"Suggested Enrichment Activities to Develop the Skill of Cognitive Flexibility in the English Language Skills among Secondary School Students in the Kingdom of Saudi Arabia"

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Abstract:

The study aimed to uncover the enrichment activities that can contribute to the development of cognitive flexibility among secondary school students in the kingdom of Saudi Arabia by presenting some previous studies and research and highlighting the major findings of those studies. The researcher stresses the need to intensify enrichment activities because of their effectiveness in improving cognitive flexibility in the English language skills among Saudi students in general and high school students in particular.

Keywords: Enrichment Activities, Cognitive Flexibility

I. Introduction

In the light of an educational process that is witnessing a revolution in the search for the best ways to develop students' cognitive skills in learning English, there are recent trends that appear through enrichment activities that aim to develop many aspects, including cognitive aspects. Enrichment activities range from paper-based activities, represented in all basic materials, with keys to a solution that can be proposed after a certain period to be presented to students, and activities to integrate technology into education, represented by student projects or featured presentations, integrate technology and education, and free valuable resources and references, such as educational flashcards, and complete free books, all contributing to the revitalization of knowledge. Enriching the curricula with activities that develop students' higher-order thinking skills, raise their level of intelligence, increase their intellectual abilities, and develop their talents, to move from a generation that imports knowledge to a generation that produces knowledge, has become a vital need (Chieu, 2007: p. 33-34).

Excessive simplification of knowledge would reduce the learner's ability to solve problems efficiently, in addition to the fact that the individual cannot have previously stored cognitive schemes for all the situations and problems he faces as claimed by the cognitive scheme theory. Therefore there is a need for the emergence of a theory that seeks to deepen the learner's understanding for learning content, and the flexible presentation of knowledge so that learners acquire advanced knowledge that enables them to solve complex problems efficiently. (Lowrey, et al., 2009: p. 551; Chieu, 2007: p. 33-34).

Cognitive flexibility is an important means of identifying differences between people in their abilities and distinguishing between one person and another in the way they deal with different life situations and problems. (Gedeon. 2003: p. 274).

It also plays an active role in determining response patterns and attitudes in different situations, whether in the field of problem-solving or skills development. (Simone, et al., 2017: p. 245).

(Swanson et al., 1993) agree that learners with higher cognitive flexibility encode, organize, and retrieve information differently.

Speaking and writing skills are called productive skills. They are essential because they give students the opportunity to practice real-life activities in the classroom. These two skills can be used as a "scale" to check how much learners have learned (Hussain, 2015). Jaramillo and Medina (2011) define productive skills, speaking and writing, as an important form of expression used to persuade or persuade others as well as to share thoughts and feelings.

Many studies have confirmed that cognitive flexibility positively correlates with language skills (Ciairano, Bunion & Miceli,2006), language fluency (Ritter et,2012) and some have specifically stressed the development of reading (Cole, Duncan & Blaye, 2014). According to Xie (2014), cognitive flexibility is positively associated with learning a second or foreign language. Thus, it is clear that incorporating cognitive flexibility in language courses to successfully achieve learning objectives is of vital importance.

Given the importance of cognitive flexibility in the educational process in general and in learning English in particular, the researcher noted the lack of previous studies that focused on cognitive flexibility in Saudi universities - as far as the researcher knows - in addition to the richness of this topic in terms of research, which was a justification for starting this the study. The problem of the study is summarized in the following :

Ii. Study Problem

The researcher felt the problem of the study through her work in English language teaching (field training). The researcher noticed a shortcoming in the skills of some secondary school students in the English language, and the opinions of some teachers and students about a cognitive deficiency in understanding the English language.

In addition to what has emerged from the results of previous studies regarding the importance of using cognitive flexibility to improve English language skills via using enrichment activities, the present study seeks to review the related literature in an attempt to come up with some scientific results that may contribute to improving the English language skills of high school students in the Kingdom of Saudi Arabia.

Iii. Study Questions

[1] What is the conceptual scientific framework of Cognitive Flexibility?

[2] What are the suggested enrichment activities based on cognitive flexibility on developing the speaking skill of secondary school students? (theoretical study)

[3] What are the suggested enrichment activities based on cognitive flexibility on developing the writing skill of secondary school students? (theoretical study)

I.V. Objectives of the study

[1] Know the scientific conceptual framework of cognitive flexibility.

[2] Detection of the effect of enrichment activities based on cognitive flexibility on the development of speaking skill among secondary school students.

[3] Know the English language teaching skills developed through cognitive flexibility.

V. Importance of The Study

The present study is expected to be beneficial for the following :

[1] Teachers of English language teaching in developing cognitive flexibility in teaching English in the secondary schools in the Kingdom of Saudi Arabia.

[2] Curriculum Designers in developing curricula and what is compatible with developing cognitive flexibility in teaching the English language to secondary school students in the Kingdom of Saudi Arabia.

[3] High school students in the Kingdom of Saudi Arabia in improving academic achievement and developing cognitive flexibility.

VI. Study Approach

The descriptive-analytical approach is one of the most widely used research methods in scientific research and contributes significantly to the development of various sciences, knowledge, theories or theoretical scientific research, which were previously studied by one of the students or affiliated scientific researchers. This study, which depends on the theoretical approach, aims to confirm the validity of what is stated in the theories, and the aim of it is to test and explain what is stated in the literature and find answers to research questions derived from the literature and literature. Related Studies.

VII. PREVIOUS STUDIES

- Research related to cognitive flexibility

Abdulaziz (2020) aimed to identify the effectiveness of a training program based on the theory of innovative solutions to problems in developing cognitive flexibility and academic self-concept. The results of the study reached to the effectiveness of the training program in developing cognitive flexibility. The study, furthermore, recommended the need to work on improving these programs due to their role in developing many of the skills that help students in English language acquisition.

