Negative Evidence and its Impact on the Iranian EFL Young Learners’ Performance in Grammar Tests

Mohammad Ali Kowsari
Islamic Azad University, Torbat-e Heydariyeh Branch
Torbat-e Heydriyeh, Iran

Ebrahim Davoudi Sharifabad
(Corresponding Author)
Department of English, Faculty of Foreign Languages and Intercultural Studies
Baqir al-Olum University, Qom, Iran

Behnaz Zakeralhosseini
Islamic Azad University, Torbat-e Heydariyeh Branch
Torbat-e Heydriyeh, Iran

ABSTRACT
This study examined the effect of negative evidence on young learners’ performance on grammar test. Gass (1997) asserted that negative evidence, also known as “negative feedback”, offers the learner with information about the inaccuracy of a second language (L2) form and is often understood with the employment of corrective feedback (CF) in response to the learner’s non-target like L2 utterances. Using a pretest-posttest and control group experimental design, the researcher examined the effect of negative evidence on young learners’ performance on grammar test. The participants of the study were 40 Iranian elementary EFL learners randomly divided into two experimental and control groups and each group consisted of 20 learners. The experiment lasted 16 sessions, two sessions in a week. In both experimental group and control group grammatical points were explained in the same way. Both groups participated in three grammar quizzes after the completion of grammar teaching. The participants in experimental group received feedback about the errors they made in the quizzes. These feedbacks were both implicit and explicit. Those in the control group received no feedback. Finally, a test of grammar was conducted as the post test of study. The participants score on the pretest and control group experimental was compared. Finally, the result of the analysis indicated that students’ level of Grammar increased in experimental group who received negative evidence. Therefore, providing students with negative evidence is helpful in improving their grammar proficiency.

Keywords: Negative Evidence, Grammar, EFL Students, Iranian Learners, Experimental Design

1. Introduction
Negative evidence is described as any kind of evidence for a grammatical construction that implies what is ungrammatical to aid the student regulate the instructions for grammaticality. In usual language improvement, children wish to utilize only positive evidence to learn language. Children learn language using positive standards of the target language without explicitly comparing grammatical and ungrammatical constructions.

One possibility about usual language development is that children learn language despite an absence of negative evidence (Baker 1979). This possibility offers a contradiction to theories of language learning, mainly since several computational types of language learning make explicit use of negative evidence. Undeniably, several ways of phonological learning utilize error correction, as a type of negative evidence (Boersma and Hayes 2001, Tesar and Smolensky1998).

Negative evidence contains information about the unfeasibility and ungrammaticality of a structure or an expression. In other words, negative evidence like descriptions, explicit grammar teachings, and corrections of wrong classifications or ungrammatical stretches, determine what might not be completed.
(Cook & Newson, 1996; Spada & Lightbown, 2002; Mackey, Gass, & McDonough, 2000). They designate that knowledge of some of the precise orders of sentences seems to be unlearnable from positive evidence. It needs complementary information from adjustments of impossible constructions, understanding hypothetical explanations, and so on. There exist times when a learner provides a linguistically incorrect answer to a teacher's initiation; the teacher wishes to offer through, clear, overt negative evidence. Though, Chomsky (1981) has the notion that direct negative evidence is not essential for language acquisition, but indirect negative evidence may be related.

As stated by Long (1996), there exist two kinds of input in SLA: positive evidence and negative evidence. Positive evidence is a type of input that learners obtain regarding the target language itself in a natural linguistic setting. It could be provided as reliable input, like what happens in natural situations, or as changed input, like what occurs in foreigner talk discourse or teacher talk (Chaudron, 1988). It covers expressive information about a construction or a sentence. It includes fundamentally occurring orders, i.e., sentences of the language. Several sets are offered for positive evidence including rich instances of the target standard without any means to capture attention on it. On the contrary, negative evidence offers information about what is not conceivable in the target language (Long, 1996; White, 1990).

According to Gass (1997), language students have been encountered by two kinds of input: positive evidence and negative evidence. Positive evidence includes “the set of well-formed sentences to which learners are exposed” (p. 36), which notifies the student of what is suitable in the target language. In some second language acquisition literature, positive evidence is also discussed as models and regarded as the most direct techniques that students have available to them from which they could practice linguistic hypothesis (Gass, 2003). By contrast, Negative evidence, also identified as “negative feedback”, offers the learner with information about the inaccuracy of a second language (L2) structure, and is regularly understood over the provision of corrective feedback (CF) in reaction to the learner’s non-target like L2 use.

