

## Research Article

# The Effect of Assertiveness Training on Students' English Language Reading Skill: A Mixed Methods Study

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## Abstract

Assertiveness is a fundamental social skill essential for establishing, maintaining, and enhancing interpersonal relationships as it enables individuals to express their thoughts, beliefs, feelings, and emotions honestly and without anxiety. This mixed methods study aimed to examine the impact of assertiveness training on students' ability to read specialized English texts. To that end, this research employed a concurrent mixed methods experimental design to integrate a pretest-posttest control group quasi-experimental design with a concurrent qualitative phase (i.e., observations, field notes, and interviews). The participants consisted of undergraduate students that had enrolled in an English for specific purposes (ESP) course during the 2023–2024 academic year. This randomly selected sample of 40 students was assigned to two groups (i.e., the experimental and control groups). The experimental group underwent a 10-session assertiveness training program based on Gambrell and Richey's (1975) model. Data were collected using a researcher-designed written and oral test assessing reading proficiency in ESP texts. Analysis of covariance (ANCOVA) revealed that assertiveness training significantly enhanced the ESP reading skills of the experimental group compared to the control group. The substantial increase in posttest scores of the experimental group, relative to their pretest scores and the control group's performance, indicated notable progress in their reading skills. The qualitative data analysis revealed that the experimental group shifted from a passive approach to active engagement with the text as they showed increased persistence, reduced anxiety, enhanced confidence, and used metacognitive strategies, transforming reading into an interactive process. Therefore, assertiveness training can be considered an effective approach for improving ESP reading skills and may be integrated into educational programs.

**Keywords:** assertiveness training, English for specific purposes, ESP texts, mixed methods research, reading skills

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## 1. Introduction

In an era of globalization and the increasing complexity of educational systems, proficiency in English is widely recognized as an essential tool for accessing scholarly resources, participating in international discourse, and advancing professionally in specialized fields, such as engineering, medicine, and the humanities (Li & Tajaddin, 2020). However, students in non-English-speaking academic environments, particularly in technical and specialized fields, often face significant challenges in comprehending complex English texts. These difficulties stem not only from linguistic limitations but also from psychological factors, such as a lack of self-confidence, fear of judgment, and an inability to actively engage with academic content (Zhang & Rahimi, 2012). Meanwhile, the role of psychosocial skills, such as assertiveness, as a key factor in facilitating language learning has often been overlooked.

Assertiveness training, as an educational-psychological strategy, focuses on enhancing individuals' ability to express their thoughts, needs, and questions in a respectful and effective manner (Alberti & Emmons, 2008a). Recent studies indicate that this strategy contributes not only to improved interpersonal communication but also to increased academic self-efficacy and active participation in the learning process (Smith & Li, 2022). Nevertheless, limited research has investigated the direct impact of assertiveness training on language skills, particularly reading ESP texts. This research gap is significant because comprehending ESP texts requires the ability to critically analyze, continuously question, and meaningfully engage with content—skills closely linked to assertiveness and self-efficacy (Gupta, 2023).

Iranian studies indicate that many university students experience language anxiety, classroom passivity, and diminished motivation when faced with ESP texts (Alavi & Karimi, 2021). This underscores the need for modern educational strategies that not only enhance language skills but also address psychological factors affecting learning. Hence, with the growing prevalence of scientific publications in English, proficiency in reading ESP texts has become a cornerstone of academic and professional success across scientific disciplines. However, research suggests that more than 60% of Iranian students in technical and medical fields encounter significant difficulties in comprehending ESP texts (Rahimi & Rezaei, 2020). These challenges are often attributed to weaknesses in ESP reading skills and a lack of self-confidence.

Past studies have demonstrated that employing innovative educational approaches, such as assertiveness training, can positively impact students' reading abilities (Jafari & Amiri, 2022). According to Mohammadi and Hosseini (2023), assertiveness training enables students to ask questions more

confidently, engage more actively with ESP texts, and employ deeper learning strategies. Assertiveness training is a psychological and educational approach designed to improve an individual's ability to express thoughts, feelings, and needs in a constructive and respectful manner. Rooted in communication and self-advocacy theories, it is commonly used to enhance self-esteem, promote interpersonal effectiveness, and facilitate conflict resolution (Alberti & Emmons, 2008b).

Recent studies in the field of educational psychology indicate that weaknesses in assertiveness skills can lead to decreased student participation in classroom activities, avoidance of questioning, and over-reliance on Persian translations (Khodadadi & Ahmadi, 2022). Meanwhile, research in applied linguistics highlights that reading ESP texts requires not only knowledge of vocabulary and grammar but also the ability to critically engage with the text—a skill that cannot be developed without self-efficacy and intellectual courage (Nation, 2020). However, the traditional education system in Iran often relies on teacher-centered methods and rote memorization, neglecting opportunities to enhance students' communication and psychological skills (Farahani & Rajaei, 2021). These challenges are further compounded at Qom Islamic Azad University due to the diversity of its student population and the varying levels of language preparation (Rahmani & Farsi, 2020).

