Research Article

The Effect of Mother Tongue Translation on Iranian Extroverted and Introverted EFL Learners' Vocabulary Learning

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Vocabulary is an essential language component that will affect all four language skills. Therefore, any technique that can help promote vocabulary learning should be encouraged. The current study aimed to explore the effect of first-language translation on Iranian intermediate extroverted and introverted EFL learners' vocabulary learning. The authors chose 80 Iranian EFL learners using convenience sampling and applied a quasiexperimental design for the research. First, they administered the Oxford Placement Test, the Eysenck personality questionnaire, and a vocabulary pretest and posttest. Then, the treatment started using the first language to teach vocabulary to introverted and extroverted learners. The findings showed that first-language translation had a statistically significant effect on developing Iranian intermediate extroverted EFL learners' vocabulary learning. The results implied that the instructors could use L1 in teaching a language in general and vocabulary in specific as an effective strategy, just for extroverted learners, as it was found ineffective for introverted learners. Furthermore, the results showed that L1 translation as a learning strategy can be more effective for vocabulary learning by extrovert EFL learners than introverts. Therefore, it can be concluded that the learners' personality traits should be considered in teaching and learning vocabulary, but as a supplementary teaching strategy since using the first language was just effective for parts of the learners, extroverts.

1. Introduction

There has been widespread use of the English language as an international and worldwide means of communication for the past 50 years; therefore, the English language is no longer limited to the native speakers of nations such as the USA, UK, or Australia. Moreover, the number of nonnative English language speakers has been continuously growing, necessitating updates or "changes in the principles and practice of English language teaching" [1, p. 4]. Therefore, many scholars, including Iranian researchers, focused on different aspects of English language teaching and learning [2–6].

Considering the English language learning skills, Rasinski and Rupley [7] recognized the role of vocabulary knowledge as "an essential component of reading comprehension and a contributing factor for using reading as means of learning" (p. ix). Thus, words are the "building blocks" of every language and "they are central to listening, speaking, reading, writing" and are therefore an essential component of almost every aspect of our lives. If we cannot produce the words that are needed to convey our intended meaning, we may not be able to make ourselves understood" [8, p. 13]. Readers with a depth of vocabulary tend to be more proficient and competent readers in comprehending a text. Rasinski and Rupley [7] believe that "enhancement and growth of vocabulary knowledge facilitate the reader's processing of text and engagement with the author's writing" (p. ix).

It has been a widespread assumption that during second language teaching or acquisition, the main focus should be enhancing the learner's competence to be as close as possible to a native speaker's command over the language. For this reason, the proponents believe that teachers and learners should use L1 (first language) in their classrooms. However, some other researchers maintained that "thinking, communication, translation, or any reference to the learners' first

language" should be prohibited to avoid disrupting the learning process [9, p. 222]. Many teachers and educationalists no longer practice or advocate this assumption as they ascertain the positive role of using L1 and translation in acquiring English. They promoted the shift to L1 and translation as an efficient learning strategy to facilitate reading comprehension, recall, language production, and vocabulary retention. Furthermore, Chastain [10] claimed that personality, as an influential factor, has a more significant role in developing foreign or second language skills since learners' willingness determines the extent of their learning. Therefore, the current study investigated two major personality traits, including introversion and extroversion, and whether translation as a tool is still considered taboo and a harmful resource or should be revitalized and included in classrooms.

Although using L1 as an instructional method has elicited much support and even disagreement, there is a need to expand the scope of research on using first-language translation and identify its effects on improving vocabulary skills. Different studies advocated using this pedagogical approach (e.g., [11–19]). In addition, teachers tend to use the L1 (rather than the TL) more for grammar-focused practices and classroom management than for communicative tasks [20]. However, there is still room to extend this teaching orientation and examine the possible effect of employing first-language translation on improving the vocabulary learning of intermediate introverted and extroverted EFL learners.

Due to the diversity of personality traits among Iranian learners and different and sometimes controversial findings regarding the effect of personality traits on teaching and learning outcomes, the authors investigated the effect of introversion and extroversion as two major personality characteristics on learners' vocabulary learning.

