coefficients <i>B</i> | <i>T</i> | <i>Sig.</i> | Correlations |       | Collinearity statistics |       |
|-----------------|------------------------------------|----------|-------------|--------------|-------|-------------------------|-------|
|                 |                                    |          |             | Partial      | Part  | Tolerance               | VIF   |
| SL              | −.149                              | −2.853   | .005        | −.149        | −.145 | .956                    | 1.046 |
| SEB             | .135                               | 2.609    | .009        | .137         | .133  | .979                    | 1.022 |
| FE              | −.005                              | −.071    | .943        | −.004        | −.004 | .534                    | 1.871 |
| ME              | .041                               | .538     | .591        | .028         | .027  | .454                    | 2.201 |
| FO              | .130                               | 2.340    | .020        | .123         | .119  | .838                    | 1.193 |
| FI              | −.024                              | −.432    | .666        | −.023        | −.022 | .836                    | 1.196 |
| MO              | −.033                              | −.502    | .616        | −.027        | −.026 | .589                    | 1.699 |
| MI              | .053                               | .769     | .442        | .041         | .039  | .558                    | 1.792 |

a. Dependent Variable: Vocabulary Score; <sup>1</sup>Independent Variable: SL, School's Location; SEB, Student's Educational Background; FE, Father's Education; ME, Mother's Education; FO, Father's Occupation; FI, Father's Income; MO, Mother's Occupation; MI, Mother's Income;

As presented in Table 3, the largest Beta value of SL (School's Location) ( $\beta = -.149, t = -2.853, p = .005$ ) shows that it has a significant ( $p < .01$ ) negative effect on the dependent variable i.e., vocabulary score, and has the largest effect on the outcome variable compared to other variables. Moreover, variables i.e., SEB (Student's Educational Background) ( $\beta = 0.135, t = 2.609, p = 0.009$ ) and FO (Father's Occupation) ( $\beta = 0.130, t = 2.340, p = 0.020$ ) have a significant positive effect on the outcome variable i.e., vocabulary score. However, other variables i.e., FE (Father's Education), ME (Mother's Education), etc., do not show a statistically significant effect. Therefore, the result indicates that, out of all the SES variables, the learner's school location (i.e., urban or rural) affects the vocabulary score or the vocabulary range of the tertiary-level learners most.

Furthermore, to test  $H_1$ , which predicted a significant relationship between SES and the vocabulary range of tertiary-level EFL learners, Pearson correlation and multiple regression analysis were performed. The results indicated that there is a low positive correlation between vocabulary score and father's occupation ( $r = 0.149, p = 0.004$ ), and between vocabulary score and student's educational background ( $r = 0.158, p = 0.002$ ), and a low negative correlation between vocabulary score and school's location ( $r = -0.170, p = 0.001$ ). Moreover, the regression model produced statistically significant results ( $F = 3.431, p = .001$ ), with the value of  $R$  (.267) and  $R^2$  value (.071) indicating that the model explains 7.1% of the variance. Therefore, the null hypothesis suggesting that there is no significant relationship between SES and vocabulary is rejected, and the alternative hypothesis ( $H_1$ ) is accepted, supporting the conclusion that there is a significant relationship between SES and vocabulary range, albeit with a small effect size.

### Discussion

The objectives of the research were to investigate the relationship of SES and the vocabulary range of tertiary-level EFL learners, to identify the extent to which SES can predict the vocabulary range, and which SES factor is the most contributing predictor of tertiary L2 learner's vocabulary ranges. The results revealed that certain SES factors, such as students' fathers' occupation, their school's location (i.e., urban or rural), and their educational background (i.e.,

English medium or Bangla medium) slightly impact their vocabulary ranges as learners residing in urban areas, studying in English medium school and learners whose fathers are involved in high prestige occupation demonstrated stronger vocabulary performance than learners residing in rural areas, studying in Bangla medium school and fathers in lower status occupation. This finding is consistent with the research of Hossain (2016) and Hamid and Erling (2016) as it indicates that Bangladeshi urban learners receiving English medium schooling consistently outperform Bangladeshi rural learners attending Bangla medium schools, in terms of their English language learning outcomes.

