



PSYCHOMETRIC PROPERTIES OF SELF-EFFICACY SCALE FOR ENGLISH LANGUAGE LEARNERS IN INDONESIA

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Abstract: This study explores the psychometric properties of the Indonesian version of the Self-Efficacy Scale for English Language Learners (SES-ELL). With the growing importance of English proficiency in Indonesia, understanding learners' self-efficacy beliefs—defined as confidence in their ability to perform language tasks—is crucial. The study examines the validity and reliability of the SES-ELL, utilizing a cross-sectional, quantitative approach with a sample of 204 undergraduate English language students from public and private universities. Data were collected via the adapted 32-item Questionnaire of English Self-Efficacy (QESE), measured on a 7-point scale. Results showed that the SES-ELL meets unidimensionality requirements, with Principal Component Analysis of Residuals (PCAR) explaining 66.5% of the variance. Reliability indicators were robust, the analysis results show that the self-efficacy scale (SE) requires improvement. The items effectively capture variations in difficulty levels ($ISR = .97 > .70$) and can distinguish respondents with high and low self-efficacy levels ($PSR = .97 > .70$), indicating the scale's effectiveness in measuring self-efficacy. Item analysis identified four items needing revision due to fit inconsistencies. The study confirms SES-ELL as a reliable tool for measuring self-efficacy among Indonesian English learners, offering insights into their confidence across language skills. Future research should refine the scale further to ensure optimal measurement accuracy and support targeted interventions to improve learners' self-efficacy and performance in English.

Keywords: *English Language Learners; Indonesia; Psychometric Properties; Rasch Model; Self-Efficacy Scale*

INTRODUCTION

English language learning has become increasingly significant in Indonesia, given its importance in various domains such as education, employment, and international communication (Andayani, 2022). Academic hardiness has a strong relationship with self-efficacy (Yundianto et al., 2023). Academic self-efficacy refers to an individual's confidence in their ability to successfully manage learning tasks, which can lead to academic achievement (Safitri et al., 2024). With the growing demand for English proficiency, understanding the factors that influence English language learners' (ELLs) abilities and motivations is crucial (Calderón et al., 2011). One such factor that has garnered

attention in educational research is self-efficacy, which plays a pivotal role in shaping individuals' language learning experiences and outcomes (Fan & Cui, 2024).

Self-efficacy, as conceptualized by Bandura (1997), refers to individuals' beliefs in their capabilities to organize and execute actions necessary to achieve desired outcomes. In the context of language learning, self-efficacy pertains to learners' confidence in their abilities to successfully comprehend, speak, read, and write in a target language (Graham, 2022). High levels of self-efficacy have been associated with increased motivation, persistence, and ultimately, better language learning outcomes (Pajares, 1996).

Several studies related to Self-Efficacy Scale were done in several countries. Wang et al. (2014) conducted research on understanding the psychometric properties of the self-efficacy scale and its impact on language learning outcomes. This study provided preliminary evidence for the validity of the Questionnaire of English Self-Efficacy scale in a sample of college students in China. The results indicated that the scale had good reliability and validity. An examination of the rating scale construction revealed that participants accurately recognized response categories. The item hierarchy was consistent with the expected item sequence, demonstrating the scale's construct validity. Overall, the objects were quite well matched to the sample's skill, with the exception of more difficult items, which appear to be necessary.

The other research was also done by Kim et al. (2021) who conducted research to investigate the relationships between self-efficacy belief and language learning strategies, with English language proficiency and aiming to understand the impact of self-efficacy on language learning strategies and proficiency. This research closes with evidence supporting the QESE's internal consistency, test-retest reliability, structure, generalizability, and external construct validity. This study adds to the rising interest in these skills by analysing the measures of self-efficacy in the field of second language acquisition and the findings of empirical research on the development and usage of a self-efficacy scale for ELLs.

Similar research was also conducted by Polrak et al. (2023) who focused on developing Questionnaire of English Self-Efficacy (QESE) to measure English language self-efficacy in Thailand and the study aimed to assess its validity and reliability. The findings indicated that the measure exhibited construct validity, convergent validity, and significant internal consistency for the four variables of English language self-efficacy. This suggests that the QESE might be used to assess particular English self-efficacy among EFL Thai undergraduate students across the four competencies of sub-skills of the English language (Apridayani & Teo, 2021).