2. Review of the Related Literature

Negative evidence is the data that offer evidence to the language learner about what is not accepted in the target language (Lightbown & White, 1987; Long, 1977; White, 1990). It is claimed among other things to be the mechanism employed by students to understand hardly occurring forms in the input to modify their hypotheses about the target language (Long, 1977; White, 1991). Therefore, negative evidence be of utmost importance in supporting students to join and integrate those features of language not developed through positive evidence alone.

Early study on negative evidence in the field of foreign language observed the explicit negative feedback supplied by parents to their children. The outcomes of these researches showed that only the truth value of a child's utterance stimulated corrective feedback (Brown & Hanlon, 1970). Likewise, early second language acquisition researches discovered that explicit error correction happened infrequently in informal NS-NNS conversation (Chun, Day, Chenoweth, & Luppescu, 1982). These findings encourage some theoreticians to decrease the effect of negative evidence in the language learning procedure. Though, instead of improving support to the nativist statues, these outcomes essentially stress the definitional difficulties.

Linked to the idea of negative evidence. These early investigators only concentrated on what Chomsky (1981) defines as direct negative evidence, that which offers overt information to students about the target language. They did not study indirect forms that could possibly also function as negative evidence. Only in recent times have other types of feedback, especially implicit types, like recasts, negotiation strategies, and numerous kinds of repetition been reflected (e.g., Demetras, Post, & Snow, 1986; Farrar, 1992).

Earlier investigators, and specially Brown and Hanlon (1970) in their investigation, focused on the explicit type of error correction, which means obvious error correction, and determined that negative evidence happened far too uncommonly to be regarded as a contributing element in the language acquisition procedure. Their conclusions were later reinforced by Hirsh-Pasek, Treiman, and Schneiderman (1984), who also observed no dissimilarities in parental answers to their children's
statements by measures of grammaticality while, remarkably, they did observe small dissimilarities in the frequency with which parents repeated grammatical (12%) and ungrammatical (21%) statements. Such lack of explicit feedback is scarcely astonishing, given that the conditions observed were those without an educational schedule and that, consequently, the conversational emphasis was meaning, not form. Though, in second language acquisition classrooms, too, in spite of the obvious educational purpose of explicit feedback, teachers’ practice of it has been observed to be neither steady nor well planned. Besides, when they do use explicit feedback, it is generally in a form that is difficult for learners to notice (Allright, 1975; Chaudron, 1986, 1988; Long, 1977).

For some period, Brown and Hanlon’s (1970) assumptions about negative evidence stayed unopposed (Demetras et al., 1986). More recently, though, researchers have turned their emphasis to other systems of reactive feedback, specially, implicit negative feedback. As mentioned earlier, this kind of feedback contains negotiation strategies comprising repetition, verification orders, and explanation requests that happen after communication failure. It may also be supplied in the method of recasts, which are defined as a “redisplay” of the student’s statement, where the grammatical construction is reformulated but where the essential meaning remains unaffected (Baker & Nelson, 1984; Farrar, 1990, 1992; Furrow, Baillie, McLaren, & Moore, 1993; Nelson, Carsskaddon, & Bonvillian, 1973). The findings of the foreign language acquisition investigations that have observed implicit negative feedback designate that the grammaticality and vagueness of a language learner’s cooperation generate different types of feedback from their conversational partners (Bohannon & Stanowicz, 1988; Farrar, 1990, 1992; Nelson, 1991; Penner, 1987).

