

Developing Multiple Intelligences Based Supplementary Materials for *Vision* Series: Investigating Their Influence on Iranian EFL Students' Self-efficacy

Mohammad Hassan Alishahi¹, Hossein Khodabakhshzadeh ^{*1}, Hamid Ashraf¹

¹ Department of English Language Teaching, Torbat Heydarieh Branch, Islamic Azad University, Torbat Heydarieh, Iran

E.mail: m.halishahi@yahoo.com

E.mail: kh.phdtbt2015@gmail.com

E.mail: Hamid.ashraf.el@gmail.com

*Corresponding author's Email: kh.phdtbt2015@gmail.com

Received: 01-07-2024, Accepted: 08-12-2024

ABSTRACT

Learning a foreign language can enhance students' memory functions and boost their self-esteem. The intent of this research was to probe the influence of multiple intelligences based supplementary materials on learners' self-efficacy. To accomplish this, a two-phase study was conducted. Initially, tasks were developed for each lesson of Vision series, the textbook used in Iranian high schools, following Jones' (2017) guidelines and Christion's (1997) taxonomy of learning. Subsequently, the experimental groups were exposed to designed tasks based on multiple intelligences and the course book, while the control groups only used the course book for four months. The participants were one hundred twenty students between 14 to 16 years old, selected based on convenience sampling who took part in this study with the experimental design. Both experimental (N=60) and control (N=60) groups underwent the Babel proficiency test and the learners' self-efficacy scale (Guhangu, 2009) as pretest and posttest. The results of this investigation analyzed via independent samples t-tests utilizing SPSS revealed that the designed tasks had a positive and meaningful influence on learners' self-efficacy. The results can be useful for educational systems to find the problems of Vision series and material developers to be mindful of variables influence students' learning.

KEYWORDS: Multiple intelligences, Self-efficacy, Supplementary materials, Vision series

INTRODUCTION

The concept of material encompasses all resources employed by educators and learners to simplify the language acquisition process. These resources may include videos, dictionaries, books, and more. Materials can also refer to assignments or written passages. Material development involves the creation and utilization of resources for language acquisition and instruction (Tomlinson, 2007). The realm of material development has become an integral component of language studies. Textbooks are among the many instructional tools utilized in the educational process, enabling students to expand their understanding, acquire new information, promote their cognitive aptitudes like self-confidence and further develop their English proficiency. Textbooks hold a central role in educational activities as they offer students a wide range of intriguing facts and open the gateway to a world of extraordinary experiences.

Materials seem to be influential in shaping students' attachment to the class and determining their different kinds of intelligence. They all fall within the realm of multiple intelligences. The history of multiple intelligences was originated from the concept of social intelligence. Multiple intelligences (MI) has become a topic of interest since the role of feeling and students' metacognitive abilities have been highlighted. It can help researchers to define human effectiveness from social perspective and the capacity of individuals to act purposefully. In fact, this theory suggests that intelligence is not a single entity but rather a collection of different modalities, including linguistic, logical-mathematical, spatial, bodily, kinesthetic, musical, interpersonal, intrapersonal, and naturalist. This theory is relevant to language classes because it caters a diverse learning styles. Students have different strengths

and weaknesses. MI-based instruction allows teachers to address these diverse learning styles by incorporating activities that appeal to different intelligences. Multiple intelligences based supplementary materials can influence different aspects of learning such as students' self-efficacy and their language achievement. When activities align with learners' preferred intelligences, they are more likely to find them engaging and enjoyable. MI-based materials can also make learning feel more relevant and meaningful to learners by connecting it to their individual strengths and interests. This can increase their confidence and their belief in their ability to learn a new language (Mulyasa, 2021).

Since the release of Albert Bandura's influential article titled 'Self-Efficacy: Toward a Unifying Theory of Behavioral Change,' numerous scholars in the social and behavioral sciences have utilized self-efficacy to forecast and elucidate a broad spectrum of human functioning. Moreover, in the past 34 years, the principles of self-efficacy have expanded well beyond the realm of psychology, infiltrating various fields such as health, medicine, social and political transformation, psychopathology, sports, business, and global affairs. In recent years, there has been a growing focus on student self-efficacy research within the realm of academic motivation and success. Therefore, efficacy belief is a major foundation of action. Individuals steer their lives based on their beliefs in personal efficacy.

In the last couple of years, various study projects have been accomplished on high school textbooks in Iran, concentrate on the educational and psychological elements of language course books (e.g., Moghsoudi & Khodamoradi, 2023). It is widely acknowledged that the formal English education system in Iranian schools has fallen short of meeting its objectives. The English curriculum in high schools lacks the ability to inspire learners, enhance their confidence and seldom arouse their interest (Tabatabaei & Pourakbari, 2012). As a result, it is necessary to provide supplementary materials for them to enhance learners' psychological abilities and their achievement.

Based on the *Vision* books (1395) which are taught at high schools of Iran, it seems some aspects of learning are neglected. The present study thus is conducted to design tasks and supplement *Vision* with materials consisting of multiple intelligences to promote students' self-efficacy.

REVIEW OF THE RELATED LITERATURE

The term material includes any resource utilized to facilitate acquiring a new language. They encompass visual, auditory, linguistic or kinesthetic elements (Tomlinson, 2001). Mulyasa (2021) assumed that material refers to all instrument that contains a message (general or specific) that can be used for learning. According to Mishan (2005), it is used to encompass both texts and tasks. In the progress of driving materials, the requirements and demands of all the people dealing with learning like students, teachers, administrators should be considered. This can be fulfilled by localized plans that consult students, instructors and others prior, while and after the materials writing process. In fact, students can manage their time and place for learning independently through an integrated learning approach by using an appropriate material which is designed based on their needs and interests (Aswan, 2022).

