

## **Developing a Short-form Scale to Assess Learner Beliefs Regarding English Learning Strategies**

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### **Abstract**

Questionnaire surveys are a prevalent method in applied linguistics for investigating complex constructs, such as learner beliefs. However, their complex nature often creates overly lengthy instruments, making them impractical for classroom use or for obtaining timely educational insights. This study aimed to develop a simplified, yet robust version of an existing learner belief scale to address these challenges. The authors carefully selected 24 belief-specific items from an initial pool of 78 items from a previous study for use in an online survey, which was completed by 246 participants. The data were subject to exploratory factor analysis. This process resulted in a concise 12-item scale, could offer a more practical tool for language educators.

**Keywords** : Questionnaire items, Learner beliefs, Language learning strategies, Exploratory factor analysis

### **1. Introduction**

Generally, cognition precedes human behavior. Within cognitive processes, individuals constantly engage in value judgments and decision-making, which significantly shape their subsequent actions. In applied linguistics, previous research has consistently highlighted the relationship between learner beliefs, which is an aspect central to cognitive processes, and language learning strategies, which manifest as mental behaviors and sometimes observable actions (Oxford, 2016). Because of the significance of learner beliefs on learning behaviors, numerous studies have explored learners' beliefs using various measurement scales (Barcelos, 2003).

However, due to the inherent complexity of learner beliefs, these scales have often covered a broad range of constructs, leading to redundancy and, arguably, a lack of practicality for classroom use. Thus, building on the previous research, this study aims to develop a concise scale for measuring learners' beliefs regarding language learning strategies (hereinafter referred to as the Short-form of Beliefs on Language Learning Strategies, SBLLS). This approach aims to improve practicality without compromising the depth of insight into learner beliefs.

### **2. Theoretical Background**

In applied linguistics, beliefs regarding language learning strategies have been recognized as significant contributors to individual differences in the success of foreign language learning (Barcelos, 2003). In this section, we provide a review of the existing literature. It begins by defining the concept of language learner beliefs, followed by an examination of empirical studies investigating these beliefs in language learning contexts.

## 2.1 Language Learner Beliefs

In this section, we review the concept of language learner beliefs. They are broadly defined as “the beliefs that [learners] hold about language and language learning” (Ellis & Shintani, 2014, p. 287). It is said that individual learners each possess their own beliefs about language and language learning. Thus, these are not viewed as objective truths, but rather as learners’ subjective truths (Barcelos, 2003).

Early work by Horwitz (1985) investigated the beliefs held by prospective language teachers enrolled in a university teacher training program. The researcher highlighted that the participants’ language learning beliefs were largely shaped by their own experiences as language learners. Horwitz argued that these preconceived beliefs could become a barrier for them to learn new knowledge and teaching approaches during the program.

Horwitz (1988) demonstrated that language learners possess a variety of beliefs regarding language learning. The researcher conducted a questionnaire survey with 241 university students during their first semester of language courses (German,  $n = 80$ ; French,  $n = 63$ ; Spanish,  $n = 98$ ). The researcher reported that these participants already held diverse beliefs by the time they began their university language programs and noted that some of those beliefs were factually incorrect.

Studies examining learner beliefs have also been conducted in the Japanese context. For example, Pirotte (2019) conducted a survey to 206 university students from various academic majors, and Nakano (2021) conducted a survey to 45 university students majoring in the health science field. Both acknowledged the significance of beliefs in language learning and suggested the importance of understanding and potentially addressing these beliefs in educational contexts.

There have been studies that examined changes in learner beliefs. For example, Tanaka and Ellis (2003) demonstrated that the beliefs of Japanese university learners of English ( $n = 166$ ) changed before and after a 15-week study abroad program. Their participants took the TOEFL® (Test of English as a Foreign Language) and completed a learner belief questionnaire before and after the program. The results indicated that not only did the participants’ TOEFL scores improve, but all aspects of their beliefs also evolved. These findings are not only pedagogically important, as they indicate the effectiveness of study abroad programs, but also theoretically significant, as they empirically show that beliefs can be altered.

As Horwitz (2013/2020)<sup>(1)</sup> argued, understanding students' beliefs is beneficial for both teachers and students. It helps them better understand their own beliefs and become more aware of realistic approaches to language learning.

## **2.2 Language Learning Strategies**

The concept of language learning strategies is characterized by a proliferation of definitions. Rather than using a comprehensive definition of language learning strategies such as the one offered by Oxford (2016), we use a more manageable definition for the specific scope of the present research. Therefore, we define language learning strategies as “particular approaches and techniques that learners employ to try to learn a [second language]” (Ellis, 1997, p.77). In addition, “second language” includes foreign language learning contexts in this paper.

Language learning strategies can be broadly categorized into direct and indirect strategies (Oxford, 1990). Direct strategies involve the direct use of language learning, such as memorizing words, practicing, and analyzing. Indirect strategies involve metacognition, such as planning and monitoring. It also involves affective strategies and social strategies. As explained later, the focus of this paper will be on direct strategies.

