

The Impact of An Instructional Program Based on Multiple Intelligences Theory on Ninth Grade EFL Students' motivation towards Learning English in Jordan

Zeina Mohammad Al-Abdallat^{1,*}, Hamzah Ali Al-Omari² & Alaa Mohammed Saleh³

¹Department of Curriculum and Instruction, The University of Jordan, Amman, Jordan

*Corresponding Author: Department of Curriculum and Instruction, The University of Jordan, Amman, Jordan

Received: October 3, 2022

Accepted: January 10, 2023

Online Published: February 17, 2023

doi:10.5430/jct.v12n1p301

URL: <https://doi.org/10.5430/jct.v12n1p301>

Abstract

This study aimed to investigate the impact of an instructional program based on Multiple Intelligences Theory on motivation among ninth grade students in Amman during the academic year 2021-2022. The sample of the study consisted of 40 students in two sections who were randomly assigned to a control group (20 students) and to an experimental group (20 students). To achieve the purpose of the study, the researchers developed a questionnaire for data collection. Data were analyzed by using SPSS (i.e. means and standard deviations, and ANCOVA). The results of the study showed that the instructional program based on multiple intelligences theory was significantly more effective than the ordinary method in developing students' motivation to learn English. Based on the results of this study, the researchers recommended that the principles of Multiple Intelligences Theory should be incorporated in EFL curriculum in Jordan to consolidate students' motivation to learn English.

Keywords: multiple intelligences, instructional program, motivation, EFL, ninth grade, Jordan

1. Introduction

1.1 Theoretical Background

With the increasing growth of digital education, English has become a fundamental learning medium and an essential channel through which learners construct meaningful communication all over the world. In many countries, English is a core subject at all school levels since it plays a significant role in accepting other cultures and attaining possible career prospects. Motivating students to practice English language skills is essential for improving their language acquisition. Therefore, instructors can establish a safe environment where students are expectedly motivated to learn English language.

According to Gardner (2011), learners acquire a foreign language because of their internal will to master that language. Harmer (1991, p.3) considered motivation as an "internal drive" that encourages someone to perform an action. He called this "the action driven by motivation". Krashen (1988, p.22) also mentioned two sorts of motivation: "Integrative motivation" which he defined as "the intention to enjoy studying and get involved in the foreign culture, and "Instrumental motivation" like learning English to get a job or have a high mark on an English exam. Baaqeel (2020) added that integrative motivation drives a learner to learn English to accommodate or assimilate into society. To this end, understanding Gardner's theory of multiple intelligences and Krashen's principles of affective filter become necessary to teaching language. Therefore, if teachers are willing to create an interesting learning environment, they need to foster motivating teaching aids to sustain their students' interests and momentum.

The theory of multiple intelligences was first proposed by Howard Gardner in his book "Frames of Mind" in 1983 (Gardner, 2011). Gardner defined intelligence as a "biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture" (Gardner, 2000, p.33). Gardner proposed eight types of multiple intelligences. Firstly, linguistic intelligence refers to the capability of the learner to read, listen, write and speak a language. Secondly, logical-mathematical (i.e. the ability to calculate numbers effectively and to give logical reasons). Thirdly, spatial intelligence includes the recognition of color, line, shape, and the bonds between them. Fourthly, bodily- kinesthetic refers to certain physical skills such as strength,

flexibility and speed. Fifthly, musical intelligence includes interest towards music and poems. Sixthly, interpersonal intelligence refers to understanding the emotions of other people. Seventhly, intrapersonal intelligence involves awareness of inner moods, intentions and desires. Finally, natural intelligence means the realization of natural phenomena (Armstrong, 2009).

Gardner (2016) added “teaching-pedagogical intelligence” which allows individuals to teach communicatively and collaborate with other peers. According to Gardner, the Multiple Intelligences Theory assists students to be active agents in the classroom, reflect deeply on their own practices, analyze and synthesize different kinds of data. In addition, teachers can activate such a theory when they engage students in authentic contexts. Students can be empowered with positive psychological variables such as motivation, high self-esteem and self-efficacy (Shearer, 2020).

