ABSTRACT

Researchers have asserted that the sense of uncertainty of the other person's nonverbal cues during a conversation, could become an inhibitor for good communication and accordingly create anxiety. Since not much has been done to empirically prove such assumptions, this study explores the effect of Nonverbal Communication training on Iranian EFL learners' perception of communication apprehension and communicative competence. In order to conduct this quasi-experimental study, intermediate level Iranian EFL learners from two intact classes studying in a language institute were selected through convenience sampling. These study participants were assigned to the Control Group (n=27) and the Experimental Group (n=32), respectively. Both groups were trained in speaking skills within a span of ten sessions in accordance with the regular method used in the study venue. The only difference was that the Experimental Group was trained in non-verbal communication incorporated into their regular speaking classes as an intervention program. The SPCC and PRCA-24 self-report questionnaires were used to collect learners’ perception of communicative competence and communication apprehension prior and subsequent to the intervention program. These pretest and posttest measures were then analyzed to test the null hypotheses of this study using two sets of the Analysis of Covariance. The results showed an empirically significant increase in the self-perceived communication competence and a simultaneous decrease in the personal report of communication apprehension scores of the Iranian EFL learners in the experimental group who participated in the intervention program. On the other hand, the control group students, who were not provided with the non-verbal communication training, perceived no significant changes in neither their communication competence nor their communication apprehension. This empirical evidence suggests that familiarity with non-verbal cues of the target language could positively affect learners’ perception of their speaking ability and lower speaking anxiety. Thus, this study not only provides evidence as to the effectiveness of incorporating non-verbal communication training in speaking classes in decreasing apprehension and increasing communicative competence but it also provides a sample within which this training can be integrated into a regular language learning class. The findings contribute to EFL research on the importance of nonverbal communication in the teaching and learning of the speaking skill and provide input for further analysis in this context.

Keywords: Nonverbal communication, Perceived communication apprehension, Communicative competence
Introduction

One of the first linguists who criticized Chomsky’s theory of linguistic competence was Dell Hymes [1]. In its simplest form, linguistic competence is defined as the native speakers’ ability to formulate “well-formed sentences” [2]. Hymes argued that Chomsky’s perception of competence was insufficient to explain an individual’s “language behavior as a whole” [3]. He then introduced the theory of communicative competence which Saville-Troike [4] explains as involving not only the knowledge of a language, but also what message to communicate, to whom, and how to communicate it appropriately in any particular context. It is important to note that Hymes’s primary focus was not language learning, but “language as social behavior” [5].

Nowadays, the stress is put on those foreign language teaching methods which enable learners to become successful communicators [6] as those who can communicate well would be able to obtain adequate and good quality employment with successful management of work or business meetings with the concept of cultural awareness [7]. In spite of its importance, oral communication skills are one of the most neglected skills in classrooms where English is taught as a second language [8] and foreign language [9; Sato, 2003; Pascual et al., 2005; Kreeke, 2010]. Even the Communicative Language Teaching (CLT) based teaching materials introduced in the 1980s for the sole purpose of improving the communicative abilities were not effective in rectifying the problems EFL students faced in or when attempting to produce spoken English [10].

