Towards Humanizing Language Teaching: Error Treatment and EFL Learners’ Cognitive, Behavioral, Emotional Engagement, Motivation, and Language Achievement

Afsaneh Ghanizadeh a, *, Azin Amiri a, Safoura Jahedizadeh a

a Imam Reza International University, Iran

A B S T R A C T

This study elucidated how humanistic teaching as manifested in teachers’ error correction influences EFL learners’ engagement, motivation, and language achievement. The present study was carried out in a language Institute in Mashhad, Iran. The population comprised 42 advanced female learners. To investigate how error treatment will affect EFL learners’ engagement, intrinsic motivation and language achievement, a mixed-methods design incorporating both quantitative (experimental design) and qualitative (interview & observation) methods (QUAN→qual) was employed. The participants were divided into control and experimental groups. Speaking errors of the participants of the experimental group were corrected by three methods of corrective feedback including peer-correction, elicitation, and repetition, whereas, speaking errors of the participants of control group were directly corrected by the teacher. To measure the intrinsic motivation, the MSLQ questionnaire (Pintrich, et al., 1991) was employed. Students’ engagement was determined through Tool-school engagement scale, which was assesses behavioral, emotional, and cognitive aspects of academic engagement (Fredericks, Blumenfeld, Friedel, & Paris, 2005). A Babel test was utilized to assess language proficiency. To examine the effect of corrective feedback on intrinsic interest, an independent samples t-test was run. The results substantiated the efficiency of corrective feedback in enhancing intrinsic motivation. A one-way between-groups multivariate analysis of variance (MANOVA) was utilized to investigate the role of corrective feedback in Cognitive, Behavioral, and Emotional Engagement. It was revealed that all three types of engagement were influenced and the highest difference was observed in Emotional engagement and the lowest difference was obtained for Behavioral engagement. Regarding language achievement, the results implied that corrective feedback utilized in the experimental group resulted in higher language achievement. Twenty-five percent of the whole participants were interviewed after the term. The findings analyzed via MAXQDA software were in line with the results of the quantitative phase.

Keywords: behavioral engagement; cognitive engagement; emotional engagement; error treatment; humanized teaching; intrinsic motivation; language achievement

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* Corresponding author: Imam Reza International University, Iran
Email address: a.ghanizadeh@imamreza.ac.ir
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Introduction

The term "humanistic", according to Parkay (1998), was derived from the philosophy of humanism and developed during the Protestant Reformation and European Renaissance. Humanistic approach is a mode of instruction where the student's self-actualization is the ultimate objective (Soviyah, 2007). Humanistic psychology highlights personal responsibility, freedom, choice, and awareness (Soviyah, 2007). The effect of humanistic approach on different aspects of language teaching has received considerable attention in recent years (e.g., Harmer, 2001; Soviyah, 2007). As the term suggests, it underscores effectiveness, motivation, emotions, behaviors, and needs of human beings. Maslow (1987) believed that humanistic teaching emphasizes learners' mental state and personal reaction to learning process which are pivotal to the success or failure in the process of learning. There is a wide interest in humanizing language teaching and great importance has been placed on its role in language learning (Carvalhoa, et al., 2015). Humanistic language teaching relates to the emotions, background, wishes, aspirations, beliefs, values, desires, and even fantasies of the students' goal which widely determine students' active engagement in class activities. In other words, if students feel hostile towards the teaching methodology, the subject of the study, or the materials, they will be unlikely to achieve success (Soviyah, 2007).

Humanistic teaching asserts that learners’ feelings are as important as their cognitive or mental abilities (Harmer, 2001). Maslow (1962) believes that the goal of humanistic teaching is to promote learners’ attainment of their full potential through self-actualization. In this regard, basic principles of humanistic education maintain that human beings are willing to actualize their potential and the purpose of education is to provide a learning context which cultivates students’ academic achievement, self-fulfillment, social skills, and emotional well-being (Soviyah, 2007). In carrying out school tasks and activities in language classes, humanized language teaching appears as a fundamental factor in the teacher-student relationship as well as in student participation and engagement in classroom activities (Carvalhoa, et al., 2015).

Practically, student engagement in the classroom is a multi-dimensional construct which can be influenced by a humanized classroom situation (Fredericks, Blumenfeld, Friedel, & Paris, 2005). Some scholars outlined a two-dimensional model of engagement including behavior and emotion (Finn, 1989; Marks, 2000; Skinner, Kindermann, Furrer, & Kindermann, 2008). A model of engagement having four dimensions of academic, behavioral, cognitive, and psychological was also conceptualized (Reschly & Christenson, 2006). Others suggested a three-dimensional model of engagement including emotional, behavioral, and cognitive components (Archambault, 2009; Fredricks et al., 2004; Jimerson, Campos, & Grief, 2003; Wang, 2011).