Therefore, this study is intended to shed light on the effectiveness of an instructional program based on Multiple Intelligences Theory in enhancing motivation among the ninth grade EFL students in Jordan.

1.2 Related Studies

Several researchers evaluated the inclusion of multiple intelligences in EFL teaching. For example, Kırkgöz (2010) analyzed five English textbooks in relation to different intelligences. The findings of this study revealed that the intelligence profile for English textbooks was predominantly verbal/linguistic and visual/spatial; no activities were found that catered for existentialist learners in any of the textbooks.

Al Maharma (2021) also analyzed the activities included in the English series of Action Pack textbooks for grades nine, ten and twelve in Jordan to see how much the Multiple Intelligences were addressed in those textbooks. The researcher analyzed 608 activities to determine which type of multiple intelligences spreads in the targeted activities. The results indicated that the linguistic and spatial intelligences were the most common in the three textbooks. Also, it was shown that the kinds of intelligences were not found identical in the targeted textbooks. This study recommended that the designers of the textbooks should include various activities and exercises that present all eight kinds of multiple intelligences to cater for students' learning interests.

Ametova (2020) attempted to explore whether instrumental or integrative motivation has affected the process of learning the language for English as a Foreign Language (EFL) students. To achieve the purpose of the study, two instruments, a questionnaire and open-ended questions, were developed. Also, two students studying at the Tashkent State University of Law were selected as the participants of the investigation. In addition, the researcher presented the questionnaire to the chosen participants and asked them to complete it. Finally, the researcher analyzed the collected data of the research. The findings of this study showed that the altitude of instrumental motivation of EFL students was high in comparison to integrative motivation and instrumental motivation. Based on these results, certain recommendations are suggested to increase students' motivation to learn English.

Madkour & Mohamed (2016) examined the impact of students' multiple intelligences profiles on their motivation and language proficiency. The researchers developed a Likert questionnaire to determine students' multiple intelligences. The participants are two groups from the College of Languages and Translation at Al-Imam Mohammad Ibn Saud Islamic University in Saudi Arabia. They studied English courses at level 3. The first group learnt English in an ordinary classroom where they studied grammatical rules, while the second group learnt English after deciding their multiple intelligences profiles. Data were analyzed using the Statistical Package for the Social Sciences software (SPSS). The results showed that ineffective teaching strategies based on motivating learners to learn language rules by heart hindered students from boosting their language proficiency. The study recommends incorporating multiple intelligences in teaching English.

Al-Omari, Bataineh & Smadi (2015) conducted content analysis to test the potential inclusion of Gardner's verbal/linguistic, logical/mathematical, spatial/visual, bodily/kinesthetic, musical/rhythmic, interpersonal, intrapersonal, naturalist, moral, spiritual and existential intelligences in the activities of the Action Pack textbooks for the first-, fourth-, eighth- and eleventh-grades in Jordan. The findings showed that the incorporation of multiple intelligences is unbalanced among the four levels of the textbook. As a result, it was recommended that more empirical studies should be conducted on the effect of catering for Multiple intelligences on English language acquisition.

Wimolmas (2013) examined the type of English language learning motivation (instrumental or integrative) of 30 first-year undergraduate students at an international institute of engineering and technology in Thailand. A developed motivation survey of 20 items adapted from (Gardner's Attitude/ Motivation Test Battery (AMTB), 1985) was conducted. The data were analyzed using means of frequency, percentage, arithmetic mean and standard deviation.

The main findings indicated that the students are “highly” motivated and found to be more “instrumentally” motivated to learn English. This shows that instrumental motivation is an important factor among this group of students learning English. Based on the findings of the study, some recommendations are suggested to consolidate students’ motivation.

Soleimani, Moinnzadeh, Kassaian & Ketabi (2012) explored the impact of Multiple Intelligence based instruction on students’ attitudes toward learning English at Islamic Azad University's Kermanshah Branch during the second semester of the academic year 2010–2011. Sixty-one students from two distinct classes were divided into an experimental group (32 students) and a control group (29 students) using random cluster sampling. The experimental group students were taught using MIT, whereas the control group students received instruction using the ordinary general English teaching technique. A fifteen-item scale was also used to gauge the learners' attitudes toward the language. The findings revealed a considerable improvement in the experimental group's attitudes toward learning English during a period of eight weeks.