Previous research has pointed out that the effective use of language learning strategies leads to successful language learning (Cohen, 2014; O'Malley & Chamot, 1990). Rubin (1975) characterized good language learners as users of language learning strategies. The researcher outlined several key behaviors of them, including guessing unknown language, actively communicating, taking risks, focusing on linguistic forms, practicing diligently, monitoring their own language use and others, and prioritizing meaning. Cohen (2014) supported this notion by reporting, based on the survey targeting experts on language (learning) strategies<sup>(2)</sup>, that it was generally agreed that learning strategies enhance learning and make learning easier, faster, and more enjoyable.

The relationship between beliefs, language learning strategies, and proficiency levels has been highlighted in previous research. For example, Ogawa and Izumi (2015) investigated the relationship by comparing the beliefs held by a group of high English proficiency learners ( $n = 78$ ) and a group of low English proficiency learners ( $n = 104$ ) from a total of 182 university students. Their findings indicated that participants in the high proficiency group tended to hold stronger beliefs in experiential learning (learning through direct experience, such as speaking English with others and watching TV in English), whereas those in the low proficiency group showed a greater tendency towards beliefs in analytic learning (learning through systematic study, such as memorization and study with a textbook).

Building on these findings, Iwanaka (2023) implemented a classroom intervention designed

to enhance students' beliefs about experiential learning. The researcher hypothesized that if highly proficient learners possess strong experiential learning beliefs, strengthening these beliefs through instruction could lead to improvements in English proficiency. The instruction emphasized communicative activities, including pair discussions, small group presentations to the whole class, and activities where students took turns expressing their ideas in English based on shared understanding. The study involved university English language learners ( $n = 47$ ), who were divided into high, mid, and low proficiency groups. Data were collected twice, once in the first half and once in the second half of the course. Iwanaka reported that the high proficiency group already held strong experiential learning beliefs at the beginning of the course. More significantly, the low proficiency group showed a strengthening of their experiential learning beliefs in the latter half of the course compared to the first half. This result provides additional strong empirical evidence for previous findings that beliefs can change and that higher proficiency learners tend to hold stronger experiential learning beliefs.

### **2.3 Previous Survey Items on Learner Beliefs Regarding English Learning Strategies**

As shown above, the importance of beliefs regarding language learning has been recognized in applied linguistics, and numerous questionnaire instruments have been developed. In the pioneering work, Horwitz (1988) developed the Beliefs About Language Learning Inventory (BALLI), a scale comprising 34 items. The researcher developed the items based on the voices of foreign language learners and English teachers from different cultural backgrounds. The 34 items cover five belief categories of learners' beliefs: the difficulty of language learning, foreign language aptitude, the nature of language learning, learning and communication strategies, and motivation and expectations. Later, Horwitz (2013/2020) revised the items, and the updated scale included 44 items.

Tanaka and Ellis (2003) utilized a 27-item scale, adapted from previous studies, including their own. This scale assessed beliefs about experiential learning, analytic learning, and self-efficacy and confidence. They focused more on language learning strategies than Oxford (2013/2020) and divided them into two kinds of learning strategies: beliefs about experiential learning and about analytic learning.

Ogawa and Izumi (2015) employed a more extensive 78-item scale in their study. Their scale covered five belief categories: beliefs in experiential learning, beliefs in analytic learning, experiential learning strategies, analytic learning strategies, and confidence. They separated beliefs about language learning strategies and actual learning behaviors. Consequently, a large number of items were used to cover these categories.

In addition to these belief-focused scales, the Strategy Inventory for Language Learning

(SILL) (Oxford, 1990) is a well-known scale that specifically measures learners' use of language learning strategies. It covers six categories: memory strategies, cognitive strategies, compensatory strategies, metacognitive strategies, affective strategies, and social strategies. While this tool does not directly assess learner beliefs, it is crucial to mention here because beliefs about language learning strategies are a key issue of this paper.

As highlighted by the preceding review, previous research has consistently emphasized the importance of learners' beliefs about language learning and language learning strategies. Transforming learner beliefs can have a positive impact on their learning outcomes. To facilitate this, classroom teachers need practical ways to assess their students' beliefs (Horwitz, 2013/2020). However, as seen above, existing scales designed to assess learner beliefs are typically extensive. Their broad scope, which often includes factors such as metacognition and self-efficacy, makes them impractical for use in actual classrooms when teachers wish to assess their students' beliefs regarding language learning strategies specifically.

To address this, this study aims to develop a concise yet robust version of an existing learner belief scale, specifically focusing on language learning strategies. This new scale will be tailored for classroom teachers to better understand their students' beliefs, with a specific focus on learners' beliefs regarding experiential learning and analytic learning, which are prominent themes in the previous assessment tools used in the Japanese context (Ogawa & Izumi, 2015; Tanaka & Ellis, 2003).

### **3. Method**

The purpose of this study was to develop a psychometrically sound Short Form of Beliefs on Language Learning Strategies (SBLLS). Developing a psychometric scale requires a thorough examination of its reliability and validity, grounded in theoretical underpinnings (Dörnyei & Dewaele, 2023). To achieve this, we conducted an online questionnaire survey and analyzed the results using both qualitatively and quantitatively, utilizing exploratory factor analysis, as suggested by Sato and Suzuki (2017).