The first facet of academic engagement is emotional engagement which can be defined as students’ feelings of happiness, interest, anger, and anxiety during the activities related to learner achievement (Skinner & Belmont, 1993). In other words, emotional engagement is the extent to which students display a sense of attachment and concern about their education and their (Sciarr & Scirup, 2008, as cited in Davis, Summers, & Miller, 2012). Effective emotional engagement is perceived to affect students’ willingness to do the work and establish emotional attachment with their school (Connell & Wellborn, 1991; Finn, 1989).

Behavioral engagement refers to the involvement in learning activities (e.g., attention, decent conduct, and class attendance) which draws on the idea of involvement, membership in academic activities, and effective academic attainments (Connell, 1990; Finn, 1989). Other scholars define behavioral engagement in terms of positive conduct, such as not displaying disruptive behavior, following the rules, and adhering to classroom norms (Finn, Pannozzo, & Voelkl, 1995; Finn & Rock, 1997).
In a similar vein, cognitive engagement, as a matter of students’ will refers to learning which is self-regulated and is mingled with meta-cognitive strategies. Cognitive engagement is one of the components of academic engagement and has been emphasized as a mediator variable (e.g., Raisi & Javedan, 2015). Cognitive engagement has been found to have a direct and positive effect on the students’ academic achievement and is considered as thoughtful and strategic to exert the necessary effort for comprehension of complex ideas (Corno & Mandinach, 1983; Fredricks et al., 2004; Meece, Blumenfeld, & Hoyle, 1988).

Given that the major concern of humanistic teaching approach revolves around creating a relaxed, supportive, accepting, and non-threatening atmosphere for students (Maslow, 1962), it encompasses every dimension of learning and teaching. Only through this kind of mood, students feel comfortable to express themselves in the target language. Indeed, every time students try to speak the foreign language, they are concerned about appropriate grammar use and the stress and uneasiness resulted from direct correction in front of the others. One way to build such a climate in the class is by correcting errors in a humanistic manner. Generally speaking, error correction can be direct and indirect; the former refers to the rendering the correct linguistic form or structure by the teacher to the student (Ferris, 2002) and the latter, also known as corrective feedback (CF), refers to the hints given by teachers over an utterance containing an error. According to Kazemipour (2014), oral or written corrective feedback (CF) can be of different kinds. In oral feedback, for instance, implicit CF provides the learner with a hint that his/her utterance is erroneous, for instance by reiterating the utterance with rising/falling intonation. In this respect, eight different types of oral CF exist (Lyster & Ranta, 1997) including: 1. Recast (teacher’s rephrasing of the learner’s utterance by changing one or more components without changing the central meaning); 2. Repetition (intonation of the teacher’s repetition of the student’s erroneous statement); 3. Metalinguistic feedback (ideas, comments, questions, or information related to the form of the student’s utterance, without any explicit reply); 4. Elicitation (directly eliciting the correct form from the student); 5. request for clarification (asking for further elaboration); 6. Explicit correction (providing the correct form); 7. Prompt (offering students a chance to self-repair by repressing the correct form, and 8. Translation (recast-like correction in response to learners’ well-formed utterances in L1).

Ranta and Lyster (2007) classified these CF types into two general CF categories: reformulations and prompts. Indeed, reformulations and prompts are other terms for input-providing and output-prompting CF. Reformulations provide learners with correct formulations of their errors including recast and explicit correction. Prompts embrace all other CF types that impulse learners to modify their own errors, by using clarification request, repetition, metalinguistic feedback, and elicitation.

A plethora of studies show the vibrant impact of error treatment on learning, performance, and self-regulated student learning (e.g., Kluger & DeNisi, 1996;Sendziuk, 2010; Zimmerman & Schunk, 2001, 2007), teacher-student relationship (Black, Harrison, Lee, Marshall, &Wiliam, 2002; Black & Wiliam, 1998), the improvement of second language learning and acquisition (Ellis, 2012; Iraji, Zoghi, & Nemat-Tabrizi, 2014), and student language achievement (Hattie & Timperely, 2007). It is apparent that CF is evidence of humanistic language teaching given that by correcting students’ errors non-threateningly, students’ inhibition to produced language is lowered, and their willingness and motivation to communicate is enhanced.

