A Case Study on the Effect of Self-Assessment on EFL Learners’ Self-Efficacy Beliefs*

Dilara Demirbulak
Yeditepe University, TURKEY

Levent Icden
Yeditepe University, TURKEY

Ayse Yilmaz Virlan
Marmara University, TURKEY

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Abstract: This study aimed to look into the impact of continuous self-assessment on the self-efficacy beliefs of undergraduates studying English as a foreign language (EFL). To find out if there is a change in students’ beliefs about their language proficiency perception, the research was undertaken with 102 participants at the school of foreign languages of a private university. It was designed as quasi-experimental research utilizing qualitative and quantitative research methods to collect data through a self-efficacy scale, self-assessment questionnaire, and self-reflection checklists. The control and experimental groups were administered a self-efficacy scale at the beginning and the end of the term. Throughout the term, the participants in the experimental group assessed themselves weekly through self-reflection checklists and a self-assessment questionnaire. Based on the overall results, it was found that when the students had an opportunity to identify their strengths and weaknesses during a skill-based task through self-assessment questionnaires, they had a better sense of mastery related to that task. This inevitably led to an increase in their self-efficacy beliefs in terms of four skills, namely reading, writing, listening, and speaking as well as grammar.

Keywords: English as a foreign language, second language teaching, self-assessment, self-efficacy, self-reflection.


Introduction

Globalization has led to a significant increase in demand for high-level English language proficiency, and for some reason or another; it has become the duty of higher education institutions to ensure it (Ying & Ying, 2018). Although being fluent in English is a sine qua non for career development, there is also the fact that their pragmatic use of a second foreign language is rather limited. In other words, their exposure and use of English in their daily life is almost none. This could well hinder students’ integrative motivation that positively influences second foreign language proficiency by stimulating their interest in the selected language and its associated culture, as well as their demand for related entertainment. The higher the integrative motivation of learners, the more committed they are to second foreign language learning. Also, they will seek opportunities to enhance their second foreign language skills to improve their cultural experience, entertain themselves, and achieve integrative purposes. This is a very important issue in foreign language learning since the process requires them to make use of something unknown to them. During this unique process of learning, they can experience diverse emotions as well as achievement (Gadbois & Sturgeon, 2011). They could easily have doubts about whether they can learn the language leading to academic procrastination. So, in today’s world, not only cognitive but also affective factors such as attitudes, beliefs, needs, expectations, and prior experiences (Gee, 1999; McKenna et al., 1995; Rahimi & Abedini, 2009; Sauvignon, 1983) have to be taken into consideration to ensure effective and efficient EFL instruction.

In this regard, it was aimed to understand the beliefs of undergraduates studying English as a foreign language on their competence in English through the effects of self-assessment on self-efficacy and find out if students can perform better when they reflect on their studies by analyzing their strengths and weaknesses during the language learning process. It was also aimed to investigate if there would be a change on their beliefs of language proficiency perception when such intervention comes into being. For this reason, this study is hoped to contribute to the literature and provide suggestions for further applications of self-assessment.

* This article is originated from the second author’s MA thesis "The effect of self-assessment on the self-efficacy beliefs of learners of English as a foreign language (EFL)" conducted at Yeditepe University in 2019.

** Corresponding author:
Ayse Yilmaz Virlan, Marmara University, School of Foreign Languages, Goztepe Campus, Kadikoy, Istanbul, Turkey. ayseyilmazvirlan@gmail.com

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Since the 1980s, much has been learned about learning and teaching processes. Constructivism is one of the major theories that attracted the attention of scholars. Considering knowledge as a fixed, and objective concept, the constructivist approach defines knowledge as "temporary, developmental, socially and culturally mediated, and thus, non-objective" (Brooks, 1999, p.7). From this point of view, learning is a self-regulated process of resolving inner cognitive conflicts (Anderson, 1998). Fosnot and Perry (1996, p. 23) state that “we as human beings have no access to an objective reality since we are constructing our version of it, while at the same time transforming it and ourselves”. From such a perspective, teaching is a process of helping students to learn how to obtain knowledge within their cultural context (Anderson, 1998).

Researchers also found other mechanisms, such as self-efficacy, that impact learners' achievement and proficiency (Pintrich & Schunk, 1996). Social learning theory was first coined by Miller and Dollard (1941, as cited in Pajares, 2002) by highlighting the importance of drive reduction principles and evaluating the role of the behaviorist approach of associationism. Their study was further investigated and developed by various researchers. However, among them, Bandura (1977) made the most respected contribution with his publication of the article Self-efficacy: Toward a unifying theory of behavioral change, and the book Social Learning Theory.