1.3 Context and Question of the Study

The English language curriculum in Jordan consists of the general aims of teaching English in Jordan, the Intended Learning Outcomes (ILOs), activities, content, procedures, teaching strategies, and assessment. All of these components are designed in light of a document called “the General Guidelines and General and Specific Outcomes for the English Language: Basic and Secondary Stages in Jordan”. Therefore, the Student’s Book, Activity Book and the Teacher’s Book for all grade levels (1-12) are developed in light of these guidelines.

On the other hand, English language teaching in Jordan rests on the principles of the communicative approach to language teaching. This involves teaching English in context and engaging students in group work activities; little emphasis is given to differentiated learning. Moreover, the results of some local studies (e.g. Al-Omari, Bataineh & Smadi (2015), and Al Maharma (2021) indicated that multiple intelligences are not properly addressed in Action Pack textbooks. This implies that the incorporation of multiple intelligences is unbalanced in Action Pack textbooks.

Therefore, the purpose of the study was to investigate the impact of an instructional program based on Multiple Intelligences Theory on enhancing the motivation of ninth grade students in Jordan during the academic year 2021-2022. More specifically, the present study sought to answer the following question: *Are there any significant differences ($\alpha = 0.05$) between the mean scores of ninth grade students in Jordan regarding their motivation to learn English, which can be attributed to using a program based on Multiple Intelligences compared to using the ordinary method?*

1.4 Statement of the Problem

Many researchers (e.g. Al Maharma, 2021; Al-Omari, Bataineh & Smadi, 2015; Armstrong, 2009; and Campbell & Campbell, 1999) indicated that MI theory provides students with the opportunity to sustain their motivation and improve other personal traits such as confidence, sense of achievement and willingness to learn. Taase (2012) contended that students have different learning styles and individual differences, and so it is crucial to consider these differences in designing textbooks. On the other hand, Campbell & Campbell (1999) believed that it is essential for ELT teachers to have a basic knowledge of MI theory and implement it in the classroom to keep the teacher more connected to students.

Those researchers suggested that more studies can be conducted to investigate either the relations between multiple intelligences and motivation towards learning English or how certain intelligences can contribute to enhancing motivation among students of different characteristics in various situations and circumstances. Luo, (2018) also recommended designing MI-based activities and effective assessment tools to achieve educational goals.

In the current study, the researchers were motivated to investigate the effect of using an instructional program based on multiple intelligences theory since they realized that multiple intelligences were not appropriately addressed in Action pack 9 textbook. In this textbook, most of the exercises, activities and lessons were the same for all students, and teachers have to abide by the instructions for implementing the centralized curriculum imposed by the Ministry of Education.

1.5 Significance of the Study

The results of this study are expected to reveal the impact of an instructional program based on multiple intelligences theory on Ninth Grade Jordanian EFL Students’ motivation towards learning English. Therefore, these results may give insights into the degree to which different types of intelligence are catered for in the EFL curriculum in Jordan. Accordingly, curriculum designers can develop more MI-based tasks and assessment tools. Moreover, English

language teachers can implement MI plans, use MI-based methodologies, benefit from MI resources, sustain learners' independence, and lower students' affective filter. Furthermore, this study may help students seek more MI materials that help them learn better and communicate more effectively. Other researchers may also benefit from the results of this study to conduct more studies on the impact of Multiple Intelligences Theory on other aspects of language learning such as collaborative learning, self-learning, doing projects and using language to communicate with English speakers outside school.

1.6 Limitations of the Study

One of the limitations of this study was that the school where the study was conducted "Princess Rahmeh School" was purposefully selected due to permission procedures and the circumstances of the three researchers. Another limitation was that the sample of the study was only forty students. A third limitation was that the treatment lasted only six weeks during the second semester of the academic year 2021 – 2022 due to time pressure at school.

2. Method

This section includes the study design, participants of the study, the research instruments, the validity and reliability of instruments, and data collection and analysis.