Keshar (2018) Revealing the effect of a training program based on the theory of cognitive flexibility on the decision-making skills of university students. The program relied on training courses and a scale to assess decision-making skills and orientation towards the subject of university skills. The results of the study proved the effectiveness of the program in improving decision-making skills, and the trend towards the university skills course among the students of the experimental group.

Safia (2017) tried to reveal the effect of proficiency in the second language on the capacity of working memory and cognitive flexibility of bilingual students at the secondary stage in the city of Acre. The study recommended the necessity to include educational activities, development of higher mental capabilities and skills, and training activities for how to deal with cognitive tasks and tasks of memory and how to address them in school curricula, to maintain a high level of working memory capacity and cognitive flexibility. The study also stressed encouraging students to acquire more than one language, as it enhances their elements of control and increases the mental abilities of high school students.

Reem (2018) There is a positive relationship between cognitive flexibility and academic self-efficacy, and there is a positive relationship between cognitive flexibility and academic compatibility, there are statistically significant differences in academic self-efficacy in favor of females, and there are no statistically significant differences in cognitive flexibility and academic compatibility according to the gender variable. Academic self-efficacy and academic compatibility can be predicted from During the grades of a sample of first-year secondary students, he emphasized the importance of activating the principles and applications of cognitive flexibility theory in teaching and training students to help them in the

flexible application of their knowledge, rebuilding it and enabling adaptive responses to different training situations, through the use of theory-based programs. of cognitive flexibility.

El-Hawarat (2017), Ibrahim (2015), El-Fil (2013) The necessity of taking into account the educational applications of cognitive theory to prepare students because it helps in building their knowledge at advanced levels and enabling them to effectively apply what they have learned in educational situations. Especially since cognitive flexibility is the main component for searching for different and innovative solutions to problems and dealing with educational situations that face them, and the results of the study found the effectiveness of the training program based on the theory of cognitive flexibility in developing creative teaching skills and raising the level of mental stimulation among students with low mental motivation.

Oslon and Land (2007) clarified the Pathway intensive professional development program of using a cognitive strategies approach to reinforce the reading/writing over eight years (1996-2004). The study sought to determine to what extent providing ELLs in secondary school with declarative, procedural, and conditional knowledge of and practice with cognitive strategies would improve their reading and writing ability as based on commonly used measures. A quasi-experimental research design involving both quantitative and qualitative measures was employed. A project-designed pre-post-timed analytical direct writing assessment calling for literary interpretation in a well-structured essay was designed. In addition, standardized measures of students' reading and total language abilities, scores on high-stakes, on-demand direct writing assessments, and English placement rates at the local community college were collected. Results showed that Pathway students not only grew more from pre- to post-test but also wrote better essays on the post-test and received higher scores than their counterparts in the control classes.

Anthony (2007) investigated the effects of using Bloom's taxonomy as a verbal interrogation scaffold to improve writing in response to reading comprehension. The written evaluation form was used as a research tool, the results showed that students demonstrated high-level reflection on their written response to a higher-level verbal inquiry from the teacher. Anthony argued that through exposure to a hierarchical series of thinking questions, some students learned how to think more critically and independently in the classroom. She also believed that using higher-order questions enables students to better organize and practice ideas. The results of this study showed educators how using a scaffold of verbal inquiry produces readers who think independently

- Research related to developing English language skills

Mishriki (2002) explains that when teaching summary skills, a teacher should make sure that students can recognize the outline, the organization, the main ideas, the main supporting ideas and how they are related to each other. Moreover, students should be able to analyze the passage in an attempt to gain a better understanding of it, which will give them a clearer insight into what to include, exclude, focus on, marginalize, or even omit when writing their summaries.

Liaw (2007) believed that language development and thinking are closely related and the teaching of higher-order thinking skills should be an integral part of an L2 curriculum. For that purpose, a study was designed to examine the feasibility of promoting thinking skills in an EFL classroom in Taiwan. Based on the positive effects reported in related literature, content-based language teaching was adopted as the instructional approach for the study.

- Research related to the development of Speaking skill

The study of El-Naggar (2004) aimed at investigating the effect of dramatizing the content of the novel on developing students' speaking skills. The sample of the study consisted of first-year preparatory school students. The tools implemented were dramatized courses and pre-post speaking tests. The results of the study proved the effectiveness of using dramatizing the content of the novel on developing the first-year preparatory school students' speaking skills.

The study of Abdel-Khalk (2011) aimed to verify the effectiveness of using role-playing activities in developing some speaking skills. The study used the descriptive-analytical method, and the study tool was a training program, and the results showed that these activities had a significant impact in enhancing the speaking skill of preparatory stage students.

The study of Merdash (2011) discussed the effectiveness of using a program based on humour for developing some English speaking skills for the first preparatory year. The researcher selected some units from "Hello" for the first prep year and prepared these units based on humor. A pre-posttest was designed to determine the effect of these units. A Humor Questionnaire, the attitude scale towards English and the analysis of data obtained (using the one-sample "T" test) revealed much higher significance in favor of the experimental group at the post administration of the pre-posttest. The findings of that study indicated that the suggested program had a positive effect on developing the students' English skills, especially speaking, and also students' attitudes towards the English language.

- Research related to the development of writing skill

The study of Suvin (2020), the goal of this study is to examine difficulties in and outside the classrooms which are the real obstacles to the writability of teaching and learning in the secondary level Bangladesh system. The secondary level tests writing skills by summary, paragraph, letter, application, story, conversation, composition, report, e-mail etc. Students who study at the high school level face serious writing complexities. The major problems in the examination are the vocabulary and grammar complexities. In this study, the reasons for the complexities of writing skills were examined. This study was conducted at Jahangirnagar School & College, Savar, Dhaka to find out the strategies for writing skills. Important questions of research have been developed to identify writing skill complexities. Data were taken from teachers, students and parents based on a questionnaire survey. Teachers and students were encouraged to participate actively in the survey. Following the collection of data, the practical advice for students and teachers was analyzed. While skills at secondary schools have been evaluated, most teachers are not taking any action to evaluate the abilities of students. Students are also less interested in writing skills in practice. The aim of the study is therefore to show a new image of writing skills at the secondary level Bangladesh education system.