According to Bandura (2001), human reactions are not just formed and guided by environmental forces or cast out due to mere impulses. Instead, they are shaped by human self-organizing, proactive, self-reflecting, and self-regulating nature. He proposed that human functioning is the product of a dynamic interplay of personal, behavioral, and environmental influences (Pajares, 2002). He called this concept "reciprocal determinism", a view that sees human behavior "not as directly determined by social or environmental influences but as crucially mediated through the individual's knowledge, understanding, emotions, perceptions, and interpretations (Macvarish & Billings, 2010, p. 3).

Self-efficacy is a key factor that affects learners’ interest, persistence, the extent of effort they are going to invest in learning, the goals they choose to pursue, and their use of self-regulated strategies in performing a task (Janulėvičienė & Kavaliauskiene, 2007; Pajares, 2002; Pintrich & Schunk, 1996). It is one’s belief and confidence in their ability to accomplish a specific task or mastery of a particular task or activity. While some research results indicate that self-efficacy positively influences several learning skills (Alisah & Dolmaci, 2013; Hsieh & Kang, 2010; Liao & Wang, 2018; Magogwe & Oliver, 2007; Rahimi & Abedini, 2009; Shah et al., 2011; Wong, 2005) and that both learners and instructors have benefited from the enrichment of self-efficacy, others indicate that self-efficacy is not influential on student beliefs in their academic performance (Beljoo, 2013; Cook, 2013; Ersanli, 2015; Kyzzy, 2016; Semiz, 2011; Sidman-Taveau & Karathanos-Aguilar, 2015; Templin, 2011).

Meanwhile, the perceived self-mastery resulting from self-assessment contributes to the learner's self-efficacy (Bandura, 1997; Ross, 2006). In this regard, the role of self-efficacy in foreign language learning emphasizes the need for more research on the effect of self-assessment on self-efficacy.

As the importance of affective factors has been realized, the need for complementary assessment instruments became apparent due to their intertwined relationship between instruction and assessment. As one form of measuring learners' language competencies, self-assessment has attracted significant attention in foreign language education. It is defined as specific information about the learners from their perspective regarded as a reflection of their abilities and shortcomings, the progress they assume they are making in a course, and what they have learned up to a particular moment/point in a course (Blanche & Merino, 1989), expectations and needs, their problems and worries, and how they feel about their learning process. The concept of self-assessment was championed by the notion of a self-regulated learning process, in which students take an active role in the learning process as being responsible for their learning (Anderson, et al., 2004). Self-assessment plays a crucial role in students’ making their judgments about their learning, especially about their learning outcomes (Boud & Falchikov, 1989). Studies showed that adaption of self-assessment increases learners' motivation which ultimately contributes to better grades.

Self-assessment has been applied in a variety of settings as it can be triggered by the necessity to introduce reflection and reflective practices in various contexts. Some research results are emphasizing the lack of a complete theoretical foundation for self-assessment and they attempt to propose different conceptual frameworks that can support the effective use of such assessments (Andrade & Du, 2007; Babaii et al., 2016; Baleghizadeh, & Masoun, 2014; Letina, 2015; Levine, 1980; Nicol & Macfarlane-Dick, 2004; Yorke, 2003).

Conclusively, this study aimed to focus on student self-assessment as a means of building self-efficacy. Since there is an increasing demand for the integration of affective and cognitive factors in the instructional design of EFL, this study tries to dwell on the impact of these factors concerning self-assessment on students’ self-efficacy beliefs. If parallels between the literature on self-assessment and self-efficacy can be drawn, specific classroom practices can also be improved.
The Rationale and Research Questions of the Study

The study aims to investigate the effect of continuous self-assessment through certain assessment tools on the self-efficacy beliefs of undergraduates studying at the pre-intermediate level. It is expected to find out if EFL students' beliefs on their perception of competence in English change when they analyze their strengths and weaknesses during their language learning process. With these in mind, the current research addresses the following research question and sub-research questions:

What is the effect of continuous self-assessment on the reading, writing, listening, and speaking self-efficacy beliefs of undergraduates studying English at the pre-intermediate level?

a) Does self-assessment affect the reading self-efficacy beliefs of undergraduates studying English at the pre-intermediate level?

b) Does self-assessment affect the writing self-efficacy beliefs of undergraduates studying English at the pre-intermediate level?

c) Does self-assessment affect the listening self-efficacy beliefs of undergraduates studying English at the pre-intermediate level?

d) Does self-assessment affect the speaking self-efficacy beliefs of undergraduates studying English at the pre-intermediate level?

