

Full Length Research Paper

Analysis of the activities used in English textbooks regarding the multiple intelligences theory in Jordan

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Received 13 June, 2021; Accepted 6 August, 2021

This study analyzes the activities used in the English series of Action Pack textbooks in accordance with multiple intelligences theory. This series is used in teaching the English language for grades nine, ten and twelve in Jordan. The researcher analyzed 608 activities to decide which type of multiple intelligences is more common in the targeted activities. The results indicate that the linguistic and spatial intelligences were the most prevalent in the three textbooks. Also, it was revealed that the types of intelligences were not found similarly in the targeted textbooks.

Key words: Content analysis, English language textbooks, Jordan, multiple intelligences theory.

INTRODUCTION

The textbooks used in teaching schools students have played an essential part in paving the way to learn English as a foreign language (EFL) smoothly. Analyzing these textbooks may provide a real opportunity to modify and advance the learning content of textbooks. Assessing and investigating the existing textbooks give a strong base that enhances the teaching materials when they first present to students (Lee, 2013). In the light of newer methods, Hutchinson and Torres (1994) state that the teaching/learning process is imperfect when it has unsuitable textbooks. Tomlinson (2003) also claims that assessing the textbook can be prepared through several steps, for example, pre-use and post-use. The post-use evaluation step is vital to offer beneficial evidence that can be used to change the learning material. According to Ellis (1998), evaluating the textbook is considered a

beneficial way to benefit from the assessment step in English language teaching and help teachers establish a holistic view rather than partial view. Evaluating textbooks can help in presenting some standards for assessing the activities used in the language classroom. Rezvani and Amiri (2012) state the materials chosen accurately reflect learners' needs, aims, and teaching methods. As a result, Multiple Intelligences Theory (MIT), developed by Gardner (1983), is one of the standards used in assessing textbooks. Because of MIT advantages in learning, it has aroused a particular interest from researchers and teachers. MIT permits teachers to teach their students by using many teaching methods and strategies that meet students' level and interest. Therefore, applying MIT in the educational process may result in improving students' performance and their

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attitudes towards learning (Estaji and Nafisi, 2014). Gardner (1999) states that individuals carry multiple independent capabilities, but they may overlap together to serve each other, and they work independently from other abilities, which are known as intelligence. He puts forward eight types of intelligence, and each intelligence may be the nucleus of creative abilities (Baş and Beyhan, 2010).

The multiple intelligences theory showed that human intelligence includes multiple skills. It calls on educational institutions to reconsider their dealings with students and their multiple abilities, and not only to pay attention to linguistic and mathematical skills (Armstrong, 1994). The significance of this theory in the educational field is clear because it boosts students' intellectual capabilities, assists them to deal with problems, and affects them in gaining new knowledge (Zaitoun and Miqdadi, 2014). Moreover, this theory is considered an appropriate way to diversify the individual's teaching methods, requiring searching for various educational methods and strategies commensurate with multiple intelligences (Hoerr, 2000). Including multiple intelligences in schools provides students with multiple activities and learning methods that improve their achievement and performance (Nyugen, 2000). Intelligence is considered "a personal trait that determines people's ability to learn, achieve academically and therefore, to take on leading roles in society" (Muijs and Reynolds, 2011, p. 16). Because of this view of intelligence, Gardner introduces in his book *Frames of Mind* much intelligence at MIT, totalling eight types (Gardner, 1983). Gardner explains intelligence as the persons' capability to answer questions, explain solutions and produce something (1993). He also defines intelligence as a bio-psychological potential to process information that can be activated in a cultural environment to answer questions or make value products in a culture (Gardner, 1999).