Empirical evidence from international studies suggests that assertiveness training can improve students' language performance by strengthening underlying factors such as self-efficacy, intrinsic motivation, and academic resilience (Wong & Lim, 2023). For instance, a study conducted at the University of Malaya found that engineering students who received assertiveness training experienced an improvement in their comprehension of ESP texts, along with a significant increase in classroom participation (Tan & Abdul Rahman, 2022). However, research in Iran has so far been insufficient in directly examining the impact of this training on university students, particularly in non-governmental universities such as Qom Islamic Azad University.

Therefore, this study, which aimed to bridge this gap by investigating the effect of assertiveness training on students' reading proficiency, hypothesized that assertiveness not only impacts academic reading skills but also may play a key role in interpersonal communication, particularly those related to reading comprehension in specialized subjects. Investigating this issue is crucial as its findings could provide a reference point for integrating language instruction with psychological interventions and contribute to the development of more comprehensive educational programs in the Iranian

higher education system. To achieve this goal, the following research questions were raised:

**RQ1:** To what extent does assertiveness training affect the improvement of students' ability to read ESP texts?

**RQ2:** Can implementing an assertiveness training program improve reading comprehension and students' interaction with English scientific texts?

## **2. Literature Review**

### **2.1. Assertiveness**

Assertiveness is a behavior that enables individuals to increase the likelihood of achieving their desired goals while maintaining respect for themselves and others. It involves expressing thoughts and feelings in an explicit, direct, and respectful manner (Reese & Graham, 1991; Shahnii-Yilaagh & Rezaei, 2001). Alberti and Emmons (2010) defined assertiveness as the ability to act in one's own best interests, express genuine feelings, and defend personal rights without anxiety.

According to Lange and Jakubowski (1976), assertiveness skills involve expressing thoughts and emotions in an appropriate and honest manner that does not violate the rights of others (Nisi & Shahni-Yilaagh, 2001). Essentially, assertiveness entails self-respect and respect for others, recognizing that all individuals' beliefs and emotions are valuable. Contrary to some misconceptions, assertiveness is not merely a tool for personal gain but rather a principle rooted in honesty (Reese & Graham, 1991; Shahnii-Yilaagh & Rezaei, 2001).

Many people mistakenly equate assertiveness with aggression. While aggression results in harm to others, assertiveness focuses on defending personal rights and interests in a respectful manner. Wolpe (1985) demonstrated that assertive behavior in anxiety-provoking situations can effectively regulate anxiety, suggesting that assertiveness is a more constructive approach than directly confronting anxiety (Mohammed, 1998). Various training methods and programs have been developed to improve communication skills and psychological traits, including assertiveness training (Soodikin et al., 2021). Hence, people with assertiveness skills communicate more easily in social situations, enter discussions with confidence, and express their opinions clearly and respectfully. This skill includes the ability to accept or reject others' requests, express personal preferences explicitly, and recognize individual needs and feelings.

## **2.2. English Reading Skills**

Reading is one of the basic language skills that allows access to written information. This skill is a dynamic and active process in which readers use their prior knowledge to discover new concepts in the text (Grave & Stoller, 2011). The purposes of reading include multiple objectives, such as receiving initial information, learning, analyzing and synthesizing data, writing, criticizing texts, and reading in general (Grave & Stoller, 2011).

Many students attend language courses at specialized institutions to strengthen their language skills (Zarei, 2018), and some others take introductory language courses before entering university. Reading is not only a way to acquire information but also helps an individual gain access to a wide range of human experiences. The goal of reading is not only to pronounce words, but also to understand the meaning and concepts, analyze information, and recognize the values hidden in the text. Having strong reading skills, in addition to increasing the enjoyment and efficiency of reading, has a positive impact on the academic, professional, and personal success of individuals (Isaacson et al., 2016).

Reading comprehension involves the ability to read, process information, and analyze the meaning of a text. When a person understands a text, a mental image of its content is formed. Purposeful reading increases the ability to engage with the text, learn new information, and enjoy it (Isaacson et al., 2016).

Research has shown that traditional methods of teaching reading in universities are not sufficiently engaging for students and negatively impact on language learning. Many students lose their motivation due to the monotony of reading classes and experience problems such as decreased concentration and loss of interest in educational activities (Alman and Dunkert, 2005).