2. Literature Review

2.1. Vocabulary Acquisition. Vocabulary is a major component of language learning emphasized by different researchers. For example, the British linguist David Wilkins emphasized the role of vocabulary in language learning when he argued, "without grammar, little can be conveyed, without vocabulary nothing can be conveyed." Vocabulary is a collection of words and phrases every individual has in mind and is almost aware of their meaning and application in every language. It is also considered critical and essential in teaching and learning a foreign language because a lack of vocabulary knowledge, a key to communication [9], leads to communication failure. Moreover, it has a crucial role in developing reading comprehension, listening comprehension, speaking, writing, spelling, and pronunciation. Therefore, developing vocabulary is essential to teach or learn a new language.

However, acquiring an extensive vocabulary could be one of the most considerable challenges in recent language acquisition. To provide a shortcut to vocabulary acquisition, teachers usually adopt some teaching aids and strategies. Gestures, pictures, and realia are among several ways to link the L2 target item and its meaning. However, Joyce argued that "the most versatile and widely used approaches involve either an L2 definition or synonym or an L1 translation. Since the L2 definition or synonym method provides learners with additional exposure to the target language, and is an option available to both native and nonnative teachers, it has long been an accepted part of language teaching" [21, p. 2].

2.2. L1 Translation. One of the interfering variables or maybe effective factors in learning vocabulary is the use of first-language translation in learning second or foreign-language vocabulary. There has been a continuous and long-term debate and extensive research about learners' first language inclusion or exclusion in the teaching and learning process [22]. At the end of the 19th century, the Direct Method was the dominant teaching method. The first language did not have any role in teaching practices since the L1 translation was assumed as closely connected to the grammar-translation method. Molway et al. [23], argued that while the visible difference between the direct method and grammar-translation was the former's avoidance of the L1, "the underlying theoretical stance was that the vocabulary and structures of the language could be learned implicitly or inductively rather than explicitly or by comparison with the L1" [23, p. 644]. When the grammar-translation approach lost its popularity as a practical language teaching method, many linguists, teachers, and instructors started arguing about using learners' first language in foreign language classes. They believed translation is inappropriate for classes since it limits target language use in the classrooms. Thus, the advocates for maximizing TL use emphasized "the benefits of language exposure."

On the other hand, Cook [24, p. 26] challenged the erroneous assumptions about the use of translation by probing the "pedagogical, educational, and practical assumptions behind the rejection of translation." He boldly called for the "rehabilitation" of translation in language teaching and defended this technique as "pedagogically effective and educationally desirable both to the students and the teachers." After this era, using the first language in second language teaching and learning has been repeatedly introduced as a positive and effective technique [25]. It improved learners' language proficiency and reading skills [26, 27].

Cook [25] further argued that language learning approaches should follow norms that acknowledge the learners' existing knowledge in the first language, thereby "creating an authentic interactive L1 and TL teaching mode using code-switching strategies" (p. 409). On the other hand, Crawford [28] found that teachers make extensive use of L1 because they feel that it facilitates cross-linguistic and cross-cultural comparisons.

In the last two decades, a renewed debate over L1 versus TL has emerged. This prevalent assumption of exclusive TL use correlates with improved learning gains and contests the ensuing methodology. This new approach views the students' L1 as a significant component in the learning process and calls for hybridity rather than monolingual exclusivity [29]. This approach perceives L1 as a "resource, an asset rather than an impediment" [30, p. 352].

Similarly, researchers [20, 30–33] enumerated the benefits of using L1 under three general categories of instructional, managerial, and influential purposes. They found

various reasons why instructors opted to employ L1, including serving to fulfill many purposes such as translating and teaching new words, defining concepts, providing feedback, managing and maintaining discipline in classrooms, providing lone assistance to the learners, establishing rapport, giving additional clarifications, establishing constructive social relationships, ensuring understanding, encouraging and providing comfort for learners, saving time in explaining tasks, and being the most practiced for grammar explanations. In addition, several researchers investigated the role of L1 translation in improving speaking, reading, writing, and listening. For example, Hsieh [34] evaluated 52 Taiwanese college students' perspectives on the role of L1 translation in their foreign language learning. After 1 year of using L1 translation in EFL teaching, he found that most participants believed in the positive role of translation in learning different meanings of vocabulary and improving reading skills.

