

The Relationship Between Speaking Self-Efficacy and Causal Attribution among Indonesian EFL Senior High School Students

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Abstract

This study investigated the relationship between speaking self-efficacy and causal attribution among Indonesian EFL senior high school students. Using a quantitative correlational design, data were collected from 137 Grade X and Grade XI students at a public senior high school in Bojonegoro through the Questionnaire of English Speaking Self-Efficacy (QESE) and an adapted Causal Attribution Questionnaire, and analyzed with descriptive statistics and Pearson Product-Moment Correlation in JAMOV. The results showed that students demonstrated a moderate level of speaking self-efficacy ($M = 2.88$, $SD = 0.690$) and a moderate level of causal attribution, with internal attribution related to ability and effort appearing more dominant than external attribution. Speaking self-efficacy was significantly and positively correlated with overall causal attribution ($r = .573$, $p < .001$), as well as with controllable internal attribution ($r = .453$, $p < .001$), external attribution ($r = .461$, $p < .001$), and non-controllable internal attribution ($r = .724$, $p < .001$), the strongest of the three dimensions. These findings indicate that students' confidence in their English-speaking ability is closely associated with how they explain the causes of their speaking outcomes, although the correlational design does not establish causality. The study suggests that English teachers should foster both linguistic competence and adaptive self-beliefs, encouraging students to attribute their speaking outcomes to controllable factors such as effort and practice.

Keywords: speaking self-efficacy; causal attribution; EFL learners; perceived speaking ability; senior high school students; correlational study

Abstrak

Penelitian ini bertujuan untuk mengetahui hubungan antara speaking self-efficacy dan causal attribution pada siswa EFL tingkat SMA di Indonesia. Penelitian ini menggunakan pendekatan kuantitatif dengan desain korelasional yang melibatkan 137 siswa kelas X dan XI di salah satu SMA Negeri di Bojonegoro. Data dikumpulkan menggunakan Questionnaire of English Speaking Self-Efficacy (QESE) dan kuesioner causal attribution yang telah diadaptasi, kemudian dianalisis menggunakan statistik deskriptif dan uji Korelasi Pearson Product-Moment melalui JAMOV. Hasil penelitian menunjukkan bahwa siswa memiliki tingkat speaking self-efficacy pada kategori sedang ($M =$

2,88; $SD = 0,690$) serta tingkat causal attribution pada kategori sedang, dengan kecenderungan lebih dominan mengaitkan hasil berbicara bahasa Inggris dengan faktor internal dibandingkan faktor eksternal. Hasil uji korelasi menunjukkan hubungan positif yang signifikan antara speaking self-efficacy dan causal attribution secara keseluruhan ($r = 0,573$; $p < 0,001$), dengan hubungan terkuat ditemukan pada dimensi uncontrollable internal attribution ($r = 0,724$; $p < 0,001$). Temuan ini menunjukkan adanya keterkaitan antara keyakinan siswa terhadap kemampuan berbicara bahasa Inggris dengan pola atribusi yang mereka miliki, tanpa menunjukkan hubungan sebab-akibat. Guru bahasa Inggris diharapkan tidak hanya mengembangkan kompetensi linguistik siswa, tetapi juga membangun keyakinan diri serta pola atribusi yang positif.

Kata kunci: speaking self-efficacy; causal attribution; pembelajar EFL; persepsi kemampuan berbicara; siswa sekolah menengah atas; penelitian korelasional

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1. Introduction

Speaking is widely recognized as one of the most demanding skills in English as a Foreign Language (EFL) learning because it requires learners to produce language spontaneously while integrating linguistic knowledge, cognitive processing, and real-time interaction (Brown, 2007; Richards, 2008). Despite years of formal instruction, many Indonesian EFL learners continue to struggle with spoken English, suggesting that speaking difficulties are not rooted in linguistic competence alone. Psychological factors, particularly learners' beliefs about their own capability, play a central role in shaping their willingness and confidence to communicate orally.

One of the most influential psychological constructs relevant to this issue is self-efficacy, defined as individuals' beliefs about their capability to organize and execute actions required to achieve specific goals (Bandura, 1997). In EFL contexts, speaking self-efficacy reflects students' confidence in communicating orally in English; learners with higher speaking self-efficacy tend to participate more actively, persist through difficulty, and tolerate mistakes, whereas learners with lower self-efficacy tend to avoid speaking opportunities and experience anxiety (Sudirman et al., 2022). A related but distinct construct is causal attribution, which refers to the explanations learners give for the causes of their success or failure. According to attribution theory (Weiner, 1985), these explanations vary along the dimensions of locus (internal or external), stability, and controllability, and they shape learners' motivation, emotional responses, and future engagement.