## **2.3. Empirical Studies**

Research on assertiveness training has demonstrated its positive impact on self-esteem, social anxiety, and decisiveness among students (Pasha, 2021; Abdolghaderi et al., 2021). Studies have consistently shown that students who receive assertiveness training exhibit higher self-confidence, improved social interactions, and reduced anxiety (Rodgers & Blair, 2025). Comparative analyses revealed that intervention groups experienced statistically significant improvements in self-esteem compared to control groups (Pasha, 2021). Assertiveness training also enhanced academic performance, happiness, and adaptability in educational settings (Pasha, 2021).

Additionally, past research has indicated that assertiveness plays a crucial role in reducing feelings of social isolation among students, particularly those facing psychological or linguistic challenges (Rodgers & Blair, 2025). Other studies have highlighted assertiveness training as a key factor in personal development, influencing problem-solving skills and resilience (Gwen, 2009). Findings suggest that students with assertiveness training demonstrate greater independence, lower social anxiety, and improved communication skills (Rodgers & Blair, 2025). Assertiveness has also been linked to broader psychological well-being, affecting self-worth, adaptability, and overall life satisfaction (Rodgers & Blair, 2025).

Some research has connected a lack of assertiveness with language and speech disorders, noting that deficiencies in assertive behavior often correlate with lower self-esteem and increased anxiety (Morgan et al., 2017). Moreover, assertiveness training has been shown to improve children's ability to express themselves, set boundaries, and engage in meaningful social interactions (Speed et al., 2018). Researchers emphasize its role in fostering confidence, autonomy, and psychological security, ultimately contributing to stronger interpersonal relationships and academic success (Rodgers & Blair, 2025).

### **3. Method**

#### **3.1. Design**

This research is a concurrent mixed methods experimental study with a pretest-posttest control group design within which a qualitative phase was embedded. The aim of the study was to investigate the effect of the independent variable (i.e., assertiveness training) on the dependent variable (i.e., reading ESP texts). The design of this research was carried out in such a way that it was possible to compare the changes in the experimental group and the control group before and after the intervention. The qualitative phase of this study involved direct observation of participants during their engagement with ESP texts before and after assertiveness training. Researchers closely monitored behaviors such as interaction with the text, confidence in comprehension, and verbal expression in academic discussions. Observational notes captured variations in reading strategies and communication styles between the experimental and control groups. These qualitative insights complemented quantitative findings by providing a deeper understanding of the impact of assertiveness training on reading performance.

### **3.2. Participants**

The study population included undergraduate students aged approximately 18 to 28 years from the Faculty of Humanities at Islamic Azad University, Qom, Iran, in the academic year 2023-2024. These students had taken compulsory courses in English for Specific Purposes (ESP). The research sample consisted of 40 students selected through cluster random sampling, who were then randomly assigned to experimental and control groups (20 students each). The inclusion criteria were: (a) similar English proficiency based on a placement test; (b) enrollment in a university language course; and (c) no prior experience in assertiveness training.

### **3.3. Materials and Instruments**

The training program designed for the experimental group included 10 training sessions, each 90 minutes long. The content of the sessions was based on Gambrill and Ritchey's (1975) content model, which included the following skills: (a) discussion of human rights and familiarization with their rights; (b) discussion of assertive and alternative behaviors; (c) discussion of the benefits and harms of anger; (d) discussion of making requests, saying yes and no; (e) dealing with criticism effectively and appropriately, the benefits and harms of criticizing; and (f) correct and logical ways of communicating verbally and nonverbally with people.

For the qualitative phase, structured observation and semi-structured interviews were used as data collection tools. Observations were conducted during training sessions to analyze participants' behavioral responses and engagement levels. Interviews were carried out post-training to gather insights into participants' experiences, perceived benefits, and challenges related to assertiveness training. These tools helped in understanding the depth of behavioral changes and the effectiveness of the intervention beyond quantitative measures. A researcher-made reading skills test was also used as a pretest and posttest to assess the skills of reading comprehension, conceptual inference, and critical analysis using ESP texts.

The test consisted of four passages and each passage had five multiple-choice and written questions: a) five questions on reading comprehension, assessing the ability to extract key information from ESP texts; b) five questions on conceptual inference, evaluating the ability to interpret implicit meanings and relationships; c) 10 questions on critical analysis, measuring the ability to assess arguments and reasoning within ESP texts.

The test was developed based on expert evaluations to ensure that the items accurately reflect the intended reading skills. Specialists in ESP and language assessment reviewed the test to confirm its relevance to academic reading contexts. The test was aligned with established theoretical frameworks in reading comprehension and assertiveness training. Statistical analyses, such as factor analysis, were conducted to verify that the test measures distinct aspects of reading proficiency. The test's reliability was assessed using Cronbach's alpha, ensuring internal consistency. Additionally, test-retest reliability was examined by administering the test to a subset of participants at two different points in time, confirming stability in scores.