One of the implementation problems of CLT is that the approach is not always appropriate with the socio cultural context in which it is used. Culture is often considered as a barrier in creating a communicative form of English learning in EFL contexts. International SL/FL research has pointed to the assumption that when students begin to learn a foreign language, they undergo a substantial degree of conflict between their culture-specific aspects of cognition and the native language system (systemic knowledge) they are learning [11]. Widdowson [11] also points out that if/when the EFL context consist of a cultural background that contradicts the learner’s own language and culture, this would impede the comprehension and interpretation of the target language. Cultural misfits between the learner’s language and the target language has been seen as one of the reasons why EFL learners face difficulties in expressing themselves in a culture with which they are barely familiar [12]. It is believed that the closer the relationship between the learners’ mother culture and the target culture of the speech community whose language they want to study, the more successful the foreign language teaching/learning process [6]. When discussing differences across cultures, due attention should be paid to non-verbal communication. This is because an essential part of communication is non-verbal and communicative competence cannot consist solely of the correct use of verbal language. Nonverbal communication is not uniform in interpretation but rather culturally biased and thus could be misinterpreted [Andersen, 2007; Jain and Choudary, 2011]. In other words, misunderstandings in communications take place when a particular nonverbal communication has a particular meaning in one society and a completely different meaning in another society [13]. Nonverbal communication (NVC) is the process of communicating through sending and receiving wordless messages [(Andersen, 2007), 14, 15]. According to Cherry [16], facial expressions, gestures, para-linguistics, body language and posture, proxemics, eyegaze, happtics and appearance are several types of NVC. These could be grouped under six parts 1. Kinesics 2. Haptics 3. Vocalics 4. Chronemics 5. Proxemics 6. Oculesics. The first part is often called body language and includes facial expression, posture, and gestures. Facial expressions are responsible for a huge proportion of nonverbal communication. Much information can be conveyed with a smile or a frown. Posture can indicate self-confidence, aggressiveness, fear, guilt, or anxiety while gestures are deliberate movements and signals which are important ways to communicate meaning without words. Common gestures include waving, pointing, and using fingers to indicate numeric amounts such as waving, pointing, and using fingers to indicate numeric amounts. The second part involves the use of touch to impart meaning as in a handshake, a pat on the back, an arm around the shoulder, a kiss, or a hug. The vocal part is also the para-linguistics part that can use the tone of voice, volume, speed, pitch, silence to impart the meaning of words. Chronemics is the use of time, space, and image. The use of time can communicate how we view our own status and power in relation to others while proxemics is the use of physical space to mark one’s territory in many ways and shows power and intimacy. Oculesics is the use of eye contact such as looking, staring and blinking (timings of maintaining or averting eye contact). Violations in non-verbal behavior normally entail many intercultural misunderstandings and even communication breakdowns due to the behavior of a person from one culture being ‘inappropriately’ perceived, interpreted, and reacted to by someone from another culture [17]. Communication breakdowns in contexts wherein non-verbal behavior is unknown can make a speaker shy and accordingly feel anxious [18]. Also, Gudykunst [19] states that the fear and the anxiety arise as a result of being uncertain of the other person’s impressions and emotions during a
conversation. This sense of uncertainty is said to become an inhibitor for good communication [20]. Related studies have revealed that “an individual’s level of fear or anxiety associated with either real or anticipated communication with another person or persons” is called communication apprehension [21]. Researchers such as Dörnyei [22] states that: “it is not uncommon to find people who tend to avoid entering L2 communication situations even if they possess a high level of communicative competence”. Research also maintains that only when a person is able to overcome or deal with his/her anxiety or uncertainty can good inter-cultural communication occur (19: cited in Kwok et al., 2001, p. 3). Thus, these studies have indirectly showed that another obstacle to successful communication to attain communicative competence, besides communication apprehension, to be the lack of knowledge of the target language’s non-verbal communication, though not much empirical statistics to support this is evident.

Thus, non-verbal communication can be considered as an important component of human communication, and, as a result, they become inseparable from the teaching of languages. However, it has not yet received the attention it deserves in language teaching [23]. It is believed that a proper understanding of nonverbal communication can improve the effectiveness of communication [24, 14]. Also, the review shows that not much has been studied on its effect on communication apprehension (CA) though ample empirical evidence is seen on CA’s relationship with communication competence.

Methods

Participants

This study was intended to address the population of Iranian Intermediate EFL language learners. The sample was chosen from a language institute located in Tehran. The final participants consisted of fifty-nine learners from two intact classes of this venue. They had EFL classes three times a week. The duration of each class was 90 minutes. The researcher, as the teacher, assigned the participants into two groups; the Experimental Group 1 (n=32) and the Control Group 2 (n=27).

Instrumentation

In order to obtain the objectives of the study and to collect the required data, the following instruments were used: (a) the EFL text book of the institute chosen for this study, (b) PRCA - personal report of communication apprehension questionnaire and (c) SPCC-Self-perceived communication competence questionnaire.

Intervention

It should be mentioned here that the researcher/teacher used the teacher’s manual of the prescribed book to aid in teaching speaking skills to both groups. The only difference was that non-verbal communication training was incorporated into the experimental group classes as a form of intervention. The nonverbal training consisted of two parts as per Hargie’s [25] classification: the vocal (paralanguage) and the non-vocal elements of non-verbal communication

- To train students on the vocal element of nonverbal communication, they were asked to focus on tone, word stress and intonation while listening to the target conversations.

- To train students on the non-vocal elements of nonverbal communication, body language such as gestures, facial expressions, and eye contact were demonstrated by the teacher while corresponding pictures were shown to interrelate the feelings connected to them.

- After receiving this nonverbal communication training, students were asked to role play to demonstrate what they had learned in the alternate session. This mode of teaching is explained in detail next.

