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Production and Comprehension Aspects of Pragmatic Competence in an Immersive Language Program

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Abstract

Since pragmatic ability appears to be a vital skill for social transactions, Bardovi-Harlig and Mahan-Taylor (2003) have argued for the inclusion of explicit instruction in pragmatics within general language instruction. However, their study adopts a speech-act framework that does not differentiate between pragmatic *production* and pragmatic *comprehension*. L1 learners develop a comprehension stage before producing appropriate utterances (Berk, 2012), and it may be that L2 learners do likewise. To advance pedagogy, this paper addresses four research questions within the context of a residential, immersive language program in an EFL setting: 1) Is there any relationship between language proficiency and the *production* aspect of pragmatic competence? 2) Is there any relationship between language proficiency and the *comprehension* aspect of pragmatic competence? 3) To what extent does an immersive language program lead to the development of the *production* aspect of pragmatic competence? and 4) To what extent does an immersive language program lead to the development of the *comprehension* aspect of pragmatic competence?

Japanese first-year college students (n=30) were assessed through three instruments at the start of a one-year language immersion program: TOEFL PBT; a 32-item pragmatic production test (Bardovi-Harlig, 2009); and a 58-item pragmatic comprehension test (Taguchi, 2007, 2008, 2012). The correlation between language proficiency and pragmatic production, as well as between language proficiency and pragmatic comprehension, was computed through Pearson correlation coefficient. Fifteen of the subjects thereupon participated in an intensive language program. At the end of the academic year, all 15 subjects took the pragmatic production and comprehension tests again (post-tests). The findings of the one-year longitudinal study on the efficacy of language instruction in an immersive language program, and its relation to both production and comprehension aspects of pragmatic competence, is demonstrated. Language proficiency had a positive correlation with gains in both pragmatic production and pragmatic comprehension. Also, language instruction, even without specifically addressing pragmatic instruction, had a significant effect on developing both pragmatic production and pragmatic comprehension.

Key words: Immersive language program; Language proficiency; Pragmatic competence; Pragmatic comprehension; Pragmatic production

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INTRODUCTION

Pragmatic competence is defined as "the knowledge of how an addressee determines what a speaker is saying and recognizes intended illocutionary force conveyed through subtle attitudes in the speaker's utterance" (Fraser, 1983, p.29). Knowledge of pragmatic features of the target language is as important as knowledge of grammatical features of the language to develop communicative competence in language learners. As a result, pragmatic features of the target language should be incorporated into foreign language classes (Rafieyan, 2016a; Rafieyan, 2016b; Rafieyan, 2016c). This claim

is further supported through Bachman's (1990) model of communicative competence which considers pragmatic competence and grammatical competence as two distinct aspects of communicative competence. Research has also revealed that a high level of grammatical competence does not lead to a high level of pragmatic competence, and even language learners at advanced levels of language proficiency cannot achieve a native-like communicative competence (Bardovi-Harlig & Dornyei, 1998; Bardovi-Harlig, 2001; Barron, 2003; Liu, 2006; Rose, 2005; Gharaghani et al., 2011).

It is argued that the best way to develop pragmatic competence is to experience language immersion in the target language country (Roever, 2012) where language learners get the opportunity to notice pragmalinguistic and sociopragmatic features of the target language in everyday life. However, experiencing language immersion in the target language country is not affordable for all language learners in a foreign language context (Lin, 2014). Therefore, an immersive language-learning environment in their home country can provide some virtual language immersion for foreign language learners to develop their pragmatic competence.

This has led researchers in the field of sociolinguistics to investigate the effect of language proficiency and language immersion on the development of pragmatic competence during the past two decades. The studies conducted so far have had contradictory findings, however. While some researchers found pragmatic competence is developed by language proficiency and language immersion (e.g., Matsumura, 2003; Bardovi-Harlig et al., 2008; Taguchi, 2013; Rafieyan, 2018), some other researchers found that pragmatic competence is not associated with language proficiency and language immersion (e.g., Takahashi, 2005). Some studies, however, had mixed findings (Taguchi, 2005; Taguchi, 2011).

Matsumura (2003) was one of the researchers who conducted a study to examine the effect of target language proficiency and exposure to target language on the development of language learners' pragmatic competence. Participants in the study consisted of a group of Japanese learners of English on an eight-month academic exchange program at a university in Canada. Pragmatic competence was measured through a multiple-choice questionnaire focusing on offering advice. English proficiency was also measured using language learners' TOEFL scores. Amount of exposure to English was obtained through a self-report questionnaire. The findings of the study revealed that level of language proficiency and amount of target language exposure have potential to account for the development of pragmatic competence.