Over the last two decades, there has been a great rise in the literature on material development. As Evans and John (1998) assumed, a suitable creator of material should select properly from what is accessible. This is associated with activities of technical design that most of the teachers are not well prepared for. They should be creative with what is available. It can be exhibited through the content and the process. They should also try to modify activities to suit learners' needs. Differentiation is the process of modifying to fulfill the requirements of diverse learners. Pupils have their own personalized purposes, so the materials and instructions can be different (Graves, 2008). Materials and textbooks are about the content and it should be differentiated according to learners' needs.

Despite course books are often being criticized for its rigidity, superficiality, and lack of local relevance, they have remained the primary tool for acquiring a second or foreign language since the inception of language classes. Typically, a course book is designed to provide learners at a specific level with the necessary information, guidance, exposure, and activities to enhance their communicative skills in the target language. A good instructional design and course book will influence teaching effectiveness (Dhawan, 2020). Admittedly, this alone is insufficient, and even the most exceptional course book would ideally require supplementary materials. However, for many learners and teachers, the course book is their sole resource, and they must make the most of it (Tomlinson, 2011).

The way content is presented in a textbook may not always be suitable for a specific teaching context, making it difficult to apply in the classroom. Experienced teachers often prefer not to strictly adhere to the content of a course book, and instead choose to modify, add, or expand on the material. Additionally, many textbooks may create a learning environment that is socially isolated, prompting the need for additional materials to engage learners and create a more dynamic classroom environment.

English education in Iran has a rich historical background. The educational materials utilized in Iran have undergone several transformations in accordance with the teaching approaches adopted. The initial formal textbook introduced in Iranian schools was created in 1937 by The Ministry of Education, following the Grammar-Translation method. Subsequently, in 1971, The Ministry of Education introduced the Graded English Series, influenced by the Audio-Lingual method. In 1986, the English series *Right Path* was substituted with the one used before. It was primarily developed based on the principles of Communicative approaches (Tabatabaei & Pourakbari, 2012). The Iranian curriculum requires English to be taught as a mandatory subject. Before the Iranian Revolution, native English speakers were hired to teach the language to students for an optimal learning setting. However, after the Revolution in 1979, the system underwent significant changes. The Ministry of Education established an organization responsible for designing textbooks for schools. It is crucial to emphasize in Iran, all course books for schools are exclusively produced by the Ministry of Education, leaving no alternative options. These course books are used in both private and public schools, with all teachers following the same syllabus. In a secondary school in Iran, pupils train English as a Foreign Language (EFL) for six years, with one book assigned for each level. Considering the students' difficulties in effectively communicating in English with peers from different regions of Iran, it can be concluded that some of the challenges faced by teachers and learners can be attributed to the textbooks (Bazargan, 2004).

However, the objectives of acquiring and instructing EFL have not been satisfactorily met. So, The Ministry of Education concluded to design a new material named as *Vision* series based upon communicative language teaching (CLT) in 2016. Different studies investigated the problems of *Vision* series to find its effectiveness on learning a new language. For example, Maghsoudi and Khodamoradi (2023) investigated *Vision* series in light of fundamental reform document of education. They found the series could not establish effective interaction and communication with foreigners. As the result, their self-esteem and confidence could reduce. Accordingly, it is essential for the series to be revised in order to meet learners' communicational and psychological needs.

The supposition of Multiple Intelligences was acquainted into the realms of testing, educating, and instruction three decades ago. Gardner (1991) argued that the conventional view of intelligence, as determined by IQ tests, is overly restrictive. Instead, he put forward the idea of eight distinct intelligences, collectively known as Multiple Intelligences (MI). According to this theory, humans are able to know the world through their intelligences. Individuals may have different abilities in these intelligences. These differences can make a challenge in educational system. Parsa and Jahandar (2013) discovered that individuals with higher verbal intelligence scores also performed better on vocabulary tests and had higher level of self-confidence, while those with lower verbal intelligence scores had deficient scores on the vocabulary test and they had lower level of self-efficacy. This suggests that verbal-linguistic intelligence plays a role in learners' lexicon knowledge and their cognitive abilities. Skourdi and Rahimi (2010) investigated the connection between verbal intelligence and lexicon acquisition in Iranian pupils. The study found a strong and positive correlation between emotional intelligence and linguistic intelligence. Furthermore, the outcomes of the multiple regression analyzing suggested that linguistic intelligence was a more reliable anticipator of vocabulary knowledge compared to emotional intelligence. In a separate study by Wardet et.al (2023), the focus was on assessing the influence of logical-mathematical quotient on the English language proficiency of pupils at the Faculty of Technical Sciences in Turkey. The results indicated that the empirical group, which utilized logical mathematical quotient, performed better in terms of language acquisition and self-esteem compared to the control group. According to Mercer (2019), teaching based on the multiple intelligences' origins can make the learning more long-lasting and help the students to establish more positive mindset towards their lessons in different areas.

Since the publication of the impactful research named 'Self-Efficacy: Toward a Unifying Theory of Behavioral Change,' many scholars in the social and behavioral sciences have employed self-esteem to anticipate and clarify a wide range of human behaviors. During the past three decades, the principles of self-esteem have developed in different fields. Recently, there has been an increasing emphasis on studies about pupils' self-efficacy in the context of academic motivation and achievement (Schunk, Pintrich, Meece, 2008). Several studies indicated that various variables such as knowledge of other foreign languages, proficiency levels, and learning experience could affect students' efficacy (Estrella, 2023). Numerous scholars (e.g., Nilsson, 2006; Zajacove et al., 2005) view the self-efficacy element of Albert Bandura's opinion as a critical theoretical development in comprehending academic success, motivation, and learning. Bandura (1997) highlighted the significance of self-efficacy in how individuals actively contribute to their own psychosocial functioning through systems of individual efficiency. Of these mechanisms, none is more central or widespread than beliefs in personal efficacy. Bandura (1997) suggested that self-efficacy influences an individual's decision to engage in activities, the level of effort they exert, and their ability to persevere. According to Ghonsooly (2003), individuals with low self-efficacy for a particular activity may abstain, whereas those who have confidence in their abilities are more likely to participate and achieve their objectives.