As far as student motivation is concerned, a proliferation of motivational constructs has been developed to answer questions like “Can I do this task” and “Do I want to do this task and why?” (Eccles, Wigfield, & Schiefele, 1998). That’s because motivation is the underlying reason for a given behavior and can be conceptualized in terms of the direction, intensity, quality, and
persistence of one’s energies emphasizing individual differences and the underlying psychological processes (Fredricks & McColskey, 2012; Maehr & Meyer, 1997).

Even though there are many motivational structures that have direct application in the classroom, the way teachers correct students’ errors can affect their intrinsic motivation to learn and actively engage in class activities (Soviyah, 2007). According to Pintrich, Smith, Garcia, and McKeachie (1991), intrinsic motivation concerns the extent to which the student conceives herself to be engaging in a task for purposes such as interest, appeal, and mastery. Having an intrinsic motivation towards an academic task demonstrates that the student's participation in the task is an end in itself, rather than a means to an end.

In terms of language teaching, as Soviyah (2007) asserts, students are perceived as human beings who have emotions, attitudes, values, and commitments and teachers are to offer them trust and respect, which is preparing the learners to express those abilities in the classroom to facilitate optimizing the best of themselves. Based on self-actualization, learners would become fully-functioning individuals as the result of the intrinsic motivation and aspiration they have got during classroom by the trust and respect from a humanistic teacher (Alahdadi & Ghanizadeh, 2017; Hosseini, Ghonsooly, & Ghanizadeh, 2017). As Raisi and Javedan noted (2015), research indicated that those EFL students who believe they are capable and are intrinsically motivated use more cognitive and metacognitive strategies.

**Purpose of the study**

Building upon and moving beyond studies targeting CF on learner productive skills, the purpose of the present study is to elucidate how humanistic teaching as manifested in error treatment influences EFL learners’ engagement and intrinsic motivation. The succeeding research questions were formulated in this study:

Q1: Does EFL teachers’ humanized error treatment play any significant role in their students’ cognitive, behavioral, and emotional engagement?

Q2: Does EFL teachers’ humanized error treatment play any significant role in their students’ intrinsic motivation?

Q3: Does EFL teachers’ humanized error treatment play any significant role in their students’ language achievement?

Q4: How might EFL teachers’ humanized error treatment influence their students’ cognitive, behavioral, and emotional engagement?

**Methodology**

**Participants**

The participants of the present study comprised 42 advanced learners studying in Shokooh-danesh-e-toos Institute, Mashhad, Iran. The age of the respondents ranged from 15 to 31 years, with the average age equaling to 17 years. The learners were FCE1 female learners. There were two groups: experimental (N=18) and control (N=24) classes which were taught by the same teacher.
Instruments

The Babel English Language Placement Test

To evaluate learner's language achievement, The Babel English Language Placement Test, which is closely based on the Nelson Quick check Placement Tests, was utilized. The Babel test has been shown to be valid and reliable (Al-Anladuz, 2006). It consists of four tests of equal difficulty [designated as Test A, Test B, Test C & Test D]. Each test contains four sections of 25 reading, grammatical, and lexical items. The version which was utilized in this research included 25 items and took nearly twenty minutes to complete.

MSLQ Questionnaire

Motivated Strategies for Learning Questionnaire (MSLQ) is for assessing college students’ motivational orientations (Pintrich, et al., 1991). On the MSLQ, intrinsic motivation concerns intrinsic motivation concerns the extent to which the student conceives herself to be engaging in a task for purposes such as interest, appeal, and mastery. A mentioned by Pintrich et al. (1991), there are two core sections in the MSLQ, a motivation section, and a learning strategies section. The motivation section includes 31 items that evaluate students’ goals and value beliefs for an academic subject, their attitudes towards their ability to do well in a course, and their anxiety about exams within an academic subject. In current study, we selected relevant items (4 items) in order to evaluate EFL learner’s intrinsic motivation.

TOOL-School Engagement Scale

This scale was developed to measure behavioral, emotional, and cognitive aspects of school engagement (Fredericks, Blumenfeld, Friedel, & Paris, 2005). It comprises 4 items for behavioral engagement, 6 items for emotional engagement, and 5 items for cognitive engagement. This scale takes about 10 minutes to respond. Furthermore, this will be the indicator of achievement motivation, conduct and feelings of belonging or school connectedness. This tool has been tested with students from Chicago, Milwaukee, and Detroit and demonstrated good reliability and validity (Fredericks, Blumenfeld, Friedel, & Paris, 2005).