#### **3.1 Participants**

The sample consists of 275 first- and second-year university students at a national university located in a provincial city. Their majors varied, including social sciences, medical sciences, and natural sciences. The students were enrolled in compulsory English courses that we taught.

#### **3.2 Data collection**

The data collection took place in June 2025. We informed prospective participants about the survey, including its purpose, during classes. We also informed participants that participation was voluntary and that responses would be anonymous and confidential. Only students who consented completed the survey outside of classes. They completed the survey online utilizing a university's learning management system.

### **3.2 Instruments**

We constructed a 24-item self-report scale (see Table 1 and Appendix A). This included a subset of 78 items originally from Ogawa and Izumi (2015). We reviewed these items, selecting those that assess learner beliefs or others that could be modified to do so. For example, an item such as "I learned English by doing many workbook exercises" was changed to "It is important to do many workbook exercises to learn English" to reflect beliefs rather than past learning behaviors. We also slightly modified items like "It is important to listen to podcasts or watch videos/movies in English" because the original statement, "listen to the radio and watch TV," was outdated. Additionally, all items were written in Japanese<sup>(3)</sup>. These items were rated with a 7-point Likert scale (0: Strongly disagree; 1: Disagree; 2: Somewhat disagree; 3: Neither agree or disagree; 4: Somewhat agree; 5: Agree; 6: Strongly disagree).

### **3.4 Data Analysis**

In the development of the SBLLS, a multi-stage approach incorporating triangulation of analysis methods was employed to efficiently reduce survey items and pinpoint their latent structure. First, we examined the descriptive statistics and removed items that appeared to be subject to ceiling effects. Next, to reduce data dimensionality, we conducted an exploratory factor analysis using the Principal Axis Factoring (PAF) method, which does not require assumptions of normality, to narrow down the number of items to a specific set. As explained later, the data did not meet the assumption of normal distribution. In addition, an oblique (promax) rotation was used, as it was theoretically expected that the factors would be correlated. From these factor analysis results, items were removed based on factor loadings (below .40), thresholds suggested by Takahashi et al. (2023). This process was repeated until the criteria were met. Subsequently, to confirm the robustness of the structure obtained from the principal factor method, we conducted a separate additional exploratory factor analysis using the unweighted least squares (ULS) method. We chose ULS to avoid distortion of results stemming from the assumption of normality.

Following these steps, we aimed to identify the latent structure of the SBLLS, which entailed examining the construct validity of both the items and the scale as a whole. After identifying the latent structure, internal consistency was checked in each category to examine the reliability of

the items, as suggested by Dörnyei and Dewaele (2023). We set Cronbach's  $\alpha$  values of 0.70 or above as a criterion, as suggested by Takeuchi and Mizumoto (2023). Throughout these processes, we, as experienced teachers/researchers, qualitatively scrutinized the items to ensure that the theoretical underpinning of the items was maintained <sup>(4)</sup>.

**Table 1**

*Initial Items of the SBLLS*

Items	Statement
1	It is important to speak with others in English.
2	It is important to listen to a lot of English.
3	It is unreasonable to expect to understand everything I read in English.
4	It doesn't matter if I make mistakes when speaking with others in English.
5	I would like my English teacher to use as much English as possible in the English class.
6	It is important to immerse myself in an English-speaking environment.
7	It is OK to guess if you encounter unknown words or phrases in English.
8	It is OK to communicate in English without knowing the grammar rules.
9	It is OK to speak English with some Japanese accents.
10	It is important to write e-mails, letters, or diaries in English.
11	It is important to listen to podcasts or watch videos/movies in English.
12	It is important to read a lot of English magazines, books, and/or newspapers.
13	It is important to understand English grammar.
14	It is important to memorize vocabulary.
15	It is important to check any words I don't understand.
16	I want my English teacher to explain grammar rules in Japanese.
17	I want my English teacher to correct all my mistakes.
18	It is important to know grammatical terms to learn English.
19	It is important to do many workbook exercises to learn English.
20	We should learn correct grammar first before we speak English.
21	It is important to speak English with nativelike accents as much as possible.
22	It is important to translate English into Japanese.
23	It is important to translate Japanese into English.
24	It is important to use Japanese translations to check my comprehension.

*Note.* For brevity of explanation, the order has been adjusted. Please refer to the Appendix A for the actual presentation order in the survey.

### 3.5 Results

The descriptive statistics for the initial 24-item scale are shown in Table 2. As indicated by the Kolmogorov-Smirnov values, the data did not meet the assumption of normal distribution. A closer examination of individual items revealed that Item 2 is likely to exhibit a ceiling effect. Its mean value was 5.24, with a minimum response value of 2 out of 6. Although there are no clear criteria, this item differs somewhat from other items. Therefore, we decided to remove it from the scale.