Previous studies have indicated pupils with high self-efficacy demonstrate attempt and persistence in their academic pursuits (Zajacova, Lynch, & Espenshade, 2005). These students consistently strive to overcome challenges, seeking out effective strategies to navigate obstacles hindering their progress. Conversely, individuals with low self-efficacy tend to give up easily, struggling to overcome barriers to achievement and learning (Ross, 2003). According to Rice and Ortiz (2021), High self-efficacy leads learners to believe in their ability for successfully performing a specific task, while low self-efficacy can result in a belief that they will fail at that task. Mills (2004) proposed that personal efficacy beliefs are not contingent on one's abilities but on what one believes can be achieved with their personal skill set. A notable finding is the meaningful correspondence between self-efficacy in learning a new language and academic achievement, specifically course grades in the target language (Mills, 2004). Nilsson (2006) discovered that self-efficacy was a strong medium for language acquisition. Pupils who possess elevated levels of self-esteem demonstrated increased enthusiasm for acquiring a new language, maintained a more optimistic outlook, and displayed a stronger integrative approach.

The primary objective of the present study is designing tasks empowering instructors to teach with multiple intelligences. The subsequent step involves carrying out these tasks in actual classrooms to assess the impact over an empirical study. In pursuit of this objective, the following query was propounded :

1. Do the designed multiple intelligence-based tasks have any significant influence on learners' self-efficacy?

METHODOLOGY

PARTICIPANTS

A total of one hundred twenty students were selected based on convenience sampling. They were sixty apprentices in the control group and the remaining sixty in the experimental group across three high schools (Nasr, Novin, and Monji) in Mashhad. The disciples' ages ranged from 14 to 16, and they were Iranian students in the tenth, eleventh, and twelfth grades following the *Vision* series in the formal education system. To fulfill the primary requirement of the experimental study, the Babel English Language Placement Test (BELPT) was applied. The analytical information of the members is detailed has been detailed below .

Table 1.

Analytical Data of the Members

| | |
|----------|------------------------|
| Number | 120 |
| Age | 14-16 |
| Gender | Males |
| Language | Farsi |
| Schools | Monji, Novin, and Nasr |
| Year | 2023 |

INSTRUMENTS

THE PAPER VERSION OF BABEL ENGLISH LANGUAGE PLACEMENT TESTS (BELPT)

The printed edition of the Babel English Language Placement Tests (BELPT) was employed to decide language expertise levels. It was utilized as a pre-test to categorize students into experimental and control groups, ensuring a balanced distribution. The testing procedure required 60 minutes of student time and did not necessitate the presence of a proctor. The tests consisted of multiple-choice questions that assessed comprehension of correct answers across various skills, grammatical structures, and dialectal choices in context (Franz, 2008). According to Sharifi et al. (2017), the test displayed acceptable consistency (Cronbach's $\alpha=.81$) and validity evidence (.83).

LEARNERS' SELF- EFFICACY SCALE

The "Learners' Self-Efficacy Scale" extended by Gahungu (2009) was used to evaluate the self-efficacy level of EFL learners. This survey measures self-efficacy through a 5-point Likert-type answer scale. the test displayed sufficient consistency and validity evidence (Gahungu, 2009).It has been used as pretest and posttest.

PROCEDURE

First, the researchers developed tasks for per lesson of *Vision* series. *Vision* series include three books; *Vision* one for tenth Grade include four lessons, *Vision* two for eleventh grade involve three lessons, and *Vision* three for twelfth grade has three lessons. The assignments were grounded on Jones (2017) guideline and the taxonomy of language learning activities for multiple intelligences provided by Christison (1997). The researcher asked ten experts and university assistant professors to check the

tasks during the process of designing and consider whether items were missing or whether any items could be added or deleted. For putting the tasks in order, the researcher paid attention to the extent to which skill are related. Some tasks are in Listening part while others may be in Speaking, Reading, or Writing part. Moreover, some tasks fall in two or three integrated skills like Reading and Writing. In fact, there are some tasks that help learners to integrate skills especially their comprehension and production ability.

Next, the researchers utilized The Paper Version of Babel English Language Placement Tests (BELPT) to estimate language expertise of the learners. Learners' Self-Efficacy Scale was also employed as pre-test for them. After that, learners were divided into control and experimental groups based on the results. Each group had sixty members; twenty students were in grade ten, twenty in eleventh grade and others were in grade twelve. Then, the tasks were materialized in experimental groups for sixteen sessions during four months as the accompanying component. There were some matching tasks which helped learners to use their spatial, verbal, and interpersonal intelligences. For instance, the task asked learners to read the texts and look at the photos and match each text to the picture. Then, learners talked to their partners and expressed their logic for matching texts and their pictures. There were also some comparison tasks that first required learners to write a list about the characteristics of a healthy lifestyle and then compare their own list with their partners. Finally, learners had to combine the lists and give them to their teacher. In this way, learners could use their logical, verbal, and interpersonal intelligences. The supplementary material also contained tasks based on common problems like pollution, relationships and so on. For example, a task asked learners to think about a town center where there was too much traffic. Learners should think about three alternative solutions for this problem; then list the advantages and disadvantages of each alternative and decide which one was the most innovative one by giving reasons. This task could be helpful for learners to use logical, naturalistic, and intrapersonal intelligences. After every unit, learners were requested to do the tasks whether in the class or at home. The designed tasks were controlled in the class by instructors or through group exercises if required. The term was between October 2023 and January 2024 for sixteen sessions. The tests were also conducted to the learners of both categories as a posttest at the conclusion of the semester.