According to Gardner (1983), there are eight types of intelligences which are presented as followed:

1. Verbal/Linguistic intelligence is the capability to use the language effectively;
2. Logical/mathematical intelligence is the aptitude to use numbers. It also includes analyzing the problems logically and solving mathematical calculations;
3. Visual/spatial intelligence is the capability to distinguish and operate patterns of the entire space;
5. Bodily intelligence is the capability to use body parts to solve problems;
6. Musical intelligence is the capability of producing, composing and writing musical patterns, such as rhythm and pitch;
7. Interpersonal intelligence is the capability to comprehend the feelings of others and work with them

efficiently;

8. Intrapersonal intelligence is to realize one's feelings and motivation;

9. Naturalistic intelligence is the ability to cope with the natural world.

The MIT in teaching English as a Foreign Language has blowout recently. Teachers' teaching is affected by how they can deal with students and the learning material. Using MIT can be used to easily teach students the assigned activities with different methods that attract students and consider different learning styles that every student owns (Berman, 2005). Therefore, Arnold and Fonseca (2004) state that Language learning can be supported by bringing in the musical, visual-spatial, bodily-kinesthetic, interpersonal, intrapersonal, mathematical and natural abilities as they constitute different frames for working on the same linguistic content. Not only does this variety of presentations allow students to learn in their own best ways, but it also helps to reduce boredom as language learning requires frequent circling back over the same material if learning is to be sustained (Arnold and Fonseca, 2004: p. 7).

REVIEW OF RELATED LITERATURE

Abu Zahra (2007) analyzed the Arabic language fourth-grade textbook concerning MIT in Egypt. The researcher analyzed 54 activities. Results indicated that using multiple intelligences in the Arabic language book is in an unsatisfactory level. Taase (2012) examined multiple intelligences in the textbooks used to teach grades 1, 2 and 3 in Iran. A planned checklist was used to identify the level of MI. The results showed that verbal/linguistic and visual/spatial were found intensively in the targeted textbooks. The results also revealed that the bodily/kinaesthetic, musical and naturalistic intelligence was found in a few manners. Ebadi and Ashtarian (2014) analyzed multiple intelligences in the textbook used in teaching English in Iran. A checklist was used to analyze the activities in the targeted textbook. Results revealed that verbal intelligence had got the highest percentage among the eight intelligences. In the Jordanian context, Al-Shboul and Al-Khawaldeh (2014) analyzed 755 activities and 3600 questions in the Islamic education textbooks to decide the multiple intelligences in textbooks used for grades eleven and twelve in Jordan. Findings indicated that the linguistic/verbal and logical/mathematical intelligences were the intelligences representing clearly in the analyzed activities.

Furthermore, Al-Omari et al. (2015) analyzed the textbooks used to teach English for grades 1, 4, 8, and 11 to incorporate multiple intelligences in these textbooks.

Findings revealed that the linguistic, intrapersonal and visual intelligences were intensively found in the analyzed textbooks under the study. Jado (2015) to find out the multiple intelligences, he analyzed the textbooks used to teach the Arabic language for grades 1, 2, 3, and 4 in Jordan. The results revealed that verbal/linguistic intelligence is found in almost all the analyzed activities. Wattanborwornwong and Klavinitchai (2016) analyzed the multiple intelligences in the textbooks used in learning English and Chinese in Thailand. Results showed that the two books under the study had varied representations of the multiple intelligences. Findings also showed that the spatial and logical intelligences were more prevalent in the Chinese book than English book, while the visual, kinaesthetic and interpersonal intelligences were balanced in both the two books. Djallel (2017) analyzed the level of multiple intelligences in an English textbook. The researcher analyzed 380 activities to decide the level of multiple intelligences. Findings showed that the verbal/linguistic and the logical/mathematical intelligences were at an acceptable level in the analyzed activities.

Moreover, Al-Jubouri (2017) examined the multiple intelligences in the history textbook used in teaching grade eight. Findings showed that interpersonal intelligence was the most comprehensive in the analyzed textbook. Hassan (2017) examined three textbooks used to teach Biology regarding multiple intelligences. The researcher followed the descriptive quantitative design. Findings revealed that the three types of intelligences, namely the interpersonal, bodily and musical intelligences, were found less in the analyzed books. Aboad (2016) analyzed three textbooks used in learning chemistry to identify the level of the multiple intelligences in Iraq. Findings revealed that the author's textbooks did not pay enough attention to the interpersonal, musical and bodily/kinaesthetic intelligences so that these types did not appear in the activities of the textbooks. Al-Muzaini (2017) analyzed the degree of inclusion of the multiple intelligences in textbooks used to teach science in Saudi Arabia. The sample consisted of 12 science books for the intermediate level. The results showed that the activities of linguistic, mathematical and visual intelligence are available to a large degree. The activities of kinaesthetic intelligence are available to a medium degree, and the activities of intrapersonal, intrapersonal and natural intelligence are available at a superficial level, whereas musical intelligence activities are not found in any activity.