Bardovi-Harlig et al. (2008) were the other researchers who have studied this question in depth. They investigated the influence of first language and level of instruction on the development and use of a specific aspect of pragmatic competence referred to as conventional expressions. Participants consisted of a group of language learners from distinct countries in four levels of classes, from low intermediate to low advanced, of an intensive English program at a university in the American Midwest. The study employed a speech production task via a computer-delivered aural discourse completion task. The findings showed that language learners of various native languages often share production strategies and language learners increase their use of conventional expressions at higher levels. The findings also indicate that exposure to target language in the target language environment can be a contributing factor to the development of pragmatic competence.

Taguchi (2013) also investigated the effect of language proficiency and target language immersion on appropriate and fluent production of conventional expressions. Participants in the study included three groups of Japanese learners of English at a university in Japan: a low language proficiency without study abroad experience group, a high language proficiency without study abroad experience group, and a high language proficiency with study abroad experience group. The ability to produce target language conventional expressions was assessed through a computerized oral discourse completion test. The findings suggested that while all learner groups failed to reach a native level, language immersion presented an advantage in the appropriate production of conventional expressions whereas language proficiency presented an advantage in speech rates.

Unlike Matsumura (2003), Bardovi-Harlig et al. (2008), and Taguchi (2013) who explored the effect of both language proficiency and language immersion on the development of pragmatic competence, Rafieyan (2018) only examined the relationship between knowledge of a specific aspect of pragmatic competence--referred to as formulaic sequences--and language proficiency. Participants of the study were a group of Japanese learners of English as a foreign language at three levels of the intensive English program of a university in Japan: low intermediate, intermediate, and high intermediate. Level of language proficiency was determined based on language learners' performance on TOEFL. Knowledge of formulaic sequences was also assessed through an oral-production discourse completion task developed by Bardovi-Harlig et al. (2015). The analysis of Spearman rank-order correlation coefficient showed a strong positive relationship between language learners' knowledge of formulaic sequences and their level of language proficiency.

In another study which brought different findings from the studies conducted by Matsumura (2003), Bardovi-Harlig et al. (2008), Taguchi (2013), and Rafieyan (2018), Takahashi (2005) investigated the effect of two individual difference variables including motivation and language proficiency on language learners' pragmalinguistic

awareness. Participants in the study consisted of a group of Japanese learners of English as a foreign language at a college in Japan. Data for the study were collected through a motivation questionnaire, a language proficiency test, and an awareness retrospection questionnaire. The study found that language learners' motivation but not their language proficiency had a significant effect on the development of their pragmalinguistic awareness.

The findings of other studies conducted by Taguchi also did not fully support the findings made by other researchers. In one of the studies, Taguchi (2005) explored the effect of target language proficiency on accuracy and comprehension speed of different types of implied meanings referred to as pragmatic comprehension. Participants were a group of Japanese learners of English at a university in Japan. Language proficiency was operationalized by the institutional TOEFL and the ability to comprehend implied meaning was assessed by a computerized multiple-choice pragmatic listening task. The results of the study identified a strong proficiency effect on the accuracy but not on the speed of comprehension of pragmatic functions.

In another experiment, Taguchi (2011) investigated the effect of target language proficiency and language immersion on pragmatic comprehension. Participants were three groups of Japanese learners of English at a college in Japan with different proficiency levels and study-abroad experiences. A computerized pragmatic listening test was used to examine language learners' ability to comprehend conventional and nonconventional expressions. The findings revealed that language immersion affected comprehension of conventional expressions but not nonconventional expressions. As for comprehension speed, it was proficiency, not language immersion, that was the decisive factor. The pattern was the same for both types of expressions.

The studies conducted so far have explored either the production or the comprehension aspect of pragmatic competence in relation to language proficiency and the effect of instruction. These studies have also explored the effect of language immersion in the target language country. There is, therefore, a growing need to investigate the effect of language proficiency and an immersive environment at language learners' home country on the development of both production and comprehension aspects of pragmatic competence. In this respect, the current study investigates the relationship between language proficiency with both production and comprehension of pragmatic competence as well as the effect of an immersive language program on the development of both production and comprehension of pragmatic competence. Therefore, the research questions to be addressed in the current study are:

Is there any relationship between language proficiency and the *production* aspect of pragmatic competence?