DATA ANALYSIS

For guaranteeing the uniformity of the two groups regarding their language expertise and their perceptions of their learning environment activities, an independent samples *t*-test was run utilizing SPSS version 22. An independent samples *t*-test was run to examine the impact of designed tasks on learners' self-efficacy.

RESULTS

THE RESULTS OF PRETESTS STUDENTS' PROFICIENCY LEVEL TENTH GRADE STUDENTS

To examine whether the two groups of tenth grade students are homogenous at the beginning of the study regarding their mastery level, the Babel Test was administered in control and experimental groups. Table 2 presents the outcome of *t*-test on BELPT.

Table 2

Descriptive Statistics of Tenth Grade Students' Proficiency level in Pretest

| | Group | N | Mean | Std. Deviation | Std. Error Mean |
|-----------|--------------|----|-------|----------------|-----------------|
| BabelTest | Control | 20 | 13.20 | 1.67 | .37 |
| | Experimental | 20 | 12.45 | 1.50 | .33 |

The average points for the control and experimental groups appear to be quite similar. Nevertheless, an independent samples *t*-test was conducted to verify the similarity of the two categories as demonstrated below.

Table 3

The Results of T-test on Tenth Grade Students' Proficiency Levels in Pretest

| | | Levene's Test for Equality of Variances | | t | df | Sig. (2- tailed) | Mean Difference | Std. Error Difference |
|-----------|--------------------------------------|--|------|------|-------|------------------------|--------------------|--------------------------|
| | | F | Sig. | | | | | |
| BabelTest | Equal variances assumed | .09 | .75 | 1.49 | 38 | .14 | .75 | .50 |
| | Equal variances not assumed | | | 1.49 | 37.57 | .14 | .75 | .50 |

Table 3 indicates that there is not a statistically meaningful diversity between the two groups of tenth grade students regarding their proficiency level ($t= 1.49$, $p> .05$).

ELEVENTH GRADE STUDENTS

To examine whether the two groups of eleventh grade students are homogenous at the beginning of the study regarding their mastery level, the Babel Test was administered in control and experimental groups. Table below presents the outcome of t-test on BELPT.

Table 4

Descriptive Statistics of Eleventh Grade Students' Proficiency level in Pretest

| | Group | N | Mean | Std. Deviation | Std. Error Mean |
|-----------|--------------|----|--------|----------------|-----------------|
| BabelTest | Control | 20 | 12.65 | 2.00 | .44 |
| | Experimental | 20 | 17.500 | 23.25 | 5.19 |

It is evident that there are varying average points between the control group and experimental group prompting the conduction of an independent samples t-test to verify the similarity of the two categories as revealed below .

Table 5

The Results of T-test on Eleventh Grade Students' Proficiency Levels in Pretest

| | | Levene's Test for Equality of Variances | | | | | | |
|-----------|--------------------------------------|--|------|----------|-------|------------------------|--------------------|--------------------------|
| | | F | Sig. | t | df | Sig. (2- tailed) | Mean Difference | Std. Error Difference |
| BabelTest | Equal variances assumed | 3.21 | .08 | - .93 | 38 | .35 | -4.90 | 5.21 |
| | Equal variances not assumed | | | - .93 | 19.28 | .35 | -4.90 | 5.21 |

Table 5 demonstrated that there is no a statistical meaningful discrepancy between the groups of eleventh grade students on their proficiency level.

TWELFTH GRADE STUDENTS

At the start of the study, the proficiency levels of the twelfth grade students in the control and experimental categories were assessed using the Babel Test to determine if they were similar. The outcomes of the t-test on the Babel Test are displayed below .

Table 6

Descriptive Statistics of Twelfth Grade Students' Proficiency level in Pretest

| | Group | N | Mean | Std. Deviation | Std. Error Mean |
|-----------|--------------|----|-------|----------------|-----------------|
| BabelTest | Control | 20 | 12.85 | 2.00 | .44 |
| | Experimental | 20 | 12.90 | 1.86 | .41 |

It is evident that the average points show minimal diversity between the control and experimental categories. Nevertheless, an independent samples t-test was conducted to verify the similarity of the two categories as presented in the table below .

Table 7

The Results of T-test on Twelfth Grade Students' Proficiency Levels in Pretest

| | | Levene's Test for Equality of Variances | | t | df | Sig. (2- tailed) | Mean Difference | Std. Error Difference |
|-----------|--------------------------------------|--|------|----------|-------|------------------------|--------------------|--------------------------|
| | | F | Sig. | | | | | |
| BabelTest | Equal variances assumed | .01 | .89 | - .08 | 38 | .93 | -.05 | .61 |
| | Equal variances not assumed | | | - .08 | 37.78 | .93 | -.05 | .61 |

Table 7 indicates that the proficiency levels of the twelfth-grade students in both groups do not show an analytically significant difference.

STUDENTS' SELF-EFFICACY TENTH GRADE STUDENTS

To check whether the two groups of tenth grade students are homogenous at first regarding their self-esteem, Learner's Self-Efficacy Scale was administered in control and experimental groups. Table below presents the outcome of the t-test .