Additionally, Al Arnousi and Al-Morshedi (2018) analyzed the Arabic reading textbook used in Iraq regarding the theory of multiple intelligences. The researchers used eight criteria to achieve the aim of the study. The results indicated that the verbal/linguistic were mentioned frequently in the analyzed activities.

Alsweerky (2020) analyzed the activities and questions in the textbooks used to teach the Arabic language concerning the multiple intelligences in Saudi Arabia. The researcher analyzed 400 activities as a sample of the study. The results revealed that linguistic, logical, and social intelligences were found more than other intelligences.

Summary

Based on the reviewed studies, the whole studies aimed at analyzing the targeted textbooks regarding the multiple intelligences. The researchers analyzed different textbooks for different grades, such as the study (Taase, 2012) examined in grades 1, 2 and 3. The study of Al-Shboul and Al-Khawaldeh (2014) investigated the textbooks for grades 11 and 12. The study of Al-Omari et al. (2015) analyzed the textbooks for grade 1, 4, 8, and 11. Different school textbook subject was analyzed, such as the study (Aboad, 2016) who examined a chemistry textbook. Hassan (2017) and Al-Jubouri (2017) investigated a biology and history textbooks. The current study seeks the English textbooks (that is, *Action Pack*) for grade 9, 10 and 12. This study differs from the previous study since it investigates the textbooks of *the Action Pack* series as a new edition in the light of multiple intelligence theory. To the researcher's best knowledge, there are no studies that explored these textbooks, namely under the study. In Jordan, the English language as a school subject is taught to grades 9, 10 and 12 four or five times. These students are aged between 14 -17. They learn English as a compulsory subject which is based on *the Action Pack series*. It is a series consisting of twelve levels used in learning English for elementary and secondary stages. Any level of *Action Pack series* has a student's book, activity book and teacher's book. In this study, *Action Pack 12* (Pelteret et al., 2015), *Action Pack 10* (Johnson, 2013) and *Action Pack 9* (Paris, 2013) were used by the researcher to analyze the MIT. The Jordanian Ministry of Education (MoE) takes an unusual interest in the English language textbooks. Regularly, the (MoE) has improved the textbooks used in teaching students for their prominent role in the educational process. These books are influenced by the English language outcomes, which focused on using new teaching methods. For the current research, the textbooks point to the approved copy prepared by the (MoE) to teach and learn the English language. Students today fill their time solving linguistic exercise, reading, discussing the learning material, listening and speaking. Hence, investigating components of MIT in the textbooks used for grades 9, 10 and 12 is vital for teachers to vary their teaching methods alongside the eight types of intelligences.

Statement of the problem

During the researcher's work in teaching the English language, he has strongly noticed that many teachers teach their students in one way. They do not use different strategies and methods of teaching. This type of teaching does not encourage students to interact with their teachers and the learning material at the same time. Thus, MIT can help teachers differentiate their methods of teaching. MIT is an effective technique to cope with many students in the classroom, regardless of students' learning styles. Besides, using MIT provides teachers time to catch their students' attention; therefore, a plethora of studies (Jado, 2015; Wattanborwornwong and Klavinitchai, 2016) indicated in their results that utilizing MIT may improve students' learning. Students learn the English language in Jordan by using the *Action Pack series* for both primary and secondary stages. This series is presented by the (MoE) to be used in both public and private schools in Jordan. Consequently, analyzing the activities of students' textbooks under study is crucial to find out the level of multiple intelligences utilized.