2.1 Study Design

To collect the data of this study, the researchers used a quasi-experimental design. There was one independent variable (the teaching program) which has two levels: the instructional program which was based on the MI theory, and the ordinary method. There was also one dependent variable which was students' motivation to learn English.

This design of the study is represented as follows:

| | | | |
|-----|----|-----|----|
| EG: | O1 | X | O2 |
| CG: | O1 | --- | O2 |

EG: stands for the experimental group, CG: stands for the control group, X: stands for the treatment, O1: stands for pre-test and O2 for post-test.

2.2 Participants of the Study

The participants of this study were forty students distributed to two ninth grade sections at Princess Rahmeh School. One section was randomly assigned to be the control group (20 students) while the other section represented the experimental group (20 students). Students of the experimental group were taught English by applying the Multiple Intelligence Based Program (MIBP) while students of the control group were taught according to the ordinary method as described in the ninth grade Teacher's Book. The treatment lasted six weeks during the second semester 2021-2022.

2.3 The Research Instrument

A motivation questionnaire (20 items) was developed by the researchers based on related literature (e.g. Gardner's Attitude / Motivation Test Battery (AMI), 1985, Duncan & McKeachie (2010), Hasan, Dedi, Een, Riswanti, & Ujang (2021), Nabah & Ahmad (1988) and Wimolmas (2013). A four-point Likert scale ranging from 'Strongly Agree (4) to 'Strongly Disagree (1) was adopted to analyze students' responses to each item of the questionnaire.

2.4 Validity and Reliability of the Questionnaire

To establish the validity of the questionnaire, a jury of thirteen experts were consulted. Those included: three TEFL professors, three professors of linguistics, two professors of curriculum and instruction, one professor of educational psychology, two professors of educational research, and two experienced English teachers. The experts were kindly requested to check the appropriateness of the motivation questionnaire in terms of accuracy, length, clarity, language, etc. The main suggestions of the experts included reducing the number of items, rephrasing some items for clarity of expression, and fixing some language mistakes. All those suggestions were taken into consideration in rewriting the final copy of the questionnaire.

As for the instructional programs, the major suggestions of experts included simplifying the language used to describe each of the teaching programs, incorporating all sorts of multiple intelligences (those in Gardner's Theory) except the existential intelligence, organizing the lesson plans of each program, reconsidering the time allotted for each activity and clarifying the teacher's role and students' role during the class.

To establish the reliability of the questionnaire, it was administered to twenty EFL students from the population of

the study as a pilot group. Cronbach alpha correlation coefficient was calculated. The computed value was (0.89).

2.5 Statistical Analysis

Students' responses to the questionnaire items were analyzed by using the SPSS package for statistical analysis. This included computing the means and standard deviations for both groups (i.e., experimental and control). One-way ANCOVA test was used to test the significance of the statistical differences between the mean scores of the two groups.

A four -Point Likert Scale (Strongly agree= 4; Agree =3; Disagree= 2; and Strongly disagree= 1) was used to measure the degree to which teachers agreed on each item of the questionnaire.

2.6 Implementation of the Program

The program was applied to Module 6, which consisted of eight lessons, in Action Pack 9 textbook presently used at Jordanian public schools. The outcomes, resources, assessment tools, number of classes (26 classes), number of tasks, time assigned to each lesson (45 minutes) were the same for both the control and the experimental group students. However, the lesson plans, the learning tasks and activities designed for both groups were different. Those differences are summarized below.