AbdelFattah (2020) The present study was conducted to investigate the effect of literature circles on developing EFL creative writing for secondary stage students. The study followed a pre-post experimental one group design. The participants were 40 first-year secondary stage students. To achieve the aim of the study, the researchers designed a creative writing pre/ post-test to measure the students' performance in creative writing. It was administered to the participants before and after the intervention. The mean scores of the pre/post administrations of the test were treated statistically. Findings of the study revealed that there was a statistically significant difference at 0.01 in the pre-and post-assessment of EFL creative writing skills, in favour of the post-assessment. In the light of the findings, the researchers recommend the use of literature circles for developing EFL creative writing.

Ryabkova (2020) The purpose of education at Moscow Aviation Institute (MAI) is to qualify highly trained professionals who are ready to communicate and also take part in the scientific sphere. We have created an English language course that blends in-person instruction enhanced with wiki interactive tools. This study tests Rosetta stone software on MAI students' writing skills. We decided to find the difference between the results of the blended learning approach as an alternative to the traditional course of EFL, especially we were focused on the progress in writing skills. We decided to start this hybrid course for some reasons: to encourage the students of MAI to read, speak and especially write properly; to find new ways of interaction between the professors and the students. Rosetta stone blended course is one of the key online language learning programs of educational success nowadays. Hence, we designed a treatment using Rosetta Stone software to examine its effect on EFL students' writing skills at MAI. Our department of linguistics and translation is well-equipped with modern personal computers, web cameras etc. A sample of 48 technical first-year students started a language course at MAI. 24 students represented the control group, and 24 students represented the experimental group. The control and experimental groups were taught by the same program. Throughout the course, the learners working within the framework of the traditional paradigm followed the typical communicative approach routinely. The participants of the experimental group were instructed to view the material posted on the Rosetta Stone platform and to do extra homework several times a week. Among the benefits, of course, we can name accessibility of materials, students' desire to study and to test something new, an opportunity to study whenever and wherever they want, ability to concentrate indoors home, progress in writing and other skills. The analysis revealed that the experimental group outstripped the control group with the traditional way of education. In conclusion, we can say, that blended learning can successfully improve the progress in writing skills of EFL studies at MAI.

In (Celik, 2019) opinion, second language learners are constantly striving to achieve language proficiency. Therefore, they find it difficult to produce written texts. However, the reading materials will set a good template in which they can convey their writing. This study aims to introduce writing skills from which the student can acquire basic language skills that will be used throughout his life while planning the first teaching process to read and write correctly and effectively. Writing has always been a traumatic activity for learners. The fact that the duration of the course is limited and that other more focused activities occur in language teaching puts this skill in the background. The excuse that students are not well equipped to do some writing activities can be taken as one of the reasons given by the relevant course instructors. and then.

Pitarch (2015) This paper introduces a pedagogical proposal for the development of writing skills based on the analysis of multi-genre structures (AMS). The objective of this AMS model is to help teachers design genres that may be used in the language classroom. This genre analysis can be performed with software tools for corpus analysis. This study is based on a previous model of genre analysis designed to determine the forms of the macrostructure, microstructure, and the

format of the target genre (Casañ-Pitarch, 2015) and focuses on ESP students at tertiary education. The AMS model is expected to help students improve their writing skills and gain specific knowledge on professional and academic genres.

After reviewing the and previous studies related to the study variables, the following conclusions can be drawn: The researcher noticed the need to pay attention to enrichment activities in all stages of study. There is also the knowledge gap in the previous studies related to the study variables, as there was not one study in the Kingdom of Saudi Arabia that dealt with the current study, which was a justification for the researcher to initiate this study, Speaking and writing are important skills and have a role in learning and teaching a second or foreign language.

Studies related to speaking skills:

Considering the previous studies, The researcher concluded that speaking is a complex skill that requires the simultaneous use of different abilities, Speaking is an interactive process of constructing meaning that includes the production, reception, and processing of information and what justifies the need to use cognitive flexibility strategies. Speaking skill in language teaching lies in the different needs of learners to use this skill in different life situations. This can be acquired through various training programs. Speaking skill is a social phenomenon. Talking can be used to make connections with others and explore and understand the world, Speaking skill is one of the most important skills and must be developed from the beginning.

Studies related to writing skills:

Considering the previous studies, the researcher noticed that is reading and writing are two interdependent and interactive processes that require students to collaborate in the learning process, Students need instruction and practice reading in their subjects, Writing contributes to awareness and learning. The researcher also noticed a positive relationship between the writing skill and higher-order thinking skills, as the use and enhancement of thinking skills and cognitive processes improve the skill of scribes significantly and vice versa.

Writing effectively requires many activities and exercise, Requires training over a long period, Good writing consists of many elements; they are the choice of words, audience, unity, speech, and style, Proper choice of words can be achieved through accuracy in meaning, making one's thoughts easy to understand, and using correct grammar.

VIII. Theoretical Framework

To answer the first question of the study, which is: what is the conceptual scientific framework of cognitive flexibility?

1. Cognitive Flexibility:

1.1. Definition

There is a big number of definitions of Cognitive Flexibility. Each of them emphasizes a different aspect of literature. Indicating the different terminology is deemed necessary in this context.