Is there any relationship between language proficiency and the *comprehension* aspect of pragmatic competence?

To what extent does an immersive language program lead to the development of the *production* aspect of pragmatic competence?

To what extent does an immersive language program lead to the development of the *comprehension* aspect of pragmatic competence?

Accordingly, the null hypotheses are:

There is no relationship between language proficiency and the production aspect of pragmatic competence.

There is no relationship between language proficiency and the comprehension aspect of pragmatic competence.

An immersive language program does not lead to the development of the production aspect of pragmatic competence.

An immersive language program does not lead to the development of the comprehension aspect of pragmatic competence.

1. METHODOLOGY

1.1 Participants

The participants in the study were 30 Japanese learners of English at the intensive English program of the International College of Liberal Arts (iCLA), Yamanashi Gakuin University. The intensive English program at iCLA focuses on the four language skills of listening, speaking, reading, and writing, along with courses focusing on content-based language learning and testing practice. Language learners also enjoy out-of-class language support from the Language Acquisition Center and through interaction with international peers with whom they mix in the dormitories, the cafeteria, and at social events, where English is the *lingua franca.* Participants were at different levels of language proficiency, with TOEFL scores ranging from 383 to 523. Fifteen of the participants were in the intensive English program at the time of data collection and took both the pragmatic competence pre-test and the post-test. The other 15 participants had already finished their intensive English program at the time of data collection and took the pragmatic competence test once only.

1.2 Research Instruments

To assess language learners' general language proficiency, TOEFL PBT was used. The test consists of three sections: listening comprehension, structure/written expression, and reading comprehension. The total paper-delivered test score is reported on a scale that ranges from 310 to 677.

To assess language learners' level of pragmatic production ability, a discourse completion task eliciting a variety of speech acts including expressions of gratitude, apologies, warnings, leave-takings, requests, condolences, declining offers, acceptance of a request, acceptance

of an invitation, invitation, declining an invitation, an agreement, deflecting thanks, and an introduction, developed by Bardovi-Harlig (2009) was adopted. The discourse completion task consisted of 32 scenarios comprising both initiating and responding scenarios. The initiating scenarios (n=13) required language learners to initiate an interaction and the responding scenarios (n=19) required language learners to respond to an interlocutor's turn.

To assess language learners' level of pragmatic comprehension, a pragmatic listening test consisting of 58 items including 40 experimental items and 18 distractors was used. The pragmatic comprehension test was adopted from previous studies by Taguchi (2007; 2008; 2012). For each item there was a dialogue between a male and a female native English speaker. The last sentence in each dialogue contained an implied opinion which intended to test language learners' ability to comprehend the speaker's implied intention. Each dialogue was followed by a multiple-choice question with four options, one appropriate option and three distractors. Participants had to listen to each dialogue and select the option which referred to the speaker's intention.

1.3 Research Procedure

At the beginning of the academic year, the language proficiency test along with pre-tests assessing production and comprehension aspects of pragmatic competence were administered to all participants in the study (30 participants). Then the participants attending the intensive English program (15 participants) participated in language classes focusing on four main language skills along with content-based language learning and testing practice. Toward the end of the academic year, the 15 participants attending the intensive English program took post-tests assessing production and comprehension aspects of pragmatic competence.

1.4 Data Analysis

To assess language learners' pragmatic production level, the appropriateness of the responses to the discourse completion task was assessed by a native-speaking American professor of English and an associate professor of English expert in the field of pragmatics, using a five-point rating scale ranging from one (very poor) to five (excellent). The ratings along with the description for each band on the scale have been provided in Table 1. As there were 32 scenarios, each participant could get a score ranging from 32 to 160. In this respect, language learners who obtained a score between 1 and 32 were placed at the level of 'very poor', language learners who obtained a score between 33 and 64 were placed at the level of 'poor', language learners who obtained a score between 65 and 96 were placed at the level of 'fair', language learners who obtained a score between 97 and 128 were placed at the level of 'good', and language learners who obtained a score between 129 and 160 were placed at the level of 'excellent'.