Methodology

Research Design

This is a quasi-experimental research design where qualitative and quantitative research methods were employed. The data were collected via a self-efficacy scale, a self-assessment questionnaire, and self-reflection checklists. For the quantitative research method, data were obtained through a pre- and post-test application of the self-efficacy scale to the participants in the experiment and control group. In between the pre- and post-test, treatment through checklists and self-assessment questionnaires were administered to the experimental group. To investigate the difference in pre- and post-test achievement scores of the treatment and control group, covariance analysis (ANCOVA) was used. To compare the post-test results of the experiment and control group, pre-test results were used as covariate variables. Regarding the qualitative research method, the self-assessment questionnaires filled by the participants every two weeks were content analyzed using an NVivo program.

Study Group

The current study was undertaken at the school of foreign languages at a university. The experiment and control group, each of which consisted of 51 students, were selected randomly using the convenient sampling method and constituted the sample (n=102 in total). Written consent was sought from all the participants. The participants were also informed that they were participating in a master’s thesis study and were assured of confidentiality. The study was conducted in compliance with all relevant laws and institutional guidelines in force at the time it was performed.

Data Collection Tools

Self-efficacy Scale

The self-efficacy scale developed by Yanar and Bümen (2012) was used in this study. The scale is in Turkish. Yanar and Bümen aimed to fulfill the need for a valid and reliable tool to assess self-efficacy with this scale. There are four sections in the scale; reading, writing, listening, and speaking. The breakdown of the main sections and their Cronbach’s alpha coefficients for the sections of the scale are presented in Table 1.

<table>
<thead>
<tr>
<th>Number of questions</th>
<th>Reading</th>
<th>Writing</th>
<th>Listening</th>
<th>Speaking</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach’s alpha coefficient</td>
<td>0.92</td>
<td>0.88</td>
<td>0.93</td>
<td>0.92</td>
<td>0.97</td>
</tr>
</tbody>
</table>

The factor loadings of these 34 items ranged between 0.42 and 0.69, which is an indicator of the reliability and the validity of the scale. The four sub-dimensions of the scale were proved to be valid according to the fit indexes of the scale (GFI =.96; AGFI =.92; RMSEA=.044 and SRMR=.046). The reliability coefficients for the scale after being administered in this study were also at acceptable levels for Cronbach alpha and composite reliability being α =.90, CR=.632 for the pre-test, and α =.96, CR=.681 for the post-test.
**Self-reflection Checklists**

Based on the objectives specified in the preparatory program curriculum, the researcher devised self-reflection checklists with the relevant advisor to be given at the end of each session every week. There are ten checklists with a different number of questions each week. The number of questions varies in line with the number of subjects to be covered that week. Students were expected to assess themselves throughout the process by marking the correct column as successful, partly successful, or unsuccessful. In so doing, the researcher was provided with immediate feedback about the students’ beliefs on how successful they think they were and, accordingly, reinforced learning by revising the related subject or supplying extra materials.

**Self-assessment Questionnaires**

Self-assessment questionnaires were used as they are efficient tools in making the students participate in their understanding of learning. Every two weeks, students were handed in open-ended questions in which they assessed what they learned throughout the week if in-class activities have influenced their learning of the subjects, in which subject they have had difficulty most, how they would have a better understanding of the subject and if they have participated in-class activities effectively and why. Also, a content analysis was conducted to analyze the students’ responses.

**Data Collection Procedure**

The study was carried out in two stages. In the first stage, the self-assessment questionnaires and self-reflection checklists were prepared with the advisor and checked by an expert in the field. Upon their feedback, the data collection tools were rearranged and then changed accordingly. The pilot study for the questionnaires and checklists was conducted with seven students to remove irrelevant and vague questions. In the second stage, the questionnaires and checklists were administered to the sample group. The self-efficacy scale was administered to experiment and control groups at the beginning of the term. During the term, only the students in the experiment group assessed themselves through checklists and journals. At the end of the term, both control and experiment groups were given the self-efficacy scale again, and the data were analyzed to find out if the results of the experiment group differed from those of the control groups.

**Figure 1. Data Collection Procedure**

Self-reflection checklists were applied to the experiment group at the end of each week to get instant feedback about the students’ thoughts on their success. If the researcher could not cover all the subjects that week, students were handed in the checklists right after all the subjects were covered, which was the first day of the week. Every two weeks, a self-assessment questionnaire was given to the participants in the experiment group, and they were asked to provide written answers through which the researcher could become aware of the students’ thoughts, weaknesses, strengths, and feelings concerning their learning. In the meantime, the students in the control group continued their normal teaching-learning process along with the rest of the prep school classes. The instructor treated both groups as similarly as possible using the same course content, teaching approach, classroom tools, and course books; Reading Explorer 2, Ready to Write 2 and Speakout Pre-Intermediate.