Customary resilience emerged as one of the theories in learning in the 1980s and is defined as a model of instructional design that focuses on the interrelationships between knowledge, as well as the use of knowledge in different contexts. (Pappas, 2015: 311), It is a theory in teaching and learning that emphasizes the need to present knowledge to learners from multiple perspectives and different mental perspectives through the use of various practical examples while being keen to acquire knowledge in its context. (Lowrey, et al., 2009: 549)

Cognitive flexibility is the mental ability to switch between two different concepts, and to think of multiple concepts simultaneously, that is, to move from one task to another or from one behavior to another according to the requirements… (Nour-Edin, 2020: 303)

Cognitive flexibility theory is one of the contemporary approaches in the field of cognitive psychology that might be adopted as a solution to the problems students face in the classroom as they deal with Complex knowledge, and then students use their knowledge and transform it into new situations to solve using their information, skills, and attitudes. (Abdo, 2018: p. 4)

Cognitive flexibility is defined as the ability to rebuild knowledge in several ways, and automatically, and to adapt responses to various changes. (Spiro, et al., 2006: p. 53), Cognitive flexibility is the ability of an individual to change the angles of his thinking while performing various activities. (Liu, et al., 2015: p. 3), Cognitive flexibility is the ability of the

individual to devise new and varied strategies to solve problems in new situations. (Helmke, 2010), Adapting to the latest, (Palm, et al., 2011; Spiro, et al., 1990; Junko, 2014; Johnson, 2016) agree that cognitive flexibility is the ability of the student to automatically rebuild his knowledge to generate new ideas and present alternative perspectives to adapt to the changing conditions of the environment and respond to its demands, (Spiro, et al., 1990; Junko, 2014; Johnson, 2016), Cognitive flexibility is the student's means of processing new information and linking it to previous knowledge to form facts and information related to learning the new curriculum. (Frank, 2014: 3)

By extrapolating the previous definitions, we find that the theory of cognitive flexibility is a philosophy in teaching that helps students rebuild their knowledge, process and employ it in multiple ways, and adjust their thinking processes to adapt to new situations and produce alternatives according to the changes and requirements of the educational situation.

In light of the above definitions of the concept of cognitive flexibility, the researcher concluded that cognitive flexibility:

- a contemporary cognitive method.
- a method for solving the problems students face in developing their skills by transferring them to new situations using their previous experiences of knowledge.
- a cognitive means to process new information, and link it to previous knowledge to form new ideas.
- Cognitive Flexibility contributes to adapting responses to various cognitive changes.

1.2. Importance:

Cognitive flexibility is a mental ability that helps an individual reach mastery. (Cañas, 2006: p. 296), Cognitive flexibility is an important means of identifying differences between people in their abilities and distinguishing between one person and another in the way they deal with different life situations and problems. (Gedeon. 2003: p. 274).

Cognitive flexibility plays an active role in determining response patterns and attitudes in different situations, whether in the field of problem-solving or skill development. (Simone, et al., 2017: p. 245).

(Swanson et al., 1993; Ellier, 2005) agree that learners with higher cognitive flexibility encode, organize, and retrieve information Better.

1.3. Goals:

The appropriate adaptation and simplification of knowledge in a flexible manner facilitates its recall and contributes to this prediction of academic achievement as it is responsible for modifying the ambiguity of knowledge and making interconnections between its parts, which improves the organization of the student's knowledge structure, improves his/her ability to retrieve and remember information and improves the student's achievement level. (Ali, 2018: p. 56)

This approach stems from the concept of learning based on the systematic acquisition and retention of externally defined knowledge and skills that limit it to an individual's internal processing activity (Hannafin et al., 1994; Orey et al., 1997). The information processing metaphor-based learning perspective focuses on the knowledge structure and the cognitive processes needed to receive information, integrate it into existing structures, and modify it to accommodate new information. However, according to this perspective, learning often results in knowledge isolated from other representations in the mind. This type of knowledge is referred to by (Bransford et al. 2011) as passive knowledge, which is difficult to use outside of the initial learning context.

Cognitive flexibility aims to help students learn challenging topics in teaching and learning and to deeply understand their content to achieve learning goals. (Moreira, 2009: p. 214)

Cognitive flexibility aims to teach students through multiple texts where students study multiple texts (instead of a single chapter in a textbook). Learning with multiple texts is a state of advanced learning in an unstructured field. Students who use the Internet for learning may encounter alternative teaching methods. Contributes to improving their educational attainment. (Perfetti, et al., 1999; Rouet, et al., 1996; Rouet, 2006) This is in line with the main objective of the educational process in developing students' skills, and working to invest them so that they are able to deal positively with the changes of the times, and what serves development trends, where success in the educational field has become the basis of progress and advancement in various countries of the world, and the real challenge for educators has become to educate students on Thinking skills of all kinds and levels, especially cognitive flexibility through enrichment activities, and there are many motives and justifications for increasing interest in cognitive flexibility and developing the skills of learners, including the close link between thinking skills, enrichment activities and success in learning.

2. English language Skills

To answer the second question of the study, namely: What are the suggested enrichment activities based on cognitive flexibility on developing the speaking skill of secondary school students? (theoretical study)

2.1. Speaking

2.2. Definition

On reviewing literature related to speaking skills, the researcher found that many speaking skills definitions have been used by brilliant figures in the field of foreign language teaching and learning. Educators and researchers define speaking skills in different ways as follows:

Hingle and Linington (1997) define speaking as a complex skill that requires the simultaneous use of different abilities, which often develop at different rates. According to this definition, speaking is seen, as a complicated skill that paves the way for the speakers' use of different abilities. On the other hand, Radwan (1999) defines speaking as the ability to express oneself in life situations, or the ability to report acts and situations inaccurate words, or the ability to express a sequence of ideas fluently.

Also, El Elki (1999) regards speaking as the ability to choose suitable utterances to communicate, while Hussein (2001) sees that speaking is "person's ability to express him/ herself orally, fluently, and accurately and with correct pronunciation in a given context.