Procedure

The study was carried out in Shokooh-danesh-e-toos Institute in Mashhad, from July 26 to August 27, 2016. To investigate how CF affects EFL learners’ engagement, intrinsic motivation and language achievement, a mixed-methods design incorporating both quantitative (quasi-experimental design) and qualitative (interview & observation) methods was employed. As for the qualitative phase, the data comprised interview sessions which were video-recorded accompanied by observing six out of twenty-four sessions per class of the experimental group. Moreover, the interview with eight percent of the whole participants (three learners of the "experimental error treatment" group) was conducted which was then transcribed, coded, and analyzed. The interviews were done in order to reveal how error treatment adopted in experimental group contributed to students’ engagement, motivation, and achievement.
Also, in the quantitative phase, the Babel English Language Placement Tests, School Engagement Scale, and MSLQ Pintrich Intrinsic motivation scale were administered to 42 homogeneous students who were divided into two groups of experimental and control. The design is QUAN-qual, so it is wise to discuss procedures with QUAN steps first.

Error treatment

In the control group, the instructor corrected the students’ speaking through direct or explicit method of error correction in a way that the instructor clearly indicated that the student's utterance was incorrect, and provided the correct form as illustrated in the following example:

S: "What does Kate say about human…?"
T: humanoid robots.
S: company releaved…
T: revealed not releaved.

Besides, in the experimental group, the students’ speaking errors were corrected by three methods of error correction including peer-correction, elicitation and repetition.

Student is reading an extract: "Robots become more acc…"
Peer: Acceptable.
Student: "Companion means race!"
Peer: "No, that is competition."

Regarding elicitation, the teacher directly elicits the correct form from the student by asking questions (e.g., "How do we say that in English?") by pausing to allow the student to complete the teacher's utterance (e.g., "It's a...") or by asking students to reformulate the utterance (e.g., "Say that again."). Elicitation questions differ from questions that are defined as metalinguistic clues in that they require more than a yes/no response.

S: "Robot dog, a perfect competition…"
T: Competition? Are you sure?
S: "Oh sorry, companion…….. .

Also, by considering repetition, the teacher repeats the student's error and adjusts intonation to draw student's attention to it.

S: (pronunciation error) "robot is a mashine that…"
T: "a mashin or /məʃiːn/ ?
S: məʃiːn.
(Al-Anladuz, 2006)
Results

Quantitative phase

The Results of Pretest: Intrinsic Motivation

To examine whether there is any significant difference between control and experimental groups regarding their intrinsic motivation in the pre-test stage, an independent samples t-test was run. Table 1 below summarizes the descriptive results of intrinsic motivation in the two groups.

Table 1
Descriptive Statistics of Intrinsic Motivation across Control and Experimental Groups

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test Motivation</td>
<td>Control</td>
<td>24</td>
<td>11.08</td>
<td>1.05</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>18</td>
<td>10.83</td>
<td>1.38</td>
</tr>
</tbody>
</table>

As the Table shows, the mean scores of motivation across participants in control and experimental groups are slightly different: control (M=11.08, SD=1.057), experimental (M=15.83, SD=1.38).

To see whether this observed difference is statistically significant, an independent samples t-test was run. Table 2 presents the results of t-test run on intrinsic motivation.

Table 2
Independent Samples T-test: The Results of Pretest on Intrinsic Motivation

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>Sig.</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic Motivation</td>
<td>Equal variances assumed</td>
<td>2.17</td>
<td>.148</td>
<td>.66</td>
<td>40</td>
<td>.511</td>
<td>.250</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>.64</td>
<td>30.85</td>
<td>.527</td>
<td>.250</td>
<td>.391</td>
<td></td>
</tr>
</tbody>
</table>

As can be seen, there is not a statistically significant difference between the two groups regarding the degree of their motivation (t=.51, p<.05). In other words, the two groups are homogenous regarding their level of intrinsic motivation before the study.
The Results of Pretest on Cognitive, Behavioral, and Emotional Engagement

To ensure that the participants of the two groups were homogenous in the level of their Cognitive, Behavioral, and Emotional Engagement, we ran a one-way between-groups multivariate analysis of variance (MANOVA). Three dependent variables were generated: cognitive, behavioral, and emotional engagement. The independent variable was group (control and experimental). Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance covariance matrices, and multicollinearity, with no serious violations noted.

Table 3
MANOVA: Engagement across Control and Experimental Groups

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level</td>
<td>Wilks' Lambda</td>
<td>.914</td>
<td>1.19</td>
<td>3.00</td>
<td>38.00</td>
</tr>
</tbody>
</table>

The results of MANOVA presented in Table 3 reveal that there was not a statistically significant difference between the two groups on the combined dependent variables: \( F=52.80, 473, \ p=.000, \ \text{Wilks' Lambda}=1.39 \).