Another study that confirmed the positive role of first-language translation in reading comprehension and memorizing vocabulary was conducted by Calis and Dikilitas [17]. They examined Turkish elementary students' attitudes toward L1 translation in L2 learning. The participants claimed in the questionnaire and interview that translation had improved their reading comprehension and vocabulary retention. Finally, Alshehri [19] evaluated 104 EFL teachers' attitudes toward using L1 in their teaching through questionnaires and interviews. The findings showed that teachers used L1 as an effective teaching strategy, especially in teaching vocabulary.

Some other studies focused on how first-language translation may impact different approaches to vocabulary learning. For example, Sun and Fang [35] attempted to inspect how L1 familiarity impacted L2 vocabulary gains operationalized as form-meaning connection-making in the paired-associate learning paradigm. They reviewed some past studies that illuminated the relative efficacy of L1 versus L2 in terms of vocabulary learning. Such studies examined how glossing language impacted learning new words embedded in passages. For example, Laufer and Shmueli [36] revealed the "superiority of L1 glossing over L2 glossing." Their results showed that the participants successfully acquired the connections between the L2 form and L1 meaning, which gives clear evidence of the effectiveness of this method. They also showed that words with "higher L1 familiarity were easier to retain in the mental lexicon than those whose L1 equivalents were less familiar. This fact indicated the strong role L1 familiarity played in L2 lexical acquisition" [35, p. 54].

Paul Joyce reviewed some studies that examined the efficacy of L1 translation as an aid to both intentional and incidental L2 vocabulary learning. For instance, he referred to Grace [37], who explored whether English speakers benefitted from a sentence-level translation option in learning French vocabulary. In Grace's [37] study, participants who had been provided with L1 support were found to have learned 42% more vocabulary than the control group. Thus, "the incorporation of L1 translation into the incidental acquisition of L2 vocabulary has been found to result in improved learning outcomes" [21, p. 3].

Laufer and Shmueli [36] compared various modes of vocabulary presentation, including a comparison between "L1 translations and L2 definitions to establish the form–meaning link." Their results showed that those who used L1 translations outperformed those who used L2 definitions on the multiple-choice receptive knowledge vocabulary posttests. However, the participants' prior knowledge of the target vocabulary was not measured.

Apart from the studies which focused on different language skills and components, some other studies investigated the impact of first-language translation on language achievement. For example, Mahmoud [18] investigated the impact of using the Arabic language as L1 on teaching English as L2. He used experimental and control groups to test 50 students' achievement in General English at King Abdul-Aziz University. This study did not find Arabic translation as an effective technique in teaching L2. Thus, Mahmoud [18] recommended that teachers use teaching strategies in which the second language is the medium of instruction.

2.3. Personality Traits. One of the challenging factors in learning and teaching is personality traits. Controversial issues arose in this area as the findings are quite diverse and even differ from one class to the other one. Moreover, they may be an influential factor in one area of learning and teaching, whereas they are ineffective in another area. There has been an "intuitive awareness" among second language teachers that there is a "positive correlation between a successful acquisition of a foreign language between a sociable and outgoing learner and a reticent or reserved learner" [38, p. 46]. Such teachers may instinctively feel that since an extroverted student can usually expose himself to a rich environment laden with various opportunities, he can create more situations to be engaged and immersed in the target language learning. Thus, they maintained "a student with an outgoing personality is more likely to be successful as a second language learner than his less gregarious counterpart" [38, p. 45]. However, she argued that despite some empirical studies have shown a clear correlation between extroversion and success in acquiring a second language, there still exists a controversy regarding the effects of an outgoing personality on second language learning, as some other researchers' conflicting and inconsistent findings, may "obscure judgments" regarding the role students' personality traits play in their language learning. Dörnyei and Ryan [39], or in Chastain's [10] study, the results showed that there was no significant link between a reserved/outgoing personality and success in language learning. In another study by Swain and Burnaby [40], they did not discover any link between "gregariousness and second language learning." The diversity of personality tests used to measure extroversion and introversion is one reason for "the nonconformity of results among the studies" [38, p. 48].