According to Brown, 2001; Burns & Joyce (1997), speaking is an interactive process of constructing meaning that involves producing, receiving and processing information. In this context, Florez (1999) states that speaking form and meaning are dependent on the context in which it occurs, including the participants themselves, their collective experiences, the physical environment, and the purpose of speaking.

Mostafa (2002) states, that, speaking is the target skill in both the Arabic and English languages. Developing the ability to speak orally to another person is a source of motivation for most learners of foreign languages. On the other hand, speaking is defined by the National Association (2006) as "the uniquely human act or process of transmitting and exchanging information, ideas, and emotions using oral language"

As mentioned above, speaking is defined in different ways. Most researchers agree that speaking a foreign language is a complex skill that requires the use of different and diverse abilities such as immediate and rapid mental skills, word switching, or even body language, meaning that requires high cognitive flexibility, but they differ in that some of them simplify the skill to include just choosing the appropriate words to communicate or transfer information. Others involve the skill of speaking in the process of constructing meaning .

2.3. The nature of the speaking skill

One of the most important skills of the English language is speaking skills because improving speaking helps students to express themselves and be active members of this society. According to Brown (2001), learning to speak a foreign language requires more than knowing its grammatical and semantic rules, as pupils should know how native speakers use the language in daily interpersonal exchanges. Accordingly, knowing the nature of the speaking skill is required.

Nunan (1990) discusses the nature of spoken language by differentiating between spoken and written language. He points out that for most of its history; language teaching has been concerned with the teaching of written language. This written language is characterized by well-formed sentences, which are integrated into structured paragraphs. On the other hand, spoken language consists of short fragmentary utterances, in a range of pronunciations. Also, competent speakers of English should understand that the nature and characteristics of spoken English differ from those of the written form. Roger (2006); McCarthy & O'Keeffe (2004) and Collins & Hollo (2000) all conclude that spoken English differs from written English in its grammar, syntax, lexis and discourse patterns. These differences are due to the nature of the spoken language.

In addition, Nunan (1990) distinguishes between two basic language functions. These are the transactional function, which is primarily concerned with the transfer of information, and the interactional function, in which the primary purpose of speech is the maintenance of social relationships.

The researcher of the present study views that the speaking skill has a unique nature, which differs from that of the writing skill in that speaking is simple. It consists of short fragments. Its grammar, syntax, and lexis differ from its

counterparts in writing. Accordingly, dealing with the speaking skill requires putting its nature into consideration. Therefore, the researcher of the present study takes into account this type of nature, which characterizes speaking. For example, the vocabulary used in writing should be formal while the vocabulary used in speaking should be informal. Also in writing complex sentences are used while speaking is characterized by simple structures. Moreover, there is a lack of sentence boundaries in speech, while writing is characterized by sentence boundaries.

An example of a written text is as follows :

2.4. The Importance of Teaching Speaking

Ur (2005) asserts that of all the four skills (listening, speaking, reading and writing), speaking seems to be the most important to the extent that people who know a language are referred to as "speakers" of that language as if speaking included all the other kinds of knowledge; and many foreign language learners are primarily interested in learning to speak. Also, Wells (1987) states that the importance for individuals to learn speaking skills is well documented. He sees that success in the educational system and speaking are positively correlated. In the opinion of the researcher, without developing speaking skills, people cannot express themselves appropriately. Speaking can help students to be active members of their societies.

On the other hand, Baker and Westrup (2000) claim that speaking is an important linguistic activity for both young and adults, as human beings, in general, are usually involved in spoken activities most of their time. In addition, the importance of the speaking skill in language teaching lies in learners' various needs to use such skills in different life situations. Therefore, the researcher sees that improving the speaking skill can be well achieved through linking between the classroom and the real-life situations and techniques that can be related to pupils' interest, an idea that can be achieved through active learning techniques.

Wilson (1997) perceives speaking skills as a social phenomenon. For him, speaking can be used in making communications with others, exploring and understanding the world. In this context, Wilson affirms that children should acquire the speaking skill from the very beginning, as this helps them to talk, make interviews, talk to teachers and communicate effectively in society, and in such a speaking-based curriculum, the teacher will be a guide, a facilitator and a coach. Accordingly, it is stressed that the speaking skill is the most important and therefore it should be developed from the very beginning.

3.2. Writing

To answer the third question of the study: What are the suggested enrichment activities based on cognitive flexibility on developing the writing skill of secondary school students? (theoretical study)

According to Garrison (1994), good writing is difficult to achieve, but with the right desire and right tools, one can do it. Good writing comprises many elements; namely, word selection, audience, unity, tone, diction, and style. Appropriate word selection can be achieved through being precise in meaning, keeping one's thoughts easy to understand, and using correct grammar. Another element of good writing focuses on the audience; one needs to be careful about writing at the level of the audience. Unity should be taken into consideration as well. Tense, pronouns, point of view and mood are all indicators of unity in one's writing. It is best here to maintain a level of consistency in each. The tone is also important in feature writing. To ensure one's style is impressive and appropriate, many items need to be considered such as writing in a way that comes naturally; working from a suitable design; revising and rewriting; avoiding the use of qualifiers as possible; using orthodox spelling; avoiding too much explanation; making sure the reader knows who is speaking; being clear; using figures of speech effectively, and preferring the standard to the offbeat.

Miller (1983) states that writing can and should be a stimulating, challenging activity central to all learning and development. Writing, like life itself, is a voyage of discovery. It is an essential form of communication through which we express our feelings; ideas; opinions; etc. Writing is also for thinking and problem-solving. Written words serve not only as bridges for our thoughts but also as barometers. Words are the vehicle to express our thoughts, which we then measure against our experience and that of others. Used as such, writing helps us think. Through writing, we can explore our deepest thoughts and feelings, discover and explore our biases, and confront our values. Writing can help us discover gaps in our understanding and flaws in our thinking. It can tell us when we need to gather additional information when we need to rethink a question when we need to discard a belief or idea. It is, in short, a means to sift and refine perceptions of the world around us.