**Table 2***Descriptive Statistics for the Initial 24 Items*

Items	<i>M</i>	<i>SD</i>	<i>MIN</i>	<i>MAX</i>	<i>Skew</i>	<i>Kurt</i>	Kolmogorov-Smirnov	
							<i>D</i>	<i>p</i>
1	5.17	.91	.00	6.00	-2.00	7.12	.28	<.00
2	5.24	.77	2.00	6.00	-.86	.65	.26	<.00
3	4.67	1.23	1.00	6.00	-1.05	.87	.24	<.00
4	5.02	1.06	1.00	6.00	-1.53	2.80	.28	<.00
5	3.87	1.44	.00	6.00	-.57	-.06	.17	<.00
6	5.01	.97	1.00	6.00	-1.03	1.62	.21	<.00
7	4.44	1.07	1.00	6.00	-.84	.94	.22	<.00
8	4.48	1.30	.00	6.00	-.96	.42	.25	<.00
9	2.94	1.66	.00	6.00	.03	-.93	.16	<.00
10	3.84	1.40	.00	6.00	-.58	.02	.22	<.00
11	5.01	1.05	1.00	6.00	-1.40	2.42	.25	<.00
12	4.67	1.08	1.00	6.00	-1.01	1.31	.24	<.00
13	4.4	1.12	.00	6.00	-.955	1.51	.23	<.00
14	4.93	1.03	1.00	6.00	-1.16	1.92	.23	<.00
15	4.16	1.26	.00	6.00	-.77	.61	.24	<.00
16	3.59	1.56	.00	6.00	-.34	-.60	.15	<.00
17	4.27	1.21	.00	6.00	-.75	.93	.21	<.00
18	4.17	1.46	.00	6.00	-1.03	.60	.22	<.00
19	4.08	1.32	.00	6.00	-.93	.80	.23	<.00
20	3.48	1.44	.00	6.00	-.54	-.38	.24	<.00
21	3.92	1.44	.00	6.00	-.68	.07	.23	<.00
22	3.81	1.38	.00	6.00	-.53	-.31	.23	<.00
23	3.94	1.42	.00	6.00	-.50	-.32	.20	<.00
24	4.23	1.19	.00	6.00	-.80	.67	.21	<.00

The remaining 23 items were subject to a factor analysis (PAF). As shown in Table 3, the results of the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett’s Test of Sphericity indicated that the data were suitable for factor analysis.

**Table 3**

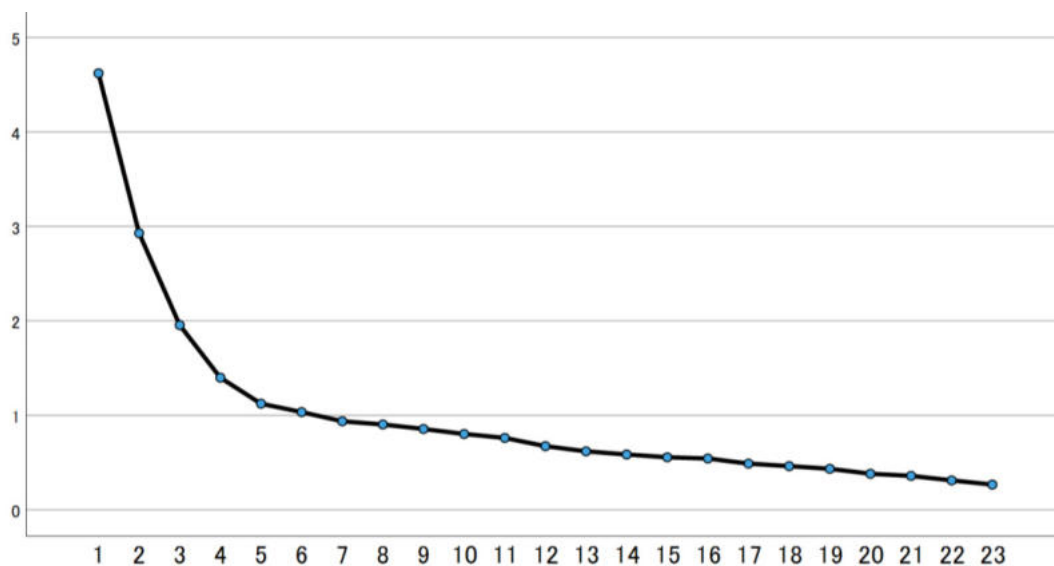
*The Results of KMO and Bartlett’s Test of Sphericity*

Kaiser-Meyer-Olkin (KMO) value		.78
Bartlett’s Test of Sphericity	$\chi^2$	1715.61
	df	253
	Sig.	<.00

Figure 1 displays the scree plot obtained from the initial PAF. This plot could be interpreted to support either a four-factor or a five-factor solution. However, a six-factor solution was also considered, as six factors had an eigenvalue above 1.0.

**Figure 1**

*Scree plot of initial factor analysis (PAF)*



The six-factor solution, as presented in Table 4, revealed several issues. Specifically, Items 4, 14, 21, and 15 showed low factor loadings (below .40), and the communality value of Item 7 was also low at .19. Consequently, these five items were removed from the scale.