Individuals from different nations also answer in a different way to grammatically improper statements, with some seeming to place more importance on accuracy (Ochs and Schieffelin (1995 cited in Harley, 2008, p. 107). Whether this kind of feedback is strong enough to have any consequence on the course of acquisition is still debated (Marcus, 1993). While Bohannon et al. (1990) acknowledge, they still claim that: “the absence of a particular form of feedback in a particular community does not belie its utility for those children who do receive it, nor does it mean that no form of feedback is necessary for language learning to proceed normally” (p. 302 224). Saxton (1997 cited in Harley, 2008) states that such feedback is possibly too uncommon to be operational; while others argue that infrequent difference between the children’s own improper adult forms do allow progressive alteration. We understand that children are more probable to repeat adults’ developments of their statements than other statements, signifying that they pay more consideration to them. For Harley (2008) the discussion about whether or not children obtain adequate negative evidence (occasionally named the no-negative evidence problem) evidence about which strings of words are not grammatical, is significant since without negative feedback it is an experiment to identify how children learn to yield only accurate statements. One probable explanation is that they depend on tools like intrinsic values to aid them learn the grammar. More explanation for innateness was made by Gold’s (1967, p. 453) disagreement that positive evidence alone (i.e., experiencing only grammatical strings of utterances) is not enough for a machine learning the kinds of language. He concluded that when he transcribed a program in which the computer expected only positive evidence, it abortive to obtain the language properly. The difference between an informant and a manuscript is that the manuscript will offer merely positive evidence, while an informant will provide both positive and negative evidence. Negative evidence is required so learners can recognize ungrammatical strings as inaccurate and aids exclude some of the challenging grammars. If this disagreement is comprehensive to children, as it regularly is, then they too would require both positive and negative evidence to learn and to dispose of errors. If they didn’t obtain any negative evidence, they would have to depend on some other (distinctive) basis of material for learning (Chouinard and Clark, 2001).

In an experiment to examine the influence of concentrating on form, direct negative evidence, equally implicit and explicit has been considered to comprehend the role of direct negative evidence on the learning of language systems. Implicit negative evidence has been examined in the outline of interactional adjustments in second language acquisition. It has been revealed that over such adjustments, for
example explanation requests, approval checks, and understanding instructions, learners obtain information that a statement is the foundation of some communication difficulties (Long, 1983; Pica et al., 1987; Gass & Varonis, 1989). Implicit negative evidence can aid learners receive understandable input over cooperation, but it is not convinced that those negotiated understandable input results in acquisition (Long, 1991). Evidently, implicit negative evidence is significant, but not entirely reinforced in terms of its consequence on the language learning procedure.

In contrast, explicit negative evidence, which happens when learners are made obviously conscious of the inaccuracy of a statement, has obtained more support in relation to its role in attainment. For example, Carroll & Swain (1993) offer evidence for the positive language learning impacts of both implicit and explicit negative evidence in a broad research of the role of feedback in second language learning, but explicit negative evidence in the form of explicit metalinguistic feedback was discovered to be greater to other implicit and explicit feedback situations in improving acquisition. Besides, Lightbown & Spada (1990) have established by associating diverse educational circumstances that explicit emphasis on form and corrective feedback are effective in encouraging more exact language use in communicative language teaching.

Furthermore, Tomasello & Herron (1988, 1989) have confirmed the positive influences of encouraging learner production errors, which is formerly followed by instant explicit negative evidence to stimulate instruction learning. This so entitled “garden path technique” establish a condition that yields a noticeable difference between the learner's error and the correct form, therefore supporting hypothesis testing. Though, Carroll et al. (1992) call into question the consequences received by Tomasello & Herron since the “garden path technique” results in metalinguistic knowledge, but not essentially reformation of the learner's interlanguage system. Remarkably besides, the outcomes debated by Carroll et al. display that explicit negative evidence has an encouraging effect on learning regarding remembering precise forms, but that it does not seem to aid learners make generalizations about language form. Thus, direct negative evidence has been revealed to support understandable input, metalinguistic information, and memorization of items, but its consequence on acquisition is indefinite.

Clearly the roles of implicit and explicit direct negative evidence have obtained a good deal of enquiry attention in second language acquisition. However, the effect of indirect negative evidence in second language acquisition has not been investigated, and its role in in second language acquisition is undefined. Plough (1994) distinguishes the significant role of indirect negative evidence in providing opportunity for a student to recognize that a language representative is not conceivable since it is never existed in the predictable setting. In other words, if a factor is dissimilar to that which is predicted, the factor is a candidate for reformation. Chomsky (1981) has stated that "there is good reason to believe that direct negative evidence is not necessary for language acquisition, but indirect negative evidence may be relevant" (p. 9). Lasnik (1989) also supports the advantage of indirect negative evidence in parameter rearranging. Therefore, indirect negative evidence is appropriate in the universal grammar (UG) outline.