In Indonesia, the study about self-efficacy scale was done by Mulyanto et al. (2022). The study itself focused on understanding the impact of self-efficacy on speaking proficiency and satisfaction with blended teaching mode of EFL. As the result, a study found that speaking self-efficacy was highly correlated with final speaking achievement among Indonesian English foreign

language learners (Hermagustiana et al., 2021). Furthermore, Utami & Nurjati (2017) conducted a study on the Relationship between Self-Efficacy, Belief, and Motivation with Student Anxiety in English Language Learning. The research findings indicated significant relationships between the variables of self-efficacy, belief, and motivation individually with anxiety in English language learning. Similarly, there was a significant collective relationship between self-efficacy, belief, and motivation with anxiety in English language learning (Bárkányi, 2021).

Despite the acknowledged importance of self-efficacy in language learning, there is a dearth of validated instruments tailored specifically to assess self-efficacy among English language learners in Indonesia (Tauchid, 2023). Existing self-efficacy scales may not fully capture the unique sociocultural and educational dynamics present in Indonesia, thus necessitating the development and validation of a culturally adapted instrument.

According to (Bandura, 1997), self-efficacy beliefs influence how people think, feel, motivate themselves, and behave. Individuals with high self-efficacy are more likely to approach challenges with enthusiasm, persevere in the face of obstacles, and exhibit greater resilience in achieving their goals. Conversely, those with low self-efficacy may doubt their abilities, experience heightened anxiety, and may even avoid challenging tasks altogether (Torres et al., 2020).

Self-efficacy has been extensively researched in the context of second/foreign language learning (Y. Wang & Wang, 2022). Several studies have investigated the relationship between self-efficacy and various aspects of language learning, such as English proficiency, language proficiency, and language learning outcomes. One study presented by Xiao (2018) focused on the importance of self-efficacy in the English proficiency of students, emphasizing its significance in the field of language learning. Another study by Wang & Sun (2020) investigated the relationship between self-efficacy and language proficiency, aiming to estimate the average effect size and examine factors that moderate the relationship. Additionally, a study conducted by (Blumenthal, 2014) focused on low-level English language learners from low educational backgrounds explored the impact of self-efficacy on language learning outcomes. This study found that self-efficacy played a significant role in the language learning process for these learners.

Overall, the research on self-efficacy in

language learning suggests that it is a crucial factor that influences language proficiency and learning outcomes. By fostering a sense of self-efficacy in language learners, educators can help them develop the confidence and motivation needed to improve their language skills.

Self-efficacy beliefs in Indonesia are influenced by various sociocultural factors unique to the country such as; collectivist culture, religion and spiritual beliefs, respect for authority, and education system. Toyama & Yamazaki (2018) compared Japanese and Indonesian employees regarding learning style and self-efficacy beliefs, revealing differences in how these factors influence learning and performance. The study confirms that self-efficacy varies by country and culture, with Japanese employees having lower self-efficacy beliefs than Indonesian employees. This raises questions about the cultural dimension of uncertainty avoidance, where those with strong uncertainty avoidance are risk averse and those with weak avoidance are risk takers. The study suggests that this cultural difference may be associated with the two self-efficacy beliefs, and a future study should investigate the relationship between self-efficacy and uncertainty avoidance culture (Bonneville-Roussy et al., 2019).

In Indonesia, self-efficacy has gained attention from academic perspectives in recent years due to the provision of guidance and counselling services in schools (Rachmawati et al., 2021). The study that was done by Nadiyah et al., (2023) showed a positive relationship between academic self-efficacy and social support, emotional intelligence, school well-being, career maturity, learning outcomes, and reduced student academic procrastination. Mulyanto et al. (2022) conducted a study about self-efficacy of Indonesian English foreign language learners. The study revealed the impact of self-efficacy on Indonesian English foreign language learners, particularly in speaking English. The study identified strategies used by learners to boost self-efficacy, such as imitation, self-preparation, group and community engagement, prepared speech, oral peer feedback, effective strategy, social strategy, peer model, and challenging task (Mulyanto et al., 2022a).

