



The relationship of extraversion and openness with English speaking ability among tenth-grade EFL students

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Abstract:

Speaking ability is a key skill in EFL learning, and its development is influenced not only by linguistic factors but also by individual personality traits. This study aimed to examine the relationship between extraversion and openness to experience with English speaking ability among tenth-grade EFL students at SMAN 2 Pariaman. A quantitative correlational design was employed, involving 187 tenth-grade students selected through total sampling in the academic year 2025/2026. Data were collected using the Big Five Inventory (BFI-44) questionnaire to measure students' extraversion and openness to experience. Students' English speaking scores were obtained from the English teacher's assessment records covering grammar, vocabulary, fluency, pronunciation, and comprehension. Data were analyzed using the Spearman Rank correlation test in SPSS, as the normality test indicated that not all variables were normally distributed. The results showed that the majority of students fell into the moderate category for both extraversion (81.82%) and openness to experience (71.66%), while most students demonstrated very good speaking ability (80.75%). The correlation analysis revealed that there was no significant relationship between extraversion and speaking ability ($r = 0.066$, $p = 0.373 > 0.05$). In contrast, a significant positive relationship was found between openness to experience and speaking ability ($r = 0.271$, $p = 0.000 < 0.05$), though the strength was classified as weak. These findings suggest that openness to experience is a more relevant personality trait in predicting EFL speaking performance at the senior high school level than extraversion. Given that openness to experience was significantly related to students' English speaking ability, English teachers are encouraged to create speaking activities that allow students to be more curious, creative, and open to new language experiences in the classroom.

Keywords:

extraversion, openness to experience, speaking ability, EFL, big five personality

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1. INTRODUCTION AND LITERATURE REVIEW

Speaking ability is a key component of learning English as a Foreign Language (EFL) and reflects a person's proficiency in oral communication. According to De Jong (2023), speaking English has become an essential skill for most people in the modern globalized world, whether

for social interaction, employment, or study. Teaching and assessing speaking, however, are often considered more complex than other language skills because speaking is dynamic and temporary in nature. These challenges indicate that speaking ability in EFL contexts is shaped not only by language skills but also by various internal and external factors that differ from one learner to another.

The limited emphasis on speaking in the Indonesian curriculum has produced two main categories of difficulties for students: linguistic barriers and psychological barriers. Wahyuningsih and Afandi (2020) explain that English teaching in Indonesia tends to focus more on written skills than on speaking, which gives students fewer chances to practice during lessons. From a linguistic perspective, limited vocabulary, low grammatical accuracy, and improper pronunciation are frequent obstacles to effective communication. From a psychological perspective, many students experience anxiety, nervousness, and fear of making mistakes when speaking English (Sabilla and Kaniadewi, 2025). Amani and Fedai (2024) noted that limited vocabulary combined with fear of mistakes can significantly affect students' ability to speak English, and Arrahmani and Ekowijayanto (2025) reported that EFL students frequently feel nervous and find it difficult to choose appropriate words when speaking.

Beyond linguistic and psychological factors, students' English speaking ability may also be influenced by their personality traits. Fatima et al. (2020) found in a quantitative study with university students that emotional variables, including personality-related factors, accounted for 33% of the variance in students' motivation to speak in a second language. Researchers have widely employed the Big Five Personality Traits Model as a theoretical framework for understanding these individual differences. This model classifies personality into five main dimensions: neuroticism, agreeableness, extraversion, conscientiousness, and openness. A meta-analysis by Chen et al. (2022) covering more than 30 studies found that conscientiousness and openness have significant effects on language learning, while agreeableness and extraversion showed comparatively smaller links.

Among the five dimensions, two traits have been consistently identified as particularly relevant to speaking ability, namely extraversion and openness to experience. Astuti (2024) notes that extraversion and openness are frequently mentioned as important personality elements influencing student achievement in speaking tasks. Extraverted students tend to be more confident, enthusiastic, and willing to make mistakes when speaking, while students with high openness are generally more curious, receptive to new ideas, and ready to take communicative risks. Liang and Kelsen (2018) found that individuals with high extraversion tend to engage in active communication and willingly take risks in ways that promote speaking fluency. Thanh Thao et al. (2024) showed that extraversion and openness contribute to more effective learning strategies in language acquisition, and Goćłowska et al. (2019) confirmed that these traits support communication practices and creative language use.