3.2.1. Approaches To Teaching EFL Writing

Hyland (2002) describes three approaches to teaching writing in an EFL classroom. The first approach focuses on the products of writing by examining texts in different ways, either through their formal surface elements or their discourse structure. The second approach focuses on the writer and describes writing in terms of the process used to create texts. The third approach emphasizes the role that readers play in writing, adding a social dimension to writing research by elaborating how writers engage with an audience in creating coherent texts.

Activities and methods for teaching writing skills should be selected upon careful consideration of different factors and variables. Simpson (2010) presented the multiple intelligences theory to his students. As a start, he ensured they understood what each type of intelligence refers to; then they were asked to participate in the following seven activities to learn and internalize paragraph structure in English:

- To take advantage of the students' linguistic intelligence, the researcher explained that traditional paragraph structure in English includes a topic sentence, body, and concluding sentence.

- Next, students used their spatial intelligence to draw a picture representation of paragraph structure.

- Students then practiced their interpersonal intelligence by sharing their drawings with other students.

- Next, students used their bodily-kinesthetic intelligence in groups of three or four to come up with a physical representation of the structure of a paragraph.

- The fifth step was done as individual homework to emphasise intrapersonal intelligence: to free write about what students considered to be the differences between paragraphs in English and Spanish (their native language).

- The next class period was decided to the final two bits of intelligence and the practical application of the extended exercise: writing a paragraph. For logical-mathematical intelligence, students created a word find or a crossword puzzle using concepts of paragraph structure.

- In the final activity, students used their musical intelligence. Either individually or in groups, students wrote songs about paragraph structure and then sang them to the class.

- As a final task, students wrote a paragraph in English on the topic of their choice. They demonstrated an awareness of the different parts of the academic paragraph in English. Most importantly, they left the class motivated to continue learning about paragraphs in English through non-traditional techniques.

On the other hand, Putnan (2000) introduced the use of the writer's log to his students as part of their weekly routine. Once a week, students turned in a notebook of their work to the researcher for credit. According to Putnam, this was a simple way of holding the students accountable for workshop time. The section of their notebook labeled "Writer's Log" was a weekly opportunity for students to step back, think, and write a paragraph about how their writing was progressing and what they were learning.

Activities and methods for teaching writing skills should be selected upon careful consideration of different factors and variables. Simpson (2000) presented the multiple intelligences theory to his students. As a start, he ensured they understood what each type of intelligence refers to; then they were asked to participate in the following seven activities to learn and internalize paragraph structure in English:

- Students used their spatial intelligence to draw a picture representation of paragraph structure.
- Students then practiced their interpersonal intelligence by sharing their drawings with other students.
- Next, students used their bodily-kinesthetic intelligence in groups of three or four to come up with a physical representation of the structure of a paragraph.
- The fifth step was done as individual homework to emphasize intrapersonal intelligence: to free write about what students considered to be the differences between paragraphs in English and Spanish (their native language).
- The next class period was decided to the final two bits of intelligence and the practical application of the extended exercise: writing a paragraph. For logical-mathematical intelligence, students created a word find or a crossword puzzle using concepts of paragraph structure.
- In the final activity, students used their musical intelligence. Either individually or in groups, students wrote songs about paragraph structure and then sang them to the class.

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Concerning story writing and the role literature plays in promoting writing, Morris (1999) advocates the use of story pops to different levels of EFL learners. Through this activity, students create a story that includes a character, plot, setting, and detail describing those elements according to their developmental level in writing. The materials required are craft sticks, red and green food coloring, and a permanent felt tip pen. About the procedure suggested, a teacher is advised to make 3 columns on the board or on chart paper headed: character, problem, setting; then to soak some sticks in a red and green food color dye, and copy character ideas on the plain sticks, setting ideas on green sticks and problem ideas on red sticks. When students are ready to write, they pull one stick of each color and use those elements to create a story. Added detail will depend on the age of the student and discretion. As far as assessment is concerned, it is recommended that students write the names of their sticks on the top of the paper and check to see if those elements are used appropriately to create a story.

Mohammad (1993) as well describes many activities which can be carried out when teaching how to write a narrative description of events; these include:

- Describing events from pictures and elaborating facts to make writing more interesting. This can be implemented by working with verbs and pronouns.
- Adding details to the story to make it more interesting.
- Changing the facts of the story, i.e. main characters/events.
- Re-writing the story using a different tense.
- Free writing, i.e. writing a letter to the main character.

On the other hand, a large number of researchers introduce writing activities which a teacher can carry make use of when teaching writing. Farag (1997) presented a method for teaching writing composition to secondary school students. The method included three stages: pre-writing activities, writing stage, and re-writing activities and discussion. Several activities were prepared by the researcher. Students analyzed reading texts using an analysis sheet prepared for the purpose, which helped them to form a schema of content about how English texts are written and how they differ from Arabic texts. The role of the teacher was that of the consultant. Results of the study showed that there were significant differences in writing achievement between the experimental group who used the suggested method, and the control group who were not exposed to the suggested method, in favor of the experimental group.

Badrawi (1994) describes some activities which can be adopted when teaching writing. These are :

- Clustering: This is a pre-writing technique that enables writers to map out their thoughts on a particular topic or subject and then choose which ones to use.

- Looping: This technique entails writing (without fears of errors or self-censorship) on anything that comes to one's mind on a particular topic.

- Cubing: This activity involves a quick consideration of a subject from six points of view; namely, describing; comparing; associating; analyzing; applying, and arguing.

- Debating: This technique differs from the above in that it involves presenting two sides of an argument or topic.

- Interviewing: It gets students talking, laughing and sharing thus reducing the fear of writing and the feeling of inadequacy that comes with it.