Self-efficacy in English language learning refers to learners' beliefs in their own abilities to successfully acquire, understand, and use the English language (Anam & Stracke, 2020). It encompasses confidence in various language skills such as speaking, listening, reading, writing, and comprehension (Al-Jiboury, 2024). Learners

with a high level of self-efficacy are more likely to receive encouragement and assistance from others, actively learn from a leading student, and willingly apply more learning strategies to enhance their involvement in class (Wu et al., 2022).

The Questionnaire of English Self-Efficacy (QESE) is one such assessment tool (D.-H. Kim et al., 2024). The QESE was developed to measure English language self-efficacy beliefs and the study aimed to assess its validity and reliability (C. Wang & Bai, 2017). The QESE has tested in English and other language versions such as, Korean, Thailand, Germany, and Vietnamese (D. H. Kim et al., 2021). However, the item-level psychometric characteristics of the Indonesian version have not been assessed. Although the QESE statements are intended to provide universal self-efficacious information regarding language skills, the interpretation of items across cultures remains unclear.

METHOD

This study employed a quantitative research method with a cross-sectional design. The research aimed to examine the psychometric properties of the Self-Efficacy Scale for English Language Learners (SES-ELL) in Indonesia. The data collection technique employed was random sampling. The participants of the study were undergraduate students majoring in English language studies from both public and private universities across Indonesia.

The study recruited a total of 204 respondents (Men: 52, Women: 148). Participants had to meet the following inclusion criteria: male and female, enrolled in an undergraduate program in English Education/English Literature, from various public and private universities across Indonesia, and willing to fill out an online questionnaire in Google Forms. The sampling technique used was purposive sampling, which selected respondents based on specific considerations or criteria (Sugiyono, 2016).

The questionnaire utilized in this study was the Questionnaire of English Self-Efficacy (QESE) scale, originally developed by (C. Wang, 2004) and adapted into the Indonesian version. This scale consisted of 32 items measured on a 7-point rating scale (1= I cannot do it at all, 2= I cannot do it, 3= Maybe I cannot do it, 4= Maybe I can do it, 5= I basically can do it, 6= I can do it, 7= I can do it well) and evaluating students' confidence levels in various English language tasks such as listening, speaking, reading, and writing. Back

translation was employed to ensure the equivalence of the original version to the Indonesian version (Marzuki et al., 2018).

Several steps in this study were as follows: (1) Researchers designed a study to collect relevant data to test the psychometric properties of the developed self-efficacy scale. (2) Developing or adapting a self- efficacy scale suitable for the research objectives. (3) Collecting data from respondents, utilizing the QESE (Questionnaire of English Self-Efficacy). (4) The collected data was analysed to test the psychometric properties of the developed self-efficacy scale, such as reliability, validity, and factor dimensions. (5) The analysis results were interpreted to evaluate the suitability and appropriateness of the developed Self-Efficacy Scale for English Language Learners (SES-ELL) in Indonesia. (6) Drawing a conclusion based on the findings.

Data collection was conducted on October 17–27, 2024. The researcher then performed data

screening using Microsoft Excel, followed by analysis via Winsteps V 3.7.3.

The data analysis used the Rating Scale Model (RSM) that was developed by (Andrich, 1978). The Rating Scale Model (RSM) is a Rasch measurement model for polytomous data (data with two or more ordinal categories) (Chong et al., 2022). This model provided estimates of individual locations (person locations), item difficulties, and overall thresholds (fixed across items) (Wilson, 2023). The RSM model maintained fixed threshold structures across items, while items possessed varying difficulties (Bittencourt et al., 2021).

RESULTS AND DISCUSSION

Based on the data analysis, the research findings are as follows.