Although international studies continue to grow, research in the Indonesian context remains limited and mostly addresses other aspects of language learning. Bashori et al. (2022) observed that most research in Indonesia focuses on speaking anxiety, educational regulations, or teaching strategies without connecting them to personality traits such as openness and extraversion. Most prior research has also focused on university students, leaving a gap in understanding how these personality traits relate to speaking ability at the senior high school level. Findings within Indonesia have been varied as well Niati (2018) found a positive correlation between Big Five traits and speaking ability, but the study examined all five dimensions generally without specifically isolating extraversion and openness.

These gaps are further supported by the researcher's preliminary observation at SMAN 2 Pariaman in 2025/2026. During English speaking activities in tenth-grade classrooms, most

students were passive and rarely initiated communication in English without direct guidance from the teacher. The English teacher confirmed that low student participation in speaking activities had been a consistent issue across classes. Some students who appeared active and communicative during informal situations became noticeably quieter when required to speak English formally in front of the class. This pattern points to the possibility that individual personality differences, not language proficiency alone, play a role in the variation of students' speaking performance. Therefore, this study aims to investigate whether extraversion and openness to experience are significantly associated with students' English speaking ability among tenth-grade students at SMAN 2 Pariaman.

1.1. Speaking

Speaking is one of the key productive skills in language learning. Luoma (2004) explains that speaking is an interactive activity in which meaning is formed through producing, receiving, and understanding information. Harmer (2001) states that speaking refers to the ability to use a language smoothly, involving not only language elements but also the capacity to process information naturally. According to Harris (1969), speaking consists of several components: pronunciation, vocabulary, grammar, fluency, and comprehension. Brown (2004) classifies speaking skills into five types, namely imitative, intensive, responsive, interactive, and extensive speaking.

1.2. Extraversion and openness as personality traits related to speaking performance

Extraversion is a personality trait that is closely related to speaking performance in language learning. Costa and McCrae (1992) describe extraversion as a dimension related to sociability, positive emotional expression, and overall activity level, which reflects how far individuals seek stimulation from their social environment and gain energy from social interaction. Individuals with high extraversion are often observed initiating interactions with others, engaging actively in group situations, and expressing their opinions comfortably in front of others. In the context of EFL speaking, Dewaele and Furnham (2000) highlight that characteristics related to extraversion support second language production through stronger short-term memory capacity and higher tolerance to stress, which are important because producing a foreign language requires considerable conscious effort in managing memory load and communicative pressure. In the classroom, students with higher extraversion often participate actively in speaking activities, volunteer for oral tasks, and are willing to speak despite making mistakes, which provides them with frequent opportunities for spoken interaction.

Openness to experience also plays an important role in speaking development, though in a different way. McCrae and Cost (1997) describe openness to experience as a personality dimension marked by flexible awareness and a continuous drive to broaden experiences, including aesthetic sensitivity, emotional awareness, intellectual curiosity, and acceptance of different value systems. In language learning contexts, students with higher openness are more receptive to new linguistic input and communicative situations. They willingly try new vocabulary or expressions, respond positively to feedback, and show curiosity toward different accents and cultural aspects of language use. Goćłowska et al. (2019) further explain that novelty seeking, a characteristic linked to both openness and extraversion, is associated with creative language use and greater engagement in communicative tasks. These qualities make students with high openness more adaptable when facing unfamiliar speaking tasks, such as spontaneous speeches or discussions on new topics, as they approach such challenges with interest rather than avoidance.

2. METHOD

2.1. Research design

This study used a quantitative correlational design to find out whether extraversion and openness to experience are related to students' English speaking ability. A correlational approach was chosen because the researcher needed to measure how strongly these two personality traits connect to speaking performance, and whether the connection is statistically meaningful (Creswell, 2014). The correlation test produced two important numbers, namely the correlation coefficient (r) and the significance value (p). The correlation coefficient shows how strong the relationship is between the variables, while the significance value tells whether the relationship is real or simply happened by chance (Fraenkel et al., 2012). This approach allowed the researcher to draw conclusions about the pattern of relationship between personality traits and speaking ability based on actual data from 187 tenth-grade students at SMAN 2 Pariaman, without giving any treatment or changing any conditions in the classroom.