Since language learning is likely connected with learners' differences and personality traits, Malmir and Aghazamani [41] evaluated the effect of Moodle as an effective virtual learning environment on 90 Iranian introvert and extrovert learners' vocabulary learning. They used Myers Briggs Type Indicator (MBTI), self-developed vocabulary pretest, posttest,

and delayed posttest. Although Moodle-mediated instruction significantly impacted Iranian EFL learners' vocabulary knowledge, they found no difference between extroverted and introverted learners.

Sarani et al. [42] investigated vocabulary learning strategies used by Iranian introvert and extrovert EFL learners in another study on personality traits. They found that introverts used vocabulary learning strategies more frequently than their counterparts, extroverts. Kayaoğlu [43] also found that introverts frequently used learning strategies. He continued that extroverts were more talkative and prone to initiate conversation. Still, it does not guarantee their success in language learning because speaking and oral production are just parts of language learning skills. Alavinia and Hassanlou [44] evaluated the effect of introversion and extroversion tendencies on undergraduate EFL students' writing performance. They used the Eysenck personality inventory to divide students into introverts and extroverts and asked the participants to write three argumentative, narrative, and descriptive essays. The results showed no significant difference between introverts' and extroverts' writing performance. They believed the findings might be due to the application of self-report instruments and questionnaires, in which the respondent may try to declare what they think is authentic, not what happens to them in the real world. Furthermore, they believed individuals might be introverts or introverts under different conditions.

However, Zafar and Meenakshi [45] indicated that introverts outperformed extroverts in writing and reading skills. Shabani and Ghasemian [46] evaluated the effect of teachers' extroversion and introversion tendencies on pronunciation teaching techniques. First, they asked 60 teachers to answer Eysenck Personality Inventory (EPI) questionnaire to identify extroverted and introverted teachers. Then, they reported their most favored pronunciation teaching techniques using a checklist. The results showed that extrovert teachers significantly used more pronunciation teaching techniques.

Some studies rejected any connection between personality traits and language and learning. For example, Teimouri et al. [47] also examined the role of an important personality trait–grit in L2 learning. They reviewed the most recent studies in this area and argued that despite surveys have shown the links between students' personality traits and their learning and academic performance, the strength of these claims was often weak, "especially when compared to the strengths of relationships between other non-cognitive factors, such as study habits, study skills, test anxiety, adjustment, emotional intelligence, learning strategies and academic performance" [47, p. 2].

As seen earlier, there are discrepancies among the results of similar/relevant studies about the role of L1 translation in teaching and learning a foreign or second language. This discrepancy necessitates more research to shed light on the effect of L1 in teaching and learning a foreign or second language in different contexts with different learners. To achieve this purpose, the authors formulated the following research questions:

(RQ1) Does using first-language translation significantly affect Iranian EFL learners' vocabulary learning?

(RQ2) Is there any significant difference between extroverted and introverted EFL learners in vocabulary learning?

3. Methodology

3.1. Design.
This quantitative study attempted to establish a cause–effect relationship among two variables: an independent variable (using first-language translation) and a dependent variable (vocabulary learning) via a pretest–posttest approach. Therefore, the authors used a quasiexperimental research design with no control group due to the limited number of participants available for the study and lack of randomization [48, 49].

3.2. Participants.
The authors carried out this research in the 2019–2020 academic year. Eighty Iranian EFL learners studying English as a foreign language participated in this research. They were selected using convenience sampling from Mehrdad Language Institute in Bandar Abbas, Iran. They were all male learners and Persian native speakers. The learners' age varied from 16 to 26 years old, with a mean age of 21. Most EFL learners studied English in private language institutes for 1.5–2 years. First, the authors administered the Oxford Placement Test (OPT) Version 2, and 50 homogenous intermediate EFL learners with a score between 30 and 45 on the OPT were selected accordingly. Then, the intermediate learners were given a personality trait and attribution questionnaire and classified into two groups, introverts and extroverts.