### **3.4. Procedure**

This study was conducted in three stages: First, the training reading skill test was administered to the members of both experimental and control groups. The initial level of reading skill and the level of assertiveness of the students were measured before the intervention. Intervention implementation stage: The experimental group received 10 sessions of assertiveness training. Weekly sessions included interactive and practical exercises. Third, After the end of the training period, the reading skill test was administered again. Finally, the data collected through the pretest and posttest were subjected to statistical analysis.

The observation phase was conducted throughout the training sessions to assess participants' behavioral responses, engagement levels, and application of assertiveness strategies. Researchers systematically observed interactions between students, focusing on verbal and non-verbal communication, confidence in responding to questions, willingness to participate in discussions, and the ability to express opinions assertively. Notes were taken on changes in classroom dynamics, such as increased participation, reduced hesitation, and improved peer interactions. Observational data complemented the pretest and posttest results, providing a qualitative perspective on how assertiveness training influenced reading comprehension and communication behaviors. This phase added depth to the study by highlighting practical improvements that quantitative measures alone might not fully capture.

#### **3.3.4. Data Analysis**

The following statistical methods were used to analyze the data: Descriptive statistics, including mean, standard deviation, and frequency distribution, were run to describe the demographic characteristics of the sample and test scores. An analysis of covariance (ANCOVA) was conducted to



examine the effect of assertiveness training on reading skills and control the effect of the pretest. All statistical analyses were performed with SPSS version 26 software.

The observational data analysis was conducted using qualitative content analysis. Researchers systematically reviewed field notes and categorized participants' behavioral patterns into key themes related to engagement, assertiveness, and interaction during reading activities. Observational data were coded based on predefined criteria, such as verbal participation, nonverbal expressions, confidence levels, and responsiveness to assertiveness exercises. A thematic analysis approach was applied to identify emerging trends in classroom dynamics before and after the intervention. Additionally, inter-rater reliability was ensured by having multiple researchers independently analyze observations to validate consistency in coding. These findings complemented the quantitative results by providing a nuanced understanding of how assertiveness training influenced reading behaviors beyond test scores.

## 4. Results

### 4.1. Results for the First Research Question

The descriptive analysis presented in Table 1 was conducted to examine the impact of assertiveness training on specialized text reading skills among undergraduate students. By comparing posttest scores between the experimental and control groups, the analysis aimed to determine whether assertiveness training led to measurable improvements in reading proficiency

**Table 1**

*Descriptive Statistics for Pretest and Posttest Scores in Assertiveness and Control Groups*

Group	Test	N	M	SD	Skewness	Kurtosis
Assertiveness	Pretest	20	11.45	4.70	-0.32	-0.93
	Posttest	20	16.45	3.65	-0.96	0.27
Control	Pretest	20	10.05	5.25	0.24	-1.34
	Posttest	20	14.12	4.35	-0.21	-1.17

As shown in Table 1, in the assertiveness group, the number of participants is 20. The mean pretest scores are 11.45 and the posttest scores are 16.45. This increase indicates that participants in this group had a significant improvement in reading skills in ESP texts. The standard deviation of the pretest scores is 4.70 and the standard deviation of the posttest scores is 3.65. The decrease in the standard deviation indicates that the distribution of scores after the test has become more homogeneous. The skewness of the pretest

scores is -0.32 and the skewness of the posttest scores is -0.96, indicating a tendency of the scores towards higher scores. The pretest scores are -0.93 and the posttest scores are 0.27, which indicates a change in the dispersion of the scores.

In the control group, the mean pretest scores are 10.05 and the posttest scores are 14.12, which indicates an improvement in the skill of reading ESP texts. However, this improvement is less than in the other group. The standard deviation of the pretest scores is 5.25 and the standard deviation of the posttest scores is 4.35. The decrease in the standard deviation indicates a more homogeneous distribution of the posttest scores. The skewness of the pretest scores is 0.24 and the skewness of the posttest scores is -0.21, which indicates a change in the distribution of the scores. The pretest scores were -1.34 and the posttest scores were -1.17, indicating greater dispersion of scores.

To address the first research question, a univariate analysis of covariance was used, provided that the assumptions were met.

**Table 2**

*Summary of Levene's Test of Equality of Error Variances and Homogeneity of Regression Slopes*

Test Type	F	df1	df2	Sig.
Levene's Test for Equality of Error Variances	0.61	1	38	0.61
Homogeneity of Regression Slopes	0.72	1	38	0.60

Note. Both tests show significance values greater than .05, confirming the assumptions of equal variances and homogeneity of regression slopes. Sig. = significance level; df1 = degrees of freedom between groups; df2 = degrees of freedom within groups.