Session 1: Learning Objectives- To train students (sts.) on facial expressions, word stress, rising and falling intonations

At first the teacher informed the students (sts.) that they would be working on emotions and how they are seen or shown in a person’s face. Then, he distributes a picture of the basic human emotions (Animation facial Expression (www.google.com). He groups them in pairs and asks them to try showing these expressions to each other.

Then, the teacher asks the students to turn page 2 and look at the picture on the right. He introduces the topic of the conversation which involves two strangers skating in the park and crashing into each other. He tells them to note the facial expression of the two people in the picture. He also reminds them that they had just crashed into each other. They work in pairs to discuss the different facial expressions and the underlying emotions and match their facial expressions to the ones in the handout.

The teacher asks the class to describe the characters' emotions through their facial expressions. This was discussed. Most agree that the man looks surprised but the woman is surprised and shocked (he asks if the man is maybe even concerned). They say they are not sure.

The teacher says he is going to play the audio of the conversation and asks them to just listen. He pauses the audio after the man (Ted) speaks and writes the words Oh, really and Ok on the whiteboard and asks...
them to listen to the sentences again paying attention to these words. Then, he tells them that these words are stressed for a reason. He asks them to refer to the initial non-verbal cues presented to them in the handout. The word Oh, he explains, expresses a variety of emotions of shock, surprise, pleasure, pain and disappointment. Here, he tells them that the man’s facial expression (non-verbal) and his verbal response of Oh could both show shock and surprise or even concern. He also asks them to refer to the handout to check the shape of the eyebrows when expressing these emotions.

He then explains that the next word really, as mentioned before, can express surprise, interest, doubt and sincere feelings. He tells them that the situation of the conversation (Two strangers were skating in the park and crashed into each other) could imply that the stress on this word in the sentence here could be because the man was sincerely sorry. Also, the word Ok shows the same sense of sincerity as he was concerned that the woman might have been hurt when they crashed into each other.

The teacher tells the sts to repeat the sentence but this time with the emphasis/stress on the word sorry. Then he tells them there is a difference in the tone of voice when the stress is on sorry. It seems more apologetic. He plays the audio of the man’s lines again and asks the students to note the rising and falling intonation of the two sentences she says. He writes the sentences on the board and marks each one with arrows showing the first, I’m really sorry, had a falling intonation but the second, Are you OK?, had a rising intonation. He explains that the first line matches the man’s feelings of probable shock, surprise and/or worry while the second, being a question, has the rising intonation.

The teacher then asks the sts to listen to the second speaker’s (Ana) lines. He stops at I’m fine and asks if the tone of these words show some kind of emotion. They say it sounds softer than the others and he explains that the softer tone might probably be used to reassure the man she is OK because he looks or sounds concerned. He plays the second part- …but I’m not very good at this and asks them to identify the stressed words. Some say that the stressed words are; not and good at. He agrees and explains that ‘not good at’ means not to be able to do something. Then, he asks them to show corresponding facial expressions while saying the sentence. Most show a disappointed or sad face while some seem to have problems with facial expressions like this. He tells them to refer to the expression of dejection in the handout and repeat this line with its corresponding expression while stressing the words, not and good at.

He ends the class by asking the sts to listen to and practice repeating the lines they had practiced while paying attention to stress and intonation. He also asked them to practice the corresponding body language learned that day too.

Session 3: Learning objectives- To train students (sts.) on postures, tone of voice, interjections

At first the teacher informed the students (sts.) that they would be working on postures and their corresponding emotions. Then, he distributes a picture of basic human postures (https://www.fabhow.com/read-body-language) and asks them to try out the postures while thinking about the emotions related to each one.

Then, the teacher asks the students to turn to page 2 again and listen to the audio. He plays, I’m not very good at this. He asks them to listen to the stress on ‘not’ and the falling intonation of the line. He asks the sts to match the sentence with the suitable posture in the handout. He reminds them that in the previous class they all agreed that this line had a soft tone. They all agree that the posture in the handout related to sadness is more appropriate. They are asked to try saying this line while demonstrating its corresponding posture. Since there were mixed reactions, the teacher demonstrates the speaker’s tone of sadness with a slouched shoulder. They try imitating this posture.

The teacher then asks the sts what other body language could accompany the sentence like this? One student suggests looking down while saying this sentence and also pointing to the skates to show what he is referring to. The teacher asks them to clap for this answer.

He continues to explain that these postures and gestures could communicate disappointment in her lack of ability or even lack of confidence, at that moment. He demonstrates these expressions and body language to the sts.

Next, the teacher plays the sentence, Say, are you from South America?... He asks them which word or words are stressed and they correctly respond, Say and South. They mark the sentence intonation together.