3.3. Instruments

3.3.1. Oxford Placement Test (OPT).
The Oxford Placement Test (OPT) homogenized participants and selected intermediate EFL learners. OPT is a reliable, time-saving, and standardized test by Oxford University Press to determine the learner's proficiency level. This test consists of 60 questions.

3.3.2. Personality Traits Questionnaire (the Eysenck Personality Scale).
The authors used the Eysenck personality questionnaire (EPQ) to classify intermediate learners into introverts and extroverts. The German psychologists Eysenck and Eysenck [50] devised EPQ that assesses a person's personality traits. EPQ consisted of 46 yes/no questions and was scored based on Eysenck's personality inventory rating scale. The "lie score" is out of 9. It measures how socially desirable you are trying to be in your answers. Those who score 5 or more on this scale are probably trying to make themselves look good and are not honest in their responses. The "E score" is out of 24 and measures how much of an extrovert you are. The "N score" is out of 24 and measures how neurotic you are. Although the test is used worldwide, its validity was tested by three experts and found valid. Moreover, the reliability coefficient of .83 indicated that it has good reliability.

3.3.3. Vocabulary Pretest and Posttest.
The pretest and posttest included two parallel multiple-choice vocabulary tests. These tests were designed for intermediate-level students and were administered to the extrovert and introvert groups. Each

TABLE 1: Checking data normality.

Group	Tests	Kolmogorov–Smirnov			Shapiro–Wilk		
		Statistic	df	P-value	Statistic	df	P-value
Introvert	Pretest	0.510	25	0.902	0.220	25	0.170
	Posttest	0.159	25	0.933	0.129	25	0.165
Extrovert	Pretest	0.557	25	0.960	0.220	25	0.163
	Posttest	0.463	25	0.956	0.220	25	0.178

test consists of 49 multiple-choice items published by Cambridge University Press [51]. The researchers piloted the tests on 15 EFL learners different from the participants of this study. They examined the tests' reliability through KR-21 (Kuder Richardson-21), a reliability coefficient achievement formula, indicating the tests as highly reliable. In addition, III EFL experts examined the tests' items and recommended revisions, deletions, or additions to ensure the tests' validity.

3.3.4. Teaching Material. The present study selected 160 intermediate-level words from *English Vocabulary in Use*, written by Stuart Redman [52] and published by Cambridge University Press (1997), because this book was designed for intermediate-level learners. Furthermore, the instructors can recommend it as a practice book or self-study reference and be used as teaching material in classrooms.

3.3.5. Data Collection Procedure. First, the authors administered the OPT to the learners and asked them to answer in 30 min to select homogenous intermediate-level learners. Out of the 80 available participants, the authors chose 50 intermediate-level learners whose scores were between 30 and 45. Then, the EFL learners responded to the Eysenck personality scale in 20 min to classify them into the introvert and extrovert groups. Later, the learners responded to *English Vocabulary in Use Pre-intermediate and intermediate Level Test* 30 min before treatment to ensure they were homogenous in vocabulary knowledge. Then, one of the authors started the treatment, using Farsi as the first language in teaching *Cambridge English Vocabulary in Use* for one semester in both introvert and extrovert groups. Afterward, the instructor used similar teaching materials in both groups to train ten new words per session.

Finally, the authors administered a vocabulary posttest to explore the intermediate EFL learners' performance in vocabulary knowledge after the instruction. Like the pretest, the posttest was the *English Vocabulary in Use* preintermediate- and intermediate-level test presented by Cambridge University Press [51] and comprised 49 multiple-choice items. The participants responded to the test in 30 min.

3.4. Data Analysis. The authors used descriptive statistics, including the mean and the standard deviations, to assess the EFL learners' vocabulary knowledge before and after the treatment. In addition, the authors used inferential statistics, including a series of paired and independent samples t-tests, to ensure the results were statistically significant and answer the research questions.

TABLE 2: Independent sample *t*-test between pretests of introvert and extrovert groups.