Table 1
Appropriateness Rating Scale

Rating	Band	Descriptions
5	Excellent	Almost perfectly appropriate and effective in the level of directness, politeness and formality.
4	Good	Not perfect but adequately appropriate in the level of directness, politeness and formality. Expressions are a little off from target-like, but pretty good.
3	Fair	Somewhat appropriate in the level of directness, politeness and formality. Expressions are more direct or indirect than the situation requires.
2	Poor	Clearly inappropriate. Expressions sound almost rude or too demanding.
1	Very Poor	Not sure if the target speech act is performed.

Adopted from Taguchi (2012)

The degree of agreement between the ratings assigned by the two raters was then assessed through intraclass correlation coefficient, which is a measure of agreement or consensus, where the measurements used are assumed to be parametric (continuous and with a normal distribution). Intraclass correlation coefficient represents agreements between two or more raters or evaluation methods on the same set of subjects. The analysis of intraclass correlation coefficient would give a value between 0 and 1. The interpretation of the values obtained through intraclass correlation coefficient, according to Landis and Koch (1977), are presented in Table 2.

Table 2
Interpretation of Intraclass Correlation Coefficient Values

Values	Interpretation
0.0 to 0.2	Poor Agreement
0.3 to 0.4	Fair Agreement
0.5 to 0.6	Moderate Agreement
0.7 to 0.8	Strong Agreement
0.9 to 1.0	Almost Perfect Agreement

Table 3 presents the results of the intraclass correlation coefficient analysis. The inter-rater reliability assessed for the responses to the pragmatic production test was 0.90 which, according to the guidelines set by Landis and Koch (1977), indicates an almost perfect agreement between

the two raters. To obtain a specific score for language learners' pragmatic production level, the ratings by the two raters assigned to the pragmatic production of each language learner were averaged.

Table 3
Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	0.83[a]	0.67	0.91	10.43	29	29	0.00
Average Measures	0.90[c]	0.80	0.95	10.43	29	29	0.00

Two-way mixed effects model where people effects are random and measures effects are fixed.
a. The estimator is the same, whether the interaction effect is present or not.
b. Type A intraclass correlation coefficients using an absolute agreement definition.
c. This estimate is computed assuming the interaction effect is absent, because it is not estimable otherwise.

To assess language learners' pragmatic comprehension level, the distractor items were excluded from analysis. Then, 1 score was allocated to each appropriate answer whereas no score was allocated to inappropriate answers. As there were 40 experimental items on the test, each participant could get a score ranging from 0 to 40.

To assess the relationship between language proficiency and the production aspect of pragmatic competence, as well as the relationship between language proficiency and the comprehension aspect of pragmatic competence, Pearson product-moment correlation coefficient (r), which is used to describe the strength and direction of the linear relationship between two continuous variables (Gravetter & Wallnau, 2013), was computed. In this respect, the results of pragmatic competence pre-tests were used for correlation analysis. Pearson correlation coefficient can only take on values from -1 to +1. The sign at the front indicates whether there is a positive correlation (as one variable increases, so too does the other) or a negative correlation (as one variable increases, the other decreases). The size of the absolute value (ignoring the sign) provides an indication of the strength of the relationship. A perfect correlation of +1 or -1 indicates that the value of one variable can be determined exactly by knowing the value on the other variable. On the other hand, a correlation of 0 indicates no relationship between the two variables. Knowing the value on one of the variables provides no assistance in predicting the value on the second variable (Pallant, 2013). Cohen (1988) suggests a set of guidelines to interpret the values between 0.00 and 1.00. The guidelines, which have been presented in Table 4, apply whether or not there is a negative sign at the front of the r value.

Table 4
Strength of Relationship

r Value	Interpretation
0.10 – 0.29	Small Correlation
0.30 – 0.49	Medium Correlation
0.50 – 1.00	Large Correlation

The squared correlation (r^2), called the coefficient of determination, was then used to measure the proportion of variability in production and comprehension aspects of pragmatic competence that can be determined from its relationship with level of language proficiency. Squared correlation would give a value ranging from 0.00 to 1.00. Cohen (1988) has also suggested a set of guidelines to interpret the values of squared correlation. The criteria for interpreting the value of squared correlation (r^2), as proposed by Cohen (1988), are presented in Table 5.

Table 5
Percentage of Variance Explained, r^2

r^2 Value	Interpretation
0.01	Small Correlation
0.09	Medium Correlation
0.25	Large Correlation

To assess the effect of immersive English program on production aspect of pragmatic competence as well as the effect of immersive English program on comprehension aspect of pragmatic competence, the performance of language learners on pragmatic production and comprehension tests used as pre-test and their performance on pragmatic production and comprehension tests used as post-test was compared using paired-samples t-test, in which the dependent variable is measured two or more times for each individual in a single sample (Gravetter & Wallnau, 2013).