Moreover, learners with fathers in high-prestige occupations and belonging to families with better parental education often achieve stronger English proficiency and are more likely to receive education in urban schools with better educational resources and environment. This finding confirms the findings of Abbasian et al. (2020) and Shurovi et al. (2022) that parental education significantly impacts tertiary-level EFL learners' English performance and well-educated parents are more concerned and involved regarding their children's English language performance. These findings are also aligned with Bourdieu's (1986) cultural capital theory as highly educated parents in high-prestige occupations (example of embodied capital) are sending their children to urban English medium schools (example of institutionalized capital) and their children tend to possess wider vocabulary range or perform better in English (i.e., embodied capital) reflecting Bourdieu's (1986) view that economic or cultural capital can be converted into educational advantages, benefitting the privileged class or affluent learners, thus reinforcing the theoretical framework. Additionally, in the context of Bangladesh, father's occupation emerging as a stronger predictor of vocabulary range than income indicates that fathers in high-prestige professions are more likely to foster an enriched learning environment at home, encouraging academic achievements, and providing better exposure to linguistic and academic resources. This extends Bourdieu's (1986) cultural capital theory in the South Asian context, highlighting how professional knowledge and skills can be transferred from parents to children, offering educational advantages beyond mere financial means.

Furthermore, the results also indicated that although certain factors of SES (e.g., parental income, school's location, medium of instruction) can significantly impact tertiary-level EFL learner's vocabulary range, there are certainly other factors apart from SES (e.g., motivation, self-determination, anxiety) that can also impact learner's vocabulary range, as suggested by relatively low *R*-value (.267) and high mean square of residuals (28.859). The modest SES impact highlights the role of non-SES factors in EFL contexts, distinct from L1 settings. This result of the current study aligns with the findings of Papi (2010), Romeo et al. (2018), and Lee et al. (2022) that for adolescent and advanced-level learners, there are other psychosocial factors apart from SES that can impact their vocabulary range. Moreover, the results of the study, particularly highlighted by the vocabulary score (mean score 20.64 and median score 21 out of 30), indicated that tertiary-level EFL learners of Bangladesh perform moderately in terms of their vocabulary proficiency. This finding is also in agreement with the findings of Jahan and Jahan (2011), and Hasan and Shabdin (2017) that Bangladeshi tertiary-level EFL learners often fail to attain their desired academic goals due to their moderate range of vocabulary. Therefore, targeted vocabulary interventions for rural Bangla-medium students may help address SES disparities.

### Further Research and Limitations

Further research can explore the psychosocial factors (e.g., motivation, anxiety, self-efficacy) as potential mediators in SES-vocabulary relationships using mixed-methods designs. In addition,

longitudinal studies could investigate the effectiveness of vocabulary enrichment interventions (e.g., providing digital access to English vocabulary learning tools in under-resourced schools) to mitigate SES-related learning inequalities.

However, several limitations should be considered. Firstly, for the SES measure, this study depended on self-reported data, such as parental income, and parental occupation, that may include bias. Therefore, more objective measures (including income records) could strengthen future studies. Secondly, the vocabulary measure's moderate reliability (0.656) may limit the precision of inferences. Thirdly, this study's findings are based on a sample of tertiary-level Bangladeshi EFL learners from private universities. This may limit the generalizability of the findings of the research as private university students may not represent rural or public university learners.

## Conclusion

This study investigated the impact of socioeconomic status (SES) disparities on the vocabulary range among Bangladeshi tertiary EFL learners, with the aim to address a perceived research gap by extending Bourdieu's (1986) cultural capital theory in the South Asian context. The study employed a quantitative survey design, including a 30-item vocabulary test (randomly selected from Academic Word List) to measure vocabulary range and a questionnaire for gathering SES-related data (e.g., parents' income, and educational attainment). Multiple regression, ANOVA and Pearson correlation were used in SPSS to analyse data from 366 students attending private universities in Bangladesh.