The Results of Posttest on Intrinsic Motivation

To investigate the effect of error treatment on students' intrinsic motivation, we calculated the differences between the two groups on motivation scale in the post-test. The means of both groups in the post-test were different.

Table 4
Independent Samples T-Test: The Results of Post-test on Intrinsic Motivation

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-test</td>
<td>Control 24</td>
<td>10.50</td>
<td>1.69</td>
</tr>
<tr>
<td>Motivation</td>
<td>Experimental 18</td>
<td>12.88</td>
<td>1.52</td>
</tr>
</tbody>
</table>

As can be seen in Table 4, the mean of the experimental groups \( M=12.88, \ \text{SD}=1.52 \) is higher than that of control groups \( M=10.50, \ \text{SD}=1.69 \). To investigate whether this observed difference is statistically significant, an independent-samples t-test was run.

Table 5
Independent Samples T-Test: The Results of Post-test on Intrinsic Motivation

<table>
<thead>
<tr>
<th>Levene's Test for Equality of Variances</th>
<th>F</th>
<th>Sig.</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic Motivation assumed</td>
<td>.087</td>
<td>.769</td>
<td>-.71</td>
<td>40</td>
<td>.000</td>
<td>-2.38</td>
<td>.50</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>-.78</td>
<td>.3854</td>
<td>.000</td>
<td>-2.38</td>
<td>.49</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
As Table 5 shows, there is a statistically significant difference between experimental and control groups ($t = -4.71, p < .05$). In other words, it can be implied that experimental group gained higher scores in intrinsic motivation and this is an indication of the efficiency of the error treatment employed in experimental group in enhancing their motivation to learn.

**The Results of Posttest on Cognitive, Behavioral, and Emotional Engagement**

Table 6 presents the descriptive statistics of cognitive, behavioral, and emotional engagement across control and experimental groups in the posttest.

Table 6
*Descriptive Statistics: Engagement across Control and Experimental Groups*

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral</td>
<td>1.00</td>
<td>11.45</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>2.00</td>
<td>14.00</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>12.54</td>
<td>42</td>
</tr>
<tr>
<td>Emotional</td>
<td>1.00</td>
<td>15.41</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>2.00</td>
<td>19.16</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>17.02</td>
<td>42</td>
</tr>
<tr>
<td>Cognitive</td>
<td>1.00</td>
<td>14.04</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>2.00</td>
<td>15.88</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>14.83</td>
<td>42</td>
</tr>
</tbody>
</table>

As Table 6 reveals, the mean scores of all types of engagement are higher in experimental group. To see if the observed difference is significant statistically, a one-way between-groups multivariate analysis of variance (MANOVA) was run. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance covariance matrices, and multicollinearity, with no serious violations noted.

Table 7
*MANOVA Results: Engagement across Control and Experimental Groups*

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level</td>
<td>Wilks' Lambda</td>
<td>6.60</td>
<td>6.51</td>
<td>3.00</td>
<td>.001</td>
</tr>
</tbody>
</table>

The result of MANOVA presented in Table 7 reveals that there is a statistically significant difference between the two groups on the combined dependent variables (engagement): ($F = 6.5, p = .001$, Wilks' Lambda=.66). The effect size computed via partial eta squared was found to be .34, which is a quite high magnitude according to Cohen's F. This implies that about 34 percent of variance in engagement can be accounted for by the error treatment utilized in the experimental group.

Table 8
*MANOVA Table: Three Types of Engagement across Control and Experimental Groups*

<table>
<thead>
<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>Type III df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups</td>
<td>Behavioral</td>
<td>66.44</td>
<td>66.44</td>
<td>6.95</td>
<td>.012</td>
<td>.15</td>
</tr>
<tr>
<td></td>
<td>Emotional</td>
<td>144.64</td>
<td>144.64</td>
<td>16.90</td>
<td>.000</td>
<td>.30</td>
</tr>
<tr>
<td></td>
<td>Cognitive</td>
<td>35.09</td>
<td>35.09</td>
<td>8.12</td>
<td>.007</td>
<td>.17</td>
</tr>
</tbody>
</table>
The follow-up analysis represented in Table 8 demonstrates that this difference holds true across all three engagement categories: Behavioral ($F=6.95, p=.012$, partial eta squared =.15), Emotional ($F=16.90, p=.000$, partial eta squared =.30), and Cognitive ($F=8.12, p=.007$, partial eta squared =.17). As can be seen, the highest difference is observed in Emotional (eta square= .30) engagement and the lowest in Behavioral engagement (eta square= .15).