To provide an indication of the magnitude of the differences between the performance of language learners on the pragmatic production and comprehension tests used as pre-test and the pragmatic production and comprehension tests used as post-test, eta squared which is the most commonly used effect size statistics (Pallant, 2013) was computed. The guidelines for interpreting the eta squared value, as proposed by Cohen (1988), are presented in Table 6. Finally, the graphical presentation of the performance of language learners on pragmatic pre-tests and post-tests is provided.

Table 6
Interpretation of Eta Squared Values

Value	Effect Size
0.01	Small Effect
0.06	Moderate Effect
0.14	Large Effect

2. FINDINGS

2.1 Relationship Between Language Proficiency and Pragmatic Production

Table 7 presents the descriptive presentation of level of pragmatic production ability for language learners participating in the study. Descriptive data presented in the table consists of the number and percentage of participants at each level of pragmatic production. According to the descriptive data, all participants presented their pragmatic production level between poor and good levels. As the data shows, 26.7 percent of participants presented their pragmatic production ability at the poor level, 40.0 percent of participants presented their pragmatic production ability at the fair level, and 33.3 percent of participants presented their pragmatic production ability at the good level. None of the participants presented their pragmatic production ability at the very poor or at the excellent levels.

Table 7
Descriptive Presentation of Language Learners' Pragmatic Production

Pragmatic Production	Number of Participants	Percentage of Participants
Excellent	0	00.0%
Good	10	33.3%
Fair	12	40.0%
Poor	8	26.7%
Very poor	0	00.0%

Table 8 presents the results of Pearson product-moment correlation coefficient (r) analysis between language learners' level of language proficiency and their level of pragmatic production. The first thing to consider is the direction of the relationship between the variables (language proficiency and pragmatic production). The data shows that there is a positive relationship between the two variables, that is, the higher the language proficiency, the higher the pragmatic production. The second thing to consider is the size of the value of the correlation coefficient to indicate the strength of the relationship between the two variables (language proficiency and pragmatic production). The value of correlation coefficient obtained in the analysis of Pearson product-moment correlation coefficient (r) is 0.62, which suggests a strong relationship between level of language proficiency and level of pragmatic production.

Table 8
Correlation between Language Proficiency and Pragmatic Production

		Language proficiency	Pragmatic production
Language Proficiency	Pearson Correlation	1	0.62**
	Sig. (2-tailed)		0.00
	N	30	30
Pragmatic Production	Pearson Correlation	0.62**	1
	Sig. (2-tailed)	0.00	
	N	30	30

**. Correlation is significant at the 0.01 level (2-tailed).

To get an idea of how much variance the two variables (language proficiency and pragmatic production) share, the coefficient of determination was calculated. This can be obtained by squaring the correlation value. The coefficient of determination for the obtained correlation analysis is $r^2 = (0.62)^2 = 0.38$ which, according to the guidelines proposed by Cohen (1988), indicates a large correlation coefficient. To convert the value of coefficient of determination to 'percentage of variance', it is multiplied by 100, that is, $r^2 = (0.62)^2 \times 100 = 38$. This suggests that language proficiency helps to explain 38 percent of the variance in language learners' pragmatic production ability.

2.2 Relationship Between Language Proficiency and Pragmatic Comprehension

Table 9
Correlation Between Language Proficiency and Pragmatic Comprehension

		Language proficiency	Pragmatic comprehension
Language Proficiency	Pearson Correlation	1	0.39*
	Sig. (2-tailed)		0.03
	N	30	30
Pragmatic Comprehension	Pearson Correlation	0.39*	1
	Sig. (2-tailed)	0.03	
	N	30	30

*. Correlation is significant at the 0.05 level (2-tailed).

Table 9 presents the results of Pearson product-moment correlation coefficient (r) analysis between language learners' level of language proficiency and their level of pragmatic comprehension. The first thing to consider is the direction of the relationship between the variables (language proficiency and pragmatic comprehension). The data shows that there is a positive relationship between the two variables, that is, the higher the language proficiency, the higher the pragmatic comprehension. The second thing to consider is the size of the value of the correlation coefficient to indicate the strength of the relationship between the two variables (language proficiency and pragmatic comprehension). The value of correlation coefficient obtained in the analysis of Pearson product-moment correlation coefficient (r) is 0.39, which suggests a medium relationship between level of language proficiency and level of pragmatic comprehension.