Students of the experimental group were involved in different MI-based tasks. Some of those tasks included expressing opinions by using "the six thinking hats strategy", reading poems and melodies, playing games, drawing pictures, creating posters, expressing feelings and attitudes, presentations, miming and guessing vocabularies, doing "Self-Awareness Activity", playing in an "Inner and Outer Circles", doing "a running dictation", "Thinking, pairing, drawing and sharing MI communicative tasks. The main types of intelligences which were activated among the experimental group students included: Intelligences included Verbal/Linguistic Intelligence, logical/mathematical intelligence, visual/spatial intelligence, bodily/kinesthetic intelligence, musical/rhythmic Intelligence, interpersonal intelligence, intrapersonal intelligence, natural intelligence (Gardner, 1999). The *teacher of the MI based program planned lessons* in which outcomes, procedures, content, tasks and time were clearly stated. Firstly, the teacher asked students to take notes, read articles, tell stories and expressed opinions (linguistic intelligence). Secondly, ninth graders answered puzzles and analysed grammar rules logically (mathematical intelligence). Thirdly, students were involved in describing pictures and drawing nature (visual and natural intelligence). The teacher also asked the students to role play, act, mime words and play games (kinaesthetic Intelligence). Fifthly, the teacher introduced poems and songs (musical intelligence). Sixthly, the teacher engaged students in collaborative linguistic tasks (linguistic, interpersonal and pedagogical intelligence). Seventhly, students self-evaluated their written and oral performance (intrapersonal intelligence). Finally, the teacher encouraged students to design PowerPoint presentations about the present perfect tense (digital intelligence).

As for students of the control group, they were basically taught according to the teaching tips described in the ninth grade Teacher's Book provided by the Ministry of Education (MoE) in Jordan. Accordingly, the teacher allowed students to "use dictionaries and glossaries to highlight and clarify word meaning, skim a reading text to answer questions, demonstrate understanding of a magazine article about an experience of a lifetime, engage in a discussion to exchange ideas about one's feelings throughout a journey, and use pictures to demonstrate understanding of new words" . Students were also given opportunities to develop listening strategies in order to improve pronunciation of figures by listening to taped native speakers of English". They were also encouraged to participate in a peer discussion about important discoveries from the past", find a location on a map, and engage in a discussion to exchange ideas about one's feelings" (Paris, 2013, p.90).

On the other hand, both the ordinary program and the MI based program were designed to achieve the same intended learning outcomes (ILOs) required by the MoE. For example, students were expected to use context to guess the meaning of new words, listen to taped native speakers of English to improve pronunciation of figures, skim a reading text to answer questions, demonstrate understanding of an authentic reading text about an experience of a lifetime, engage in a discussion to exchange ideas about one's feelings throughout a journey, use the Present Perfect Simple with for, since and time expressions, identify the difference between the present perfect simple and the past simple, and write short informal letters with a specific function (Paris, 2013, p.86). The same assessment strategies and tools were also applied in both MI based instructional program and the conventional program to achieve those (ILOs). Such strategies included communication, observation, and reflection. Accordingly, assessment tools included peer review, rating scales, checklists, and portfolios.

3. Results

The present study was intended to answer the following question: *Are there any significant differences ($\alpha = 0.05$) between the mean scores of ninth grade students in Jordan regarding their motivation to learn English, which can be attributed to using a program based on Multiple Intelligences compared to using the ordinary method?*

To answer this question, means and standard deviations were calculated. Results are shown in Table 1.

Table 1. Means and Standard Deviations of Ninth Grade Students with regard to Their Motivation to Learn English due to the Teaching Program (ordinary program vs. MI -based program)

| Group | N | Pre- test | | Post test | |
|--------------|----|-----------|----------------|-----------|----------------|
| | | Mean | Std. Deviation | Mean | Std. Deviation |
| Experimental | 20 | 2.81 | 0.369 | 3.15 | 0.455 |
| Control | 20 | 2.56 | 0.377 | 2.66 | 0.461 |
| Total | 40 | 2.69 | 0.390 | 2.91 | 0.516 |

The results in Table 1 reveal that there were differences in the mean scores of students of both groups (experimental and control). That is, the mean score (3.15) of the experimental group was higher than that of the control group (2.66) on the post-test. Therefore, one-way Analysis of Covariance (ANCOVA) test was applied to see if those differences were statistically significant ($\alpha=0.05$). Results are presented in Table 2.