Table 1. *Descriptive analysis*

Items	Descriptive		Skewness
	M	SD	
SE_1	5.07	1.25	-0.801
SE_2	5.36	1.33	-0.889
SE_3	4.68	1.35	-0.481
SE_4	5.07	1.31	-0.406
SE_5	5.57	1.27	-0.88
SE_6	4.75	1.28	-0.274
SE_7	4.78	1.41	-0.554
SE_8	4.67	1.34	-0.286
SE_9	4.26	1.27	-0.215
SE_10	4.98	1.32	-0.63
SE_11	5.23	1.33	-0.687
SE_12	4.51	1.33	-0.22
SE_13	4.92	1.34	-0.395
SE_14	4.64	1.36	-0.158
SE_15	5.03	1.27	-0.44
SE_16	4.95	1.34	-0.486
SE_17	5.11	1.32	-0.618
SE_18	4.67	1.31	-0.172
SE_19	4.99	1.3	-0.458
SE_20	4.8	1.31	-0.439
SE_21	5.17	1.44	-0.397
SE_22	4.66	1.31	-0.11
SE_23	4.84	1.27	-0.277
SE_24	5.18	1.32	-0.58
SE_25	4.73	1.45	-0.429
SE_26	5.01	1.5	-0.347
SE_27	5.67	1.32	-0.984
SE_28	4.96	1.4	-0.494
SE_29	4.75	1.32	-0.576
SE_30	5.92	1.23	-1.16
SE_31	4.38	1.35	-0.123

SE_32	4.92	1.33	-0.55
N = 203			

Unidimensionality

Unidimensionality refers to a condition where a set of test items assesses only a single attribute or ability (T. Bond, 2015). In Rasch modeling, *unidimensionality* analysis evaluates how well the instrument consistently measures the intended construct (Mokshein et al., 2019). This reliability implies that repeated measurements will yield consistent information, with no significant or meaningful differences in the results (Bakdash & Marusich, 2017). The minimum requirement for *unidimensionality* is a raw score measurement of over 20% (Viranda et al., 2023).

The *unidimensionality* assumption is satisfied based on PCAR, as shown by the variance explained by the measure at 66.5%. The local independence assumption is only partially met with the Q3 method (Yen, 1984), as indicated by the residual correlation coefficients between SE items, which range from -0.34 to 0.41. The high residual correlation exceeding 0.3 suggests that responses to one item are influenced by responses to another item (Petrillo et al., 2015). Notably, items SE_3 “Can you understand TV

shows in American English?” and SE_9 “Can you understand radio programs in English-speaking countries?” have the highest correlation of 0.41, which suggests they should be revised or eliminated.

Item difficulty and fit item

The analysis results indicate that item SE_30 “Can you introduce yourself in English?” has the lowest logit value (-1.76), which suggests that this item is the easiest for respondents to agree with. Conversely, item SE_9 “Can you understand radio programs in English- speaking countries?” has the highest logit value (1.13), indicating that this item is the most difficult for respondents to agree with. Furthermore, the majority of SE items have acceptable infit and outfit Mean Square values, which fall within the range of 0.6 to 1.4, as recommended for Likert scales (T. G. Bond et al., 2015). Items that do not meet the fit criteria include SE_26, SE_27, SE_4, and SE_5, and it is recommended that their wording be revised or that they be eliminated.

Table 2. *Item fit*

Item	Original Item	Measure	MN SQ		PTMEA
			Infit	Outfit	
SES_1	Apakah Anda bisa memahami kisah yang diceritakan dalam bahasa Inggris?	-0.20	0.79	0.78	0.84
SES_2	Apakah Anda bisa menyelesaikan pekerjaan rumah membaca teks dalam bahasa Inggris secara mandiri?	-0.55	1.23	1.22	0.79
SES_3	Apakah Anda bisa memahami acara TV dalam bahasa Inggris Amerika?	0.34	1.02	1.03	0.80
SES_4	Apakah Anda bisa memperkenalkan sekolah Anda dalam bahasa Inggris?	-0.18	1.57	1.59	0.71
SES_5	Jika Anda memiliki akses ke internet. apakah Anda bisa menulis takarir (caption) menggunakan Bahasa Inggris ketika mengunggah foto dan video ke sosial media?	-0.97	1.40	1.39	0.74
SES_6	Apakah Anda bisa memberi petunjuk arah dari kelas ke rumah Anda dalam bahasa Inggris?	0.37	0.97	0.98	0.81
SES_7	Apakah Anda bisa menulis karangan dalam bahasa Inggris yang ditugaskan oleh guru Anda?	0.28	0.75	0.76	0.86
SES_8	Apakah Anda bisa menceritakan sebuah kisah dalam bahasa Inggris?	0.40	0.82	0.82	0.84
SES_9	Apakah Anda bisa memahami program radio di negara yang menuturkan bahasa Inggris?	1.09	0.75	0.76	0.83
SES_10	Apakah Anda bisa memahami acara TV dalam bahasa Inggris yang dibuat di Indonesia?	-0.07	0.66	0.69	0.85
SES_11	Apakah Anda bisa memberikan pesan kepada teman	-0.48	0.84	0.81	0.85