The results indicated that SES modestly predicts vocabulary range ( $R^2 = 0.071$ ), with school location (urban vs. rural,  $\beta = -0.149$ ,  $p = 0.005$ ), father's occupation ( $\beta = 0.130$ ,  $p = 0.020$ ), and educational background (English vs. Bangla medium,  $\beta = 0.135$ ,  $p = 0.009$ ) emerging as significant predictors. Thus, this study advances SES research by clarifying its limited but targeted role in EFL contexts. Moreover, students belonging to higher-SES families, with higher parental occupation, receiving English medium schooling from urban areas outperformed students coming from low-SES backgrounds, residing in rural areas, and receiving Bangla medium schooling. This finding aligns with Bourdieu's concept of institutionalized cultural capital benefitting students of privileged social groups. Additionally, Bangladeshi tertiary-level EFL learners' academic success seems to be affected by their moderate vocabulary proficiency indicated by their mean vocabulary score (i.e., 20.64 out of 30). However, the study's generalizability is limited by its scope, due to its focus on private universities of Bangladesh, and its limitations, which include moderate test reliability (0.656) and self-reported SES data bias.

This study recommends targeted vocabulary interventions for rural learners and the implementation of effective pedagogical strategies. Further research should explore the impacts of psychosocial factors (e.g., motivation, anxiety) to enhance the vocabulary proficiency of tertiary-level EFL learners by employing longitudinal studies.

## Pedagogical Implications

Educators and policymakers should implement effective pedagogical strategies and interventions to bridge the gap and address the educational disparities by designing vocabulary enrichment programs, such as mobile apps with AWL-based quizzes, and providing advanced resources to rural, low-SES learners receiving Bangla medium schooling, echoing Bourdieu's (1986) redistribution of cultural capital for ensuring democratized access to English resources.

