Content Analysis of Reading Comprehension Questions of English Activity Book for 1st Intermediate Stage According to Costa's Levels of Questioning

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تحليل محتوى أسئلة القراءة الاستيعابية لكتاب النشاط للغة الإنجليزية للصف الأول المتوسط وفقًا لمستويات كوستا للأسئلة

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Abstract

Over the past few years, many scholars have proven that integrating thinking skills with intellectual skills in educational materials plays an important role since it helps students learn sufficient knowledge and information. Like muscles, these skills need many exercises, activities, tasks, and drills to improve. Educational curricula use various techniques, such as questions, puzzles, games, and activities, to engage students and promote active learning. Thereby, modern educational content uses these techniques to capture students' interest by presenting materials in various forms. As language represents a key to thinking, the explicit form stimulates students' intellect, while the implicit form improves their thinking skills. Learning language and thinking abilities separately in school is difficult. When learning a foreign language, students need particular thinking skills to apply their knowledge and respond to questions. Here, the researchers seek to analyze the reading comprehension questions in the activity book "English for Iraq 1st Intermediate" by Terry O'Neil and Peter Snow in 2017. The researchers adopted Costa's Taxonomy as an analytical tool for the analysis process. Subsequently, a mixed method which incorporate both qualitative and quantitative analysis will be employed to get accurate results. The findings confirmed that all levels of Costa's questioning are present in the reading comprehension questions; however, their distribution is not equivalent. The content analysis focuses on basic thinking skills, overlooking additional levels that negatively impact content quality. Students' mental training and intellectual development require more than this limited focus. They are needed for lower thinking skills and higher thinking skills provided in other levels like (processing-data and applying-data) to prepare

students for the advanced stages that require them to use their higher thinking skills to achieve academic tasks functionally through graduating information, knowledge, language skills, and thinking functions from simple to complex.

Keywords: Content Analysis, Reading Comprehension Questions, Thinking Skills, Costas' taxonomy.

الملخص:

أثبت العديد من الباحثين على مدى السنوات القليلة الماضية أن دمج مهارات التفكير مع المهارات المعرفية في المواد التعليمية يلعب دورًا مهمًا لأنه يساعد الطلاب على اكتساب المعرفة والمعلومات. ومثلها مثل العضلات، تحتاج هذه المهارات إلى العديد من التمارين والأنشطة والمهام لتحسينها. تستخدم المناهج التعليمية تقنيات متنوعة، مثل الأسئلة والألغاز والألعاب والأنشطة، لإشراك الطلاب وتعزيز التعلم النشط. وبالتالي، يستخدم المحتوى التعليمي الحديث هذه التقنيات لجذب اهتمام الطلاب من خلال تقديم المواد بأشكال متنوعة. ولأن اللغة تمثل مفتاحًا للتفكير، فإن الشكل الصريح يحفز فكر الطلاب، بينما الشكل الضمني يحسن مهاراتهم في التفكير. إن تعلم اللغة وقدرات التفكير بشكل منفصل في المدرسة أمر صعب، فعند تعلم لغة أجنبية، يحتاج الطلاب إلى مهارات تفكير خاصة لتطبيق معارفهم والإجابة على الأسئلة. هنا، يسعى الباحثون إلى تحليل أسئلة القراءة الاستيعابية في كتاب الأنشطة للصف الأول المتوسط من تأليف تيري أونيل وبيتر سنو عام ٢٠١٧. وقد اعتمد الباحثون تصنيف كوستا كأداة تحليلية لعملية التحليل وذلك باستخدام منهجية مختلطة تجمع بين التحليل الكمي والنوعي للحصول على نتائج دقيقة. وقد أكدت النتائج تواجد جميع مستويات أسئلة كوستا في أسئلة القراءة الاستيعابية، إلا أن توزيعها غير متكافئ. حيث يركز تحليل المحتوى على مهارات التفكير الأساسية، متجاهلاً المستويات الإضافية التي تؤثر سلباً على جودة المحتوى. وبالتالي فأن التدريب الذهني والنمو الفكري للطلاب يتطلب أكثر من هذا التركيز المحدود، إذ يتطلبان مهارات التفكير الأدنى ومهارات التفكير العليا المُقدمة في مستويات أخرى، مثل معالجة البيانات وتطبيقها، لإعداد الطلاب للمراحل المتقدمة والتي تتطلب منهم استخدام مهارات التفكير العليا لإنجاز المهام الأكاديمية وظيفياً من خلال تدرج المعلومات والمعرفة والمهارات اللغوية ووظائف التفكير من البسيط إلى المعقد.

الكلمات المفتاحية: تحليل المحتوى، أسئلة القراءة الاستيعابية، مهارات التفكير، تصنيف كوستا.

1. Introduction:

Teaching and learning materials, including students' books and activity books, ought to integrate intellectual skills with knowledge, information, and language skills. Effective thinking is the goal of this integration, which prepares students for the future. So, they are able to engage in familiar and unfamiliar events in and out of school. To meet students' intellectual and educational needs, curriculum designers have improved the syllabus, curriculum, and methodology. Contemporary educational methods have been used to

incorporate new cognitive functions through drills and activities to stimulate students' mental processes and enable them to communicate in the target language. Hadi (2017) noted that many EFL students are unable to master the target language like native speakers due to cognitive incompetence, particularly in target language performance. The current study uses Costa's Taxonomy Questioning to analyze the reading comprehension questions in Terry O'Neill and Peter Snow's 2017 activity book "English for Iraq" for first-intermediate students.