**Data Analysis**

Quantitative data were analyzed through SPSS Statistics. A Kolmogorov-Smirnov test was used to test for normality. The results for pre-test D(102)=0.117, p > .05, and the posttest D(102)=0.107 p > 0.5, were both normal, indicating that
the data was normally distributed in both groups. The results of additional normality tests also reported that skewness ranged between 0.787 and 1.258. The values of kurtosis ranged between −1.158 and 1.367, revealing that the pre-test and posttest score were distributed normally. Based on this outcome ANCOVA was used according to the score and sub-dimensions of the scale to determine if there was a meaningful difference in pre and post-test results of self-efficacy scores. As for the self-assessment questionnaires, an initial structural coding, and thematic coding was performed to indicate every theme in the questionnaire data. Utilizing matrix coding query, word frequency query, chart, and map tool in NVivo; coded qualitative data were transformed into frequency tables, word clouds, bar charts, and concept maps so that each visualization indicated the concepts of qualitative data.

For the analysis of the self-reflection checklists, frequency analysis was applied, and the results were presented with their percentages and frequencies in the interpretation process. All the checklists throughout the term were categorized under the heading of the four skills: Reading, writing, listening and speaking. In addition, grammar was also included as one of the headings since there were items regarding the grammar topics in the checklist.

Results

The leading research question aimed to determine the impact of self-assessment on the self-efficacy beliefs of undergraduates studying at the pre-intermediate level. For this purpose, the main and the sub-research questions were analyzed concerning the data received from the study instruments and discussed in detail under the related title.

Analysis of Self-efficacy Scale Results for Self-efficacy

The descriptive statistics of the English self-efficacy scores regarding the pre-post tests of the experiment and control group are shown in Table 2 below.

<table>
<thead>
<tr>
<th></th>
<th>Experiment</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>( \bar{x} )</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>51</td>
<td>123.31</td>
</tr>
<tr>
<td>Post-test</td>
<td>51</td>
<td>128.96</td>
</tr>
</tbody>
</table>

As the results of the descriptive statistics reveal, there has been a statistically significant difference between the post-test results of the experiment (\( \bar{x} = 128.96 \)) and the control group (\( \bar{x} = 112.47 \)). It means that although the groups had similar results for the pre-tests in terms of perception of self-efficacy, they had different post-test results, which can be assumed to have resulted from the intervention of self-assessment. Therefore, to identify the possible effects of self-assessment, a covariant analysis was conducted on the English self-efficacy of students as well as the descriptive statistics regarding the pre-post test results of the participants, the result of which are presented in Table 3.

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
<th>( \eta^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-efficacy pre-test</td>
<td>1836.345</td>
<td>1</td>
<td>1836.345</td>
<td>7.360</td>
<td>.008</td>
<td>.069</td>
</tr>
<tr>
<td>Group</td>
<td>6423.572</td>
<td>1</td>
<td>6423.572</td>
<td>25.744</td>
<td>.000</td>
<td>.206</td>
</tr>
<tr>
<td>Error</td>
<td>24702.282</td>
<td>99</td>
<td>249.518</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>33472.755</td>
<td>101</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the statistics, there was a statistically significant difference (\( F_{(1,99)} = 25.744; p < .05 \)) between the self-efficacy post-test scores of the students in the experiment and the control group. Based on the overall findings, it was clear that self-assessment affected the beliefs of students' self-efficacy in all skills and grammar positively. Upon comparing the participants’ pre and post-self-efficacy test results, students who assessed themselves through self-assessment tools were more successful than the other students who were not exposed to any intervention throughout the term.

The Effect of Self-Assessment on Reading Self-Efficacy Beliefs

According to the results, there has been a statistically significant difference between the post-test results of the experiment (\( \bar{x} = 31.45 \)) and the control group (\( \bar{x} = 28.14 \)), which means that although the groups had similar results for the pre-tests in terms of perception of self-efficacy, the post-test results differed from each other, which most probably resulted from the intervention of self-assessment. Therefore, to identify the possible effects of self-assessment, a covariant analysis was conducted on students' reading self-efficacy was conducted on their reading self-efficacy as shown in Table 4 below.
The ANCOVA results of reading self-efficacy t scores of the students reveal that there was a statistically significant difference ($F_{(1,99)} = 15.903; p < .05$) between the students in the experiment and control group.