Purpose of the study

This study seeks to analyze the activities used in Action Pack textbooks, namely grades 9, 10 and 12, to identify the level of multiple intelligences in these books. To the best of our knowledge, the present study is considered the first study in Jordan, aiming to analyze the multiple intelligences in Action Pack 9, 10 and 12.

Research question

Specifically, the study question is: To what extent do the activities used in *the Action Pack series* contain multiple intelligences?

Significance of the study

The significance of the present study goes with the trends encouraged to permanently assess the textbooks used in teaching the language to introduce beneficial activities and exercises for students. This study also tends to be vital as it can help raise awareness about using MIT in the educational process. Finally, the findings presented in this study can open many doors to conducting other studies about MIT.

Limitations of the study

This study is confined to the textbooks from *the Action Pack series* (namely, grades 9, 10 and 12). These

textbooks are taught to students for both primary and secondary students during the scholastic year 2021.

METHODOLOGY

Content analysis

It is a method that objectively and systematically describes the educational content and identifies the essential elements of learning (Taaima, 2004). It is defined procedurally as a method that investigates to analyze the activities used in English textbooks for grades 9, 10 and 12. This process aims to analyze the content quantitatively and qualitatively by preparing analysis categories, including indicators of multiple intelligences that should be taken care of in the English language textbooks.

Multiple intelligences theory

It is a group of diverse capabilities represented by eight multiple intelligences owned by all individuals according to the cultural, environmental and social level. These eight types work alone or jointly in solving the problems that face individuals (Gardner, 1999). This theory includes the following intelligences: linguistic, mathematical, spatial, kinaesthetic, interpersonal, intrapersonal, and naturalistic. It is defined procedurally to what extent the English language textbooks for grades 9, 10 and 12 contain in their activities that fall within the multiple intelligences.

Inclusion

This is measured by monitoring the observed occurrences of multiple intelligence criteria included in the activities and questions as units of analysis of the content of English language textbooks.

English language textbooks

These refer to the books recommended by the Jordanian Ministry of Education for the primary and secondary educational levels during the school year 2020/2021.

Grade 9 , 10 and 12

They are students who are aged between 14 -17, and they learn English as a compulsory school subject in Jordan.

Method

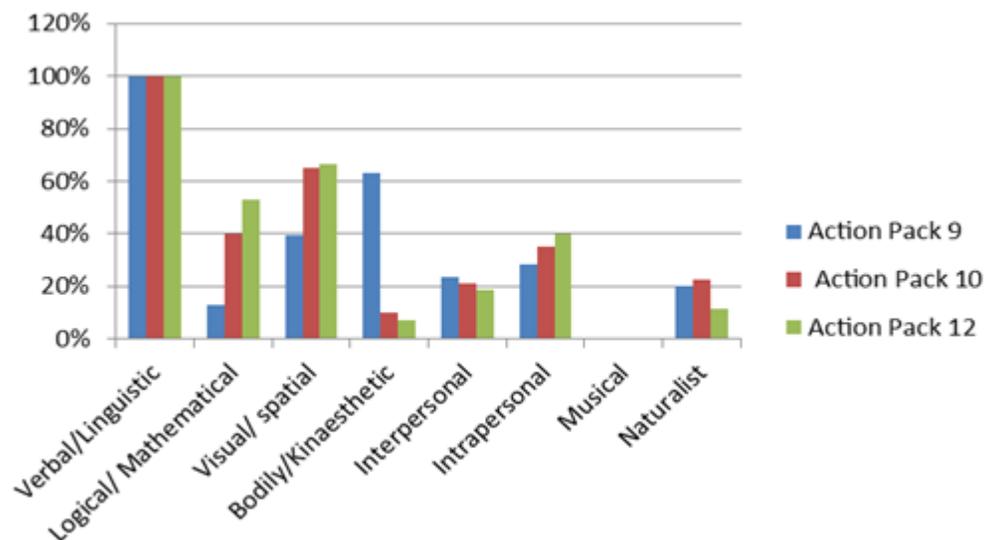
The content analysis quantitative research was used in the current study to find out the level of MIT in the targeted textbooks, namely those under the study, namely these textbooks are new editions used in teaching English language in Jordan. This study was carried during the scholastic year 2020/2021. Most of the activities were analyzed to reach this goal. The researcher used the analyzed activities as a category and a unit of the analysis.