## References

- Abbasian, R., Hadian, B., & Vaez-Dalili, M. (2020). Examination of the role of family socioeconomic status and parental education in predicting English as a foreign language learners' receptive skills performance. *Cogent Education*, 7(1). <https://doi.org/10.1080/2331186X.2019.1710989>
- Ahmad, S. (2014). A socio-psycholinguistic investigation into the correlation between English language learner motivation and present status of EFL learning in Bangladesh. *Bangladesh Research Foundation Journal*, 3(1), 61–74.
- Allison, P. D. (1999). *Multiple regression: A primer*. Pine Forge Press.
- Bradley, R. H., & Corwyn, R. F. (2002). Socioeconomic status and child development. *Annual Review of Psychology*, 53(1), 371–399. <https://doi.org/10.1146/annurev.psych.53.100901.135233>
- Bourdieu, P. (1986). The forms of capital. In J. Richardson (Ed.), *Handbook of Theory and Research for the Sociology of Education* (pp. 241–258). Greenwood.
- Bristi, N. L. (2015). Exploring vocabulary learning strategies used by Bangladeshi EFL learners: A comparative analysis of three proficiency level learners. *Global Journal of Human-Social Science: Linguistics & Education*, 15 (12), 1–11. [https://globaljournals.org/GJHSS\\_Volume15/1-Exploring-Vocabulary-Learning.pdf](https://globaljournals.org/GJHSS_Volume15/1-Exploring-Vocabulary-Learning.pdf)
- Chowdhury, R., & Kabir, A. H. (2014). Language wars: English education policy and practice in Bangladesh. *Multilingual Education*, 4(21), 1–16. <https://doi.org/10.1186/s13616-014-0021-2>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Erlbaum.
- Coxhead, A. (1998). *An academic word list*. School Of Linguistics and Applied Language Studies. Victoria University of Wellington.
- Coxhead, A. (2000). A new academic word list. *TESOL Quarterly*, 34(2), 213–238. <https://doi.org/10.2307/3587951>
- Coxhead, A. (2019). Academic vocabulary. In *The Routledge handbook of vocabulary studies* (pp. 97–110). Routledge.
- Creswell, J. W. (2014). *A concise introduction to mixed methods research*. SAGE.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. SAGE.
- Dang, T. N. Y., & Webb, S. (2014). The lexical profile of academic spoken English. *English for Specific Purposes*, 33, 66–76. <https://doi.org/10.1016/j.esp.2013.08.001>
- Dornyei, Z. (2007). *Research methods in applied linguistics*. Oxford University Press.
- Eller, R. G. (1989). Johnny can't talk, either: the perpetuation of the deficit theory in classrooms. *The Reading Teacher*, 42(9), 670–674. <http://www.jstor.org/stable/20200272>
- Erling, E., Seargeant, P., Solly, M., Chowdhury, Q. H., & Rahman, S. (2012). *Attitudes to English as a language for international development in rural Bangladesh*. British Council. <https://oro.open.ac.uk/33548/>
- Feng, A. (2012). Spread of English across Greater China. *Journal of Multilingual and Multicultural Development*, 33(4), 363–377. <https://doi.org/10.1080/01434632.2012.661435>
- Fernald, A., Marchman, V. A., & Weisleder, A. (2013). SES differences in language processing skill and vocabulary are evident at 18 months. *Developmental Science*, 16(2), 234–248. <https://doi.org/10.1111/desc.12019>
- Hamid, M. O., & Erling, E. J. (2016). English-in-education policy and planning in Bangladesh: A critical examination. *Language Policy*, 25–48. [https://doi.org/10.1007/978-3-319-22464-0\\_2](https://doi.org/10.1007/978-3-319-22464-0_2)
- Hamid, M. O., & Sultana, S. (2024). English-medium instruction in higher education in Bangladesh. In K. Bolton, W. Botha, B. Lin (Eds.), *The Routledge Handbook of English-Medium Instruction in Higher Education* (pp. 352–364). Routledge.
- Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experiences of young American children*. Paul H. Brookes Publishing.
- Hasan, M. K. (2010). Individual and social-psychological variables related to Bangladeshi students and their proficiency in ESL. *Journal of Asia TEFL*, 7(1), 333–361. [https://www.asiatefl.org/main/download\\_pdf.php?i=192&c=1419308623&fn=7\\_1\\_14.pdf](https://www.asiatefl.org/main/download_pdf.php?i=192&c=1419308623&fn=7_1_14.pdf)
- Hasan, K., & Shabdin, A. A. (2017). The correlation and contribution of depth of vocabulary knowledge to reading success of EFL Bangladeshi Tertiary Students. *PASAA: Journal of Language Teaching and Learning in Thailand*, 53, 148–181. <http://files.eric.ed.gov/fulltext/EJ1153671.pdf>