Additionally, upon analyzing the self-assessment questionnaires filled by the participants every two weeks via NVivo package, it was observed that participants primarily focused on grammar subjects rather than reading. Nevertheless, each week, a few students mentioned the difficulties they had in memorizing new vocabulary and word forms and phrases.

A self-reflection checklist was also employed to gather data about the level of success of the participants in reading skills, vocabulary, and its use and comprehension. Checklist items consisted of comprehension studies, vocabulary with different forms, and reading skills such as reference, scanning, skimming, guessing the word meaning, finding the main idea, and inference that are in line with the weekly pacing. The results revealed that there was a significant increase in the post-test mean scores of the experiment group. The pre-test score of the experiment group was 27.47 and 27.92 for the control group. However, the post-test mean scores were 31.45 for the experiment group and 28.14 for the control group. In this regard, in pacing, where students were exposed to reading skills, comprehension studies, and vocabulary with different forms in both groups, the difference in mean scores of the control group would be expected to be as much as it was in the experiment group, whereas it was not. As self-assessment was the only difference between the two groups, it seems that this was the critical factor in the result. Therefore, as self-assessment is the only variable seen at this point, it can be concluded there was a significant difference between the mean scores of the experiment and the control group due to the intervention of self-assessment.

The Effect of Self-Assessment on Writing Self-Efficacy Beliefs

The results indicated that there was a statistically significant difference between the post-test results of the experiment ($\bar{x}$=35.06) and control group ($\bar{x}$=31.49), which can be interpreted as although the groups had similar results for the pre-tests in terms of perception of self-efficacy, they had different post-test results. It can be assumed that the intervention of self-assessment led to these results as it was the main variable in the study. Therefore, to identify the possible effects of self-assessment, a covariant analysis was conducted on students’ writing self-efficacy (See Table 5).

Table 4. Results of Reading Self-Efficacy 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>p</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading self-efficacy pre-test</td>
<td>350.462</td>
<td>1</td>
<td>350.462</td>
<td>17.791</td>
<td>.000</td>
<td>.152</td>
</tr>
<tr>
<td>Group</td>
<td>313.265</td>
<td>1</td>
<td>313.265</td>
<td>15.903</td>
<td>.000</td>
<td>.138</td>
</tr>
<tr>
<td>Error</td>
<td>195.204</td>
<td>99</td>
<td>19.699</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>2580.676</td>
<td>101</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5 shows that there was a statistically significant difference ($F_{(1,99)} = 8.195; p < .05$) between the writing self-efficacy post-test scores of the students in the experiment and control group. In conformity with the results, it can be assumed that self-assessment had a significant effect on the students’ perception of writing self-efficacy. The open-ended answers given to the questions in the self-assessment questionnaires were also analyzed to better understand the overall issue. It was observed that participants primarily focused on grammar subjects rather than writing. Nevertheless, some students in the 1st and fourth weeks stated that they had difficulty concentrating on writing paragraphs and had to be more attentive about writing.

The checklist items also revealed the level of success of the participants in the organization of writing and paragraph types. Students felt sufficient in getting organized before writing yet they could not show the same success rate in production. When they were to support the main idea or different paragraph types, they did not feel as sufficient as they did in the organization of writing. As a result, the number of students assessing themselves as successful is very close to the number of students assessing themselves as partly successful. Nevertheless, the number of students feeling insufficient was low, which is satisfactory and indicates that writing was no problem. In a study by Banlı (2014) in which self-assessment tools were used to examine the impact of self-assessment on improving writing skills, results reveal that when students assess themselves, they develop a kind of positive attitude towards language skills. It could be concluded that self-assessment was effective on their beliefs regarding their language skills, similar to the findings in this study. In this study, self-efficacy test results indicate that writing self-efficacy increased considerably when comparing the pre-test and post-test results. The mean score of the pre-test of the experiment group was 31.71, while
the mean score for their post-test results was 35.06. Besides, when analyzing the checklists, it was found out that the students felt themselves sufficient, and the number of students feeling insufficient was low. When students self-assess themselves, they considered themselves successful, which supports the increase in self-efficacy beliefs.

The Effect of Self-Assessment on Listening Self-Efficacy Beliefs

According to the descriptive statistics, there was a statistically significant difference between the post-test results of the experiment (\(\bar{x} = 38.53\)) and control group (\(\bar{x} = 34.02\)), which expresses the fact that although the groups had similar results for the pre-tests in terms of perception of self-efficacy, they had different post-test results. So, to identify the possible effects of the intervention of self-assessment, a covariant analysis was conducted on the listening self-efficacy of students as can be seen in Table 6.