Table 2. One-way Analysis of Covariance (ANCOVA) of the Motivation Mean Score of Students due to the Method of Teaching (ordinary method vs. MI program)

| Source | Type III Sum of Squares | df | Mean Square | F | *Sig. | Partial Eta Squared |
|--------|-------------------------|----|-------------|-------|-------|---------------------|
| Pre | 4.872 | 1 | 4.872 | 58.36 | *.000 | .612 |
| Group | .538 | 1 | .538 | 6.44 | .016* | .148 |
| Error | 3.089 | 37 | .083 | | | |
| Total | 10.387 | 39 | | | | |

Table 2 reveals that there were statistically significant differences in the mean scores of students of both groups regarding their motivation to learn English due to the instructional program. The "F" value (6.44) is statistically significant ($\alpha=0.05$). The adjusted mean scores and standard errors were also calculated. Results are shown in Table 3.

Table 3. Adjusted Mean Scores and Standard Errors of Students of Both Groups (experimental vs. control) on the Motivation Test due to the Teaching Program

| | Group | Mean | Std. Error |
|------------|--------------|------|------------|
| motivation | Experimental | 3.03 | .067 |
| | Control | 2.78 | .067 |

Table 3 shows that the adjusted mean of the experimental group (3.03) was higher than the adjusted mean score of the control group (2.78). This indicates that the differences were in favor of the students who were taught using the MI based program. Eta square was also calculated. As shown in Table 2, the obtained value was (.148), which means that about (15%) of the variance in the total scores of students can be attributed to applying the MI based program.

4. Discussion

The results of the study revealed that the students who were taught using the MI based program were significantly more motivated to learn English than those who were taught using the ordinary program. That is, the mean score of the experimental group was high (3.15) while the mean score of the control group was moderate (2.66). The results of the study are consistent with those of other researchers (e.g. Chen, 2005; Cluck & Hess, 2003; Madkour & Mohamed, 2016; Soleimani et al. 2012, Suo & Hou, 2017; Yeh (2014), who concluded that implementing MI-based English classroom tasks significantly enhanced students' motivation and attitudes towards learning English.

The improvement of students' motivation may be due to the integration of linguistic, logical-mathematical, visual

spatial, bodily kinesthetic, musical, natural interpersonal, intrapersonal, pedagogical and digital intelligence-based activities in English lessons. For example, students recited poems and took part in debates. As a result, their linguistic intelligence was thoroughly sustained. In addition, students might have felt enthusiastic when they solved problems as they were learning and so their mathematical intelligence was activated. Moreover, drawing nature could have activated their visual and natural intelligences. Kinesthetic intelligence might have been operated on when they acted in plays. In addition, musical intelligence seems to have been consolidated when they listened to songs. Pedagogical and interpersonal intelligences were reinforced when they worked collaboratively. When students self-evaluated their written and oral performance, their intrapersonal intelligence was operated as a result. Digital intelligence also seemed to have promoted students' critical thinking when they designed power point presentations about grammatical concepts. It is worth noting that all those multiple intelligences were incorporated in the instructional program.

Furthermore, students of the treatment group might have enjoyed watching English programs and understanding how people of other cultures think. For example, they might have been passionate to understand other celebrities' lives, fond of using English in social media, and willing to communicate with other English speakers. They might have truly acknowledged the significance of English arts and appreciated English literature. According to Ametova (2020) & Wimolmas (2013) motivation is an important predictor of language acquisition. Celik (2016) also believed that one of the key components of effective language learning is motivation.

Moreover, students who received MI-based speaking activities such as "snowball reflection games", miming and guessing words, playing in an "Inner and Outer Circles", "Thinking, pairing, drawing and sharing" became more self-confident and excited to speak English. When teachers apply MI based activities (e.g. reciting poems, playing games, answering puzzles, roleplaying, miming, acting and drawing), students' performance and motivation can be improved. On the other hand, integrating the MI based tasks (e.g. expressing opinions, creating posters, jotting down feelings and attitudes, drawing countries and writing about them, accomplishing "Self-Awareness Activity" and designing power point presentations) might have reduced anxiety and assisted students of the experimental group to interact with their classmates. Therefore, Teachers should employ a variety of MIT teaching techniques to keep students motivated in order to prevent them from becoming bored, lacking motivation, or being exposed to demotivating influences (Amiryousefi & Dastjerdi, 2011).