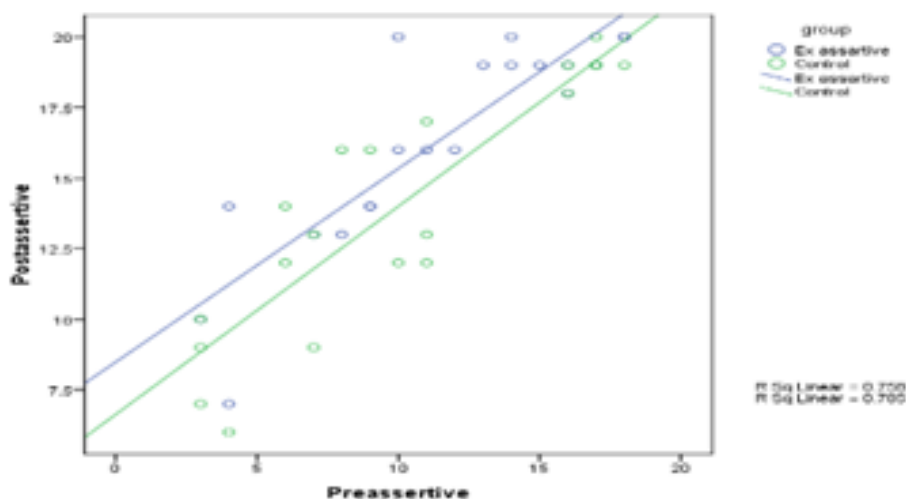
As can be seen in Table 2, considering the value of F (0.72) and its significance probability, which is greater than 0.05 (Sig = 0.60), the assumption of homogeneity of variances is confirmed. Regarding dispersion, the homogeneity of statistical regression was examined. Moreover, the probability of accepting the null hypothesis for comparing the performance of the experimental and control groups in the pretest of the variable is greater than 0.05 (Sig = 0.61). The scatter diagram in the figure below shows that there is a linear relationship between the two variables, and the slopes of the regression lines are also parallel. Therefore, it can be concluded that the hypothesis of homogeneity of regression slopes is confirmed.

To better understand this issue, a scatter diagram of the relationship between the pretest and posttest scores was drawn (Figure 1). The comparison of the performance of the subjects of the experimental and control groups in

the posttest of the variable of reading skills of ESP texts was carried out using a one-way design between-subjects design.

**Figure 1**

*Scatter plot of the relationship between pretest and posttest scores*



**Table 3**

*Results of Between-Subjects Effects Tests*

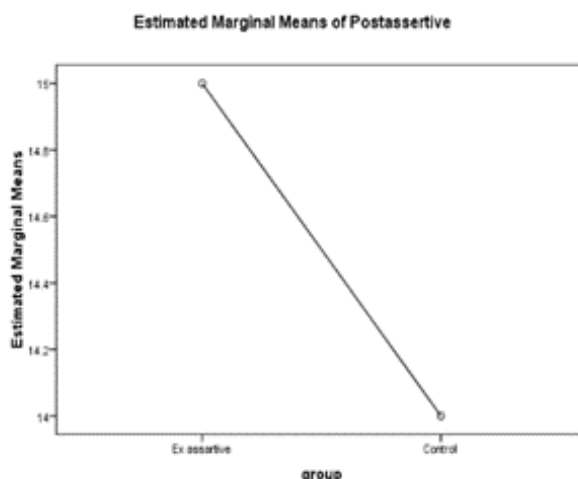
Source	SS	MS	F	Sig.	Partial $\eta^2$
Test Level	48.51	12.12	3.65	0.72	0.72
Groups	17.24	17.24	4.76	0.03	0.24
Error	132.87	3.61		—	—

Note. SS = Sum of Squares; MS = Mean Square; F = F ratio; Sig. = significance level; Partial  $\eta^2$  = partial eta squared (effect size). Degrees of freedom and MS values are presented exactly as reported in the source.

As can be seen in Table 3, the probability of accepting the null hypothesis for comparing the experimental and control groups in the posttest of the variable of reading skills for ESP texts is less than 0.05 ( $F=4.76$ ,  $p<0.03$ ), with moderate-to-large effect size (Partial  $\eta^2 = 0.24$ ). Therefore, it can be concluded that there is a significant difference in the performance of the members of the two groups in the posttest of the variable of reading skills for ESP texts. Finally, according to the evidence collected in this study, it can be concluded that, in general, assertiveness training positively impacts students' ability to read and comprehend ESP texts (Figure 2).