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening self-efficacy pre-test</td>
<td>307.210</td>
<td>1</td>
<td>307.210</td>
<td>9.617</td>
<td>.003</td>
<td>.089</td>
</tr>
<tr>
<td>Group</td>
<td>482.252</td>
<td>1</td>
<td>482.252</td>
<td>15.097</td>
<td>.000</td>
<td>.132</td>
</tr>
<tr>
<td>Error</td>
<td>3162.476</td>
<td>99</td>
<td>31.944</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>3988.314</td>
<td>101</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the statistics, there was a statistically significant difference (\(F_{(1,99)} = 15.097; p < .05\)) between the listening self-efficacy post-test scores of the students in the experiment and control group. Hence, it can be assumed that self-assessment had a significant effect on students’ perception of listening self-efficacy. The content analysis of the self-assessment questionnaires also concluded that participants mainly focused on grammar subjects rather than listening and did not express any point regarding listening.

When it comes to the self-reflection checklist, there is a successive increase in the success rate of the students assessing themselves every week along with the knowledge of new vocabulary and maybe even with the familiarity of the tasks. Therefore, it is likely that vocabulary played a role in improving students’ listening skills or was influential in their listening comprehension. When the pre-post test results of the experiment and control group are compared, it can be seen that there is an increase in the mean scores of both groups. However, the pre-test means a score of the control group was 33.47, and the post-test mean score was 34.02, while the pre-test means a score of the experiment group was 34.02, and the post-test mean score was 38.53, which means the increase in the mean scores of the experiment group was a lot more than that of the control group. In this regard, if the effect of vocabulary on listening skills was the only reason for the successively positive assessment of students, the increase in the post-test mean scores of the control group had to be similar to the increase in the pre-test mean scores of the experiment group. In other words, a more significant increase would be expected in the post-test mean scores of the control groups, but the results were not in this way, so it can be asserted that vocabulary might be adequate; however, more importantly, self-assessment stands out in this point as it is the only variable we have.

The Effect of Self-Assessment on Speaking Self-Efficacy Beliefs

According to the results of the descriptive statistics, there was a statistically significant difference between the post-test results of the experiment (\(\bar{x} = 23.92\)) and control group (\(\bar{x} = 18.82\)). It means that although the groups had similar results for the pre-tests in terms of perception of self-efficacy, their post-test results were different. To identify if it was due to the intervention of self-assessment, a covariant analysis was conducted on the speaking self-efficacy of students and the descriptive statistics regarding the pre-post test results of the participants, as shown in Table 7.

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaking self-efficacy pre-test</td>
<td>101.164</td>
<td>1</td>
<td>101.164</td>
<td>7.531</td>
<td>.007</td>
<td>.071</td>
</tr>
<tr>
<td>Group</td>
<td>542.270</td>
<td>1</td>
<td>542.270</td>
<td>40.366</td>
<td>.000</td>
<td>.290</td>
</tr>
<tr>
<td>Error</td>
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<td>99</td>
<td>13.434</td>
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<tr>
<td>Corrected Total</td>
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<td>101</td>
<td></td>
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</table>

ANOVA results of speaking self-efficacy post-test scores of the experiment and control group according to the corrected speaking self-efficacy pre-test scores of the students reveal that there was a statistically significant difference (\(F_{(1,99)} = 40.366; p < .05\)) between the speaking self-efficacy post-test scores of the students in the experiment and control group. It has been also observed through the analysis of the self-assessment questionnaires that participants primarily focused on grammar subjects rather than speaking and did not express any point regarding speaking. As for the self-reflection checklists, the first item regarding the speaking skill was: “I can pronounce the target words accurately.”
Although the success rate of the students assessing themselves as partly successful is similar to the ones assessing themselves as successful, more than half of the participants felt sufficient and considered themselves successful. As of the 3rd week, the success rate between partly prosperous doubles, and in some weeks, the success rate rises to 74.5%. When it comes to the students feeling incapable of pronouncing the target words accurately, there have been only a few students throughout the term. These results demonstrate that the vast majority of the students have no problems in the pronunciation of the new words at all, which indicates that students improved their pronunciation by being exposed to the correct pronunciation of the words through various listening tools. The second item on the speaking checklist was as follows:

“I can express myself using the new words, collocations, and grammar structures I have learned.”

For this item, the success rate of the students assessing themselves as partly prosperous is very close to each other. Besides, the number of students feeling entirely sufficient is less than half the number of participants, and the number of students assessing themselves as unsuccessful is pretty high compared to other skills.