Pretest	N	Mean	SD	df	t	Sig.
Introvert	25	16.01	2.56	48	.71	.06
Extrovert	25	15.65	2.85			

4. Results

4.1. Data Normality. It should first be determined if the collected data have a normal or nonnormal distribution. Researchers should use parametric tests to answer research questions in a normal distribution. In contrast, in a nonnormal distribution, they should apply nonparametric tests. The Shapiro–Wilk test and Kolmogorov–Smirnov test were used to investigate the data normality. The data are considered normal if the significance level exceeds the test's error value (0.05).

Based on Table 1, the p-value of the pretest and posttest scores of the extrovert and introvert groups were higher than the error value of 0.05 ($p > 0.05$). Therefore, it can be concluded that the pretest and posttest scores had a normal distribution, so parametric tests, paired and independent sample t-tests, should be used to answer the research questions. Furthermore, an independent sample t-test was conducted between the pretest mean scores of introvert and extrovert groups to ensure both groups were homogenous in vocabulary knowledge.

According to Table 2, although the introvert group ($m = 16.01$) slightly outperformed the extrovert group, the independent sample t-test showed that this difference was not statistically significant ($P > 0.05$). Therefore, it is concluded that both groups were homogenous in terms of vocabulary knowledge before treatment.

(RQ1) Does using first-language translation significantly affect Iranian intermediate EFL learners' vocabulary learning?

To answer the first research question, the authors analyzed the pretest and posttest mean scores of the extrovert and introvert groups by a paired samples t-test. In this test, if the observed value is smaller than the error value of 0.05 ($sig < 0.05$), it can be concluded that the difference between the pretest and posttest of the group is statistically significant.

TABLE 3: Paired samples t-test for extrovert group.

Test	N	Mean	SD	df	t	Sig.
Pretest	25	15.65	2.85	24	14.95	.000
Posttest	25	28.20	3.19			

TABLE 4: Paired samples t-test for introvert group.

Test	N	Mean	SD	df	t	Sig.
Pretest	25	16.01	2.56	24	2.88	.07
Posttest	25	19.11	3.05			

TABLE 5: Independent sample t-test between posttests of introvert and extrovert groups.

Pretest	N	Mean	SD	df	t	Sig.
Introvert	25	19.11	3.05	48	4.01	.008
Extrovert	25	28.20	3.19			

Based on Table 3, the participants achieved higher scores in vocabulary posttest after treatment. Paired sample t-test showed that the difference between the pretest and posttest was statistically significant ($P < 0.05$). The results revealed that using first-language translation developed Iranian intermediate extroverted EFL learners' vocabulary learning. Then, the pretest and posttest of the introvert group were scrutinized by another paired samples t-test.

Based on the obtained results from Table 4, although the posttest score ($m = 19.11$) was higher than the pretest score and it showed better vocabulary knowledge after treatment, this difference between the posttest and pretest mean scores was not statistically significant ($P > 0.05$). Therefore, it is concluded that first-language translation did not improve introverted learners' vocabulary knowledge.

(RQ2) Is there any significant difference between extroverted and introverted EFL learners in vocabulary learning?

To measure the difference between the extrovert and introvert groups, the authors conducted an independent samples t-test between the posttest mean scores of both groups.

As depicted in Table 5, the extrovert group ($m = 28.20$) outperformed the introvert group ($m = 19.11$) in learning vocabulary. Furthermore, the independent sample t-test showed that this finding was statistically significant ($P > .05$).

It is worth mentioning that throughout the study, repeated measure ANOVA was conducted to ensure the findings were due to the experiment (the effect of L1) but not the improvement of English proficiency throughout the instruction. The results ($P > .05$) showed that the progress of English proficiency did not interfere with the results, and the findings were related to the effect of the experiment, using L1 translation. Moreover, the power of the study was also checked

through SASA software, and type I and II errors were controlled. The effect size was also calculated through Cohen's d. The power and effect sizes confirmed and validated the findings.