To get an idea of how much variance the two variables (language proficiency and pragmatic comprehension) share, the coefficient of determination was calculated. This can be obtained by squaring the correlation value. The coefficient of determination for the obtained correlation analysis is $r^2 = (0.39)^2 = 0.15$ which, according to the guidelines proposed by Cohen (1988), suggests a medium correlation coefficient. To convert the value of coefficient of determination to 'percentage of variance', it is multiplied by 100, that is, $r^2 = (0.39)^2 \times 100 = 15$. This suggests that language proficiency helps to explain 15 percent of the variance in language learners' pragmatic comprehension ability.

2.3 Effect of Immersive Language Program on the Development of Pragmatic Production

Table 10 presents the results of paired-samples t-test for language learners' level of pragmatic production before and after language immersion. To check whether the immersive language program had a significant effect on language learner's pragmatic production level, the final column labeled *Sig. (2-tailed)* should be considered. This is the probability (p) value. If this value is equal to or less than 0.05 ($p \leq 0.05$), there is a significant difference between the two scores. However, if the value is larger than 0.05 ($p > 0.05$), there is a nonsignificant difference between the two scores (Pallant, 2013). In this study, the probability value is 0.00, which is substantially smaller than the specified alpha value of 0.05. Therefore, there is a significant difference in language learners' pragmatic production level before and after the treatment.

Table 10
Paired Samples Test

	Paired differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence interval of the difference				
				Lower	Upper			
Pre-test - Post-test	-14.80	12.97	3.35	-21.98	-7.61	-4.41	14	0.00

Although the results show a significant effect for the immersive language program on language learners' pragmatic production level, it does not tell much about the magnitude of the immersive language program's effect. To do this, eta squared, which is the most commonly used effect size statistics (Pallant, 2013), was calculated. Eta squared can be obtained using the following formula:

$$Eta\ squared = \frac{t^2}{t^2+(N-1)}$$

Putting the data into the formula will give us:

$$Eta\ squared = \frac{(-4.41)^2}{(-4.41)^2+(15-1)} = 0.58$$

The effect size is 0.58 which, according to the guidelines proposed by Cohen (1988), represents an extremely large effect. Expressed as a percentage ($0.58 \times 100 = 58$), 58 percent of the variance in language learners' level of pragmatic production is explained by the immersive language program. A graphical presentation of the performance of language learners on the pragmatic production pre-test and post-test is depicted in Figure 1.

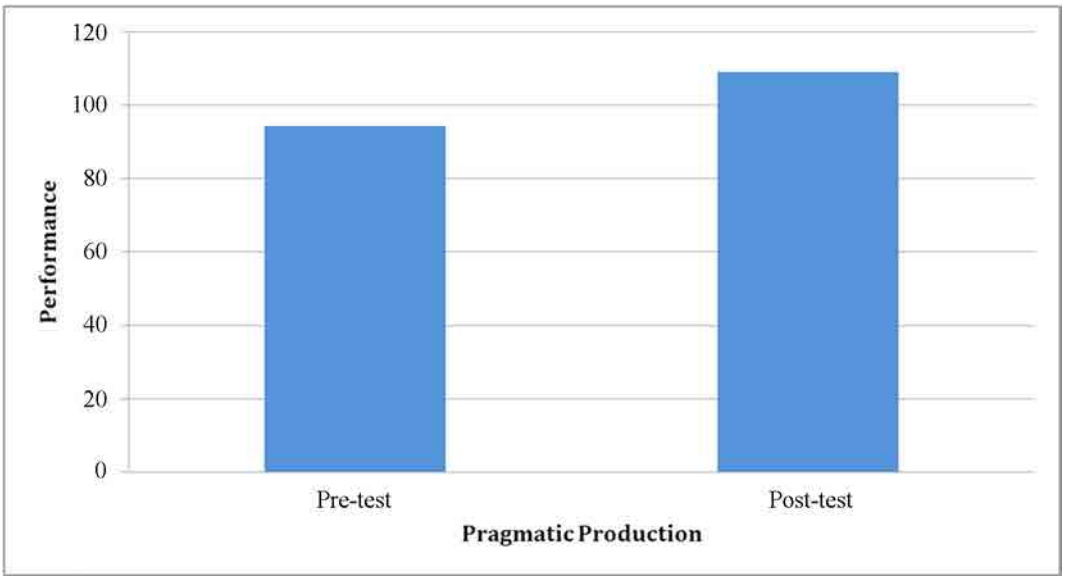

Figure 1
Performance of Language Learners on Pragmatic Production Before and After Intervention