**Figure 2**

*Distribution of modified averages of ESP text reading skill scores of subjects in the two groups at posttest*



## 4.2. Results for the Second Research Question

In this section, using the observation data collection method and qualitative content analysis, the experiences, behaviors, and interactions of students in the experimental group during the assertiveness training course and its impact on the participants' reading comprehension of ESP texts were examined. Data were collected through the researcher's field notes, students' verbal feedback in sessions, and semi-structured interviews after the intervention. Data analysis was conducted through open and axial coding, and the following main themes were identified:

### 4.2.1. Increasing Active Interaction with the Text

The observations showed that the experimental group gradually moved from a passive state to purposeful questioning and critical annotating. For example, in the final sessions, when faced with ESP terms, instead of ignoring them, participants analyzed the structure of the text by reading aloud the text and asking questions, such as "How does this paragraph relate to the previous section?" or "Why did the author use this example?" One student stated in an interview "I used to translate the text, but now I keep asking myself: What was the author's purpose in this sentence? These questions helped me understand the concepts more deeply."

#### **4.2.2. Reduced Language Anxiety and Enhanced Self-efficacy**

The field notes indicated a significant decrease in avoidance in the experimental group. In the initial sessions, many students lowered their heads or looked anxiously at their classmates while reading the text, but in the final sessions, the willingness to voluntarily read aloud and share personal interpretations increased. One participant explained “Now I know that making mistakes is part of learning. Even if my pronunciation is wrong, I still analyze the text. The assertiveness training gave me this courage.”

#### **4.2.3. Developing Metacognitive Strategies**

The observations of students’ behavior revealed that they gradually used techniques such as content prediction, paragraph summarization, and linking the text to prior knowledge. In one session, a student first reviewed the title and subheadings before reading the text and said, “I think this section is about environmental challenges in engineering tuition. So, I should look for keywords like pollution or sustainability.” This approach was significantly different from the control group, which relied mainly on word-for-word translation.

#### **4.2.4. The shift in the social role of learning**

Group interactions in the experimental group shifted from a teacher-centered model to a participatory discourse. Students used statements such as “I think the author is contradicting himself here because on the previous page he said...” in class discussions, citing the text. These interactions not only reinforced conceptual understanding but also fostered critical thinking. The experimental group now functioned as a small research community. Instead of passively accepting the text, they critiqued it.

#### **4.2.5. The Emergence of Emphasis in the Reading Process**

Interviews revealed that students did not see emphasis as a mere communication skill, but rather as a way of interacting with the text. Participants who had previously been afraid to express their ambiguities now used statements such as “This paragraph is confusing to me; I need to review it again.” This change in attitude reflected the academic self-efficacy emphasized in Bandura’s (1997) theory. The qualitative differences between the experimental and control groups were as follows:

In the experimental group, there were active participation in text analysis, use of question-based reading strategies, reduced reliance on literal translation, and willingness to share personal interpretations even when uncertain. However, in the control group, they focused on translating

vocabulary without understanding the overall text, avoided expressing ambiguities in class, had strong reliance on teacher explanations, and perceived concern about negative evaluation while reading. The analysis of observations and interviews shows that assertiveness training, beyond statistically improving grades, has transformed the pattern of students' interaction with text. By transforming reading from a passive activity to a dialogue-based process, it enables deeper understanding, reduces anxiety, and enhances self-efficacy. Such a change, especially in the Iranian academic context that traditionally emphasizes memorization, can create a new framework for integrating language learning and the development of psychosocial skills (Table 4).

**Table 4***Qualitative Analysis in an Observational Manner with Categorical Coding*

Main Category	Description of findings	Sub-Codes
Increase in active or nation-based engagement	Students moved away from the passive state and, with the help of preliminary designs such as required answers, brought this nation to analyze the structure of the nation	Proper brushing and use of present educational resources
Reduction in aesthetic and self-efficacy members	Students who initially avoided reading the nation, in the final sessions, analyzed the nation with confidence	Decreased evaluation of supportive participation in reading and acceptance of life coping information
Development of metacognitive strategies	Students initially addressed titles and subtitles and sought key steps related to the nation	Progress centered on specific national evaluation properties with beginner knowledge
Transformation in social role-taking	Students in classroom sessions, instead of accepting the nation's specifics, focused on its code	Shift from teacher-centered to participatory model, with reduced national volumes in sports
Evolution in reading execution existence	Students used phrases such as "This paragraph said to me"; a complete review was necessary	Clear foundation of ambiguities... trust in the ability to analyze national active participation in some cases
Qualitative cooperatives of experimental and control groups	The experimental group showed persistence and critical analysis, while the control group cultivated end-points	Active participation in the experimental group, dependency on translation in the control group, reduction of members in the experimental group

As shown in Table 4, assertiveness training has reduced anxiety, increased self-efficacy, and changed the way they interact with the text. Based

on the qualitative analysis of observational data, the following strategies have been described by the experimental group.