5. Discussion

Results revealed that using first-language translation developed Iranian EFL learners' vocabulary learning. The outcome of Carreres's study is in line with the findings of this research. She asked 31 respondents about "the usefulness of translation as a language learning tool." All of them, without exception, believed that translation should be taught and practiced in learning foreign language vocabularies; therefore, she concluded that "L2 translation is unambiguously perceived by students as conducive to language learning" [12, p. 9].

The findings are also aligned with Liao [13], who explored that translation enhanced Taiwanese students' foreign language skills. Similarly, Baños [14] and Kavaliauskienė [53] found that the native language facilitated young learners' and beginners' learning and motivate them. Furthermore, Vaezi and Mirzaei [54] found that translation from the first to the second language improved Iranian EFL learners' language accuracy. Similarly, the findings of the present study are in line with Mahmoud [18]. He found that using Arabic as the first language in teaching English as a target language improved the students' General English achievement at King Abdul-Aziz University. However, he did not distinguish the students based on their personality traits. A potential reason for the positive role of using L1 in learning and teaching may be due to, or involvement of the learners in class activities and learning tasks. Using L1 motivates learners to remain active in classes, so when they cannot express themselves, they try to use their L1 and continue conversation. This process facilitates learning and lets teachers convey meaning even when it is difficult to express it in second language. Therefore, the learning and teaching process is not be affected due to learners' insufficient L2 knowledge and should continue smoothly.

Therefore, if the learners and teachers use L1 in learning and teaching, they should not be discouraged, and it should not be considered a negative action; vis-a-vis, it should be employed judiciously. Stoddart [55] believed that students frequently used L1 translation in their learning process regardless of how often we encouraged them not to use L1 translation. So then, Stoddart [55] concluded that we should stop discouraging L1 translation in learning and instead use its advantages in our teaching.

Previous research showed that resorting to the first language in teaching form-meaning connections was more effective than presenting the second language definitions and descriptions (e.g., [36, 56]). This issue is because L1 translations convey existing L1 knowledge, whereas understanding L2 definitions hinges on the learner's L2 knowledge and the quality of the definition. Translations also offer the fastest way to convey meaning, and the time saved can be used for other learning tasks. One potential issue with using L1 translations is that there may be little overlap between the

L2 and L1. Using different approaches to convey meaning may be more helpful in such cases. Hummel [57] indicated that active translation's significant role was a short-term lexical recall.

Moreover, considering the Persian language as L1 in the present study, it highlighted its potential impact on learning English as L2 since Persian and English belong to the same language family, Indo-European languages. This notion can justify the positive effect of using Ls in instructing L2, as found in the current study. Different studies focused on cross-linguistic relationships between L1 and L2 languages, which could impact the type and the extent of L1 on L2 learning [58, 59]. They pointed out that such languages have some shared and similar cognates in cross-linguistic form and meaning. However, Ringbom [59] emphasized that L1 can have some influences, at least a minor impact, on L2 learning even when L1 and L2 are considered to have zero relationships.

Moreover, the cutting point between L1 and L2 is similar to EFL and ESL in that no clear distinctive border exists. It is mostly a languaging continuum [60]. Shohamy [61] added that the lecturers merged L1 in their L2 to make inventive hybrid forms of negotiation or assist cognitive thinking [62], or provide useful pedagogical practices [60, 63]. All these researchers believed that using L1 could facilitate the learners' thinking and comprehension in L2 learning.

Furthermore, translanguaging is a poststructuralist theory that believes bilingual teachers can combine the knowledge of two languages with their associated cultural and social backgrounds and effectively engage the learners in L2 learning, so the potential L1 sources are considered a significant advantage [64]. Finally, translanguaging empowers a "systematic, strategic, affiliative, and sense-making process" [65, p. 128]. Therefore, it can be used for pedagogical reasons and educational purposes.

Unlike the present study, Mahmoudi and Amirkhiz [15] reported that pre-university students with different proficiency levels preferred English as the second language and the medium of instruction in their classes rather than using the first language. This may be due to their studies in English institutes where they are banned from using L1, and it is promoted by institutes' instructors that using L1 is a negative point. If the students use L1 in English institutes, they will lose a part of their score. This issue negatively affected their perception of using L1 in second and foreign language classes. Therefore, they reported that they do not prefer using L1. However, Calis and Dikilitas [17] asserted that "learners believe that translation is an aid to developing reading comprehension skills, vocabulary development, composition writing and speaking" (p. 5081).