When the pre-post mean scores of the speaking self-efficacy test were compared, a significant difference between the mean score of both groups was seen. The pre-test mean score of the control group was 17.45, and the post-test mean score was 18.82, whereas the pre-test mean score of the experiment group was 19.12, and the post-test mean score was 23.92. In that case, the increase in the mean score of the experiment group was a lot higher than that of the control group. Even though among reading, writing, and listening skills, speaking is the one in which the progress is slower compared to other skills, according to the results, it could be said that when students self-assessed themselves, this had an impact on their self-efficacy beliefs so that they could consider themselves as sufficient or insufficient.

**The Effect of Self-Assessment on Grammar Self-Efficacy Beliefs for Grammar**

The number of students who perceived themselves as unsuccessful in using language items was very few. However, the results showed that the learners had difficulty using conjunctions, and pronouns, especially relative pronouns and comparatives, which required remedial work. On the other hand, the number of students who perceived themselves as successful in making sentences using simple present or simple past tense, frequencies, modals, and since and for was high. However, passive voice, present perfect, gerunds, infinitives, negative sentence, and modals’ use seemed like topics that some students felt successful while others were partially successful.

It was also observed that students mainly focused on grammar subjects rather than reading, writing, listening, and speaking skills, and they did not face any severe problems regarding these skills. In skill-based checklists, what is emphasized is how students benefited from these skills and how these skills contributed to their language learning and self-efficacy beliefs. During the interpretation process of the checklist items regarding four skills, items about grammar were excluded. That is, students were not responsible for assessing themselves in terms of grammar subjects. However, only while interpreting these grammar-based items was that students reported they had difficulties in some grammar subjects and felt sufficient or insufficient.

**Discussion**

The results of the study revealed that self-assessment had a notable impact on the self-efficacy beliefs of students. First of all, depending on the results, it can be assumed that self-assessment had a significant effect on students’ perception of reading self-efficacy. Due to the findings, students could assess themselves more meticulously. As Wolochuk (2009) stated, among learning skills, reading is the most practical skill for students to perform self-assessment as monitoring and evaluating are easier, which was proved by the results of this study, as well. Additionally, while the number of students capable of expressing themselves in the target language comprised more than half of the participants, the same success rate could not be observed in speaking. Not surprisingly, this suggests that speaking shows slower progress than other skills as is suggested in the related literature. Karakaya (2017) also emphasized the importance of self-assessment as an effective strategy for promoting speaking skills and motivating students. According to the final results of the study, the progress was satisfactory still had an essential effect on the beliefs of the students regarding their self-efficacy, although slow. It is also in line with what Andrade (2019) claims as “self-assessment being beneficial most regarding not only the achievement of the students but also their self-regulated learning, when used formatively and supported by training.”

The studies conducted in the field revealed that regardless of application, students develop a positive attitude towards language skills when they assess themselves, As Moreno and Kilpatrick (2018) also suggest, students started to produce more of the language and felt more comfortable during the lessons, which implies that self-assessment is effective on student beliefs in terms of language skills. In this study, too, self-efficacy test results indicated that writing self-efficacy increased considerably when the results were compared. As for the students, writing skill was not problematic, and they mainly focused on grammar subjects rather than writing. Despite this, the increase in their self-efficacy beliefs can be observed in the test results. Also, the participants in the experiment group who assessed themselves regularly feel more sufficient when compared with the students in the control group. In other words, when students self-assess themselves, they consider themselves as successful, and this supports the increase in self-efficacy
beliefs. As Ratminingsih et al. (2018) also emphasized, self-assessment is effective in terms of improving students’ writing performance and competence to a great deal.

The results showed that there was a successive increase in the success rate of the students assessing themselves every week along with the knowledge of new vocabulary and maybe even with the familiarity of the tasks. Therefore, it is possible that vocabulary played a role in improving their listening skills or was influential in their listening comprehension. It could be concluded that self-assessment effectively affects students’ self-efficacy beliefs, just like Rahimi and Abedini (2009) found a significant relationship between self-efficacy beliefs and listening proficiency. The results also revealed that when students self-assessed themselves, their self-efficacy beliefs positively influenced themselves as sufficient or insufficient.

As for grammar, even if the students had difficulties related to comprehension within skill studies, they ignored the difficulties with grammar, and they still assessed themselves as successful in four skills as skills are integrated with grammar. Although students stated that their self-efficacy beliefs increased when they self-assessed themselves in terms of skills, grammar seemed to remain a problematic issue for some students feeling insufficient in certain grammar subjects, whereas others felt successful and partially successful. At the beginning of the term, as they found the subjects easier, they felt more confident, but this high success rate dropped slightly as they were exposed to more complicated subjects. However, overall, most of the students felt sufficient and comfortable. Consequently, although students sometimes had problems with grammar, they ignored this within four skill assessments, and as a result of self-assessment, their self-efficacy beliefs increased in terms of their language skills.