However, the findings of the present study do not conform to those of Pandian (2010) which claimed that there is no correlation between multiple intelligences and motivation. They also disagree with the results of Glomo-Narzoles' findings (2015) which showed that the MIT- based program had little impact on the EFL learners' motivation

5. Conclusion and Recommendations

In conclusion, using an instructional program based on MI program to teach English language skills to EFL students reinforced their motivation to learn English. Such improvement may be due to the incorporation of different types of intelligence-based activities (i.e. linguistic, logical-mathematical, visual spatial, bodily kinaesthetic, musical, natural interpersonal, intrapersonal, pedagogical and digital) in English classes. Applying an instructional program based on MI Theory in EFL classes can sustain students' motivation to take more initiative, scaffold their peers, discuss, socialize and communicate. This can also lower students' affective filter when they synthesize materials to construct knowledge, and confidently negotiate or express ideas, concepts and opinions with interlocutors

Based on the results of the study, the researchers recommend that English curriculum should maintain a balance among all types of intelligence. In addition, the Ministry of Education in Jordan should help teachers of English to incorporate MI- based tasks into English lessons through intensive workshops, seminars, courses and conferences. Furthermore, curricula designers should develop EFL curricula that cater for different types of intelligences. Teachers also should be aware of the many types and personalities of their students in order to arrange their lessons and ensure that every student can demonstrate the highest levels of his/her motivation. Other researchers are also recommended to investigate the effects of applying MI theory in other educational contexts.

Acknowledgements

We are grateful to the TEFL team and colleagues in the curriculum and instruction department at the University of Jordan.

References

- Adams, N. (2004). Digital Intelligence Fostered by Technology. *Journal of Technology Studies*, 30(2), 93-97. <https://doi.org/10.21061/jots.v30i2.a.5>
- Ahmed, A., & Gasm, A. (2012). The relation between multiple intelligences theory and methods of ELT. *International Journal of Learning and Teaching*, 4(2), 26-41.
- Al Maharma, H. (2021). Analysis of the Activities used in English Textbooks Regarding the Multiple Intelligences Theory in Jordan. *Educational Research and Reviews*, 16(10), 400-406. <https://doi.org/10.5897/ERR2021.4178>
- Al-Omari, T., Bataineh, R., & Smadi, O. (2015). Potential Inclusion of Multiple Intelligences in Jordanian EFL Textbooks: A Content Analysis. *Bellaterra Journal of Teaching & Learning Language & Literature*, 8(1), 60-80. <https://doi.org/10.5565/rev/jtl3.597>
- Ametova, O. (2020). The influence of integrative motivation and instrumental motivation on learning English as a Foreign Language. Scienceweb academic papers collection. *Journal of Critical Reviews*, 12(7), <https://doi.org/10.31838/jcr.07.12.164>
- Amiryousefi, M., & Dastjerdi, H. (2011). The Relation Between MI and Motivation and Students' Likes and Dislikes of Course Books: A Comparison between Interchange and Top-Notch Elementary Books. *Procedia-Social and Behavioral Sciences*, 30, 1709-1713. <https://doi.org/10.1016/j.sbspro.2011.10.330>
- Armstrong, T. (2009). *Multiple intelligences in the classroom*. USA: Ascd.
- Baaqeel, N. (2020). Improving Student Motivation and Attitudes in Learning English as a Second Language; Literature as Pleasurable Reading: Applying Garner's Theory of Multiple Intelligences and Krashen's Filter Hypothesis. *Arab World English Journal*, 4(1), 37-51. <http://dx.doi.org/10.24093/awejtls/vol4no1.4>
- Campbell, L., & Campbell, B. (1999). *Multiple intelligences and student achievement: Success stories from six schools*. USA: ASCD.
- Celik, S. (2016). *Using Multiple Intelligence Teaching Activities Foster the Learners' Motivation in The Reading Classes*. The 2016 WEI International Academic Conference Proceedings, USA: Boston.
- Cluck, M., & Hess, D. (2003). *Improving Student Motivation Through the Use of the Multiple Intelligences* [Master's Thesis, Saint Xavier University]. Chicago.
- Duncan, T., & McKeachie, W. (2010). The making of the motivated strategies for learning questionnaire. *Educational psychologist*, 40(2), 117-128. https://doi.org/10.1207/s15326985ep4002_6
- Gardner, H. (2016). *Intelligence Isn't black and white: There are 8 different kinds*. Bigthing.come.video. Check minutes 5:00 - 5:55 and 8:16
- Gardner, H. (1999). *Intelligence Reframed: Multiple Intelligences for the 21st Century*. New York: Basic Books.
- Gardner, H. (2000). *Intelligence reframed: Multiple intelligences for the 21st century*. UK: Hachette.
- Gardner, H. (2011). *Frames of mind: The theory of multiple intelligences* (3rd ed.). New York: Basic Books.
- Gardner, R. (1985). *The Attitude Motivation Test Battery: Technical Report 1*. London: University of Western Ontario.
- Glomo-Narzoles, D. (2015). Multiple Intelligences and Motivational Orientations in Learning EFL. *Journal Of the Association-Institute for English Language and American Studies*, 2(1), 49-56.
- Harmer, J. (1991). *The practice of English language teaching*. London: Longman.
- Hasan, H., Dedi, D., Een, Y. H., Riswanti, R., & Ujang, S. (2021). Motivation and Learning Strategies Student Motivation Affects Student Learning Strategies. *European Journal of Educational Research*, 10(1), 39-49. <https://doi.org/10.12973/eu-jer.10.1.39>
- Kırkgöz, Y. (2010). Catering for multiple intelligences in locally-published ELT textbooks in Turkey. *Procedia-Social and Behavioral Sciences*, 3, 127-130. <https://doi.org/10.1016/j.sbspro.2010.07.023>
- Krashen, S. (1988). *Second language acquisition and second language learning*. London: Prentice Hall International.
- Luo, S. (2018). *Multiple Intelligences*. The TESOL Encyclopedia of English Language Teaching, UK: Liontas. <https://doi.org/10.1002/9781118784235.eelt0170>
- Madkour, M., & Mohamed, R. (2016). Identifying College Students' Multiple Intelligences to Enhance Motivation