Table 4.8

Descriptive Statistics of Tenth Grade Students' Self-Efficacy in Pretest

| | Group | N | Mean | Std. Deviation | Std. Error Mean |
|-------------|--------------|----|-------|----------------|-----------------|
| EfficacyPre | Control | 20 | 77.45 | 10.11 | 2.26 |
| | Experimental | 20 | 65.80 | 12.65 | 2.82 |

It is evident the mean points are slightly different for the control and experimental groups, however an independent sample t-test was conducted to investigate the homogeneity of the two groups demonstrated in the table below.

Table 4.9

The Results of T-test on Tenth Grade Students' Self-Efficacy in Pretest

| | | Levene's Test for Equality of Variances | | | | | | | |
|-------------|--------------------------------------|--|------|------|-------|------------------------|--------------------|--------------------------|--|
| | | F | Sig. | t | df | Sig. (2- tailed) | Mean Difference | Std. Error Difference | |
| EfficacyPre | Equal variances assumed | .03 | .84 | 3.21 | 38 | .34 | 11.65 | 3.62 | |
| | Equal variances not assumed | | | 3.21 | 36.23 | .34 | 11.65 | 3.62 | |

Table 9 indicates that of tenth-grade students' self-efficacy level in both groups do not show a statistically meaningful discrepancy.

ELEVENTH GRADE STUDENTS

Eleventh grade students' self-efficacy was also examined to check their homogeneity. Table 4.10 shows the outcomes of t-test on the questionnaire.

Table 4.10

Descriptive Statistics of Eleventh Grade Students' Self-Efficacy in Pretest

| | Group | N | Mean | Std. Deviation | Std. Error Mean |
|-------------|--------------|----|-------|----------------|-----------------|
| EfficacyPre | Control | 20 | 71.40 | 13.23 | 2.95 |
| | Experimental | 20 | 64.50 | 14.91 | 3.33 |

It is evident the average points are slightly different for the control and experimental groups, so an independent samples t-test was conducted to test the diversity is not meaningful, depicted in the table below.

Table 4.11

The Results of T-test on Eleventh Grade Students' Self-Efficacy in Pretest

| | | Levene's Test for Equality of Variances | | | | | | | |
|-------------|--------------------------------------|--|------|------|-------|------------------------|--------------------|--------------------------|--|
| | | F | Sig. | t | df | Sig. (2- tailed) | Mean Difference | Std. Error Difference | |
| EfficacyPre | Equal variances assumed | .79 | .37 | 1.54 | 38 | .13 | 6.90 | 4.45 | |
| | Equal variances not assumed | | | 1.54 | 37.47 | .13 | 6.90 | 4.45 | |

Table 4.11 revealed there is not a statistical meaningful discrepancy between two categories of eleventh grade students concerning their self-efficacy.

TWELFTH GRADE STUDENTS

To examine whether the two groups of twelfth grade students are homogenous at first regarding their self-efficacy, the Self-Efficacy Scale was given to the control and experimental groups. Table below depicts the results of t-test on the questionnaire.

Table 4.12

Descriptive Statistics of Twelfth Grade Students' Self-Efficacy in Pretest

| | | Group | N | Mean | Std. Deviation | Std. Error Mean |
|------------------|--------------|-------|----|-------|-------------------|--------------------|
| EfficacyPre e | Control | | 20 | 73.90 | 10.03 | 2.24 |
| | Experimental | | 20 | 71.20 | 10.81 | 2.41 |

It is evident the average scores are imperceptibly different for the control and experimental categories, however an independent sample t-test was administered to check the homogeneity of the two groups demonstrated in Table 4.13.

Table 4.13

The Results of T-test on Twelfth Grade Students' Self-Efficacy in Pretest

| | | Levene's Test for Equality of Variances | | | | | | | |
|-------------|--------------------------------------|--|------|-----|-------|------------------------|--------------------|--------------------------|--|
| | | F | Sig. | t | df | Sig. (2- tailed) | Mean Difference | Std. Error Difference | |
| EfficacyPre | Equal variances assumed | .14 | .70 | .81 | 38 | .41 | 2.70 | 3.29 | |
| | Equal variances not assumed | | | .81 | 37.78 | .41 | 2.70 | 3.29 | |

Table 4.13 depicts there is not an analytically meaningful discrepancy between the two groups of twelfth grade students regarding their self-efficacy.

RESULTS OF THE RESEARCH QUESTION

Do the designed tasks have any significant influence on pupils' self-efficacy?

TENTH GRADE STUDENTS

The impact of the intervention on the self-efficacy of tenth-grade students was examined by comparing the post-test results of the two groups. The post-test results revealed a disparity in the means of both groups. According to the table below, the average score of the empirical category ($M=160.45$, $SD=16.96$) was found to be higher than that of the control group ($M=67.80$, $SD=14.22$).

Table 4.14

Descriptive Statistics of Tenth Grade Students' Self-Efficacy in Posttest

| | Group | N | Mean | Std. Deviation | Std. Error Mean |
|--------------|--------------|----|--------|----------------|-----------------|
| EfficacyPost | Control | 20 | 67.80 | 14.22 | 3.18 |
| | Experimental | 20 | 160.45 | 16.96 | 3.79 |

An independent-samples t-test was conducted to determine the analytical signification of the observed difference. According to the table below, a significant variance was found between the experimental and control groups ($t=-18.71$, $p<.05$). This suggests that the experimental group achieved higher self- efficacy scores, indicating the effectiveness of the treatment utilized in enhancing their self-efficacy .