They discuss the use of the word say which is the equivalent of ‘ببینم بگو’ in Farsi. Next, he explains to the sts that ‘Say’ is an interjection of surprise and used also to get someone’s attention. He writes other similar interjections on the board:

- ooh-used for showing a reaction of surprise, excitement or pleasure
- wow-used for showing you are very surprised or impressed by something
- well- used for expressing a feeling of doubt, surprise or anger
- hey- used for getting someone’s attention or showing that you are surprised or annoyed
- Oh- used for expressing an emotion of surprise, anger or happiness.
The teacher then shows eye movements that show interest while repeating the word *say*. He tells them to try it out.

The teacher then asks the sts to mark the intonation and underline the stress words while he continues playing the audio. They stop at the sentence *Sure just follow me*. He checks their intonation and asks about rising intonation and questions to see if they had understood the relationship. Next, he checks the stressed words and discusses why the words are stressed. They all agree that, *Yes I am, originally born, Argentina, grow up, there, did, 10 years ago, high, where, skate, here, park, it’s, only, third, can, give me, and lessons stress important information.*

He ends the class by asking the sts to listen and practice repeating the lines they had practiced paying attention to stress and intonation. He also asked them to practice the corresponding body language learned that day while repeating the lines.

**Session 5: Learning objectives - To train students (sts.) on hand gestures**

At first the teacher informed the students (sts.) that they would be working on hand gestures and what message they could send. Then, he distributes a picture of the basic human hand gestures ([https://www.google.com/depositphotos.com](https://www.google.com/depositphotos.com)) and asks them to try showing these gestures to each other. Then, the teacher asks the students to turn to page 2 again and listen to the audio. He plays, *and where did you learn to skate? And, here in the park.*

The teacher asks the sts the hand gesture that could accompany the line *Here, in the park*. They suggest pointing to the spot they are standing on (*meaning, park*) is the best. He says, *well and plays, Sure just follow me* and then asks if any gesture is needed while saying this sentence. Some show a semicircular hand movement.

He asks for some volunteers to come forward and show through gestures that he/she wants the other to follow. Some used the movement of the head and others the hand to imply that someone wants the other to follow. The teacher asks about the eye movement and they said a semicircular clockwise movement of the eye in the direction the speaker wants the other to follow maybe used. He asks the sts to clap for those who volunteered.

The teacher plays the last two lines, *By the way, my name is Ted. And my name is Ana. Nice to meet you.* They discuss the use of the phrase *by the way* which is the equivalent of *راستی* in Farsi. On being asked the stressed words, they identified stress on *name, Ted, my, Ana, nice and meet*. The sts then listen to the intonation and mark the sentences.

The teacher then asks the sts what hand movement both speakers could use when they introduced themselves. They agreed that people usually shook hands in this situation. One said that opposite sexes in Iran do not do so but they might just smile when introductions are made.

The teacher asks the sts to play the audio of the entire conversation at home and repeat each lines with the correct stress, intonation and other non-verbal cues that were discussed that day.

**Session 7: Learning objectives - To train students (sts.) on gazes, arm gestures**

The teacher introduces the topic of the conversation which involves two friends, Brian and Terry, talking about living with parents. He asks the students to turn to page 19 and look at the picture on the right. He tells them to note the facial expression and other body language of the two people in the picture. He gives them handouts on arm gestures ([https://westsidetoastmasters.com](https://westsidetoastmasters.com)) and discusses each gesture and the corresponding meanings. He tells them that Terry is the one in the picture who is complaining and asks them to match his gestures to the handout. The sts recognize Terry as the one with crossed hands and sulking because he is complaining. His friend seems to be amused. The teacher draws their attention to his hand gesture which shows he might be asking a question. The teacher asks them to listen to the audio and plays. *So, are you still living with your parents Terry?*

He then asks them which word or words are stressed and they correctly respond, *so, still living, parents*. They mark the intonation together. Next, he explains to the sts that ‘so’ here is used as an interjection of surprise and comprehension. Here it is used to get *Terry’s* attention. They discuss the use of the word *so* which is the equivalent of *که* in Farsi. He reminds the sts that the words *say and be* discussed in previous classes are interjections too. He plays the sentence again and asks the sts the tone of the sentence by focusing on the stressed words. He reminds them that they had said *Brian* looked somehow curious. When no answer was given, the teacher translates the sentence to Farsi.