- Hasan, M. K. (2022). A critical investigation of the status of English at the tertiary-level education in Bangladesh. *MEXTESOL Journal*, 46(3), 1–5. <https://files.eric.ed.gov/fulltext/EJ1364937.pdf>
- Hemphill, L., & Tivnan, T. (2008). The importance of early vocabulary for literacy achievement in high-poverty schools. *Journal of Education for Students Placed at Risk (JESPAR)*, 13(4), 426–451. <https://doi.org/10.1080/10824660802427710>
- Hoff, E. (2003). The specificity of environmental influence: Socioeconomic status affects early vocabulary development via maternal speech. *Child Development*, 74(5), 1368–1378. <https://doi.org/10.1111/1467-8624.00612>
- Hoff, E. (2006). How social contexts support and shape language development. *Developmental Review*, 26(1), 55–88. <https://doi.org/10.1016/j.dr.2005.11.002>
- Hoque, M. S., Islam, M. M., & Hamid, M. O. (2023). Promises of English and English language learners in rural Bangladesh. *The Journal of AsiaTEFL*, 20(1), 31–46. <https://doi.org/10.18823/asiatefl.2023.20.1.3.31>
- Hossain, M. M. (2016). English language teaching in rural areas: A scenario and problems and prospects in context of Bangladesh. *Advances in Language and Literary Studies*, 7(3), 1–12. <https://journals.aiac.org.au/index.php/all/article/view/2239>
- Hutcheson, G., & Sofroniou, N. (1999). *The multivariate social scientist: introductory statistics using generalized linear models*. SAGE.
- Jahan, A., & Jahan, N. (2011). Working with vocabulary at tertiary-level in Bangladesh. *Journal Of Education and Practice*, 2(2), 45–57. <https://www.iiste.org/Journals/index.php/JEP/article/viewFile/497/382>
- Johnson, E. J. (2015). Debunking the “language gap.” *Journal for Multicultural Education*, 9(1), 42–50. <https://doi.org/10.1108/jme-12-2014-0044>
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39(1), 31–36. <https://doi.org/10.1007/BF02291575>
- Keith, T. Z. (2019). *Multiple regression and beyond* (3rd ed.). Routledge.
- Kirkwood, A. T., & Rae, J. (2011). A Framework for evaluating qualitative changes in learners’ experience and engagement: Developing communicative English teaching and learning in Bangladesh. *Evaluation & Research in Education*, 24(3), 203–216. <https://doi.org/10.1080/09500790.2011.610504>
- Labov, W. (2006). *The social stratification of English in New York city* (2nd ed.). Cambridge University Press. <https://doi.org/10.1017/CBO9780511618208>
- Laufer, B., & Nation, I. P. (2013). Vocabulary. In *The Routledge handbook of second language acquisition* (pp. 163–176). Routledge.
- Lee, J. H., Ahn, J. J., & Lee, H. (2022). The role of motivation and vocabulary learning strategies in L2 vocabulary knowledge: A structural equation modeling analysis. *Studies in Second Language Learning and Teaching*, 12(3), 435–458. <https://doi.org/10.14746/ssllt.2022.12.3.5>
- Lee, S. M. (2023). Factors affecting incidental L2 vocabulary acquisition and retention in a game-enhanced learning environment. *ReCALL*, 35(3), 274–289. <https://doi.org/10.1017/S0958344022000209>
- Levine, D., Pace, A., Luo, R., Hirsh-Pasek, K., Golinkoff, R. M., De Villiers, J., Iglesias, A., & Wilson, M. S. (2018). Evaluating socioeconomic gaps in preschoolers’ vocabulary, syntax and language process skills with the Quick Interactive Language Screener (QUILS). *Early Childhood Research Quarterly*, 50, 114–128. <https://doi.org/10.1016/j.ecresq.2018.11.006>
- Lin, A., & Man, E. (2009). *Bilingual education: Southeast Asian perspectives*. Hong Kong University Press.
- Maguire, M. J., Schneider, J. M., Middleton, A. E., Ralph, Y., Lopez, M., Ackerman, R. A., & Abel, A.D. (2018). Vocabulary knowledge mediates the link between socioeconomic status and word learning in grade school. *Journal of Experimental Child Psychology*, 166, 679–695. <https://doi.org/10.1016/j.jecp.2017.10.003>
- Meara, P. (1996). The dimensions of lexical competence. In G. Brown, K. Malmkjaer & J. Williams (Eds.), *Performance and competence in second language acquisition*. (pp. 35–53). Cambridge University Press.
- Nation, I. S. P. (2013). *Learning vocabulary in another language* (2nd ed.). Cambridge University Press. <https://doi.org/10.1017/CBO9781139858656>
- Papi, M. (2010). The L2 motivational self system, L2 anxiety, and motivated behavior: A structural equation modeling approach. *System*, 38(3), 467–479. <https://doi.org/10.1016/j.system.2010.06.011>