2.4 Effect of Immersive Language Program on the Development of Pragmatic Comprehension

Table 11 presents the results of paired-samples t-test for language learners' level of pragmatic comprehension before and after language immersion. To check whether the immersive language program had a significant effect on language learner's pragmatic comprehension level, the final column labeled *Sig. (2-tailed)* should be considered. This is the probability (p) value. If this value is equal to or less than 0.05 ($p \leq 0.05$), there is a significant difference between the two scores. However, if the value is larger than 0.05 ($p > 0.05$), there is a nonsignificant difference between the two scores (Pallant, 2013). In this study, the probability value is 0.00, which is substantially smaller than the specified alpha value of 0.05. Therefore, there is a significant difference in language learners' pragmatic comprehension level before and after the treatment.

Table 11
Paired Samples Test

	Paired differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pre-test - Post-test	-2.86	1.80	0.46	-3.86	-1.86	-6.14	14	0.00

Although the results show a significant effect for the immersive language program on language learners' pragmatic comprehension level, it does not indicate the magnitude of the immersive language program's effect. To do this, eta squared (for details, see above), was calculated.

Putting the data into the formula will give us:

$$Eta\ squared = \frac{(-6.14)^2}{(-6.14)^2+(15-1)} = 0.73$$

The effect size is 0.73 which, according to Cohen (1988), represents an extremely large effect. Expressed as a percentage ($0.73 \times 100 = 73$), 73 percent of the variance in language learners' level of pragmatic comprehension is explained by the immersive language program. A graphical presentation of the performance of language learners on the pragmatic comprehension pre-test and post-test is depicted in Figure 2.

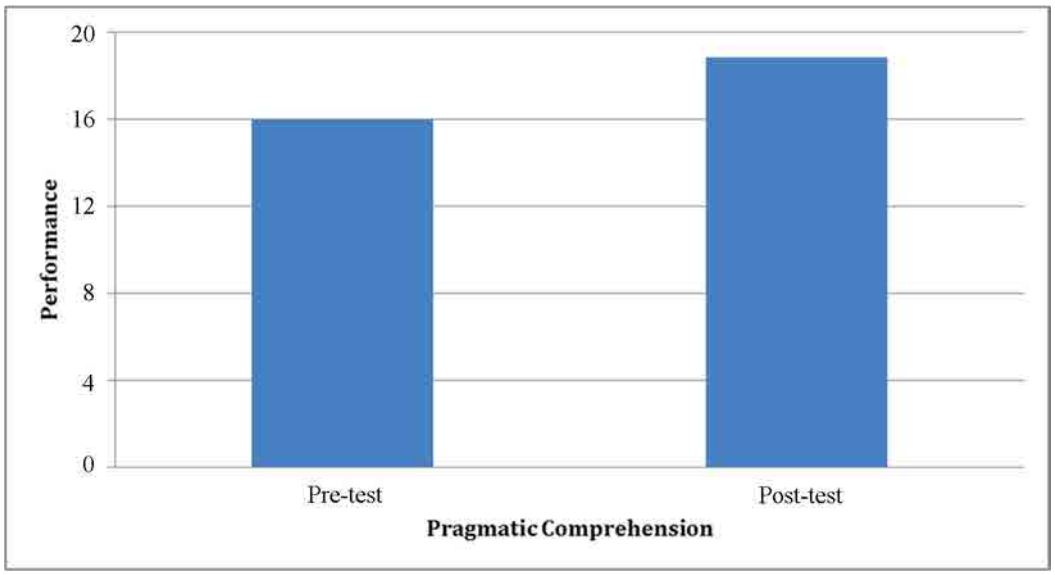

Figure 2
Performance of Language Learners on Pragmatic Comprehension Before and After Intervention

3. DISCUSSION

The study found a strong relationship between language proficiency and the production aspect of pragmatic competence. It also found a medium correlation between language proficiency and the comprehension aspect of pragmatic competence. Language learners who were at a higher level of language proficiency demonstrated a higher level of pragmatic competence than language learners at lower levels of language proficiency. The association between language proficiency and pragmatic competence was more evident for the production aspect of pragmatic competence than the comprehension aspect of pragmatic competence. Therefore, the first and second null hypotheses of the study which state that there is no relationship between language proficiency and the production aspect of pragmatic competence, and that there is no relationship between language proficiency and the comprehension aspect of pragmatic competence, are rejected.