- and Language Proficiency. *English Language Teaching*, 9(6), 92-107. <https://doi.org/10.5539/elt.v9n6p92>
- Nabah, A., & Ahmad, A. (1988). *Attitudes of Saudi Arabian secondary school pupils towards the learning of English* [Unpublished PhD thesis]. UK: the university of Wales.
- Pandian, A. (2010). On The Possible Relationships between Multiple Intelligences, Listening Proficiency and Motivational Orientation among Iranian TEFL University Students. *The Iranian EFL Journal*, 6(2), 75-99.
- Paris, V. (2013). *Action Pack: Teacher's Book 9*. UK: Dar Al Tarbawiyoun House of Education Ltd and Pearson Education Ltd.
- Shearer, C. (2020). Multiple intelligences in gifted and talented education: Lessons learned from neuroscience after 35 years. *Roeper Review*, 42(1), 49-63. <https://doi.org/10.1080/02783193.2019.1690079>
- Soleimani, H., Moinzadeh, A., Kassaian, Z., & Ketabi, S. (2012). The Effect of Instruction Based on Multiple Intelligences Theory on the Attitude and Learning of General English. *English Language Teaching*, 5(9), 45-53. <https://doi.org/10.5539/elt.v5n9p45>
- Suo, J., & Hou, X. (2017). A Study on The Motivational Strategies in College English Flipped Classroom. *English Language Teaching*, 10(5), 62-67. <https://doi.org/10.5539/elt.v10n5p62>
- Taase, Y. (2012). Multiple Intelligences Theory and Iranian Textbooks: An Analysis. *Journal of Pan-Pacific Association of Applied Linguistics*, 16(1), 73-82.
- Wimolmas, R. (2013). *A survey study of motivation in English language learning of first year undergraduate students at Sirindhorn International Institute of Technology (SIIT) Thammasat University*. Thailand: Language Institute, Thammasat University.
- Yeh Yeh, E. (2014). Teaching culture and language through the multiple intelligences film teaching model in the ESL/EFL classroom. *The Journal of Effective Teaching*, 14(1), 63-79.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).