- Pradheepa, A., Gurusamy, K., & Pushpanathan, T. (2025). The role of language games in enhancing vocabulary acquisition: A meta-analysis. *Australian Journal of Applied Linguistics*, 8(1), 2073. <https://doi.org/10.29140/ajal.v8n1.2073>
- Rahman, M. M., & Pandian, A. (2018). A critical investigation of English language teaching in Bangladesh: Unfulfilled expectations after two decades of communicative language teaching. *English Today*, 34(3), 43–49.
- Rahman, M. M., Islam, M. S., Karim, A., Chowdhury, T. A., Rahman, M. M., Seraj, P. M., & Singh, M. K. (2019). English language teaching in Bangladesh today: Issues, outcomes and implications. *Language Testing in Asia*, 9(1). <https://doi.org/10.1186/s40468-019-0085-8>
- Richards, J. C. (2015). The Changing Face of Language Learning: Learning Beyond the Classroom. *RELC Journal*, 46(1), 5–22. <https://doi.org/10.1177/0033688214561621>
- Romeo, R. R., Leonard, J. A., Robinson, S. T., West, M. R., Mackey, A. P., Rowe, M. L., & Gabrieli, J. D. (2018). Beyond the 30-million-word gap: Children's conversational exposure is associated with language-related brain function. *Psychological Science*, 29, 700–710. <https://doi.org/10.1177/0956797617742725>
- Rozario, L. S. (2021). Vocabulary learning strategies for Second or Foreign Language (SFL) Students of Missionary-run Colleges in Bangladesh. *Global Journal of Human-Social Science*, 35–45. <https://doi.org/10.34257/gjhssgvol21is13pg35>
- Saha, M. (2023). English teachers' attitudes towards learners: Effects on the rural pedagogies in Bangladesh. *Ampersand*, 10, 100107. <https://doi.org/10.1016/j.amper.2022.100107>
- Sandnes, F. E. (2021). Candidate: A tool for generating anonymous participant-linking IDs in multi-session studies. *PLOS ONE*, 16(12), e0260569. <https://doi.org/10.1371/journal.pone.0260569>
- Saputra, J., Rahmadeny, M., & Jazzawi, I. (2019). The importance of sociolinguistics in foreign language education: A review of selected paper. *International Journal for Educational and Vocational Studies*, 1(4), 299–303. <https://doi.org/10.29103/ijevs.v1i4.1415>
- Schmitt, D., Schmitt, N., & Mann, D. (2011). *Focus on vocabulary 1: Bridging vocabulary*. Longman.
- Schmitt, N. (2014). Size and depth of vocabulary knowledge: What the research shows. *Language Learning*, 64(4), 913–951. <https://doi.org/10.1111/lang.12077>
- Schneider, J., Abel, A., & Maguire, M. (2023). Vocabulary knowledge and reading comprehension account for SES-differences in how school-aged children infer word meanings from sentences. *Language Learning and Development*, 19(4), 369–385. <https://doi.org/10.1080/15475441.2022.2081573>
- Shurovi, M., Hasan, M. K., Zaman, F., & Sultana, M. (2022). Are the socioeconomic factors predictors of EFL students' writing anxiety? A study of Bangladeshi tertiary students. *MEXTESOL Journal*, 46(1), 1–10. [https://www.mextesol.net/journal/index.php?page=journal&id\\_article=46321](https://www.mextesol.net/journal/index.php?page=journal&id_article=46321)
- Sikder, M. P. (2024). Exploring Bangladeshi students' perspectives on English as a global language. *ESP International Journal of English Literature and Linguistics Research*, 2(1), 28–36. <https://doi.org/10.56472/25842773/IJELLR-V2I1P105>
- Smith, G. F., Kyle, K., & Crossley, S. A. (2020). Word lists and the role of academic vocabulary use in high stakes speaking assessments. *International Journal of Learner Corpus Research*, 6(2), 193–219. <https://doi.org/10.1075/ijlcr.20008.smi>
- Sperry, D. E., Sperry, L. L., & Miller, P. J. (2018). Reexamining the Verbal Environments of Children from Different Socioeconomic Backgrounds. *Child Development*, 90(4), 1303–1318. <https://doi.org/10.1111/cdev.13072>
- Stone, C. (2021). *Psychological construct validity*. [Doctoral dissertation, Washington University in St. Louis]. Washington University in St. Louis ProQuest Dissertations Publishing. <https://www.proquest.com/openview/af311bef5baadee0239a8501dba85df3/1?pq-origsite=gscholar&cbl=18750&diss=y>
- Sürücü, L., & Maslakçı, A. (2020). Validity and reliability in quantitative research. *Business and Management Studies an International Journal*, 8(3), 2694–2726. <https://doi.org/10.15295/bmij.v8i3.1540>
- Sürücü, L., Yıkılmaz, İ., & Maşlakçı, A. (2024). Exploratory factor analysis (EFA) in quantitative researches and practical considerations. *Gümüşhane Üniversitesi Sağlık Bilimleri Dergisi*, 13(2), 947–965. <https://dergipark.org.tr/tr/download/article-file/2684128>
- Teng, F. (2022). *Vocabulary learning in a second language: Processes, strategies, and applications*. Springer.