**The Results of Pretest on Language Proficiency**

To examine whether there is any significant difference between control and experimental groups regarding their English proficiency level, an independent samples $t$-test was run. Table 9 below summarizes the descriptive results of English proficiency levels in two groups.

**Table 9**

*Descriptive Statistics of English Proficiency Level across Control and Experimental Groups*

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test Proficiency</td>
<td>Control</td>
<td>24</td>
<td>14.66</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>18</td>
<td>14.27</td>
</tr>
</tbody>
</table>

As the Table shows, the mean scores of proficiency across participants in control and experimental groups are slightly different: control ($M=14.66, SD=1.16$), experimental ($M=14.27, SD=13.78$). To see whether this observed difference is statistically significant, an independent samples $t$-test was run.

**Table 10**

*Independent Samples $t$-Test: The Results of Pre-test on English Proficiency*

<table>
<thead>
<tr>
<th></th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test Proficiency</td>
<td>.82</td>
<td>40</td>
<td>.413</td>
<td>.38</td>
<td>.47</td>
</tr>
</tbody>
</table>

Table 10 presents the results of $t$-test run on English proficiency level. As can be seen, there is not a statistically significant difference between the two groups regarding the level of their proficiency ($t=.88, p<.05$). In other words, the two groups are homogenous regarding their English proficiency level before the study.

**The Results of Posttest on Language Proficiency**

To investigate the effect of teacher error treatment on students’ language achievement, the two groups were examined in the post-test. First, the means of both groups in the post-test were calculated.
Table 11
Descriptive Statistics of Language Achievement across Control and Experimental Groups in Post-test

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-test Lan Achievement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>24</td>
<td>15.26</td>
<td>1.59</td>
<td>.30</td>
</tr>
<tr>
<td>Experimental</td>
<td>18</td>
<td>17.05</td>
<td>.93</td>
<td>.22</td>
</tr>
</tbody>
</table>

As can be seen in Table 11, the mean of the experimental groups is 17.05, and that of the control groups is 15.26. To investigate whether this difference is statistically significant, an independent-samples t-test was run (See Table 12).

Table 12
Independent Samples T-Test: The Results of Post-test on Language Achievement

<table>
<thead>
<tr>
<th></th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-test Lan Achievement</td>
<td>-4.32</td>
<td>40</td>
<td>.000</td>
<td>-1.76</td>
<td>.40</td>
</tr>
</tbody>
</table>

As the results of independent-samples t-test show, there is a statistically significant difference between experimental and control groups ($t = -4.32, p < .05$) in their language learning. In other words, it can be said that the type of corrective feedback utilized in experimental group resulted in higher language achievement.

Qualitative phase

This section presents the interview protocols extracted from the questions presented to the participants to find out their reactions to CF. The responses were coded based on three dimensional engagement models as well as language learning. The following table illustrates samples of interview extracts categorized based on the afore-mentioned dimensions (Table 13). To facilitate the coding process, the researchers went through the transcripts and extracted the themes that appeared to be relevant. Then, they employed MAXQDA software to identify and categorize recurrent codes.

Table 13
Categorization of Interview Protocols

<table>
<thead>
<tr>
<th>Dimensions of engagement</th>
<th>Interview extracts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional</td>
<td>&quot;I feel ashamed when my peers directly corrected my errors, because we are at the same level, and I feel bad that I did not know such a silly thing, which they understood.&quot;</td>
</tr>
<tr>
<td></td>
<td>&quot;When the teacher promptly corrects my errors, everything disappears from my mind and I cannot&quot;</td>
</tr>
</tbody>
</table>
continue my speaking."
"I feel my friends are laughing at me when the teacher directly
corrects my errors, or sometimes I feel the humiliation in their
eyes or the way they are looking at me."
"When teacher repeats the correct form for me, it would stick in my
mind, even if it happened ten terms ago, I still can remember the
correct form of that."
"I prefer having rapport with my teacher than peers, because I feel
making mistake is something natural that maybe my friends can do
it."
"When making mistakes, I would be more satisfied if the teacher
helps me self-correct my mistakes.
"When my teacher corrects my errors and reprimands me, I feel
scared to say something that might be incorrect."
"I feel happy to be part of class. However, if teacher corrected me
directly several times in a session, it would affect me and I get
embarrassed."

Behavioral
"I like to be active in class, but I think directly correction is not
good, I am stressed of saying something incorrectly and they tell me
you had several mistakes in the same session."
"I like my teacher to provide feedback after I finished speaking,
because I may forget what I wanted to say."
"When my teacher helps me correct myself after I finished speaking,
I take a note and remember it forever."
"When I am encouraged to correct my errors, I listen carefully and
always take a note to memorize it at home."