Table 4.15

Independent – Samples t-Test for Tenth Grade Students' Self-Efficacy in Posttest

| | | Levene's Test for Equality of Variances | | t | df | Sig. (2- tailed) | Mean Difference | Std. Error Difference |
|--------------|--------------------------------------|--|------|------------|-------|------------------------|--------------------|--------------------------|
| | | F | Sig. | | | | | |
| EfficacyPost | Equal variances assumed | .01 | .89 | - 18.71 | 38 | .00 | -92.65 | 4.95 |
| | Equal variances not assumed | | | - 18.71 | 36.87 | .00 | -92.65 | 4.95 |

ELEVENTH GRADE STUDENTS

The impact of the intervention on the self-efficacy of eleventh-grade pupils was checked by comparing the post-test outcomes of the two groups. The post-test outcomes revealed a discrepancy in the averages of both groups. According to the table below, the average score of the empirical category was found to be higher than that of the control group.

Table 4.16

Descriptive Statistics of Eleventh Grade Students' Self-Efficacy in Posttest

| | Group | N | Mean | Std. Deviation | Std. Error Mean |
|--------------|--------------|----|--------|----------------|-----------------|
| EfficacyPost | Control | 20 | 67.25 | 12.56 | 2.81 |
| | Experimental | 20 | 156.10 | 26.55 | 5.93 |

An independent-samples t-test was conducted to determine the analytical signification of the observed difference. According to the table below, a significant discrepancy was found between the experimental and control groups ($t=-13.52, p<.05$). This assumes that the experimental group achieved higher self- efficacy scores, showing the effectiveness of the treatment utilized in enhancing their self-efficacy .

Table 4.17

Independent – Samples t-Test for Eleventh Grade Students' Self-Efficacy in Posttest

| | | Levene's Test for Equality of Variances | | | | | | | |
|--------------|--------------------------------------|--|------|------------|-------|------------------------|--------------------|--------------------------|--|
| | | F | Sig. | t | df | Sig. (2- tailed) | Mean Difference | Std. Error Difference | |
| EfficacyPost | Equal variances assumed | 8.32 | .00 | - 13.52 | 38 | .00 | -88.85 | 6.56 | |
| | Equal variances not assumed | | | - 13.52 | 27.10 | .00 | -88.85 | 6.56 | |

TWELFTH GRADE STUDENTS

The impact of the intervention on the self-efficacy of twelfth-grade pupils was tested by comparing the post-test outcomes of the two groups. The post-test outcomes showed a variance in the averages of both groups. According to the table below, the average point of the empirical category was found to be higher than that of the control group.

Table 4.18

Descriptive Statistics of Twelfth Grade Students' Self-Efficacy in Posttest

| | Group | N | Mean | Std. Deviation | Std. Error Mean |
|--------------|--------------|----|--------|----------------|-----------------|
| EfficacyPost | Control | 20 | 72.15 | 16.16 | 3.61 |
| | Experimental | 20 | 154.45 | 19.82 | 4.43 |

An independent-samples t-test was conducted to determine the analytical signification of the observed discrepancy. According to the table below, a meaningful discrepancy was found between the experimental and control groups ($t=-14.38$, $p<.05$). This conveys that the experimental group achieved higher self- efficacy points, showing the effectiveness of the treatment utilized in promoting their self-efficacy.

Table 4.19

Independent – Samples t-Test for Twelfth Grade Students' Self-Efficacy in Posttest

| | | Levene's Test for Equality of Variances | | | | | | | |
|--------------|--------------------------------------|--|------|------------|-------|------------------------|--------------------|--------------------------|--|
| | | F | Sig. | t | df | Sig. (2- tailed) | Mean Difference | Std. Error Difference | |
| EfficacyPost | Equal variances assumed | 1.42 | .24 | - 14.38 | 38 | .00 | -82.30 | 5.72 | |
| | Equal variances not assumed | | | - 14.38 | 36.51 | .00 | -82.30 | 5.72 | |

DISCUSSION

The study's findings indicated that the activities have the potential to notably enhance the self-efficacy of learners. Self-efficacy is described as an individual's confidence in their ability to influence the outcome of their actions within themselves or in their surroundings (Klassen, et al., 2009). Since it is believed that each person has a unique intellect and that intelligence plays a crucial part in performance, it revealed that intelligence and self-efficacy factors may be connected. Beichner (2011) discovered a connection between students' self-efficacy and multiple intelligences. Moreover, he noted that when teachers employed their dominant intelligences in the classroom, students' self-efficacy was higher. Mahasneh (2013) explored a significant positive correlation between multiple intelligences-based tasks and learners' self-efficacy. According to Xue, Huang, and Liu (2022), Tasks that are designed with consideration to learners' intelligences and are highly preferred by EFL students, such as video watching, participating in role play activities, and engaging in group discussions, can significantly improve learners' self-efficacy. Students who demonstrate active engagement in various activities and exhibit a high level of determination to complete tasks are considered to have high levels of self-efficacy (Egbert, 2020). For this purpose, there are some tasks which ask learners to take oral presentation or public speaking to practice their language skills and improve their abilities. The findings of the research indicated that learners' self- efficacy enhanced by doing the tasks. The results align with the assumption made by Godwin (2019). Consequently, incorporating video clips and visual cues could be helpful to enhance visual intelligence and foster learners' self-efficacy by letting students to respond the questions and tasks according to the context.

Dao (2020) suggested that interactive tasks can support engagement, self-efficacy, and language achievement. Interactive activities are tasks designed to facilitate social interaction to negotiate meaning in a language as well as developing new identity through language acquisition. To achieve this end, some tasks are designed to ask learners work together or with their peers. Tasks such as surveys and storytelling can also help students to interact with each other. In fact, meeting the needs of learners will result in their active engagement and interaction in the learning process and can enhance their self- efficacy (Ghonsooly & Hassanzadeh, 2019).