Then, he asks them to say this sentence to each other (in pairs) to see the tone of voice. Some finally agree that it seems to show that the speaker seemed amused. The teacher asks the sts to look at the handout of gaze ([https://www.ncbi.nlm.nih.gov](https://www.ncbi.nlm.nih.gov)) and describe the face and describe the face when amused. They say an amused gaze has twinkling eyes and a grin. He asks them to try this facial expression while repeating the first line. They also try out all the other gazes while the teacher explains each one.

Then, the teacher asks the students to check the intonation and stress word(s) in *Terry’s* response. He plays; *I’m afraid so*. They mark it as a falling intonation.
but could not identify the stressed words. The teacher explains that the whole sentence seems to show an emotion and that is why identifying the stress here was difficult. Then, he plays; *I wish I had my own apartment* and asks the sts which are the stressed words. They say *wish* and *own*. He agrees and asks them if they recognize the tone and emotion and to explain the reason(s) for them. They all say the tone and emotion represented a feeling of being disappointed. The teacher explains that the speaker sounds as if he does not like his current position and wished things were different. They agree that the picture of Terry on page 19 shows this emotion.

The teacher asks them to look at the picture again and describe his posture. They say that his face looks as if he is not satisfied with something and his opened mouth shows that he might be complaining about it. His hands are also crossed. The teacher asks the sts to refer to the handout of arm gestures and ask them to tell him what crossed arms meant and what does it say about Terry’s emotions here. They identify that Terry’s way of crossing his arms meant defensiveness which is the result of uneasiness, shyness and/or insecurity. He ends the class by asking the sts to play the audio of this part of the conversation at home and repeat each line with the correct stress, intonation and other non-verbal cues that were discussed that day.

**Session 9: Learning objectives- To train students (sts.) on facial expressions with eyebrows, eyes, nose**

At first the teacher gives the sts some pictures of facial expressions with eyebrows, eyes, and nose (facial expressions in English [www.clarkandmiller.com]). They discuss the different expressions: Raise eyebrows—showing shocked, surprised; wide eyed (completely opened eyes) follows raised eyebrows; the frown showing anger, squinting eyes maybe due to light or hate; the sideway glance to show suspicion, mistrust, rolling one’s eyes when u think someone is being stupid or annoying; winking to say I agree with you or I’ll keep your secret; giving someone a dirty look—look angrily when someone has done something you hate; looking down your nose to show you are superior; staring into space when not interested in a person’s speech; to wrinkle your nose when something stinks(has a bad smell), put on a long face when unhappy; grimace (making an ugly face) when disgusted at something or disapprove or asked to something that you are afraid of; wince when in pain. They try out each expression along with the teacher. Since some were not familiar with certain expressions, they said it was strange and difficult to express.

Then he reminds the sts that the topic of the conversation they had listened to in the previous class was about living with parents. The last sentence was Terry’s response who said, *I wish I had my own apartment*. The teacher then asks the sts to listen to the next line by Brian: *Why? Don’t you like living at home?* He asks them to mark the intonation and repeat the line with a rising intonation. On being asked the stressed words, they identified stress on the words; *don’t* and *home*. The teacher praises them.

When asked to match the question with the pictures, they said he might raise his eyebrows to show surprise at his friend’s unhappiness to stay with his parents. Another said that his eyes might also be wide eyed (completely opened eyes) as he had learned that this follows raised eyebrows.

The teacher plays Terry’s line as: *It is OK, but my parents are always asking me to be home before midnight. I wish they’d stop worrying about me!* He asks the sts about the facial expressions that accompany these lines. They say Terry might be frowning while saying the first two lines with a long face as he is unhappy. Some said that he might grimace while saying the last line as he disapproves of his parents controlling him. Others interestingly noted that he might say these lines fast because he might be angry too.

He asks them to say these lines to each other and see what other body language is used. He suggests that they might slump their shoulders and throw up their hands in desperation as well. They said that shaking their heads to show unhappiness was also used.

The teacher then plays the rest of the conversation and asks the sts to discuss the non-verbal communications used in these lines. Some said that it could be accompanied with the upward roll of your eyes because they think his parents are being annoying by asking him to be home before midnight.

They said that in Brian’s lines; *yeah, parents are like that!* The stress was in nearly all of the words. The teacher explains that maybe he agrees completely with his friend. Others noted that he might shake his head in agreement too.