Although speaking self-efficacy and causal attribution have each received research attention, studies examining their relationship remain limited, particularly in EFL speaking contexts. International research has generally examined attribution in relation to general language achievement or motivation (Hsieh & Schallert, 2008; Pishghadam & Motakef, 2011), while research on speaking self-efficacy has more often been linked to speaking ability, anxiety, or willingness to communicate

(Gabriella et al., 2013). Studies conducted in Indonesia tend to investigate self-efficacy or attribution independently – for example, in relation to self-confidence (Sudirman et al., 2022) or general academic persistence (Rahmawati & Ertin, 2020) – without explicitly examining how attribution beliefs relate to learners' confidence in speaking. This indicates a clear gap: the relationship between speaking self-efficacy and causal attribution has not been sufficiently explored as an integrated framework in EFL speaking research.

Understanding this relationship is pedagogically important because attribution beliefs shape how students interpret their speaking successes and failures and how they approach future speaking tasks. Senior high school students are at a developmental stage where academic self-concept and learning beliefs are still forming, and the attribution patterns developed at this stage may persist into higher levels of education. This study therefore employed a quantitative correlational approach to examine (1) the extent of students' speaking self-efficacy, (2) the extent of students' causal attribution regarding their speaking ability, and (3) whether a significant relationship exists between the two constructs among Indonesian EFL senior high school students.

2. Literature Review

2.1 Speaking Self-Efficacy in EFL Learning

Self-efficacy, as conceptualized within Bandura's (1997) social cognitive theory, refers to individuals' judgments of their capacity to organize and execute the courses of action required to achieve designated performance attainments. Because self-efficacy is task-specific rather than a general sense of confidence, a learner may hold high self-efficacy in one domain (e.g., reading) while holding low self-efficacy in another (e.g., oral communication). Bandura identified four sources of self-efficacy beliefs: mastery experiences, vicarious experiences, verbal and social persuasion, and physiological and emotional states, of which mastery experiences are typically regarded as the most influential because success reinforces the belief that similar success can be replicated.

In language learning, speaking self-efficacy is a powerful motivational determinant because oral communication inherently involves real-time processing, risk-taking, and the management of linguistic and affective challenges. Empirical studies consistently show that speaking self-efficacy correlates positively with willingness to communicate and observed speaking performance, and that students with stronger speaking self-efficacy are more likely to attribute errors to controllable aspects, such as insufficient preparation, and to view them as opportunities for improvement rather than as evidence of fixed incapacity (Saez-Zevallos et al., 2025; Sudirman et al., 2022).

2.2 Causal Attribution in Language Learning

Causal attribution refers to the cognitive process through which individuals infer the causes of their successes and failures. Building on the work of Heider, Kelley, and Weiner, attribution theory holds that individuals classify causes along the dimensions of locus (internal versus external), stability, and controllability, and that these dimensions shape emotional responses, expectations for

future outcomes, and motivational patterns (Weiner, 1985). In educational contexts, students who attribute success to internal, controllable factors such as effort tend to show higher motivation and persistence, whereas attributing failure to stable, uncontrollable factors such as low ability or bad luck is associated with disengagement and reduced self-efficacy (Hamann et al., 2020; Ngunu et al., 2019).

The interplay between attribution and self-efficacy has become a focal point of recent research. Students who habitually attribute success to effort and personal control tend to develop stronger self-efficacy beliefs and more adaptive learning behaviors, while external or unstable attributions for failure can undermine confidence and reduce academic persistence (Hamann et al., 2020). In EFL speaking classrooms specifically, this attributional process is salient because speaking tasks often expose learners to immediate evaluation from teachers and peers, making students particularly sensitive to both successful and unsuccessful speaking experiences (Shao et al., 2019).

2.3 Review of Related Studies and Hypothesis

Previous research provides converging but incomplete evidence on the constructs examined in this study. Hsieh and Schallert (2008) found that EFL learners who attributed success to effort and strategy use demonstrated higher motivation and achievement, while Gabriella et al. (2013) reported that adaptive attribution patterns were positively associated with willingness to communicate. Among Asian EFL learners, Shao et al. (2019) found that students who attributed speaking difficulties to controllable factors were more resilient and showed gradual improvement in speaking proficiency, and Alrabai (2016) demonstrated that attribution-based interventions enhanced learners' engagement and speaking confidence. In the Indonesian context, Sudirman et al. (2022) reported a significant correlation between self-confidence and speaking ability among senior high school learners, while Rahmawati and Ertin (2020) and Putri and Nugroho (2018) linked attribution patterns to persistence and motivation in general academic settings rather than speaking specifically. Outside language learning, Hamann et al. (2020) found that university students who attributed outcomes to controllable factors reported stronger self-efficacy beliefs, and Figueiredo et al. (2024) and Saez-Zevallos et al. (2025) confirmed that higher self-efficacy is associated with greater engagement, persistence, and academic achievement.