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	<i>sekelas dalam bahasa Inggris?</i>				
SES_12	<i>Ketika membaca artikel dalam bahasa Inggris. apakah Anda bisa menebak arti kata yang tidak Anda ketahui?</i>	0.68	1.27	1.35	0.75
SES_13	<i>Apakah Anda bisa membuat kalimat baru dengan kata (vocabulary) yang baru saja Anda pelajari?</i>	0.09	1.21	1.21	0.77
SES_14	<i>Apakah Anda bisa menulis email dalam bahasa Inggris?</i>	0.43	1.21	1.24	0.78
SES_15	<i>Jika guru Anda memberikan rekaman dialog dalam bahasa Inggris tentang kehidupan sekolah. apakah Anda bisa memahaminya?</i>	-0.22	0.70	0.70	0.85
SES_16	<i>Apakah Anda bisa memahami berita dalam bahasa Inggris di internet?</i>	0.05	0.85	0.84	0.83
SES_17	<i>Apakah Anda bisa mengajukan pertanyaan dalam bahasa Inggris kepada guru Anda?</i>	-0.22	0.63	0.63	0.87
SES_18	<i>Apakah Anda bisa membuat kalimat dengan frasa berbahasa Inggris?</i>	0.42	0.83	0.82	0.83
SES_19	<i>Apakah Anda bisa memperkenalkan guru bahasa Inggris Anda dalam bahasa Inggris?</i>	-0.11	0.71	0.74	0.85
SES_20	<i>Apakah Anda bisa berdiskusi dalam bahasa Inggris dengan teman sekelas Anda tentang topik yang menarik bagi Anda dan teman sekelas Anda?</i>	0.19	0.74	0.75	0.85
SES_21	<i>Apakah Anda bisa membaca novel pendek dalam bahasa Inggris?</i>	-0.48	1.19	1.12	0.82
SES_22	<i>Apakah Anda bisa memahami film dalam bahasa Inggris tanpa takarir (subtitle) dalam bahasa Indonesia?</i>	0.50	1.10	1.17	0.77
SES_23	<i>Apakah Anda bisa menjawab pertanyaan guru Anda dalam bahasa Inggris?</i>	0.16	0.51	0.51	0.89
SES_24	<i>Apakah Anda bisa memahami lagu dalam bahasa Inggris?</i>	-0.34	1.02	1.02	0.82
SES_25	<i>Apakah Anda bisa membaca koran dalam bahasa Inggris?</i>	0.44	1.16	1.15	0.80
SES_26	<i>Apakah Anda bisa menemukan arti kata baru dengan menggunakan kamus bahasa Inggris- Inggris?</i>	-0.02	1.66	1.61	0.74
SES_27	<i>Apakah Anda bisa memahami angka yang diucapkan dalam bahasa Inggris?</i>	-1.13	1.45	1.46	0.76
SES_28	<i>Apakah Anda bisa menulis buku harian dalam bahasa Inggris?</i>	-0.09	0.64	0.63	0.88
SES_29	<i>Apakah Anda bisa memahami artikel dalam bahasa Inggris tentang budaya Indonesia?</i>	0.41	0.63	0.63	0.87
SES_30	<i>Apakah Anda bisa memperkenalkan diri dalam bahasa Inggris?</i>	-1.69	1.62	1.39	0.72
SES_31	<i>Apakah Anda bisa menulis artikel tentang guru bahasa Inggris Anda dalam bahasa Inggris?</i>	0.87	0.87	0.88	0.82
SES_32	<i>Apakah Anda bisa memahami pelajaran baru di buku bahasa Inggris Anda?</i>	0.04	1.05	1.09	0.80