#### ***4.2.5.1. How to Express Thoughts***

While reading an ESP text, one of the students analyzed the text by asking, "What is the author's purpose in this sentence?" instead of passively accepting the content. This approach demonstrated critical thinking and structured expression of thoughts. Another student said in a class discussion, "I think the author is contradictory in this section, because on the previous page he said..." This clear and reasoned statement demonstrated an increase in the ability to analyze and present logical arguments.

#### ***4.2.5.2. Asking for Help***

In the early sessions, some students, when faced with technical terms, instead of remaining silent, would ask their classmates or the professor, "Can you explain this term?" This showed an increase in confidence in asking for help. One of the interview participants said, "Previously, I was afraid to ask for help if I didn't understand a text. But now I see asking for help as part of learning."

#### ***4.2.5.3. Respectful Disagreement***

In one of the sessions, a student analyzed a text and said, "I disagree with this analysis; I think the author should have considered another perspective." This disagreement was accompanied by reasons and expressed in a respectful atmosphere. In a group discussion, a student said, "Your opinion is interesting, but I think if we examine this data, we would get a different conclusion." This type of disagreement led to constructive interaction.

#### ***4.2.5.4. Conflict Management***

In a group discussion, two students disagreed about the interpretation of a text. One of them said, "It would be better if we go back to the text and examine our views by citing different parts." This approach helped reduce tension. In a meeting where a student felt that his point of view was ignored, he managed the discussion by saying, "I want to make sure that my opinion is heard; can we discuss it again?"

### **4.3. Integration of Qualitative and Quantitative Results**

Based on the qualitative and quantitative data analyses in this study, it was found that the results of the qualitative data analysis supported the findings of the quantitative data analysis.

The quantitative data (e.g., reading test results) showed that the experimental group had a significant increase in reading scores after receiving the assertiveness training. The qualitative data, collected through field notes, interviews, and classroom observations, also showed that behavioral changes in the experimental group students (e.g., including decreased anxiety, increased active engagement, and development of metacognitive strategies) were consistent with these quantitative improvements.

Quantitative results confirmed that the experimental group students improved in text analysis, questioning, and reading self-efficacy. Qualitative observations also showed that these students moved away from word-for-word translation and turned to critical reading. Based on the analysis of quantitative data, the experimental group significantly improved in reading skills compared to the control group. Qualitative analysis has shown that this improvement was due to changes in students' attitudes towards the text, classroom interactions, and management of the reading process.

The qualitative and quantitative results are in line with each other and confirm the effect of assertiveness training on reading proficiency in reading ESP texts. This convergence indicates that training psychological skills, such as assertiveness, can produce profound behavioral and cognitive changes that go beyond simply increasing test scores.

## **5. Discussion**

The primary goal of this study was to examine the effect of assertiveness training on students' English language reading skills through a mixed methods approach. By integrating qualitative and quantitative analyses, the research aimed to determine how assertiveness training enhances reading comprehension, conceptual inference, and critical analysis in ESP texts. The findings align with key psychological theories, demonstrating that increased self-efficacy, reduced anxiety, and improved social interaction contribute to better reading performance, underscoring the educational significance of assertiveness training as a mechanism for fostering deeper engagement with complex texts and promoting active learning strategies among students .

It was found that assertiveness training significantly improved ESP reading skills in the experimental group. Qualitative data also revealed decreased language anxiety and increased confidence in the experimental group. Students transitioned from avoiding participation to actively questioning texts, aligning with Bandura's theory of self-efficacy. Assertiveness training transformed passive reading into dialogic interaction. The participants developed metacognitive strategies (e.g., predicting content,



summarizing) and engaged in critical, contrasting sharply with the control group's reliance on translation and memorization.

From a theoretical perspective, this finding is consistent with Bandura's (1997) self-efficacy theory, which emphasizes the role of an individual's beliefs about their abilities in success. By enhancing self-efficacy, assertiveness training reduces anxiety related to exposure to complex texts and allows learners to analyze content with greater focus. This is also consistent with Horowitz's (1986) research on foreign language anxiety, which shows that reducing anxiety improves comprehension. In addition, Vygotsky's (1978) social-cognitive theory emphasizes the importance of social interaction in learning. By encouraging learners to actively participate in class discussions and questioning, assertiveness training allows for deeper understanding of concepts through interaction with peers and instructors.

This finding lends support to previous research. For example, Zahra et al. (2020) showed in a study that communication skills, including assertiveness, were associated with improved academic performance in foreign languages. They argued that the ability to express opinions in the target language enhances not only speaking skills but also written comprehension, as it encourages learners to analyze the linguistic structures and content of texts. Johnson (2018) also found in a study that training psychological skills such as assertiveness indirectly affects reading skills by reducing language anxiety.