Taken together, this body of research establishes that both speaking self-efficacy and causal attribution independently shape learners' motivation and engagement, and that the two constructs are theoretically related through Bandura's (1997) self-efficacy theory and Weiner's (1985) attribution theory: when students attribute their speaking success to internal and controllable factors such as effort, they are expected to develop higher levels of speaking self-efficacy, whereas attributing outcomes to external or uncontrollable factors may weaken these beliefs. However, no study identified in this review has examined this relationship directly within Indonesian EFL senior high school speaking contexts. Based on this framework, the study tested the following hypotheses: H0, there is no significant relationship between students' speaking self-efficacy and their causal attribution; and H1, there is a significant relationship between students' speaking self-efficacy and their causal attribution.

3. Method

3.1 Research Design

This study employed a quantitative correlational design, which was considered appropriate because the research aimed to measure the degree and direction of association between speaking self-efficacy and causal attribution without manipulating either variable or establishing a causal effect (Creswell, 2014; Fraenkel et al., 2012).

3.2 Participants

The population consisted of students in Grade X and Grade XI at a public senior high school in Bojonegoro, East Java, who had experienced formal English instruction including speaking activities. Using convenience sampling, 137 students who were accessible and willing to participate were recruited as the sample, an approach considered appropriate for correlational research in educational settings with limited access to participants (Creswell, 2014).

3.3 Data Collection and Instruments

Data were collected through an online questionnaire distributed via Google Forms, combining two standardized instruments. Speaking self-efficacy was measured using an adapted version of the Questionnaire of English Speaking Self-Efficacy (QESE) developed by Wang et al. (2013), consisting of 10 items on a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) covering students' confidence in expressing ideas, participating in discussions, responding to questions, and speaking in front of others. Causal attribution was measured using an adapted version of the Language Learning Attribution Questionnaire developed by Hsieh and Schallert (2008), grounded in Weiner's (1985) attribution theory, consisting of 10 items on the same five-point scale and categorized into controllable internal attribution (effort), non-controllable internal attribution (ability), and external attribution (task difficulty and luck).

Both instruments were adapted to the Indonesian senior high school EFL context while retaining their original theoretical constructs, and content validity was established through this adaptation from previously validated instruments. Prior to the main administration, a preliminary trial involving five students (two from Grade X and three from Grade XI) was conducted to check the clarity of item wording; because this sample was insufficient for statistical validity and reliability testing, the psychometric evaluation itself was based on the full sample ($N = 137$). Internal consistency, examined with Cronbach's alpha in JAMOVİ following Nunnally's (1978) criterion of .70 as an acceptable threshold, was excellent for the speaking self-efficacy questionnaire ($\alpha = .90$) and acceptable for the causal attribution questionnaire ($\alpha = .682$).

3.4 Data Analysis

Descriptive statistics (means and standard deviations) were used to describe the levels of speaking self-efficacy and causal attribution. Prior to inferential analysis, normality was examined using the Kolmogorov–Smirnov test; because the data met the assumption of normal distribution ($p > .05$), Pearson Product-Moment Correlation was used to examine the relationship between speaking self-efficacy and causal attribution. The strength of correlation coefficients was interpreted following

Cohen's (1988) classification, in which coefficients of .10–.29 indicate a weak relationship, .30–.49 a moderate relationship, and .50 or above a strong relationship.

4. Results

4.1 Students' Speaking Self-Efficacy

Students demonstrated a moderate overall level of speaking self-efficacy ($M = 2.88$, $SD = 0.690$), with most item means ranging between 2.70 and 3.30. The highest mean was found for confidence in speaking despite grammatical mistakes ($M = 3.30$, $SD = 0.926$), while the lowest was found for confidence in speaking in front of classmates ($M = 2.70$, $SD = 0.894$), indicating that public-speaking situations remained a source of hesitation for many students.

Table 1

Descriptive Statistics of Students' Speaking Self-Efficacy (Selected Items)

Item	M	SD
I feel confident speaking English even if I make grammatical mistakes.	3.30	0.926
I believe I can complete English speaking tasks successfully.	2.93	0.987
I believe I can participate actively in English speaking discussions in class.	2.91	0.848
I am confident answering questions orally in English.	2.75	0.922
I feel confident speaking English in front of my classmates.	2.70	0.894
Total (10 items)	2.88	0.690

Note. Full 10-item results are available from the corresponding author.

4.2 Students' Causal Attribution

Students showed a moderate level of causal attribution overall ($M = 3.00$, $SD = 0.475$), combining internal and external explanations for their speaking outcomes, with internal attribution related to ability and effort appearing more dominant. Non-controllable internal attribution (ability) obtained the highest sub-scale mean, followed by external attribution and controllable internal attribution (effort).