**Table 4***Initial Factor Analysis (PAF) Results*

Items	Factors						Communalities
	1	2	3	4	5	6	
6	.75	-.07	-.04	-.03	-.06	-.05	.53
1	.69	-.08	.13	.01	.03	-.14	.61
10	.56	.18	-.12	-.03	-.01	.20	.32
17	.46	.24	-.01	-.08	.01	.09	.31
7	.42	-.03	-.08	-.02	.11	.15	.19
5	.40	.11	-.16	.14	.04	-.27	.36
4	.38	-.21	-.00	-.05	.24	.08	.26
13	.05	.73	.07	.06	.04	.15	.61
20	-.19	.70	-.09	.01	.14	.03	.45
18	.05	.56	.08	-.04	.01	-.06	.39
19	.15	.55	.19	.10	-.13	.04	.42
8	.20	-.44	.25	.14	.17	-.09	.33
14	.06	.31	.29	.04	.10	-.18	.35
22	-.05	.02	.85	-.03	-.18	.15	.70
24	-.09	.00	.65	-.01	.07	.12	.46
23	-.02	.11	.60	-.04	.00	.07	.43
9	-.02	.09	-.03	.95	-.05	.06	.88
21	.12	.20	.13	-.34	.03	-.14	.32
11	.17	-.05	-.02	-.07	.65	.19	.51
12	.12	.29	-.16	.01	.56	.01	.48
15	-.15	.30	.21	-.05	.32	-.15	.35
16	.08	.20	.13	.04	.00	.52	.34
3	.02	-.11	.20	.11	.30	.47	.36

Item 8 was also subject to removal from the scale. It loaded negatively on Factor 2 (loading = -.437). While this item could initially be interpreted as a reverse-worded item of Factor 2, a closer examination of the other items in Factor 2 did not entirely support this interpretation. Factor 2 primarily comprised items related to the importance of grammar in language learning (Items 13, 18, 19, and 20; see Table 1). Although Item 8, which states “it is OK to communicate in English without knowing the grammar rules,” might appear to be a grammar-related item on the surface, the phrasing is ambiguous. If it truly functioned as a reverse-worded item for the concept of “importance of grammar,” the meaning would unequivocally be “grammar is not important.”

However, Item 8 can be read either as “grammar is not important” or “grammar is important, but it is still acceptable to communicate without it.” This ambiguity means the interpretation isn’t consistently the opposite of other items in Factor 2. Thus, it was removed from the scale.

At the fourth attempt of this iterative analysis process, the most theoretically sound solution was achieved. Prior to the factor analysis, the results of the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett’s Test of Sphericity indicated that the data were suitable for factor analysis (see Table 5). Both the scree plot’s inflection point and eigenvalue criterion suggested a three-factor solution (Figure 2 and Table 6). The resulting three-factor solution retained twelve items.

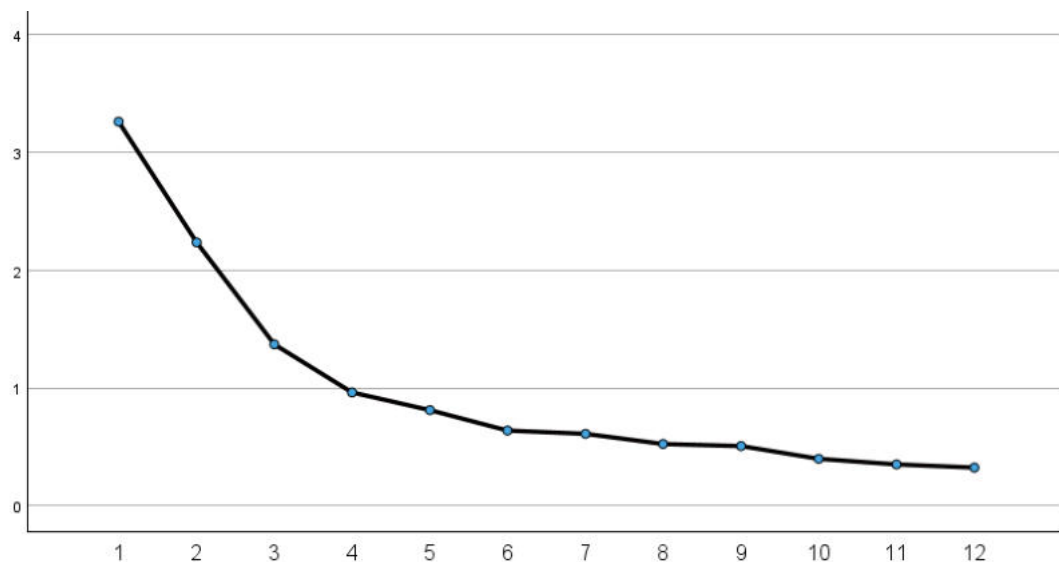
**Table 5**

*The Results of KMO and Bartlett’s Test of Sphericity*

Kaiser-Meyer-Olkin (KMO) value		.74
Bartlett’s Test of Sphericity	$\chi^2$	887.83
	df	66
	Sig.	<.00

**Figure 2**

*Scree plot of factor analysis (PAF)*



As shown in Table 6, these three factors collectively accounted for 44.38% of the total variance in the items. Specifically, Factor 1 explained 22.79% of the variance, Factor 2 explained 14.33%, and Factor 3 explained 7.26%.