- The Oxford Language Report. (2018). *Why closing the word gap matters*. Oxford University Press. <https://www.oup.com.cn/test/word-gap.pdf>
- Tavakol, M., & Wetzel, A. (2020). Factor analysis: A means for theory and instrument development in support of construct validity. *International Journal of Medical Education*, 11, 245–247. <https://doi.org/10.5116/ijme.5f96.0f4a>
- Tran, T. B. T., & Kha, V. T. (2022). Factors affecting learner autonomy in tertiary-level English learning: a study at Van Lang University. *International Journal of TESOL & Education*, 3(1), 1–18. <https://doi.org/10.54855/ijte.23311>
- Tupas, T. R. F. (2011). English-knowing bilingualism in Singapore: Economic pragmatism, ethnic relations and class. In A.W. Feng (Ed.), *English language education across Greater China* (pp. 46–69). Multilingual Matters.
- Van Der Kleij, S. W., Burgess, A. P., Ricketts, J., & Shapiro, L. R. (2022). Tracking vocabulary and reading growth in children from lower and higher socioeconomic backgrounds during the transition from primary to secondary education. *Child Development*, 94(1), 57–66. <https://doi.org/10.1111/cdev.13862>
- Von Hippel, P. T., Workman, J., & Downey, D. B. (2018). Inequality in reading and math skills forms mainly before kindergarten: A replication, and partial correction, of “Are schools the great equalizer?”. *Sociology of Education*, 91(4), 323–357. <https://doi.org/10.1177/0038040718801760>
- Wagner, J. (2010). The fraction of missing information as a tool for monitoring the quality of survey data. *Public Opinion Quarterly*, 74(2), 223–243. <https://doi.org/10.1093/poq/nfq007>
- Wang, S. H., Lang, N., Bunch, G. C., Basch, S., McHugh, S. R., Huitzilopochtli, S., & Callanan, M. (2021). Dismantling persistent deficit narratives about the language and literacy of culturally and linguistically minoritized children and youth: Counter-possibilities. *Frontiers in Education*, 6, Article 641796. <https://doi.org/10.3389/feduc.2021.641796>
- Wang, X., & Freed, R. (2021). A Bourdieusian analysis of the sociocultural capital of Chinese international graduate students in the United States. *Journal of International Students*, 11(1), 41–59. <https://doi.org/10.32674/jis.v11i1.952>
- Zakian, M., Xodabande, I., Valizadeh, M., & Yousefvand, M. (2022). Out-of-the-classroom learning of English vocabulary by EFL learners: Investigating the effectiveness of mobile assisted learning with digital flashcards. *Asian-Pacific Journal of Second and Foreign Language Education*, 7(16). <https://doi.org/10.1186/s40862-022-00143-8>
- Zeheen, A., & Hossain, A. (2016). Socio-economic background and performance of the students of a private university: A case study. *Daffodil International University Journal of Business and Economics*, 10 (2), 59–70. <http://dspace.daffodilvarsity.edu.bd:8080/bitstream/handle/20.500.11948/1553/7.pdf?sequence=3&isAllowed=y>
- Zou, W. C., & Zhang, S. L. (2011). Family background and English learning at compulsory stage in Shanghai. In A.W. Feng (Ed.), *English language education across Greater China* (pp. 189–211). Multilingual Matters.