3. Methodology

3.1 Participants and Setting

The purpose of the current study was to find out whether negative evidence significantly affects EFL students’ grammar level at elementary level. To this end Nelson English proficiency test was conducted to 65 elementary students of Kish Air English Language Institute in Khorasan-e Razavi Province, Iran in both genders. Having administered the test those who outperformed the test was excluded from the sample, and the researcher finally came up with 40 final sample size. This time, the investigator assigned the participants randomly to two experimental and control groups. Each group consisted of 20 elementary students in both genders. A test of grammar was conducted at the first session of the experiment served as the pre-test. The experiment lasted 16 sessions, two sessions in a week. In both experimental group and control group grammatical points were explained in the same way. Both groups participated in three grammar quizzes after the completion of grammar teaching. The participants in experimental group received feedback about the errors they made in the quizzes. These feedbacks were both implicit and explicit. Those in the
control group received no feedback. Finally, a test of grammar was conducted as the post test of study. The participants score on the pre-test and post-test was compared. Although, gender is an important determinant, but in this study the researchers focused on the other main factors and a gender-based study will be a great issue for further researches.

3.2 Instrumentation

3.2.1 Nelson English Language Test

Nelson English Language Test (1976) was used as a tool for getting language proficiency score. The Nelson English Language Test is a battery including 40 separate tests for ten levels of language proficiency which range from beginner to the advanced. The levels are numbered from 050, 100 to 500. Each test consists of 50 items. In the present study a test in elementary level was utilized.

3.2.2 Pre-test of Grammar

A test of grammar consisted of 20 items were conducted to all the participants. This test composed of structures that students have covered during the courses they had passed in Kish Air Language Institute. This was served as the pre-test of the investigation. The reliability of the test was calculated using Chronbach’s alpha .83.

3.2.3 Post-test of Grammar

A test of grammar consisted of 20 items was conducted to all the participants. This test composed of structures that students have covered during the courses they had passed in Kish Air Language Institute. This was a parallel form of the pre-test. The reliability of the test was calculated using Chronbach’s alpha .85.

3.3 Procedure

This study was aimed to investigate the effect of negative evidence on EFL students’ grammar at elementary level. In order to conduct the study, the researcher chose 60 elementary students of Kish Air English Language Institute in Khorsan-e Razavi Province. In order to homogenized the participants Nelson English proficiency test was conducted to these 60 students.

Having administered the test those who outperformed the test were excluded from the sample, and the researcher finally came up with 40 homogenized samples; 18 male and 22 female students. Finally, the investigator assigned the participants randomly to two groups namely; experimental group and control group. Each group consisted of 20 elementary students. At the first session of the experiment, a test of grammar as the pre-test was administered to check the students’ level of grammar before starting the experiment. The test consisted of the structure students were instructed previous semesters. In both experimental and control groups grammatical points were explained deductively followed by a brief explanation if necessary. The experiment lasted for 8 weeks, and the subjects participated two times a week in the program. Both groups were participated in three grammar quizzes after the completion of grammar of each. The participants in experimental group received feedback about the errors they made in the quizzes. These feedbacks were both implicit and explicit, they were supported to recognize what the error is, and to be aware not to use the incorrect structure anymore. Those in the control group received no feedback, they were just informed of their score. Finally, a test of grammar was conducted as the post test of study, this was a parallel form of pre-test and the students were faced with 20 grammar questions. The participants score on the pre-test and post-test was compared using SPSS statistical software.

4. Results

Descriptive statistics including mean, standard deviation, minimum, and maximum were measured for the total score of grammar tests in pre-test and post-test groups. Descriptive statistics for the learners’ total score of grammar tests in pre-tests and post-tests are shown in Table 1.

Table 1: Descriptive statistics for the learners’ total score of grammar tests in pre-tests and post-tests

<table>
<thead>
<tr>
<th>Test Type</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean (Statistic)</th>
<th>SD  (Statistic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Test Grammar</td>
<td>40</td>
<td>13.00</td>
<td>26.00</td>
<td>16.5750</td>
<td>4.7200</td>
</tr>
<tr>
<td>Post-Test Grammar</td>
<td>40</td>
<td>13.00</td>
<td>26.00</td>
<td>16.5000</td>
<td>1.79744</td>
</tr>
</tbody>
</table>

As can be seen in Table 1, the mean score of Grammar pre-tests is lower than Grammar post-tests.