**Table 6***Total Variance Explained by Factors*

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	3.26	27.17	27.17	2.73	22.79	22.79	1.93
2	2.24	18.65	45.82	1.72	14.34	37.12	2.28
3	1.37	11.41	57.23	.87	7.26	44.38	2.05
4	.96	8.02	65.25				
5	.81	6.77	72.02				
6	.64	5.33	77.35				
7	.61	5.10	82.45				
8	.53	4.38	86.82				
9	.51	4.23	91.05				
10	.40	3.32	94.37				
11	.35	2.93	97.30				
12	.32	2.70	100.00				

As presented in Table 7, Factor 1 was characterized by five items, which we labeled “Beliefs related to Experiential Learning.” This label was chosen because the items consistently reflect beliefs about the importance of active engagement with language through exposure and practice. The factor loadings for these items were: Item 1, “It is important to speak with others in English” (loading = .82); Item 6, “It is important to immerse myself in an English-speaking environment” (loading = .68); Item 11, “It is important to listen to podcasts or watch videos/movies in English” (loading = .47); Item 10, “It is important to write e-mails, letters, or diaries in English” (loading = .47); and Item 12, “It is important to read a lot of English magazines, books, and/or newspapers” (loading = .45).

Factor 2, comprising four items, was labeled “Beliefs related to Analytic Learning.” This label stems from the fact that items are related to grammatical knowledge: Items 13, 20, and 18 directly reference “grammar,” “correct grammar,” and “grammatical terms,” respectively. Item 19 further supports this interpretation as it refers to exercises aimed at acquiring correct grammatical knowledge. The factor loadings for these items were: Item 13, “It is important to understand English grammar” (loading = .80); Item 20, “We should learn correct grammar first before we speak English” (loading = .67); Item 18, “It is important to know grammatical terms to

learn English” (loading = .60); and Item 19, “It is important to do many workbook exercises to learn English” (loading = .49).

**Table 7**

*Factor Analysis (PAF) Results*

Items	Statements	Factors			Commu- -nalties
		1	2	3	
1	It is important to speak with others in English.	.82	-.14	.09	.63
6	It is important to immerse myself in an English-speaking environment.	.68	-.10	-.09	.45
11	It is important to listen to podcasts or watch videos/movies in English.	.47	.01	.12	.25
10	It is important to write e-mails, letters, or diaries in English.	.47	.17	-.08	.33
12	It is important to read a lot of English magazines, books, and/or newspapers.	.45	.28	-.06	.28
13	It is important to understand English grammar.	.01	.80	.02	.65
20	We should learn correct grammar first before we speak English.	-.12	.67	-.05	.39
18	It is important to know grammatical terms to learn English.	.09	.60	-.02	.38
19	It is important to do many workbook exercises to learn English.	.06	.49	.17	.37
22	It is important to translate English into Japanese.	-.08	-.01	.88	.76
24	It is important to use Japanese translations to check my comprehension.	.02	-.02	.65	.43
23	It is important to translate Japanese into English.	.06	.07	.61	.42

Factor intercorrelations

	1	2	3
Factor 1	-	.28	.08
Factor 2	.28	-	.43
Factor 3	.08	.43	-

Factor 3 included three items and was labeled “Beliefs about Translation for Proficiency Development.” This label was selected because all three items relate to the use of translation. Importantly, these items do not merely involve direct translation; instead, they assess the extent to which learners leverage their first language to enhance their foreign language proficiency. The

factor loadings for these items were: Item 22, “It is important to translate English into Japanese” (loading = .88); Item 24, “It is important to use Japanese translations to check my comprehension” (loading = .65), and Item 23, “It is important to translate Japanese into English” (loading = .61).

The results of an oblique (promax) rotation showed the factor intercorrelations. A moderately positive correlation was observed between Factor 2 (Beliefs related to Analytic Learning) and Factor 3 (Beliefs about Translation for Proficiency Development), with a correlation coefficient of  $r = .43$ . This suggests that learners who place a higher importance on analytic approaches to language learning also tend to value the use of their first language for comprehension and production.

Conversely, the correlations involving Factor 1 (Beliefs related to Experiential Learning) were relatively low. Factor 1 showed a weak positive correlation with Factor 2 (.28) and a very weak positive correlation with Factor 3 ( $r = .08$ ). These low correlations indicate that learners’ Beliefs related to Experiential Learning are largely independent from their Beliefs related to Analytic Learning and Translation for Proficiency Development. The overall pattern of correlations suggests that while relationships exist between analytic learning and translation beliefs, experiential learning beliefs represent a more distinct dimension within participants’ overall belief systems.

To confirm the results obtained from PAF, we conducted a subsequent factor analysis (ULS). this analysis yielded the same factor structure (See Appendix B).