Then, after playing Terry’s lines: *And they expect me to help around the house, the teacher suggested that he might throw up his hands in desperation and roll his eyes upwards while saying this line. He demonstrated these actions and asked the sts to imitate him.*

Next, when asked about the tone, the sts said that his tone is low maybe because he is sad. Asked about the expression accompanying the sentences; *I hate housework. I wish life weren’t so difficult, the sts said he might give a sad look—eyes down with slumped shoulders. The teacher explains that he stresses the words hate and wish to show intense (strong) feelings. He also tells them the word *wish* is pronounced with an Aspiration (a strong burst of air that accompanies the pronunciation of certain sounds in English). He repeats the word and asks the sts to imitate him. Then, he says that the aspiration emphasizes the feeling of sorrow for not having something that is desired which is the same as, *کشیدن اه*. He explains further that such sounds help
the listeners to understand the speakers' feelings. He provides other examples of human sounds that communicate emotions; screaming to show fear and gasping to show surprise.

At the end of the final class, the teacher thanks the sts for their participation. He tells the sts that they were taught non-verbal communication to show its importance in speech. He explains that the feelings in our words are reflected instinctively by our body language, tone, intonation and word stress in sentences or vice-versa. If one could not understand the speaker's words clearly, non-verbal clues can help fill in the blanks. He tells them that the reason for these classes were to teach them how to understand a speaker's message through non-verbal communication in cases where spoken words are not clear enough to be understood. The class end after getting feedback from the sts about the classes.

**Role Play Sessions (2, 4, 6, 8, 10)**

In the first role play session, the teacher reviews the types of non-verbal communication studied in the previous class. Then, the students were asked to turn to the related page of their text book. The teacher plays the audio of the dialogue in that specific page and asks them to repeat till they get the right intonation. Next, he asks them to work in pairs to practice the dialogue using the non-verbal cues learned, telling them that when they feel they are ready, they can come in front and take roles in acting out the different roles.

The teacher asks the students if they were ready to take turns to role play. They mostly answered that they would be nervous to role play in front of the class. He assured them that it would be fun and asked for two volunteers. A pair rose their hands and they were asked to come in front and take roles in acting out the different parts with suitable expressions and body language. The teacher checked the intonation, stress and body language while each spoke. It was interesting to note that some of the expressions and body language they demonstrated were instinctively culture bound-Iranian. However, some still complained of being nervous and refused to come forward. The teacher requested them to role play while being seated on their respective chairs. After the whole class had taken turns to role play, he asked them their opinions about the whole experience and noted that most reported positive responses.

These activities were repeated for the 4th, 6th, 8th and 10th sessions. For the first to the fourth sessions of the role play sessions, three pairs took turns to participate. The last session had four pairs.

**Results**

**Testing the first null hypothesis**

The first Null hypothesis was: H0: Nonverbal communication training does not have any significant effect on Iranian EFL learners’ perception of communicative competence.

Tables 1 and 2 show the descriptive statistics for the perception of communicative competence pretest and posttest measures.

**Table 1**

<table>
<thead>
<tr>
<th>N Statistic</th>
<th>Statistic Minimum</th>
<th>Statistic Maximum</th>
<th>Mean</th>
<th>SD Statistic</th>
<th>Skewness Statistic</th>
<th>Std. Error</th>
<th>Ratio</th>
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Valid N (listwise) 27

**Table 2**

<table>
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<th>Statistic Maximum</th>
<th>Mean</th>
<th>SD Statistic</th>
<th>Skewness Statistic</th>
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<td>.414</td>
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</table>

Valid N (listwise) 27

It can be seen from both tables that the mean of pretest of the control group which was 631.00 remained almost constant at 636.33 after the intervention. However, the mean of pretest of the experimental group which was 743.5 rose to 758.656 after the intervention.

In order to see if the differences of the two groups' perception of communicative competence were
significant, analysis of covariance (ANCOVA) was run on both groups’ pre- and posttests scores (Table 3).

Table 3
The ANCOVA results on SPCC scores.

<table>
<thead>
<tr>
<th>Source</th>
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<th>Df</th>
<th>Mean Square</th>
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<td>.000</td>
</tr>
<tr>
<td>Error</td>
<td>8261.257</td>
<td>56</td>
<td>147.522</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>30467162.000</td>
<td>59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>1335538.881</td>
<td>58</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. R Squared = .994 (Adjusted R Squared = .994)

Table 3 shows that there is a significant relationship between the covariate (the pretest) and the dependent variable (the posttest) while controlling for the independent variable ($F = 21.868$, $p = 0.000 < 0.01$). Hence, the null hypothesis of the study was rejected.

Table 4 shows the adjusted marginal mean of the two groups. Here, the effect of the pretest scores has been statistically removed.

Table 4
Adjusted marginal means of the SPCC scores.