2.2. Population and sample

The population consisted of all tenth-grade students at SMAN 2 Pariaman in the academic year 2025/2026. This study used total sampling, in which all members of the population were included as the research sample (Sugiyono, 2019). The total number of participants was 187 students distributed across seven classes (XE.2 to XE.8).

2.3. Instrumentation

Two instruments were used in this study. The first was the Big Five Inventory (BFI-44) developed by John and Srivastava (1999) to measure students' extraversion and openness to experience using a 5-point Likert scale, with 8 items for extraversion and 10 items for openness. Reliability testing using Cronbach's Alpha produced a value of 0.724, indicating acceptable reliability. The second instrument was students' speaking performance scores obtained from the English teacher's assessment records, covering grammar, vocabulary, fluency, pronunciation, and comprehension, with scores ranging from 0 to 100.

The data were analyzed using IBM SPSS Statistics. Since the openness to experience ($p = 0.010$) and speaking scores ($p = 0.000$) were not normally distributed based on the Shapiro-Wilk test, Spearman Rank correlation was used (Mishra et al., 2019). Inferential statistics were applied because the data from 187 students as the sample were used to draw conclusions about the larger population of tenth-grade EFL students (Field, 2013). This involved two processes, namely estimation, where the mean, standard deviation, and correlation coefficient from the sample were used to estimate the condition of the broader population, and hypothesis testing, where the significance value (p) determined whether the relationship between extraversion, openness to experience, and speaking ability was real or simply occurred by chance in the sample. If p was lower than 0.05, the null hypothesis was rejected. If p was higher than 0.05, the null hypothesis was accepted (Fraenkel et al., 2012).

3. RESULTS AND DISCUSSION

3.1. Results

Description variables

Descriptive analysis showed that students' extraversion scores ranged from 15 to 34, with a mean of 25.39 (SD = 3.677). Table 1 presents the distribution of these scores across categories.

Table 1. Distribution of extraversion scores

Category	Score range	Frequency	Percentage
Low	8-18	9	4.81%
Moderate	19-29	153	81.82%
High	30-40	25	13.37%
Total		187	100%

As Table 1 shows, most students (81.82%, $n = 153$) fell into the moderate extraversion category, while 13.37% were high and 4.81% were low. For openness to experience, scores ranged from 18 to 45, with a mean of 34.50 ($SD = 4.272$). Table 2 presents the distribution of these scores across categories.

Table 2. Distribution of openness to experience scores

Category	Score range	Frequency	Percentage
Low	10-23	2	1.07%
Moderate	24-36	134	71.66%
High	37-50	51	27.27%
Total		187	100%

As Table 2 shows, most students (71.66%, $n = 134$) were in the moderate category, 27.27% were high, and only 1.07% were low. Speaking ability scores ranged from 80 to 96, with a mean of 89.67 ($SD = 3.679$). Table 3 presents the distribution of these scores across categories.

Table 3. Distribution of English speaking ability scores

Category	Score range	Frequency	Percentage
Very Good	86-100	151	80.75%
Good	71-85	36	19.25%
Fair	56-70	0	0.00%
Poor	41-55	0	0.00%
Very Poor	0-40	0	0.00%
Total		187	100%

As Table 3 shows, most students (80.75%, $n = 151$) were categorized as very good speakers, while the remaining 19.25% fell into the good category.

Normality test

The Shapiro-Wilk normality test showed that extraversion data were normally distributed ($p = 0.060 > 0.05$), while openness to experience ($p = 0.010$) and speaking scores ($p = 0.000$) were not normally distributed. Therefore, Spearman Rank correlation was applied for all correlation analyses.

Correlation analysis

The correlation between extraversion and speaking ability yielded $r = 0.066$ with $p = 0.373$, indicating no significant relationship. The correlation between openness to experience and speaking ability yielded $r = 0.271$ with $p = 0.000$, indicating a significant positive relationship, though the strength was classified as weak.

Table 4. Correlation result

Variables	r	Sig. (2-tailed)	N	Decision
Extraversion - Speaking	0.066	0.373	187	H0 Accepted (not significant)
Openness - Speaking	0.271	0.000	187	H0 Rejected (significant)

3.2. Discussion

The relationship between extraversion and English speaking ability

The first finding showed that there was no significant relationship between extraversion and English speaking ability among the participants ($r = 0.066$, $p = 0.373$). This result indicates that students who scored higher on extraversion did not necessarily perform better in teacher-assessed speaking tasks. This finding is in line with Astuti (2024), who reported that extraversion contributed only about 1% of the variance in speaking ability and was not statistically significant. Kim and Hwang (2024) also found that extraversion was not directly related to fluency or pronunciation in oral performance tasks, which challenges the common assumption that extraverted learners are automatically more fluent speakers.