Table 2

Descriptive Statistics of Causal Attribution by Dimension

Dimension	No. of Items	M	SD
Controllable Internal Attribution (Effort)	3	8.80	1.71
Non-Controllable Internal Attribution (Ability)	2	9.75	2.31
External Attribution (Task Difficulty & Luck)	5	11.94	1.98
Total Causal Attribution (10 items)	10	3.00	0.475

4.3 The Correlation between Speaking Self-Efficacy and Causal Attribution

Pearson Product-Moment Correlation analysis revealed that speaking self-efficacy was significantly and positively correlated with overall causal attribution, $r(135) = .573$, $p < .001$, indicating a moderate-to-strong positive relationship. When the dimensions of causal attribution were examined separately, speaking self-efficacy was significantly correlated with external attribution, $r(135) = .461$, $p < .001$; with controllable internal attribution, $r(135) = .453$, $p < .001$; and most

strongly with non-controllable internal attribution, $r(135) = .724$, $p < .001$, which represents a strong correlation under Cohen's (1988) criteria.

Table 3

Correlation Matrix between Speaking Self-Efficacy and Causal Attribution

Variable	1	2	3	4	5
1. Speaking Self-Efficacy	—				
2. Total Causal Attribution	.573***	—			
3. External Attribution	.461***	.845***	—		
4. Non-Controllable Internal Attribution	.724***	.707***	.570***	—	
5. Controllable Internal Attribution	.453***	.822***	.535***	.419***	—

Note. *** $p < .001$. $df = 135$ for all correlations.

5. Discussion

The finding that students held a moderate level of speaking self-efficacy is consistent with recent research emphasizing the role of self-efficacy in language learning engagement (Saez-Zevallos et al., 2025). Students appeared willing to communicate despite imperfect language production, supporting Sudirman et al.'s (2022) finding that positive self-beliefs contribute to participation in speaking activities; however, confidence dropped notably in situations involving peer evaluation, echoing observations that social evaluation remains a persistent challenge for EFL learners (Saez-Zevallos et al., 2025).

The moderate and multidimensional pattern of causal attribution found in this study – in which students combined internal and external explanations while favoring internal ones – aligns with Rahmawati and Ertin's (2020) finding that effort-based attribution is linked to greater persistence, and suggests that students did not rely on a single attributional pattern but integrated personal and contextual explanations depending on the situation.

The central finding of this study is the significant positive relationship between speaking self-efficacy and all three dimensions of causal attribution, which supports and extends previous research linking attribution and self-efficacy (Hamann et al., 2020). The particularly strong correlation with non-controllable internal (ability) attribution can be explained by the conceptual proximity between the two constructs: speaking self-efficacy reflects beliefs about one's capability to perform speaking tasks, while ability attribution reflects the belief that speaking outcomes stem from one's own competence, so both involve positive self-referential beliefs. This positive association should not be interpreted as evidence of causality, given the correlational design of the study, nor does it contradict prior findings of negative relationships between self-efficacy and external, uncontrollable attributions such as luck, since the present study's uncontrollable dimension specifically captured ability rather than chance.

Overall, these results suggest that speaking self-efficacy and causal attribution develop together as learners continuously evaluate their speaking performance, compare themselves with classmates, and interpret teacher feedback, and that the two constructs may reinforce one another reciprocally.

Pedagogically, this implies that English teachers can support students' speaking development not only through linguistic instruction but also by fostering constructive feedback practices, collaborative speaking activities, and a classroom climate that helps students interpret both successes and mistakes as opportunities for growth rather than as fixed indicators of ability.

6. Conclusion

This study examined the relationship between speaking self-efficacy and causal attribution among 137 Indonesian EFL senior high school students. The findings showed that students held a moderate level of speaking self-efficacy and a moderate, multidimensional level of causal attribution that favored internal explanations over external ones. Speaking self-efficacy was significantly and positively correlated with overall causal attribution and with all three of its dimensions, with the strongest association found for non-controllable internal (ability) attribution. These results confirm that speaking self-efficacy and causal attribution are meaningfully interrelated psychological constructs in EFL speaking contexts, supporting the rejection of the null hypothesis. English teachers are encouraged to design speaking instruction that builds both linguistic competence and adaptive self-beliefs, particularly by encouraging students to attribute their speaking outcomes to controllable factors such as effort and preparation. Future research is recommended to extend this correlational study to larger and more diverse populations, to explore additional psychological variables such as speaking anxiety and motivation, and to employ mixed-methods or longitudinal designs to better understand the developmental relationship between these constructs.

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