Moreover, these findings are consistent with Krashen's (1982) emotional filter hypothesis, which considers reduced anxiety as a necessary condition for effective language learning. The mechanisms by which assertiveness training affects reading of ESP texts can be analyzed at several levels. First, on a psychological level, these trainings reduce anxiety about encountering unfamiliar texts by enhancing self-efficacy (Bandura, 1997). Learners with higher self-confidence are less affected by the fear of making mistakes and are more confident in interpreting the text. Second, on a metacognitive level, assertiveness training helps learners use reading strategies such as content prediction, summarization, and self-questioning (Flavell, 1979). For example, participants who learn to ask critical questions in classroom interactions are likely to extend this skill to the reading process and deepen their understanding of the text by asking internal questions. Third, on a social level, assertiveness training increases participation in group activities. According to Johnson and Johnson's (1999) collaborative learning theory, group discussions of ESP texts allow for the exchange of perspectives and revision of perceptions, leading to a more comprehensive understanding of the text.

In contrary to the findings of this study, McIntosh et al.'s (2015) study showed that short-term training programs (less than 8 sessions) have a limited effect on language skills, while longer-term programs with practical exercises (such as role-playing or simulations of real-life situations) produce better results. In addition, the language level of the participants may moderate the effect of the training. Moreover, Lee's (2019) study suggests that advanced language learners benefit more from psychological training because they have mastered basic structures, while beginners may need to strengthen their basic language knowledge first.

McIntosh et al.'s (2015) and Lee's (2019) findings suggest that short-term training programs may have limited effects on language skills, and that advanced learners benefit more from psychological training than beginners. While these studies emphasize the importance of longer-term interventions and language proficiency as moderating factors, this study did not explicitly control for participants' language levels as a variable. However, the findings of this study align with the broader argument that assertiveness training enhances reading comprehension by reducing anxiety and improving engagement with ESP texts.

Finally, these findings highlight the importance of integrating psychosocial skills into language training programs, which is consistent with Smith et al.'s (2021) research findings that integrating soft skills training into language training courses simultaneously improves students' satisfaction and academic performance. Therefore, designing training courses that combine linguistic and psychological training can be considered as a new strategy in teaching reading skills in foreign languages.

## **6. Conclusions and Implications**

The results of this study showed that assertiveness training has a significant effect on improving reading skills in ESP texts. Quantitative analyses showed that there was a significant difference in posttest scores between the experimental and control groups, which confirms the effectiveness of this training. Moreover, qualitative analyses indicated behavioral changes in the experimental group (e.g., increased participation in text analysis, reduced language anxiety, and the use of metacognitive reading strategies). Therefore, assertiveness training not only strengthens reading skills, but also helps reduce anxiety and increase academic self-efficacy.

Accordingly, assertiveness training is more helpful for advanced language learners and could work better when given over longer periods of time and includes hands-on activities like role-playing or group discussions. This study emphasizes the need of integrating assertiveness training into

language education for ESP instructors in order to promote more engagement, critical thinking, and self-assurance when reading challenging texts. To lessen students' apprehension and encourage active engagement, teachers might employ tactics like role-playing, organized conversations, and questioning. Assertiveness training helps students build metacognitive reading skills, improve their self-efficacy, and communicate with peers. It gives students the ability to approach technical literature more independently and critically. All things considered, this method turns reading from a passive activity into a collaborative, self-assurance-boosting one.

Despite the positive results of this study, several limitations should be considered. Regarding the duration of training, previous research suggests that short-term programs (fewer than eight sessions) have limited impact. Therefore, extending the length of courses may lead to more significant improvements. In terms of participant language proficiency, the findings may be generalizable to advanced students, but further investigation is necessary for beginners. Additionally, individual motivation and learning styles serve as moderating factors that can influence the effectiveness of training, yet these variables were not examined in the present study.

Furthermore, this study was conducted on a sample of 40 students, which limits the generalizability of the results. A larger sample size could provide broader insights and more robust conclusions. The effectiveness of training in this study was measured through pretest and posttest comparisons, but future research could incorporate language proficiency levels to examine whether assertiveness training has differential effects on beginner versus advanced learners. This highlights an important gap in this study that could be addressed in future research by categorizing participants based on their English proficiency and analyzing whether assertiveness training yields stronger effects for advanced learners compared to beginners.

Future research could explore the long-term effects of assertiveness training on ESP reading skills over consecutive semesters to assess sustained improvements. Investigating the impact of assertiveness training in different academic fields, such as engineering, medicine, and social sciences, could provide insights into discipline-specific benefits and challenges. Researchers could examine the effectiveness of online assertiveness training programs, including AI-driven interactive modules, virtual simulations, and gamified learning experiences. Future studies could analyze how cultural background and native language influence the effectiveness of assertiveness training in ESP courses. Further exploration into the neurocognitive and psychological mechanisms underlying assertiveness training could provide deeper insights into how confidence-building strategies enhance reading comprehension.

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