Gardner's' theory of multiple intelligences offers a comprehensive perspective on students' abilities, making it valuable tool for educators and teachers to provide individualized plans based on students' strengths and experiences to enhance their self-efficacy. This theory recognizes students as multifaceted individuals with a diverse range of capabilities. These abilities can help students in their education and promote their engagement and efficacy. Shaffiei and Aziz (2012) have highlighted the impact of the theory of multiple intelligences on learners' self-efficacy. They found that applying multiple intelligences-based tasks can enhance learners' self-efficacy and refine teaching

methodologies. It is important to highlight that using multiple intelligences-based tasks in the process of learning leads adaptation of each student ability with the specific characteristics. This adaptation results in improvement of learners' self-efficacy (Dastjerd & Shafieabadi, 2014).

The results of the current research support the findings of Shore (2001). Shore (2001) examined the correlation between multiple intelligences and students' self-efficacy. The study assumed implementing multiple intelligences in classrooms enhance students' self-efficacy across various subjects. The reason for this is that multiple intelligences teaching activities improve teacher-student rapport. Numerous studies emphasize the significance cultivating a positive teacher-student relationship in promoting desirable student behavior and enhancing their self-efficacy (Marzano, 2003). Indeed, multiple intelligences-based tasks offer a variety of methods to form diverse groups based on incidental characteristics associated with each intelligence. It can also lead into student engagement in various activities. Students can benefit from learning in pairs, bands, or individually. While certain students may favor written tasks, others may excel and grasp concepts more effectively through engaging in activities. Classrooms are comprised of diverse learners with unique requirements. Multiple intelligences-based tasks can help learners with different needs and capabilities to be efficacious (Borich, 2011).

CONCLUSION AND IMPLICATIONS

The results of this study can be useful for materials developers to be mindful of distinctive variables influencing students' learning. They should provide tasks appropriate for different learners with distinctive intelligences. Teachers should also consider individual differences and provide different tasks for learners to enhance their autonomy. Indeed, educators should assess the needs and interests of their students and offer a range of tasks to assist them in achieving their goals. In fact, students attend language classes with the aim of improving their communication abilities. Therefore, the designed tasks can aid students to develop their communicative skills in alignment with their multiple intelligences. Furthermore, as learners have varying abilities and perspectives, it may not be possible to make all tasks equally interesting for everyone. Nevertheless, teachers can offer students the opportunity to choose tasks based on their individual intelligences. In fact, learners need to personalize their own learning and achieve language skills according to their abilities, needs, and interests.

The outcomes of this study can provide valuable information for teachers aiming to combine theory and practice. It can be useful for carrying out action research. The designed tasks can be used as a part of Vision series to serve as a suitable resource for Iran's educational system. In fact, these tasks act as a tool for teachers to create a more stimulating and engaging classroom environment and promote learners' academic performance and their self-efficacy.

This study opens several avenues for further research. For example, the original study focused on a specific age group. Future research could explore the effectiveness of MI-based supplementary materials with younger learners (e.g., elementary or middle school) or older learners (e.g., university students or adults). This would determine if the approach is universally applicable or needs adaptation for different developmental stages. Moreover, The Iranian EFL context has specific characteristics. Research in other contexts (different countries, educational systems, or even private language institutes) would broaden the understanding of the materials' effectiveness and generalizability. Exploring ways to integrate technology into the MI-based materials could make them more engaging and accessible. This could include using multimedia, interactive exercises, or online platforms.

REFERENCES

- Aswan, D. (2022). Analisis Kebutuhan Sumber Belajar LMS Pada Mata Kuliah Micro Teaching. *Indonesian Journal of Learning Education and Counseling*, 5(1), 11–15.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavior change. *Psychological Review*, 84, 191-215.

- Bazargan, A. (2004). Evaluation approaches of the effectiveness of in-service development programs for teachers. *Taalim-o-Tarbiat Quarterly*, 39(3), 83-94
- Beichner, R. A. (2011). *The Relationship between students' academic self-efficacy and teachers' multiple intelligences instructional practices* (Doctoral dissertation). Available at ProQuest Dissertations and Thesis database.
- Borich, G. D. (2011). *Effective teaching methods*. Boston: Pearson Education, Inc.
- Christison, M. 1997. An introduction to multiple intelligences theory and second language learning. In J. Reid (ed.), *Understanding Learning Styles in the Second Language Classroom*. Englewood Cliffs, N.J.: Prentice Hall/Regents. 1–14.
- Dao, P. (2020). Effect of interaction strategy instruction on learner engagement in peer interaction. *System*, 91, 102244.
- Dastjerd, B. F., & ShafieAbadi, A. (2014). The effectiveness of the occupational consultation based on the multi-orientations of Shafi Abadi pattern (SMPVC) on the reduction of the occupational decision-making problems of MARAND boy high school students during 2013-2014 educational years. *Advances in Environmental Biology*, 162-169.
- Dhawan, S. (2020). Online Learning: A Panacea in the Time of COVID-19 Crisis. *Journal of Educational Technology Systems*, 49(1), 5–22.
- Egbert, J (2020). The new normal? A pandemic of task engagement in language learning. *Foreign Language Annals*, 53, 314–319. <https://doi.org/10.1111/flan.12452>.
- Estrella, F. (2023). Foreign language anxiety of an Ecuadorian polytechnic university's English undergraduate students during the COVID-19 pandemic. *Journal of Applied Research in Higher Education*, 15(1), 169–184.
- Evans, T., & St John, M. (1998). *Developments in ESP: A Multi-Disciplinary Approach*. Cambridge: Cambridge University Press.
- Franz., G. (2008). *Prédiction de la limite de formabilité des aciers multiphasés par une approche micromécanique*. PhD Thesis, ENSAM Metz, France.
- Gahungu, O. (2009). *Strategy use, self-efficacy, and language ability: Their relationship*.
- Gardner, H. (1991). *The Unschooled Mind: How Children Think and How Schools Should Teach*. New York: Basic Books.
- Ghonsooly, B. (2003). Gender and Reading Anxiety in IELTS and TOEFL Paper presented in the 25th LTRC Conference in Reading University .
- Ghonsooly, B. & Hassanzadeh, T. (2019). Effect of interactionist dynamic assessment on English vocabulary learning: Cultural perspectives in focus. *Issues in Educational Research*, 29(1), 70-88 .
- Godwin, R. (2019). Riding the digital wilds: Learner autonomy and informal language learning. *Language Learning & Technology*, 23(1), 8–25.
- Graves, Kathleen (2008). *The language curriculum: A social contextual perspective*. *Language Teaching*, 41(2), 33-48
- Jones, E. (2017). One size fits all? Multiple intelligences and legal education. *The Law Teacher*, 51(1), 56-68.