- Visual materials: These, when used properly, provide very vivid stimuli for writing activities

IX. Conclusion

Cognitive flexibility is a contemporary cognitive method, (Junko, 2014)

a method for solving the problems that students face in developing their skills by transferring them to new situations using their previous cognitive experiences., a cognitive method for processing new information and linking it with previous knowledge to form new ideas, (Johnson, 2016) which contributes to adapting responses to

various cognitive changes. (Frank, 2014: 3)

After presenting the theoretical framework and discussing the ideas contained in previous studies, most of which agreed that enrichment activities based on cognitive flexibility Probably contribute to the development of English language skills (especially speaking& writing skills), which in turn reflects the development of cognitive flexibility among high school students, due to the multiple tools that these enrichment activities contain. It includes educational and exciting videos, educational attractions and presentations, superlative texts, and targeted educational programs that students prefer over traditional teaching methods. (Safia, 2017)

Also, the methods of presentation used in enrichment activities in light of cognitive flexibility Should be interesting and enjoyable and in line with the level of understanding among students.

Providing the necessary devices, models, tools, and educational aids helps students practice activities and experiences, work within a small group, positive feelings, activity, movement, cooperation, develop social relationships or satisfy students' psychological needs through a sense of reassurance, self-control, a sense of belonging, self-respect, and personal freedom.

X. REFERENCES

Abdel-Khalek. W. M. (2011). The Effectiveness Of Using Role-Playing Activities On Developing Some Speaking Skills For Second Prep School Pupils. M.A Thesis, Cairo University, Institute Of Educational Studies, Department Of Curriculum And Instruction.

Abdo, Mohamed, (2018). Effectiveness Of Training Program Based On The Cognitive Flexibility Theory In Decision Making Skills And Attitude Towards Subject University Skills Among University Students, Faculty Of Education Journal, Al Azhar University, Vol. (2), No. (179), Pp. 1-56.

Abdulaziz, Muhammad (2020). Effectiveness Of A Training Program Based On The Theory Of Innovative Solution To Triz Problems In Developing Cognitive Flexibility And Academic Self-Concept Among Graduate Students At The Faculty Of Specific Education In Minya, Journal Of Arab Studies In Education And Psychology, Issue (123), Volume (25), Cairo.

Ali, Ahmad Ramadan Muhammad (2018). Working Memory Capacity And Its Relationship To Academic Cognitive Flexibility Among Non-Arabic Speakers, With High And Low Academic Achievement, Volume (26), Issue (2), Journal Of Educational Sciences, College Of Graduate Studies For Education, Cairo University, Cairo.

Anthony, B.A. (2007). Making Students' Writing Bloom: The Effect Of Scaffolding Oral Inquiry Using Bloom's Taxonomy On Writing In Response To Reading And Reading Comprehension Of Fifth Graders. (Ph.D. Dissertation). Auburn, Alabama.

Bransford, J., Cunningham, D., Duffy, T. M. E Perry, J. D. (2011). Anchored Instruction: Why We Need It And How Technology Can Help. In D. Nix E R. Spiro (Eds.), Cognition, Education, and Multimedia. Hillsdale, Nj: Lawrence Erlbaum Associates.

Cañas, José J. (2006). Cognitive Flexibility, International Encyclopedia of Ergonomics And Human Factors, University of Granada, Spain.

Chieu, V. (2007). An Operational Approach for Building Learning Environments Supporting Cognitive Flexibility, Journal of Educational Technology & Society, Vol. (10), No. (3).

Ciairano, S., Bonino, S., & Miceli, R. (2006). Cognitive flexibility and social competence from childhood to early adolescence. Cognition, Brain, Behavior. 10, 343 - 366.

Cole, P., Duncan, L., & Blaye, A. (2014). Cognitive flexibility predicts early reading skills. Frontiers in psychology. 5, 1-8.

El-Hawarat, Manar Ahmad, (2017). Cognitive Flexibility And Risk Orientation As Two Predictors of Problem Solving Among Students of The Hashemite University, Ma, College of Graduate Studies, Jordan.

El-Naggar, W. A. (2004). The Effect Of Dramatizing The Content of The Novel On Developing The Speaking Skill For Preparatory Students In English Language School. M.A. Thesis. Faculty of Education, University of Zagazig.

Frank L. Greitzer, (2014). A Cognitive Approach To Student-Centered E-Learning, Human Factors & Ergonomics Society 46th Annual Meeting, Sept 30-Oct 4, 2002, Baltimore, Maryland, Pp. 1-5.

Frank L. Greitzer, (2014). A Cognitive Approach To Student-Centered E-Learning, Human Factors & Ergonomics Society 46th Annual Meeting, Sept 30-Oct 4, 2002, Baltimore, Maryland, Pp. 1-5.

Gedeon. O. Dea´K, (2003). The Development Of Cognitive Flexibility And Language Abilities, Advances In Child Development And Behavior, Academic Press, Inc., Pp. 271-327.

Gedeon. O. Dea´K, (2003). The Development Of Cognitive Flexibility And Language Abilities, Advances In Child Development And Behavior, Academic Press, Inc., Pp. 271-327.

Hannafin, M. J., Hall, C., Land, S. E Hill, J. (1994). Learning In Open-Ended Environments: Assumptions, Methods, And Implications. Educational Technology, Xxxiv (8), 48-55.

Helmke H., (2010). Organization, Cognitive Flexibility, And Information Processing In Adolescents With Pervasive Developmental Disorders, PhD. Thesis, Wright Institute Graduate School of Psychology.

Hossain, M. I. (2015). Teaching Productive Skills to the Students: A Secondary Level Scenario. (Master's thesis). Retrieved from https://core.ac.uk/download/pdf/74352632.pdf

Jaramillo & Medina (2011). Adolescents" Awareness of Environmental Care: Experiences when Writing Short Descriptive Texts in English. PROFILE Vol. 13, No. 1, April 2011 . Bogotá, Colombia. Pages 11-30.