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lower Bound</td>
<td>Upper Bound</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>694.047 a</td>
<td>2.430</td>
<td>689.178</td>
</tr>
<tr>
<td>Experimental</td>
<td>709.961 a</td>
<td>2.219</td>
<td>705.515</td>
</tr>
</tbody>
</table>

a. Covariates appearing in the model are evaluated at the following values: SPCC = 692.0169.

As reported above, after controlling the effect of the pretest, the experimental group had statistically higher mean. This means that the treatment had a positive effect on the communicative competence of the participants. Furthermore, the effect size (partial eta squared) was 0.281 which is reckoned a large effect size by Larson-Hall [26].

Table 5
Descriptive statistics of the scores obtained by the two groups on the PRCA pretest.

<table>
<thead>
<tr>
<th>N Statistic</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>SD Statistic</th>
<th>Skewness Statistic</th>
<th>Std. Error</th>
<th>Std. Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>27</td>
<td>27.00</td>
<td>99.00</td>
<td>60.7407</td>
<td>18.32945</td>
<td>.113</td>
<td>.232</td>
</tr>
<tr>
<td>Experimental</td>
<td>32</td>
<td>42.00</td>
<td>106.00</td>
<td>70.5000</td>
<td>15.20611</td>
<td>.035</td>
<td>.414</td>
</tr>
</tbody>
</table>

Table 6
Descriptive statistics of the scores obtained by the two groups on the PRCA posttest.

<table>
<thead>
<tr>
<th>N Statistic</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>SD Statistic</th>
<th>Skewness Statistic</th>
<th>Std. Error</th>
<th>Std. Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>27</td>
<td>25.00</td>
<td>98.00</td>
<td>60.1111</td>
<td>17.83974</td>
<td>-.013</td>
<td>.448</td>
</tr>
<tr>
<td>Experimental</td>
<td>32</td>
<td>40.00</td>
<td>95.00</td>
<td>66.9375</td>
<td>14.48456</td>
<td>-.166</td>
<td>.414</td>
</tr>
</tbody>
</table>

Testing the second null hypothesis
The Second Null hypothesis was: $H_0$: Nonverbal communication training does not have any significant effect on Iranian EFL learners’ perception of communication apprehension.

Tables 5 and 6 show the descriptive statistics for the perception of communication apprehension pretest and posttest measures.
It can be seen from both tables that the mean of pretest of the control group which was 60.7 remained almost constant at 60.1 after the intervention. However, the mean of pretest of the experimental group which was 70.5 decreased to 66.9 after the intervention.

In order to see if the differences of the two groups' perception of communication apprehension were significant, analysis of covariance (ANCOVA) was run on both groups' pre- and posttests scores (Table 7).

Table 7
The ANCOVA results on PRCA scores.

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Squared Eta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>14658.957</td>
<td>2</td>
<td>7329.478</td>
<td>511.789</td>
<td>.000</td>
<td>.948</td>
</tr>
<tr>
<td>Intercept</td>
<td>13.996</td>
<td>1</td>
<td>13.996</td>
<td>.977</td>
<td>.327</td>
<td>.017</td>
</tr>
<tr>
<td>PRCA.Pretest</td>
<td>13976.549</td>
<td>1</td>
<td>13976.549</td>
<td>975.928</td>
<td>.000</td>
<td>.946</td>
</tr>
<tr>
<td>Group</td>
<td>72.630</td>
<td>1</td>
<td>72.630</td>
<td>5.071</td>
<td>.028</td>
<td>.083</td>
</tr>
<tr>
<td>Error</td>
<td>801.992</td>
<td>56</td>
<td>14.321</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>255719.000</td>
<td>59</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>15460.949</td>
<td>58</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. R Squared = .948 (Adjusted R Squared = .946)

Table 7 shows that there is a significant relationship between the covariate (the pretest) and the dependent variable (the posttest) while controlling for the independent variable (F = 5.071, p = 0.028 < 0.01).

Hence, the second null hypothesis of the study was also rejected. Table 8 shows the adjusted marginal mean of the two groups. Here, the effect of the pretest scores has been statistically removed.

Table 8
Adjusted marginal means of the PRCA scores.

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>65.073</td>
<td>.745</td>
<td></td>
<td>63.580</td>
<td>66.567</td>
</tr>
<tr>
<td>Experimental</td>
<td>62.751</td>
<td>.682</td>
<td></td>
<td>61.384</td>
<td>64.117</td>
</tr>
</tbody>
</table>

a. Covariates appearing in the model are evaluated at the following values: PRCA.Pretest = 66.0339.