4.1 Difference between Control and Experimental Groups in Pretest of grammar

To examine the pre-existing differences between the students’ grammar level in the two groups, an independent sample t-test was performed between the mean scores of control and experimental groups in pre-test. Simply put, the t-test aimed at looking for any significant difference between the two groups in relation to their level of grammar. When the variances of these scores in both groups, were equal, the amount of p-value was higher than 0.05. It means: For pre-test $t$ -value $= 0.447 > \alpha = 0.05$ (see tables 2 and 3).
As the table shows, the mean score of experimental is a little higher than control group. To find that this difference is significant or not, independent sample t-test was run.

### Table 3: Results of independent sample t-test for Control and Experimental Groups in Pretest of Grammar

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest of Grammar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>control</td>
<td>20</td>
<td>15.50</td>
<td>1.45</td>
<td>.32</td>
</tr>
<tr>
<td>experimental</td>
<td>20</td>
<td>15.65</td>
<td>1.42</td>
<td>.31</td>
</tr>
</tbody>
</table>

#### Table 4: Descriptive Statistics of Control and Experimental Groups in Posttest of Grammar

As the table shows, the mean score of experimental is a little higher than control group. To find that this difference is significant or not, independent sample t-test was run.

### Table 5: Results of independent sample t-test for Control and Experimental Groups in Posttest of Grammar

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posttest of Grammar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>control</td>
<td>20</td>
<td>15.45</td>
<td>1.31</td>
<td>.29</td>
</tr>
<tr>
<td>experimental</td>
<td>20</td>
<td>17.55</td>
<td>1.60</td>
<td>.31</td>
</tr>
</tbody>
</table>

### 4.2 Difference between Control and Experimental Groups in post-test of Grammar

To answer the research question, which seeks to explore the difference between Control and Experimental Groups in Grammar, after the treatment, an independent samples t-test was performed between the mean scores of the Grammar of the groups in post-test. Table 4 shows the descriptive statistics of control group and experimental group in post-test of Grammar. Results of the independent-samples t-test are presented in Table 5.

#### Table 6: Levene’s Test

<table>
<thead>
<tr>
<th>Grammar</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>control</td>
<td>.001</td>
<td>-1.76</td>
<td>.45</td>
<td>Lower: -1.27, Upper: .37</td>
</tr>
<tr>
<td>experimental</td>
<td>.96</td>
<td>-1.76</td>
<td>.45</td>
<td>Lower: -1.27, Upper: .37</td>
</tr>
</tbody>
</table>

Levene’s test indicated homogeneity of variance on Grammar in pre-test (.96). As indicated in Table 3, there is not any significant difference between groups in terms of Grammar in pre-test (t = -.76, p = .44). It shows that with confidence interval of difference of 95%, there is no significant difference between the mean scores of the control and experimental groups. It means that students of control and experimental groups are homogenous on the part of their Grammar before treatment.

#### 5. Conclusions

In many approaches to second language acquisition (SLA), input is realized as being a highly significant element in acquisition. As stated by Gass (1997), language learners have access to two kinds of input: positive evidence and negative evidence. Negative evidence, also known as “negative feedback”, which was the focus of this study offers the learner with information about the inaccuracy of a second language (L2) form and is often understood over the employment of corrective feedback (CF) in response to the learner’s non-target like L2 utterances. Therefore, the aim of the present study was to examine the effects of negative evidence of EFL learners’ performance on the grammar at elementary level. To this end 40 Iranian EFL students were selected as the subject of study. They were divided into two homogenous control and experimental groups, and participated in a 16th sessions program to check whether their grammatical proficiency improves through being presentenced by negative evidence. The result of the data analysis indicated that students of control and experimental groups were homogenous on the part of their Grammar before treatment. Having administered the post-test after the treatment it was revealed that students’ level of Grammar increased in experimental groups and the negative evidence feedback had a positive effect on their Grammar.

positive effect on their Grammar.in other words, according to the result of the study providing students with negative evidence is helpful in improving their grammar proficiency.

The result of the present study is in line with Jiang, & Yi, (2014), which found that the positive evidence and negative feedback simplified L2 acquisition of the third person singular form to the same extent. The results were also in line with the study conducted by Abolhasanpour, & Jabbari, (2014), who examined the effect of positive and negative evidence on learning English quantifiers regarding similarities and dissimilarities between the structures of the two languages in the acquisition of English quantifiers, and concluded that negative evidence was highly effective in short-term and long-term period and facilitates the phase of the acquisition of the foreign language, namely English quantifiers in the absence of naturalistic input. Besides, the role of negative evidence was considerably higher than L1 transfer.

References