Cognitive
"I become more motivated to listen carefully in order not to repeat
an error next time."
"After making an error and get corrected in front of the others, I
cannot concentrate anymore and do not seem to learn effectively."
"When I am encouraged to self-correct my mistakes, I try to analyze
it and find the areas of that error."
"Most of the time I think about the correctness of my sentences
before speaking."
"Sometimes, I have a keyword in my mind and start speaking about
it, while taking into account not to commit prior mistakes."

After analyzing the data based on the codes of Table 13, the researchers tabulated the frequency
count of each code. Table 14 presents the frequency counts of each code provided by MAXQDA
entry.

Table 14
The Coded Themes Along with Their Frequency Counts

<table>
<thead>
<tr>
<th>Code ID</th>
<th>Parent code</th>
<th>Code</th>
<th>All coded segments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Engagement</td>
<td>Emotional engagement</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>Engagement</td>
<td>Cognitive engagement</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>Engagement</td>
<td>Behavioral engagement</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>Learning</td>
<td>Language achievement</td>
<td>9</td>
</tr>
</tbody>
</table>

As Table 14 demonstrates, the most frequent code is cognitive engagement followed by
emotional engagement. Overall, the results of qualitative phase (interview) were in line with
quantitative phase. It demonstrated that CF enhanced students’ cognitive, emotional, behavioral engagement, as well as language learning.

Discussion and Conclusions

In the recent decades, student engagement has systematically been studied in literature (Appleton, Christenson, & Furlong, 2008; Fredricks, Blumenfeld, & Paris, 2004; Reeve & Tseng, 2011). It has been proposed that students who are more engaged and efficient in their classroom activities which are humanistic-oriented tend to have a solid academic knowledge, implement resourceful learning strategies, attain high academic outcomes, establish reasonable interpersonal relationships, and enjoy satisfactory motivational status in classroom (Wentzel, 2003). Therefore, the development of reliable and practical methods and strategies for student engagement in school and institutes has become a priority for researchers. There is a wide interest in humanizing language teaching and great importance has been placed on its contribution to students’ academic engagement (Soviyah, 2007).

In this study, CF, as a manifestation of humanistic approach, was presumed to influence EFL learners’ engagement, motivation, and language achievement. According to the formulated research questions, the results of MANOVA revealed that all three types of engagement were influenced by CF and EFL teacher’s types of humanized error treatment played a significant role in students’ cognitive, behavioral, and emotional engagement. The highest difference was observed in Emotional engagement and the lowest difference was obtained for Behavioral engagement. The results of independent samples t-test substantiated the efficiency of corrective feedback in enhancing intrinsic motivation. It was also found that corrective feedback utilized in experimental group resulted in higher language achievement.

Regarding the first finding, it can be implied that the error treatment utilized in the experimental group can account for the variance in engagement. Humanistic teaching emphasizes that learners’ state of mind and personal response to the activity of learning is central to the success or failure in their learning and their desire in engagement with other peers. Among three different types of engagement we studied, emotional engagement was the most-influenced one. It suggests that the students’ feelings of interest and motivation increase and anxiety diminishes while teacher uses humanistic types of corrective feedback in experimental class, rather than indirect ways of correction which might hinder students’ emotional participation in class activities. As stated earlier, emotional engagement refers to the students’ feelings of happiness, interest, anger, and anxiety during the activities related to learner achievement (Skinner & Belmont, 1993). Thus, it seems plausible that CF aiming at creating a non-threatening and reassuring environment in response to students’ mistake can promote students’ emotional belonging to classroom and class activities. This finding corroborates previous research demonstrating the contribution of CF to the teacher-student rapport and the emotional tie between teacher and students (Black, Harrison, Lee, Marshall, & Wiliam, 2002; Black & Wiliam, 1998).

Concerning the second research question, the results demonstrated the efficiency of the error treatment employed in the experimental group in enhancing their motivation to learn. Therefore, students in the experimental group who received humanized error treatment perceived themselves to be participating in a task for reasons such as challenge, curiosity, and mastery, which are the result of their intrinsic motivation. As Pintrich, Smith, Garcia, and McKeachie (1991) noted, intrinsic motivation refers to the degree to which the student perceives herself to be participating in a task for reasons such as challenge, curiosity, and mastery. As it is contended in humanistic approaches to language teaching, students are viewed as human beings who have feelings, emotions, beliefs, values and responsibilities and teachers are to create settings where students freely express those abilities in the classroom to facilitate optimizing the best of themselves
Hence, CF rooted in humanistic approach of error treatment can enhance students’ intrinsic motivation through the trust and respect exhibited by the teacher. This finding is in accordance with previous research attesting to the facilitative role of CF in cultivating different aspects of students’ motivational disposition (Sendziuk, 2010; Zimmerman & Schunk, 2001, 2007).