Lastly, we examined the internal consistency values of each factor to assess reliability. The results indicate that all factors showed sufficiently high Cronbach’s  $\alpha$  values (Table 8), exceeding the .70 criterion.

**Table 8**

*Internal Consistency Value*

Factors	Items	Cronbach’s $\alpha$
	1	
	6	
Factor 1: Beliefs related to Experiential Learning	10	.72
	11	
	12	
	13	
Factor 2: Beliefs related to Analytic Learning	18	.74
	19	
	20	

(continued)

Table 8 (continued)

Factors	Items	Cronbach's $\alpha$
Factor 3: Beliefs about Translation for Proficiency Development	22	.75
	23	
	24	

#### 4. Discussion

The primary purpose of this study was to develop a concise scale for learner beliefs regarding language learning strategies. As a result, the factor analysis yielded a three-factor model from the 12 items. While the model's cumulative variance explained was 44.38% (see Table 6), which is relatively low compared to the common 50% guideline, this can be attributed to the inherent complexity and multifaceted nature of the "learner beliefs" construct. Therefore, the 12 items may not have fully captured the complete picture of this concept. Given that the main goal of the study was to create a concise scale rather than to achieve high variance explanation, the obtained model should serve its purpose.

The first two factors align with previous research (Ogawa & Izumi, 2015; Tanaka & Ellis, 2003), corresponding to Beliefs related to Experiential Learning and Beliefs related to Analytic Learning, respectively. An examination of the items within these factors revealed their strong thematic coherence. The Experiential Learning factor encompassed items related to direct language use, such as 'speak,' 'immerse,' 'listen,' 'write,' and 'read.' Conversely, the Analytic Learning factor contained items associated with formal language study, including 'grammar,' 'grammatical terms,' and 'workbook exercises.' This finding is consistent with previous studies, which suggest that learners cognitively differentiate between actual language use and formal study. The weak factor intercorrelation between the two factors further suggests this distinction (See Table 7).

A noteworthy finding of this study was the extraction of a third factor, Beliefs about Translation for Proficiency Development. The emergence of this third factor was unexpected, as our initial assumption had been that these items would be categorized under the Beliefs related to Analytic Learning factor. While a moderate positive factor correlation was observed with Beliefs related to Analytic Learning (see Table 7), the distinct emergence of Beliefs about Translation for Proficiency Development as a separate factor suggests a nuanced difference in how learners perceive and utilize translation. Furthermore, this category includes items related to translation from Japanese to English and vice versa. This suggests that the use of translation here is not merely for the acquisition of grammatical rules, lexical knowledge, or declarative knowledge, but rather as a means to enhance English proficiency through actual language use and application. In other words, it may offer a glimpse into learners' cognition, where they seek to utilize their

(potentially incomplete) knowledge of both languages, not just for knowledge accumulation, but for developing their practical language skills.

The literature underscores the risks associated with reducing the number of questionnaire items. Specifically, the following concerns have been raised: the scale's dimensions and structure may differ from the original scale; reliability and measurement precision may decrease; the discriminative power for specific ability traits may be reduced; and validity may be compromised (Schroeders et al., 2016, as cited in Oshio, 2024). The emergence of Beliefs about Translation for Proficiency Development in this study may be directly attributable to the item reduction process, aligning with the literature's concern that the dimensions and structure of a shortened scale can diverge from the original. It is plausible that by removing ambiguous items related to analytic learning, the underlying, more salient belief in translation as a practical skill-building strategy became more prominent during the factor analysis. However, in the context of developing a practical tool for real-world classroom use and obtaining timely educational insights, the efficiency gained through item reduction often outweighs these concerns, provided the process is rigorously conducted. We believe our process adhered to key recommendations by Goetz et al. (2013, as cited in Oshio, 2024), specifically regarding: clearly stating original scale's reliability and validity and shortening purpose<sup>(5)</sup>; considering the conceptual model of the measured trait; maintaining content validity; retaining psychometric properties (e.g., internal consistency, etc.); and clearly stating the rationale for item inclusion/exclusion. Crucially, despite the emergence of this third factor, the validity of the two main factors was maintained, thereby addressing one of the key concerns raised by Schroeders et al.

Furthermore, the relatively low cumulative variance explained highlights two key areas for future research. First, while it is reasonable to classify the items into three factors, it appears essential to adjust the wording of each statement to improve the model's explanatory power. Second, it is necessary to examine the adjusted items with a different sample using confirmatory factor analysis. By doing so, we will meet the final point of Goetz et al.'s (2013, as cited in Oshio, 2024) key recommendations, namely, validating the shortened scale using a sample different from the one used for the shortening process.

## **5. Conclusion**

In this study, we developed a short-form scale to measure learners' beliefs regarding language learning strategies (SBLLS). This 12-item, three-factor model could offer language educators a swift and practical tool to assess their students' beliefs. Theoretically, our findings suggest that learners may predominantly view translation as a beneficial strategy for enhancing English proficiency, rather than merely a means to acquire declarative knowledge, such as

grammatical and lexical knowledge. Although future research is required to validate the scale, the SBLLS has the potential to provide educators with timely and actionable insights into their students' learning approaches when implemented. Ultimately, by providing educators with a better understanding of their students' beliefs, the SBLLS could facilitate the development of more tailored instructional strategies, thereby guiding students toward more effective language learning.