**Conclusion**

In conclusion, the intervention of the assessment tools used in the study helped students do better in the self-efficacy test and get better grades. But more importantly, the results indicated how students’ perception of self-efficacy increased. Also, the students’ awareness of their success increased with the help of the questions in the self-assessment questionnaire given every two weeks. It is believed that in so doing students were able to take over the control of their learning, and with the guidance of the questions, the process of learning became more of a learning by ownership rather than learning by borrowing.

It is worth mentioning that students primarily focused on grammar subjects rather than reading, writing, listening, and speaking skills. Also, they reported that they did not face any problems related to the four skills. As for the skill-based checklists, on the other hand, items about grammar were excluded, and students were not responsible for assessing themselves in terms of grammar subjects. However, only while interpreting these grammar-based items, students reported that they had difficulties in some grammar subjects and felt sufficient or insufficient. The majority of the students ignored the difficulties with grammar and assessed themselves as successful in four skills as skills are integrated with grammar, and stated their self-efficacy beliefs increased when they self-assessed in terms of skills. However, grammar still seemed to remain a problematic issue for some students feeling insufficient in certain grammar subjects as it introduces more complicated subjects. However, it can be concluded that most of the students felt sufficient and comfortable, and as a result of self-assessment, their self-efficacy beliefs increased in terms of their language skills. Their learning process became more of learning by ownership than learning by borrowing with the guidance of the questions. As was also claimed by Chung et al. (2021), when students were encouraged to take the ownership of their own learning through the assessment of their weaknesses and strengths, they were able to improve themselves in terms of their academic achievement, too.

Consequently, the main conclusions of this study could be drawn as follows:

- When the students had an opportunity to identify their strengths and weaknesses during a skill-based task through self-assessment questionnaires, they reported having a better sense of mastery related to that task which led to an increase in their self-efficacy beliefs in that skill.
- The more self-efficacy they had related to that specific skill-based task, say grammar, or speaking, for example, the more effort and persistence they spent to achieve their academic goals and receive better grades.
- All of these led to students’ trying to develop a sense of internal locus of control over their learning. This may also increase their effort of independent thinking in the foreign language they are trying to learn. As a result, learners’ beliefs on their self-efficacy related to certain skills will be enhanced even further, leading to ownership of their learning and more engagement in academic tasks and leaving the practice of learning by borrowing.

**Recommendations**

Based on the results of the study, realizing the effect of self-assessment on the self-efficacy beliefs of students is inevitable. Yet, it can be suggested that not only the students but also teachers and administrators should make use of this study in their own teaching practices. Therefore, it would not be wrong to think that the results of this study can also contribute to the improvements and/or revisions in the objectives, content, and material dimensions of a program by adding self-assessment tools or materials to improve students’ self-efficacy levels. Seen in a broader perspective, it
can be suggested that such interventions regarding the usage of self-assessment practices on the curriculum could be encouraged nationwide.

It is believed that this study could contribute to future directions in research and practice in the field. The results of the study may provide an insight to curriculum development in ELT by helping teachers; administrators and decision makers increase their awareness about the effect of self-assessment on the student beliefs of self-efficacy. So, when designing a new curriculum, such self-assessment questionnaires might be included related to each and every skill in order to help students take over the control of their own learning. In addition, specific classroom activities could be created and self-assessment checklists can also be implemented, thereby increasing the self-efficacy levels of students. Introduction of self-assessment tools, too, could help students reflect on their experiences and what they did to succeed so that they can gain an insight about how to succeed.

Limitations

The main limitation of the study is the convenience sampling method that was applied in order to collect data. This study was carried out at a private university at the Preparatory School and only pre-intermediate level students participated in the study. It should be noted that the results of the study are limited to the responses of a sample population of 102 students among 1363 pre-intermediate level students at the preparatory school. The data were collected only from these students and the students' answers were accepted as true and the results were generalized to the students of Preparatory School.

In addition, data triangulation method was used in the process of collecting data, however, there can be some bias in data collection because only one researcher collected the data throughout the process, which can influence the results of the study more than different designs.

Conflict of Interest

The authors hereby declare that they have no conflict of interest.

Informed Consent

Informed consent was obtained from all participants.

Authorship Contribution Statement

Demirbulak: Conceptualization, design, supervision, final approval. Icdn: Design, data acquisition, data analysis, interpretation, statistical analysis, writing. Virlan: Editing/reviewing, supervision, drafting manuscript, critical revision of manuscript

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