Note. MNSQ = Means-Square, PTMEA = Point Measure

Functionality of the Rating Scale

The analysis results using the RSM indicate that the rating scale in SE does not function optimally (Chen et al., 2022). This is evidenced by several indicators: the distribution of responses in some categories is less than 10, particularly in categories 1, 2, and 3. An uneven distribution of

responses suggests that certain categories do not have enough data to be analysed representatively. However, the threshold for response categories, ranging from 1 (none) to 7 (3.73), progresses in a monotonically increasing order, indicating that the response options already have a good range and are less prone to bias.

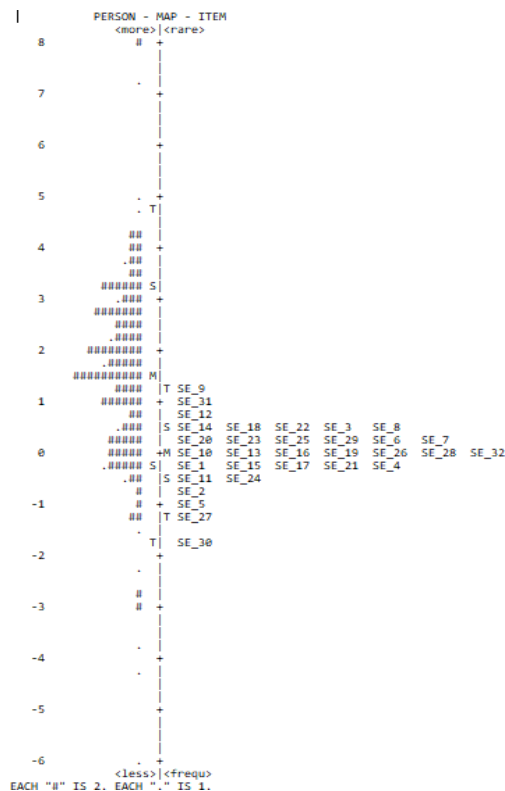


Figure 1. Item-Person map

Based on Figure 1, the item logit values range from -1.76 to 1.13, while the majority of person logit values fall above 1. This indicates that most respondents tend to easily agree with the items, as the person logit values are generally higher than the item logit values.

Person and item reliability

The results of the analysis indicate that the SE still needs improvement. The items in the SE provide adequate information regarding the variation in difficulty levels ($ISR = .97 > .70$), and the scale overall is also effective in distinguishing respondents based on high and low levels of self-efficacy ($PSR = .97 > .70$). This means that the items in the scale are already effective in differentiating respondents based on their levels of self-efficacy.

Students' self efficacy

The analysis of students' self-efficacy in English language learning reveals intriguing findings based on the collected data. Firstly, regarding the proficiency levels in English, the respondents were classified into three categories: 95 respondents (46.6%) were at the intermediate level, 100 respondents (49%) were at the beginner level, and 9 respondents (4.4%) were at the advanced level.

The predominance of respondents at the

beginner level indicates that nearly half of the students are still in the initial stages of English language acquisition, which may significantly influence their confidence in using the language (Uchida & Sugimoto, 2020). Meanwhile, a considerable number of respondents at the intermediate level reflects potential for further development, while the small percentage at the advanced level underscores the challenges of achieving high proficiency in English (Malykhin et al., 2024).

All 204 respondents were from Indonesia, reflecting a specific cultural and linguistic context pertinent to this research. Regarding their primary languages, 156 respondents (76.5%) identified Bahasa Indonesia as their primary language, followed by 5 respondents (2.5%) who spoke

Sundanese, 39 respondents (19.1%) who spoke Javanese, and a few respondents who reported combinations such as Bahasa Indonesia with regional languages (e.g., Javanese, Sundanese).