Regarding the third research question, it was found that corrective feedback utilized in experimental group resulted in higher language achievement. This is in line with Hattie and Timperley’s (2007) contention that CF is one of the most powerful factors influencing learner’s achievement. In L2 domain, a plethora of studies demonstrated the improvement of second language learning and acquisition via different CF types a teacher employs in response to students’ errors (e.g., Ellis, Sheen, Murakami, & Takashima, 2008; Ghanizadeh, Merikhi, & Jahedizadeh, 2018; Iraji, Zoghi, & Nemat-Tabrizi, 2014; Lee & Lyster, 2016; Shirkhani & Tajeddin, 2016).

Studying the targets of CF can have implications for language teaching because CF targets can influence the feedback uptake and indicate teacher’s preferences or ability for correcting certain types of errors. The findings of the present research suggest that teachers should be given more awareness on the need to use various CF strategies and also help learners assume responsibility for correcting their own errors. It is necessary to note that teachers need to develop a sense of caring and relatedness in their classrooms by emphasizing a sense of community which is the aim of humanistic teaching. Although the results of this study are promising, it should be noted that there are a number of confounding factors in the use of CF types. As recommended by Lyster, Saito, and Sato (2013), teachers should choose CF types according to a host of factors, such as linguistic targets, learners' level, and the classroom orientation.

Taken together, based on the findings of the present study, the benefits of CF extend beyond acquiring grammatical knowledge and encompass various emotional and motivational facets. A number of limitations in this study should be noted. First, the participants of the study comprised EFL learners of only one language institute of Mashhad. Second, in the present study, only female EFL learners participated. Third, only speaking errors of the participants of the experimental group were corrected by three methods of corrective feedback, including peer-correction, elicitation, and repetition. In future studies, CF in other areas and skills focusing on various cognitive, emotional, and meta-cognitive aspects of learning can be studied.

References


Appendix A

Sample items for MSLQ intrinsic motivation questionnaire

Please check (√) and rate yourself honestly based on what you actually do given the statements using the following scales.

Name: ___________________________                  Education: _________________________
Gender:         Male           Female                               Level: ___________________________
Date: ___________________________                   Age: ______________________________

1= Never         2= On Occasion    3= Some of the time     4= Most of the time    5= All of the time

<table>
<thead>
<tr>
<th>Item</th>
<th>Factors</th>
<th>Never (1)</th>
<th>On Occasion (2)</th>
<th>Some of the time (3)</th>
<th>Most of the time (4)</th>
<th>All of the time (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>In a class like this, I prefer course material that really challenges me so I can learn new things.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>In a class like this, I prefer course material that arouses my curiosity, even if it is difficult to learn.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>The most satisfying thing for me in this course is trying to understand the content as thoroughly as possible.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>When I have the opportunity in this class, I choose course assignments that I can learn from even if they do not guarantee a good grade.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix B

Sample items of the TOOL—School Engagement Scale – Behavioral, Emotional, and Cognitive Engagement

**Behavioral Engagement**

1. I pay attention in class
   - Never
   - On Occasion
   - Some of the Time
   - Most of the Time
   - All of the Time

**Emotional Engagement**

2. I feel excited by the work in the class
   - Never
   - On Occasion
   - Some of the Time
   - Most of the Time
   - All of the Time

**Cognitive Engagement**

3. When I read a book, I ask myself questions to make sure I understand what it is about
   - Never
   - On Occasion
   - Some of the Time
   - Most of the Time
   - All of the Time
Afsaneh Ghanizadeh is an assistant professor at Imam Reza International University Mashhad, Iran. She has published over 70 papers in research scientific journals and about 30 papers in ISI or Scopus-indexed journals (published in Elsevier, Oxford, Springer, Taylor & Francis, Sage, Emerald, etc.). Her research interests include psycholinguistics, psychology of language teaching and learning, and teacher education.

Azin Amiri holds an MA degree in the field of TEFL from Imam Reza International University, Mashhad. She is an EFL instructor at Shokouh language institute. Her research interests include psycholinguistics and psychology of language teaching and learning.

Safoura Jahrdizadeh hold a PhD degree from Ferdowsi University of Mashhad. She is an EFL instructor at Imam Reza International University. She has published over 30 papers in research scientific and ISI journals. Her research interests include psycholinguistics, psychology of language teaching and learning, and teacher education.