As reported above, after controlling the effect of the pretest, the experimental group had statistically lower mean. This means that the treatment had a positive effect on decreasing the communicative apprehension of the participants. Furthermore, the effect size (partial eta squared, in Table 4.17) was 0.083 which is reckoned a medium effect size by Larson-Hall [26].

Discussion and Conclusion

Overall, it was seen that the Experimental Group outperformed the Control Group in the posttest. This pointed to the comparative effectiveness of the nonverbal communication training that the Iranian EFL learners had. As not many studies have been reported on the effect of intervention on EFL learners' communicative competence and communication apprehension, findings reported here can be explained by the theories this study is based on. According to the results of the first hypothesis, the experimental group’s EFL learners perceived a significant improvement in their communicative competence after they were trained in nonverbal communication. This result showed the effectiveness of the intervention as the control group’s EFL learners did not perceive any significant improvement in their communicative competence. The study’s results reiterate the assumption that nonverbal communication training could affect EFL learners' communicative competence. The idea that a, “speaker is free to choose his message” but “He is not free to choose the code of the message” was first put forth by Hayes (1972, pp.145-172). In other words, he means that each language might contain nonverbal cues which are conditioned by its cultural system to send specific messages. Thus, he asserts that a learner of any language should be aware of such codes and corresponding signals as if they are not properly received and sent, communication would be impeded. Moreover, it is believed that a proper understanding of nonverbal communication can improve the effectiveness of communication [24, 14, 15].

The results of the second hypothesis show that the experimental group’s EFL learners perceived a
significant decrease in their communication apprehension after they were trained in nonverbal communication. This result showed the effectiveness of the intervention as the control group’s EFL learners did not perceive any comparatively significant decrease in their apprehension. This could be explained by Dörnyei’s statements on both communicative competence and communication apprehension. Firstly, he noted that “it is not uncommon to find people who tend to avoid entering L2 communication situations even if they possess a high level of communicative competence” (2005, p. 207). This means that even if learners of a new language gain communicative competence, they might not be willing to participate in communicative activities. The reason for the unwillingness to communicate on the part of these students, Dörnyei provides, is the probability of the existence of speaking anxiety or communication apprehension. To, provide evidence of this, we can refer to the results of related studies such as that of Liu and Jackson [27] found foreign language classroom anxiety correlated with unwillingness to communicate. On the relationship between unwillingness to communicate and speaking anxiety, studies have shown mixed and contradictory results. For example, Mustapha et al. [28] observed a high level of communication apprehension in most EFL students while Radzuan and Kuar [29] found a moderate level of communication apprehension in most of the students in a classroom communication course. In another study, Pitt et al. [30] report communication apprehension to have had a significant negative effect on students’ performance. By way of contrast, Devi and Feroz [31] found out that communication apprehension did not show any linear relationship with students’ oral presentation performance. Taking this fact into account, one can deduce that there are some other constructs affecting the initiation and success of communication, McCroskey [21]. The empirical evidence of this study suggests that another obstacle to successful communication to attain communicative competence, besides communication apprehension, could be the lack of knowledge of the target language’s non-verbal communication. This assumption is made as the results of this study show that the students in the intervention group had a significant decrease in communication apprehension but increases in communicative competence. As such, this study provides evidence that the construct of nonverbal communication can play an important role in this context. Research also maintains that only when a person is able to overcome or deal with his/her anxiety or uncertainty can good inter-cultural communication occur (19; cited in Kwok et al., 2001, p. 5). Besides, it is believed that a proper understanding of nonverbal communication can improve the effectiveness of communication [24, 14].

Thus, the results of this study are in line with the theories and assumptions mentioned and suggests that training learners in nonverbal communication cues of the target language can be useful in the improving EFL learners’ communicative competence and reducing anxiety during speaking. Based on the study’s statistical findings, three important contributions that this study has made should be mentioned here since, as far as the researcher knows, a study on this topic has not been conducted till date especially in the EFL context. Firstly, it was seen that the regular mode of teaching/learning speaking in intermediate EFL classes may be ineffective. To be exact, the teacher’s manual that teachers follow to teach in the Control Group seemed to produce insignificant results. Secondly, the results also showed that the intervention program incorporated in classes can be more effective than just relying on a regular mode of teaching vocabulary. Finally, the method introduced to train learners on nonverbal communication can be applied successfully in regular EFL classes to improve speaking.

References

28. Mustapha WZW, Ismail N, Singh DSR, Elias S. ESL students communication apprehension and their choice of communicative activities. AJTLEHE. 2010; 2(1).