One possible explanation for this result is the nature of the speaking assessment used in this study. Since the scores came from formal classroom assessment records, even extraverted students may not have displayed their naturally sociable tendencies, given that formal assessment conditions tend to equalize performance across personality types. Syarafina & Santoso (2024) similarly found that extroverted students still encountered linguistic difficulties during speaking performance tasks, reinforcing the view that personality traits alone do not determine speaking outcomes. The limited spread of extraversion scores across the sample, with 81.82% of students clustering in the moderate range, may also have reduced the statistical power to detect a meaningful correlation. Brown (2007) noted that speaking performance results from multiple interacting factors including language proficiency, teaching methods, and classroom environment, not from personality alone.

The relationship between openness to experience and English speaking ability

The second finding showed a significant positive relationship between openness to experience and English speaking ability ($r = 0.271$, $p = 0.000$). Although the relationship was weak in magnitude, it was statistically significant, meaning students with higher openness tended to achieve better speaking scores. This finding aligns with Muhid et al. (2021), who reported that openness to experience was one of the strongest predictors of academic learning outcomes among Indonesian high school students. Chen et al. (2022) also found in a meta-analysis that openness has significant effects on language learning, reinforcing the relevance of this trait in EFL contexts.

The relationship between openness and speaking ability can be explained through the characteristics of this trait. McCrae and Costa (1997) describe individuals with high openness as showing flexible awareness, intellectual curiosity, and a continuous drive to broaden their experiences. In language learning, these characteristics are particularly advantageous for speaking development, as students with higher openness tend to be more willing to engage with new vocabulary and expressions, respond positively to feedback, and approach unfamiliar speaking tasks with curiosity rather than avoidance. Gocłowska et al. (2019) further noted that novelty seeking, which is a characteristic linked to openness, is associated with creative language use and greater engagement in communicative tasks. That said, the weak correlation coefficient

($r = 0.271$) indicates that openness is only one contributing factor among many, including vocabulary mastery, grammatical accuracy, fluency, pronunciation, and psychological variables such as anxiety and self-confidence (Brown, 2007; Harris, 1969).

4. CONCLUSION

This study investigated the relationship between extraversion and openness to experience are related to the English speaking ability of tenth-grade EFL students at SMAN 2 Pariaman. Although previous studies have explored personality and language learning, this relationship has rarely been examined directly in Indonesian secondary school contexts. Based on Spearman's correlation analysis of data from 187 students, two main conclusions can be drawn.

First, there was no significant relationship between extraversion and English speaking ability ($r = 0.066$, $p = 0.373 > 0.05$). The majority of students fell in the moderate extraversion range, and this limited variation likely contributed to the absence of a meaningful correlation. The result suggests that extraversion alone does not translate into measurable differences in speaking performance under formal classroom assessment conditions.

Second, there was a significant positive relationship between openness to experience and English speaking ability ($r = 0.271$, $p = 0.000 < 0.05$). Although the relationship was weak in effect size, it was statistically significant. Students with higher openness, who tend to be more curious, receptive to new ideas, and willing to engage with new linguistic experiences, generally demonstrated better English speaking performance.

Among the two personality traits examined, openness to experience showed a more consistent and statistically meaningful relationship with English speaking ability than extraversion. Both traits, however, explained only a limited portion of the variation in speaking scores, which confirms that speaking performance is also shaped by other factors beyond personality. One factor that may play an important role is the type of speaking practice students get outside the classroom. Since students with high openness tend to be curious and open to trying new things, English teachers can use this as an opportunity to introduce technology-based speaking practice. For instance, teachers can encourage students to practice speaking using AI-based tools such as ChatGPT or speech recognition applications, where students can speak freely without worrying about being judged. This kind of practice suits students with high openness well because they are generally more willing to explore and experiment with new ways of learning. Future researchers are encouraged to look into how factors such as AI-based practice, motivation, and learning environment interact with personality traits in influencing students' speaking achievement, and to conduct studies with larger or more varied samples for broader findings.

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