Validity and reliability

To start the validity process, all the activities under the analysis are

Table 1. Frequencies and percentages of the types of multiple intelligences.

Type of multiple intelligences	Action Pack 9 Frequency (%)	Action Pack 10 Frequency (%)	Action Pack 12 Frequency (%)	Total Frequency (%)	Rank
Verbal/Linguistic	188 (100)	200 (100)	220 (100)	608 (100)	1
Logical/ Mathematical	24 (12.8)	80 (40)	117 (53.18)	221 (36.34)	3
Visual/ spatial	74 (39.36)	130 (65)	146 (66.36)	350 (57.56)	2
Bodily/Kinaesthetic	6 (3.19)	20 (10)	16 (7.27)	42 (6.90)	7
Interpersonal	44 (23.40)	42 (21)	41 (18.63)	127 (20.88)	5
Intrapersonal	53 (28.19)	70 (35)	97 (40.09)	220 (36.18)	4
Musical	0 (0)	0 (0)	0 (0)	0 (0)	8
Naturalist	30 (19.95)	45 (22.5)	25 (11.36)	100 (16.44)	6

**Figure 1.** Percentage of intelligence types in three textbooks.

given to ten EFL teachers and instructors, who were chosen randomly. They were called to assess the appropriateness of the data collection tool, especially under the study. They gave the researcher some remarks, which used later to finalize the tool.

RESULTS AND DISCUSSION

The researcher used inter-rater reliability to recognize the reliability process. The researcher himself first analyzed all the activities, and then the same activities were also analyzed with another researcher after training him on how to analyze the assigned activities. The reliability coefficient was calculated. The result shows that the reliability coefficient was (90), which indicates a strong agreement between the two analyses. The question of the study was: *To what extent do the activities of the*

Action Pack series contain multiple intelligences? To answer the study question, the researcher calculated the frequencies and percentages of types of multiple intelligences in the targeted textbooks. Table 1 shows the results. As shown in Table 1, the verbal/linguistic and visual/ spatial intelligences are the most dominant in the *Action Pack series*, specifically grades 9, 10 and 12, with 100 and 57.56 %, as the first rank. The logical/mathematical and intrapersonal gain a lower rank with 36.34 and 36.18%, while the interpersonal, naturalist and bodily/kinaesthetic have got the minor rank with 20.88, 16.44, and 6.90%. Furthermore, musical intelligence is not found in the analysed activities explicitly in the targeted textbooks. The percentages of every type of intelligence are illustrated in Figure1.

This study analyzed the activities used in the *Action Pack series*, namely for grades 9, 10 and 12. The results

show that verbal/linguistic intelligence is the most represented in the activities of Action Pack 9, with a percentage of 100%. The other types of intelligences have got a lower percentage in the analysed activities of Action Pack 9. The analysis of Action Pack 10 shows that the verbal/linguistic and the visual/ spatial intelligence appear more clearly than the other intelligences. They achieve a percentage of 100 and 65%, respectively. The remaining types of intelligences have got a range between 40-10. The analysed activities of Action Pack 10 indicate that the spatial and linguistic intelligences are in rank one while the bodily/kinaesthetic is in rank eight. It has appeared that the spatial, linguistic and mathematical intelligences were found at a high level in Action Pack 12. They got 100, 66.36 and 53.18%, respectively. The rest intelligences (kinaesthetic, interpersonal, intrapersonal, and naturalist) were found at a low level in the activities of Action Pack 12.