The interconnection of language proficiency with both the production and comprehension aspects of pragmatic competence is contrary to Bachman's (1990) model of communicative competence, which considers pragmatic competence and grammatical competence as two distinct aspects of communicative competence. In fact, pragmatic features of any language are woven into that language. Thus, by merely teaching grammar, vocabulary, listening, speaking, reading, and writing, a large part of it can be attained. An example of obtaining pragmatic knowledge through grammar is teaching how to make a request at different levels of politeness. The content featuring cultural aspects of the target language in reading texts for reading and writing courses, or natural audio and video recorded conversations used as material for listening and speaking courses, are other examples of automatically conveying/acquiring target language pragmatic features when developing language proficiency.

The stronger correlation between language proficiency and the production aspect of pragmatic competence than between language proficiency and the comprehension aspect of pragmatic competence can be attributed to language learners' more intensive focus on productive skills. Language learners' initial aim is usually to use language at native-like fluency level. Therefore, they focus on learning proper target language expressions to sound fluent. Although receptive skills improve automatically as a byproduct of improving productive skills, they are not the primary goal and often lag behind productive skills.

The study also found that instruction in an immersive language program has a significant impact on the development of both the production and the comprehension aspects of pragmatic competence. Language learners who benefited from instruction in the immersive language program managed to develop their knowledge of pragmatic competence, in terms of both production and comprehension, within one academic year. The development of pragmatic competence was more evident for the comprehension aspect than the production aspect. Therefore, the third and fourth null hypotheses of the study, which state that an immersive language program does not lead to the development of the production aspect of pragmatic competence, and that an immersive language program does not lead to the development of the comprehension aspect of pragmatic competence, are both rejected.

These findings can be explained through the fact that, despite living in a foreign language context, language learners participating in the study had extensive opportunity to be exposed to target language pragmatic features by the language immersive environment created

at their institute. Participants of the study were taught by native speakers five days a week from morning to evening, they lived with international students, many from English-speaking countries, in shared units at their dormitories, and they had access to different types of media resources and also to language advisors at the Language Acquisition Center. This immersive language environment could definitely increase their intake of target language pragmatic features, leading them to higher knowledge of pragmatic competence both in terms of production and comprehension ability.

The findings of the study support the findings obtained by Matsumura (2003), Bardovi-Harlig et al. (2008), Taguchi (2013), and Rafieyan (2018), who found a higher contact with target language speakers and a higher language proficiency is associated with a higher pragmatic competence. The findings obtained in the current study, however, are not in line with the findings obtained by Takahashi (2005) who found language learners' motivation, but not their language proficiency, had a significant effect on the development of their pragmalinguistic awareness. The findings obtained in the current study, furthermore, are not consistent with some earlier studies (e.g., Bardovi-Harlig & Dornyei, 1998; Bardovi-Harlig, 2001; Barron, 2003; Liu, 2006; Rose, 2005; Gharaghani et al., 2011) which concluded that a high level of grammatical competence does not lead to a high level of pragmatic competence, and that even language learners at the advanced levels of language proficiency cannot achieve a native-like communicative competence.

CONCLUSION

The study investigated the relationship between language proficiency with both the production and the comprehension aspects of pragmatic competence, as well as the effect of a residential, immersive language program on the development of both the production and the comprehension aspects of pragmatic competence. The findings suggest a significant correlation between improvement in language proficiency and improvement in pragmatic ability. The study also found the immersive language program very effective in developing pragmatic ability. Not only did higher-proficiency language learners demonstrate a higher level of pragmatic ability, but also attendance at an immersive language program led to improvement in pragmatic ability. The instruction in the immersive language program did not target pragmatic use in particular, and textbooks for the courses were chosen by the administration rather than the researchers. However, language learners had the opportunity of being immersed in an English-speaking environment through living with native and non-native English-speaking peers, and being taught by native-speaker English teachers. It is likely that the same results will hold in similar instructional settings. This research indicates that as language proficiency rises, pragmatic ability is likely to rise as well, even without any special attention to the teaching of pragmatics.

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