Johnson, B. T. (2016). The Relationship Between Cognitive Flexibility, Coping, And Symptomatology In Psychotherapy. Master Thesis, Marquette University.

Keshar, Ahmed Abdel Hadi (2018). The Effectiveness of A Training Program Based on The Theory of Cognitive Flexibility In Decision-Making Skills And The Trend Towards University Skills Among University Students, Journal of The College of Education, Issue (179), Vol. (2).

Liaw, M. L. (2007). Content-Based Reading and Writing for Thinking Skills In An EFL Context. English Teaching & Learning, Vol. (31), No. (2), Pp. 45-87.

Liu, Huanhuan & Fan, Ning & Rossi, Sonja & Yao, Panpan & Chen, Baoguo. (2015). The Effect of Cognitive Flexibility on Task Switching And Language Switching. International Journal of Bilingualism. Vol. (20), No. (3). Pp. 1-17.

Lowrey, W. & Kim, K., (2009). Online News Media And Advanced Learning: A Test Of Cognitive Flexibility Theory, Journal of Broadcasting & Electronic Media, Vol. (53), No. (4).

Lowrey, W. & Kim, K., (2009). Online News Media And Advanced Learning: A Test Of Cognitive Flexibility Theory, Journal of Broadcasting & Electronic Media, Vol. (53), No. (4).

Merdash, T. (2011). The Effectiveness Of Using A Program Based on Humor For Developing Some English Speaking Skills For The First Preparatory Year. M.A. Thesis. Department of Curriculum And Instruction, Faculty of Education, Ain Shams University.

Mishriki, A. (2002). Peer Assessment Of Summary. Egypt Tesol 2002.

Mostafa, A (2002). "Teaching Spoken English". In El Naggar; Fadel; Hanaa: Mccloskey; Thornton; El Fouly & Levine (Eds). Speer. Academy For Educational Development.

Nour-Edin, Muhammad Abdel-Aziz (2020). The Effectiveness of A Training Program Based on The Theory of Inventive Problem Solving "Triz" In Developing Cognitive Flexibility And Academic Self-Concept Among Graduate Students At Minia University, Journal of Arab Studies In Education And Psychology (Asep), Vol. (2), No. (130), Pp. 301-340.

Orey, M. A. E Wayne, A. N. (1997). The Impact of Situated Cognition: Instructional Design Paradigms In Transition. In C. R. Dills E J. Romiszowski (Eds.), Instructional Development Paradigms. Englewood Cliffs, N.J.: Educational Technology Publications.

Oslon, C. B. & Land, R. (2007). A Cognitive Strategies Approach To Reading And Writing Instruction for English Language Learners In Secondary School. Research In The Teaching of English, 41(3), 269-303.

Palm, K. & Follette, V. (2011). The Roles of Cognitive Flexibility And Experiential Avoidance In Explaining Psychological Distress In Survivors of Interpersonal Victimization, Journal of Psychopathology And Behavioral Assessment, Vol. (33), Pp. 79-86.

Pappas, C., (2015). Instructional Design Models and Theories: The Cognitive Flexibility Theory, Https://Elearningindustry.Com/Cognitive-Flexibility-Theory

Perfetti, C. A., Rouet, J. F., & Britt, M. A. (1999). Toward A Theory of Documents Representation. In H. Van Oostendorp & S. R. Goldman (Eds.), The Construction of Mental Representations During Reading (Pp. 99–122). Mahwah, Nj: Erlbaum.

Reem, Ahmad Abdel-Azim, (2018). A Program Based on The Theory of Cognitive Flexibility To Develop Awareness of Differentiated Teaching Among Female Students, Arabic Language Teachers, Low Beliefs of Self-Efficacy of Teaching, Issue (4), Journal of Research In Language Teaching, Educational Society For Language Teaching, College of Education, University Ain Shams, Cairo.

Ritter, S., Damian. R., Simonton, D., Baaren, R., Strick, M. Deriks J., & Dijksterhuis. A. (2012). Diversifying experiences enhance cognitive flexibility. Journal of Experimental Social Psychology, 48, 961-964.

Rouet, J. F. (2006). The Skills of Document Use: From Text Comprehension to Web-Based Learning. Mahwah, Nj: Erlbaum.

Safia, Muhammad., (2017). The Effect of Proficiency In Second Language on Working Memory and Cognitive Flexibility Among Bilingual Students In The City of Acre, Ph.D. Thesis, Yarmouk University, Jordon.

Simone, M. Ritter., & Nel, Mostert, (2017). Enhancement of Creative Thinking Skills Using A Cognitive-Based Creativity Training, Journal of Cognitive Enhancement, Vol. (6), No. (33), Pp. 243–253.

Spiro, R, J. & Jehng, J. (1990). Cognitive Flexibility And Hypertext: Theory And Technology for The Non-Linear And Multidimensional Traversal of Complex Subject Matter, D. Nix & R. Spiro (Eds.), Cognition, Education, And Multimedia, Hillsdale, Nj: Erlbaum.

Spiro, R, J. & Jehng, J. (1990). Cognitive Flexibility and Hypertext: Theory and Technology for The Non-Linear And Multidimensional Traversal of Complex Subject Matter, D. Nix & R. Spiro (Eds.), Cognition, Education, and Multimedia, Hillsdale, Nj: Erlbaum.

Swanson, R. A., & Law, B. (1993). Whole-Part-Whole Learning Model. Performance Improvement, 6 (1), 43–53.

Xie, Z. (2014). Second - language Proficiency, Language Use, and Mental Set Shifting in Cognitive Control Among Unbalanced Chinese English Bilinguals. SAGE Open, 1-10.