The analysis showed that most of the intelligences are not found in a similar shape. Thus, seven types of intelligences in the Action Pack 9, 10 and 12 have percentages of 100-6.90%. In contrast, the musical intelligence, and after analysing the activities of the three textbooks under the study, is not found in the analysed activities. This result is because the authors of Action Pack consider music is not appropriate for grade 9, 10 and 12. The verbal/linguistic intelligence is intensively found as a first rank in all the analysed activities of Action Pack textbooks. One possible reason is that Action Pack textbooks for grades 9, 10 and 12 have many activities and exercises that mainly focus on English language skills, either receptive or productive skills. This lets students improve their linguistic proficiency. Specifically, students who are in grade 9, 10 and 12 are given activities which pave the way for them to build linguistic knowledge rapidly. These findings are consistent with the findings of other studies (Al-Shboul and Al-Khawaldeh, 2014; Al-Omari et al., 2015) which revealed in their findings that verbal/linguistic intelligence is represented in a high manner in the analysed activities.

Furthermore, the analysis of the activities of Action Pack textbooks showed that visual/spatial intelligence is ranked in second place among the types of intelligences. One probable reason for this result is that the authors of Action Pack textbooks depend on painted drawings and photographs to introduce the learning content to help students comprehend what they have studied. This result showed that the designers who design Action Pack textbooks pay attention to learners who are learning through pictures (that is, visual learners). The use of charts, pictures and tables is clear evidence for finding the visual/spatial intelligence in Action Pack textbooks. The current result goes with the results in studies (Al-Omari et al., 2015), which indicated in their results that the activities of the three textbooks under the study are

aware of students who choose to learn the learning content visually. This result is dissimilar to Ebadi and Ashtarian (2014) result, which revealed that the analysed textbooks are not interested in visual intelligence in their activities.

Moreover, after finishing the analysis, the logical/mathematical intelligence is in third place among the eight types of intelligences, but the percentage of this type does not appear equally in the analyzed Action Pack textbooks for grades 9, 10 and 12. In Action Pack 12, the authors are given a strong interest in the textbook activities more than the textbook for grade 9 and 10. They asked students to think and study the learning material logically. For example, the activities in Action Pack 12 are called students to respond to questions about what they think about specific topics. This result does not go with the study of Wattanborwornwong and Klavinitchai (2016), who indicated in their results that logical intelligence is not found at a satisfactory level in the analyzed Chinese textbook. The results of the present study go with the findings in the study (Al-Omari et al., 2015), who showed that logical intelligence is minor inclusion in the analyzed activities than any other intelligences. Furthermore, it seems from the analysis of Action Pack textbooks that the bodily/kinaesthetic, interpersonal and naturalist intelligences are not represented in enough way. The activities in the analyzed textbooks do not provide opportunities for students to use, for example, their body parts. This result may be because topics such as physical activity and doing exercise may be unsuitable for grades 9, 10 and 12. This result may be interpreted that the authors of Action Pack textbooks focus on presenting information to students more than asking them to do exercises. The current result goes with the findings of studies (Taase, 2012; Ebadi and Ashtarian, 2014) that revealed that the bodily/kinaesthetic intelligence is not represented in the analyzed activities.

Conclusion

This study sheds light on the level of multiple intelligences in the *Action Pack series* for grades 9, 10 and 12. After these books were analyzed, the intelligences (verbal/linguistic and visual/spatial) are found intensively in the analyzed activities used in Action Pack textbooks for grades 9, 10 and 12. The analysis of the three textbooks for grade 9, 10 and 12 showed that the eight types of intelligences had a different percentage in the analyzed three textbooks.

Recommendations

Depending on the findings in the current study, the

recommendations as follows:

1. The Ministry of Education should permanently revise and modify the prescribed textbooks used in teaching English for both primary and secondary stages.
2. The Ministry of Education are called to train teachers on how to utilize MI in their teaching and how to evaluate their students based on it.
3. The authors of the textbooks should present different activities and exercises that cover all eight types of multiple intelligences to meet students' learning styles.
3. Teachers are now called to comprehend the multiple intelligences theory to take into account students' intelligence variance and needs.
4. For future research, analysing the level of multiple intelligence in other English textbooks (grades 4, 5 and 6) is needed. Also, investigating teachers' attitudes on the use of multiple intelligence theory and its effect on teaching the English language should be carried out.

CONFLICT OF INTERESTS

The author has not declared any conflict of interest.

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