In addition, the current study advocated for employing first-language translation for extroverted students, while it was ineffective for introverted students. To the best of the researchers' knowledge, it is a new finding that has not been investigated extensively and can fill the relevant gap in the literature. Extroverted learners are more active and try to involve themselves in group activities. Moreover, they energetically and eagerly participate in class activities using any means of learning. As they are talkative and try to express themselves quickly, they may resort to first-language translation to be able to continue their communication. Therefore, these might be the reasons for their better performance in vocabulary learning which needs active participation in learning tasks. The current study's results agree with several experimental studies mentioned earlier and teachers' experience and duly confirm the use of L1 in English classrooms and its role in promoting students' confidence in understanding the text thoroughly. However, teachers should not rely on the excessive use of translation as the current study showed it might not be effective for some groups of learners with specific personality traits or individual differences (e.g., introversion).

The current study found that L1 translation did not significantly improve introverted learners' vocabulary learning. This finding may be due to the passiveness of the introverted learners who do not speak in classes frequently. Moreover, as they mostly try to express themselves when they are sure about something, they limit their participation in class activities and conversations which confines their learning process. This part of the findings is in line with Isazadeh et al.'s [66] findings. They evaluated the effect of authentic and instructional video materials on extrovert and introvert learners' vocabulary learning. Although both video materials effectively improved learners' vocabulary learning, they did not differentiate between introvert and extrovert learners. Brown [67] believed that the effect of introversion/extroversion on L2 acquisition was controversial. And the current study confirmed this issue when it showed a relationship between extroversion and higher vocabulary learning, whereas introversion did not improve vocabulary learning.

6. Conclusion

6.1. Major Findings. The current study showed that extrovert EFL learners had a better performance in learning vocabulary using first-language translation than introvert learners. Therefore, it can be concluded that the EFL learners' personality traits can be considered an important factor in learning the English language in general and learning vocabulary in particular. Since the current study showed that L1 translation could not be effective for all learners (e.g., introverted learners), it should be considered a supplementary teaching strategy. Accordingly, Pavan [68] suggested that if the translation is to be practiced more judiciously as a "complement rather than as an alternative to other teaching methods," it will beneficial (p. 142). Educationalists stressed that L1, as the learners' first language, is a rich source of language knowledge they possess.

The results of the present study may sensitize EFL teachers to various learning strategies, including L1 translation and its role in language and vocabulary learning. Alshehri [19] highlighted that EFL teachers might use L1 to some extent for instructional purposes, such as explaining and teaching vocabulary, not for management purposes, as depicted by Timor [16] when he demonstrated that teachers could positively consider using L1 as a teaching technique

rather than a classroom management strategy in foreign language classes.

Data Availability

This does not apply to this submission. The data cannot be disclosed as it is the intellectual property of Payame Noor University and the language institute where data collection has been conducted. They are going to analyze data further for quality assurance and their institutional research purposes, so they are not ready to disclose it right now at this level. Thus we are allowed to report the overall results.

Additional Points

Limitations and Implications. Like any other study, this study also had limitations. First, the number of qualified samples was limited; therefore, having the minimum required participants for control and treatment groups was impossible. Next, the institute's policy did not allow the authors to use different teaching methods in different classes. All these issues forced the authors to use a quasiexperimental design instead of a true experimental study. Future studies may try to fill the gaps and cover these limitations. For example, future studies may use other data collection instruments such as observation, questionnaires, and interviews instead of vocabulary tests. Moreover, prospective researchers can investigate the effect of L1 translation on other language skills, including listening, reading, writing, and speaking instead of vocabulary. Finally, the current study investigated intermediate-level male learners, so other studies may evaluate different proficiency levels and include female learners.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

Authors' Contributions

Ali Khoshnood and Reza Kafipour contributed equally to the writing of this manuscript; they read and approved the final version of the submitted manuscript.

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