### Endnote

- (1) The second edition of this book was originally published in 2013. A reprint, published by a different publisher, became available in 2020, and it is this 2020 reprint that we have used.
- (2) Cohen (2014) presented that learner strategies can be divided into language learning strategies and language use strategies. His survey included both perspectives as well as others.
- (3) The Japanese version was the one that was used in Iwanaka.
- (4) Since items were adopted from previous studies, their theoretical underpinning had already been established to some extent.
- (5) Due to space limitations, these are omitted, but beliefs related to experiential learning and beliefs related to analytic learning were examined for reliability and validity in Tanaka and Ellis (2003). See Tanaka and Ellis (2003) for details.

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**Appendix A. Items in Order of Appearance in the Actual Survey**

Survey order	Statements	Table 1 order
1	他の人と英語で話をするのが大切である (It is important to speak with others in English.)	1
2	英語で知らない語や句に遭遇した時は推測すればよい (It is OK to guess if you encounter unknown words or phrases in English.)	7
3	私は英語の先生に日本語で文法規則を説明して欲しい (I want my English teacher to explain grammar rules in Japanese.)	16
4	英語でメール, 手紙, 日記を書くのが大切だ (It is important to write e-mails, letters, or diaries in English.)	10
5	語彙を暗記することが大切である (It is important to memorize vocabulary.)	14
6	日本語を英語に訳すことが大切だ (It is important to translate Japanese into English.)	23
7	英語でポッドキャストを聴いたり, 動画や映画を見たりすることが大切だ (It is important to listen to podcasts or watch videos/movies in English.)	11
8	日本語的なアクセントで英語を話しても問題ない (It is OK to speak English with some Japanese accents.)	9
9	私は英語の先生に私の誤りを修正して欲しい (I want my English teacher to correct all my mistakes.)	17
10	英語が使用されている環境に自分自身を置くことが大切だ (It is important to immerse myself in an English-speaking environment.)	6
11	文法用語を知っておくことが大切である (It is important to know grammatical terms to learn English.)	18
12	英語の雑誌, 本, 新聞などをたくさん読むことが大切だ (It is important to read a lot of English magazines, books, and/or newspapers.)	12
13	文法規則が分かってもなくても英語でコミュニケーションを取ってもよい (It is OK to communicate in English without knowing the grammar rules.)	8
14	英語をたくさん聴くことが大切である (It is important to listen to a lot of English.)	2
15	英語の授業では英語の先生になるべくたくさん英語を使用して欲しい (I would like my English teacher to use as much English as possible in the English class.)	5
16	自分の理解を確認するために日本語訳を使うことが大切だ (It is important to use Japanese translations to check my comprehension.)	24
17	英語で読んでいるものをすべて理解しようとするのは無理がある (It is unreasonable to expect to understand everything I read in English.)	3
18	練習問題をたくさん解くことが大切である (It is important to do many workbook exercises to learn English.)	19
19	英語を日本語に訳すことが大切だ (It is important to translate English into Japanese.)	22
20	英文法を理解することが大切である (It is important to understand English grammar.)	13
21	できる限り母語話者のような発音で英語を話すことが大切である (It is important to speak English with nativelike accents as much as possible.)	21
22	他の人と英語で話しているときに間違いを犯すことは問題ではない (It doesn't matter if I make mistakes when speaking with others in English.)	4
23	理解できない語はすべて確認することが大切である (It is important to check any words I don't understand.)	15
24	英語を話す前にまず, 正しい文法を学ぶべきである (We should learn correct grammar first before we speak English.)	20

**Appendix B. Factor Analysis (ULS) Results**

Items	Statements	Factors			Communalities
		1	2	3	
1	It is important to speak with others in English.	.82	-.14	.09	.63
6	It is important to immerse myself in an English-speaking environment.	.68	-.10	-.09	.45
11	It is important to listen to podcasts or watch videos/movies in English.	.47	.01	.12	.25
10	It is important to write e-mails, letters, or diaries in English.	.47	.17	-.08	.28
12	It is important to read a lot of English magazines, books, and/or newspapers.	.45	.28	-.06	.33
13	It is important to understand English grammar.	.01	.80	.02	.65
20	We should learn correct grammar first before we speak English.	-.12	.67	-.05	.39
18	It is important to know grammatical terms to learn English.	.09	.60	-.02	.38
19	It is important to do many workbook exercises to learn English.	.06	.49	.17	.37
22	It is important to translate English into Japanese.	-.08	-.02	.88	.76
24	It is important to use Japanese translations to check my comprehension.	.02	-.02	.65	.41
23	It is important to translate Japanese into English.	.06	.07	.61	.43

Factor intercorrelations

	1	2	3
Factor 1	-	.28	.08
Factor 2	.28	-	.43
Factor 3	.08	.43	-