The dominance of Bahasa Indonesia as the primary language likely influences the ways in which students perceive and evaluate their capabilities in learning English. The presence of regional languages such as Javanese and Sundanese highlights the linguistic diversity that may further shape their self-efficacy. Transitioning from their mother tongue(s) to English creates additional challenges, particularly for beginner-level learners who are still building foundational skills. This dynamic often impacts their confidence in communicating and interacting in English.

In conclusion, these findings emphasize the need for tailored interventions to address the specific needs of students, particularly those at the beginner level. Additionally, recognizing the influence of linguistic backgrounds—whether Bahasa Indonesia, Javanese, or Sundanese—can help educators design strategies to enhance students' self-efficacy and overall proficiency in English.

Factors affecting students' self-efficacy

The data collected from 204 respondents regarding their methods of learning English reveals a variety of approaches used, with a primary focus on self-directed online practice. This approach is significantly related to the concept of students' self-efficacy in learning English. The majority of respondents reported that they learn through self-directed activities, both online and offline, such as watching movies,

listening to music, or using learning applications. These activities enhance their confidence in using English, as the progress they achieve through self-directed learning provides positive reinforcement for their belief in their language abilities (Jeong, 2022).

The variation in learning sources is also evident from the data collected. Respondents employ diverse learning methods, including taking courses, learning from social media, watching videos, and listening to songs. This diversity provides them with opportunities to understand and practice English from various perspectives. The positive experiences gained from these different methods can strengthen self-efficacy, as students can find the most effective learning strategies that align with their learning styles, ultimately leading to a more tangible sense of improvement in their English skills.

Active engagement in the learning process is also an important factor contributing to the increase in self-efficacy. Many respondents noted that they learn English in enjoyable ways, such as through films and music, which reduce anxiety or fear when facing a foreign language. Additionally, social interaction with peers in contexts like online games or discussions plays a role in supporting the learning process. A positive social environment can provide additional motivation and reduce fears about communication, encouraging students to become more actively involved in using English. Reflection on personal experiences and strong intrinsic motivation further drive students to work harder in their studies, which in turn boosts their confidence.

CONCLUSION

Based on the data analysis using the Rating Scale Model (RSM) in Rasch Measurement to test the Self-Efficacy Scale for English Language Learners (SES-ELL) in Indonesia, it can be concluded that the scale meets the assumption of *unidimensionality*, with a variance explained of 66.5%, indicating that it measures a single main construct, self-efficacy in English language learning. However, a high residual correlation (≥ 0.3) was observed between items SE_3 and SE_9, suggesting the need for revision or elimination of these items. Regarding item difficulty, the easiest item was SE_30 "Can you introduce yourself in English?" (lowest logit: -1.76), while the most difficult item was SE_9 "Can you understand radio programs in countries that speak English?" (highest logit: 1.13), showing a reasonable

variation in difficulty levels. The reliability and validity analysis revealed that most items had Infit and Outfit MNSQ values within the recommended range (0.6–1.4), indicating good fit and consistency in measuring self-efficacy. However, some items, such as SE_26 (Infit 1.66, Outfit 1.61), SE_4, and SE_5, showed high MNSQ values and need to be reviewed for formulation or relevance. Overall, the SES-ELL scale demonstrates good psychometric quality in terms of reliability and validity, but some items require revision to improve their fit. The recommendations include revising or eliminating items SE_3, SE_9, SE_4, SE_5, and SE_26 and re-testing the instrument after revisions to ensure improved item quality and measurement accuracy. With these revisions, the SES-ELL can be considered a valid instrument for measuring self-efficacy in English language learning among students in Indonesia.

Future studies should consider exploring the cultural and contextual factors that might influence self-efficacy in English language learning, as these factors may impact the interpretation and validity of the SES-ELL in different regions. It is also recommended that researchers conduct further tests with a more diverse sample of students, including those from different educational backgrounds and proficiency levels, to assess the generalizability of the SES-ELL scale across various contexts. Moreover, longitudinal studies could be beneficial to investigate how self-efficacy in English language learning evolves over time and the impact of various interventions. Lastly, future research could explore the integration of other psychological constructs, such as motivation and anxiety, into the SES-ELL scale to provide a more comprehensive understanding of the factors influencing language learning success.

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