- Karpova, L. V. (1999). Consider the following when selecting and using authentic materials. *TESOL Matters*, 9(2): 18.
- Klassen, R. M., Bong, M., Usher, E. L., Chong, W. H., Huan, V. S., Wong, I. Y. F., & Georgiou, T. (2009). Exploring the validity of a teachers' self-efficacy scale in five countries. *Contemporary Educational Psychology*, 34, 67-76.
- Maghsoudi, M; Khodamoradi, A. (2023). An Evaluation of the English Language Textbooks for Iranian Junior High Schools Based on the Objectives of Fundamental Reform Document of Education (FRDE), *The International Journal of Humanities* 30(2): (98- 122).
- Mahasneh, A. M. (2013). The relationship between Multiple Intelligence and Self-efficacy among sample of Hashemite university students. *International Journal of Education and Research*, 1(5), 1-12.
- Marzano, R. J. (2003). *What works in schools*. Alexandria, VA: ASCD.
- Mercer, S. (2019). Language learner engagement: Setting the scene. In X. Gao (Ed.), *Second handbook of English language teaching* (pp. 643–660). Springer.
- Mills, N. A. (2004). Self-efficacy of college intermediate French students: Relation to motivation, achievement, and proficiency. published doctoral dissertation, Emory University, Atlanta, Georgia
- Mishan, F. (2005). *Designing Authenticity into Language Learning Materials*, Bristol: Intellect Books
- Mulyasa, E. (2021). *Implementasi Kurikulum 2013 Revisi Dalam Era Industri 4.0*. Remaja Rosdakarya.
- Nilsson, M. (2006). Textbooks and alternative material: positive and negative aspects. *School of Humanities Journal*.GIX 112.P.8-9.
- Parsa, M., & Jahandar, S. (2013). The Effect of Verbal Intelligence on Knowledge of Lexicon. *International Journal of Applied Linguistics & English Literature*, 2(2), 114- 121.
- Rice, M. F., & Ortiz, K. R. (2021). Evaluating Digital Instructional Materials for K-12 O and Blended Learning. *TechTrends*, 65(6), 977–992.
- Ross, D. M. (2003). *Childhood bullying, teasing, and violence: What school personnel, other professionals, and parents can do* (2nd ed.). Alexandria, VA: American Counseling Association
- Shaffiei, Z. A., & Aziz, N. (2012). Assistive Courseware for Hearing Impaired Learners in Malaysia based on Theory of Multiple Intelligences (MI). *International Journal of Computer Science & Emerging Technologies*, 2(6).
- Schunk, D. H., Pintrich, P. R., & Meece, J. L. (2008). *Motivation in education: theory, research, and applications* (3rd ed.). Upper Saddle River, N.J.: Pearson/Merrill Prentice Hall.
- Sharifi, A., Ghanizadeh, A., & Jahedizadeh, S. (2017). The effect of simulation on middle school students' perceptions of classroom activities and their foreign language achievement: A mixed-methods approach. *International Electronic Journal of Elementary Education*, 9(3), 667-680.
- Shore, M (2001). *Beyond the wall: personal experiences with Autism and Asperger syndrome* (1st ed.). Shawnee Mission, KS: Autism Asperger Publisher Co.
- Skourdi, S., & Rahimi, A. (2010). The relationship of emotional intelligence and linguistic intelligence in acquiring vocabulary. *California Linguistic Notes*, VXXXV, 1-24



- Tabatabaei, O., & Pourakbari, A. A. (2012), "An Investigation into the Problems of Teaching and Learning English in the Isfahan Province High Schools, Iran", *Journal of Language Teaching and Research*, 3(1), 102-111.
- Tomlinson, B. (2007). *Language acquisition and development: Studies of first and other language learners*. London: Continuum.
- Tomlinson, B. (2011). *Materials development in language teaching* (2nd ed). Cambridge: Cambridge University Press.
- Tomlinson, C. A. (2001). *How to differentiate instruction in mixed ability classrooms* (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.
- Wardat, Y., Tashtoush, M., Alali, R., Jarrah, A. (2023). ChatGPT: A Revolutionary Tool for Teaching and Learning Mathematics. *EURASIA Journal of Mathematics, Science and Technology Education*, 19(7), 1-18, Article No: em2286.
- Xue, Z., Huang, Y., & Liu, Y. (2022). Enhancing language task engagement in the instructed language classroom: Voices from Chinese English as a foreign language students and teachers. *International Journal of Chinese Education*, 11(2), 2212585X2210977.
- Zajacova, A., Lynch, S. M., & Espenshade, T. J. (2005). Self-Efficacy, Stress, and Academic Success in College. *Research in Higher Education*, 46, 677-706.