2. Literature Review

Content analysis, according to Berelson (1952), uses quantitative descriptions of content data objectively and systematically. According to Holsti (1968), Keringer (1986), Harris (1996), and Krippendorff (2004), content analysis is a scientific method that allows researchers to study communication content and organize their findings using systematic, objective, and quantitative methodologies. To distinguish certain message features from context data. According to Weber (1990) and Stone *etal*. (1966), content analysis is a research method that uses several procedures to establish accurate inferences from a text and analyze the extent to which these inferences, attitudes, or objects encompass the document. As described in Rose *etal* (2015) and Prasad (2008), Graneheim and Lundman (2004) stated that communication can occur in letters, newspapers, short stories, diaries, folk songs, TV, radio, texts, documents, or symbols. The data analysis used a variety of visual media, including images and videos.

Thus, content analysts can employ qualitative and quantitative methods to make valid inferences from a text and organize their findings. Atieno (2009) claimed that quantitative research is empirical, methodical, and valid via reliable clarification or pilot studies. Additionally, this method can help researchers reuse research tools and validate their results with specialists using statistical methods to ensure reliability. However, Hashemnezhad (2015) proposed that the quantitative method can be defined as positivism, while the qualitative method is described as naturalism. Qualitative researchers believe that the best way to understand any phenomenon is to see it in its context, so qualitative is a philosophical method that uses specific ways of thinking for specific data and many techniques to manipulate these data and achieve a goal (Atieno, 2009).

Dörnyei (2007) identifies two primary approaches to content analysis: qualitative and quantitative. Qualitative analysis pertains to the latent level, which involves the description and interpretation of hidden content, reflecting the deeper meaning of the text's messages. The manifest level denotes the apparent content that provides an objective and illustrative summary of the explicit meaning of facts within specific text. Zhang and Wildemuth (2009) explained that qualitative content analysis goes beyond word counting to explore the meanings, themes, and patterns of a text's latent and manifest content. However, quantitative is a deductive method that examines hypotheses to solve issues using theories or prior experimental studies. Inductive qualitative content analysis draws

inferences from data, topics, and themes, while quantitative content analysis is different (Sándorová, 2014). According to the above, the qualitative method is difficult to apply because it depends on analysts' viewpoints and interpretations of the phenomenon. Therefore, analysts use quantitative analysis to provide scientific criteria to make objective and accurate inferences using many statistical tools.

Moreover, the analysis of the content has three fundamental principles that are presented to be a scientific method as the follows:

a. Objectivity means content analysis follows obvious guidelines. So, different researchers can get the same conclusions from the same messages using this method.
b. Systematic refers to the inferences ordering process that is done consistently by applying specific rules to support the ideas of the researchers.
c. Generalizability indicates to the results that the researchers gained them and can be tried to obtain in the other similar situations. (Prasad, 2008 :3)

Krippendorff (2004:83-5) indicated that content analysis has six components in its application procedure. The initial component, called the data-making process, encompasses the use, sampling, recoding, coding, and reduction of data. The other components consist of abductively inferring surrounding phenomena and the narrative process. The researchers propose that the latest components should be referred to as the inferences-making process, as the inferences derived from abductively reasoning are based on observable evidence corroborated by the analytical process constructed by the analyst. The narration process is linked to the responses elicited by the analyst's questions.

3. Research Questions

Nickerson (1984: 34-5) stated that there is a connection between thinking and educational knowledge. In that way, thinking is an action that counts on knowledge. So, when an individual thinks about something, he or she must have a segment of knowledge about that object. In fact, the knowledge and thinking strengths are associated and they mutually reinforce each other. So they cannot be developed separately.

The researchers believe that the content of the activity book is not just as subject matter which provides specific knowledge about English language but it is utilized to develop the students' thinking skill that facilitates the learning process in a successful way. This study endeavors to answer the following questions:

1. What are the levels that the reading comprehension questions focus on?
2. Are these levels distributed equally in reading comprehension questions or not?

4. Aims of the Study

The researchers of the study aimed to investigate the following:

a. Using content analysis to analyze the reading comprehension questions in “English for Iraq” for 1st Intermediate Activity Book by depending on Costa's Taxonomy.

b. Finding and explaining Costa's level that are provided in these questions.
c. Listing the distribution of Costa's levels and investigating them later.

5. Limitation of the Study

This study is limited by ordering the English Activity book "English for Iraq" for 1st Intermediate stage by Terry O'Neill and Peter Snow (2017).

6. Theoretical Background

6. 1 Importance of the Content and Reading Comprehension Questions

The educational process is a challenging process that aims at developing learners' thinking abilities on how to think rather than what to think. Hence, its objective is to encourage students to think independently rather than only remembering others' thoughts (Beattie as cited in Yero, 2002;1).

According to Shallhom (2019:2), educators should combine curriculum, syllabus, and methodology with thinking skills to improve students' mental abilities and prepare them for familiar and unfamiliar situations in and out of school. Under "defining syllabus," Nunan (1993) defined curriculum as the organization, implementation, estimation, and administration of education systems. The syllabus is a component of the curriculum that selects and presents instructional information in a progressive way. Null (2011:1-2) states that a curriculum's subject matter must have numerous pieces of knowledge to be meaningful.

This new curriculum develops intellectual, linguistic, information, and knowledge that is dependent on the communicative method to improve student communication. What the curriculum and subject matter gained from cognitive benefits inside educational knowledge and what they were supposed to do for them is what the researchers want to know. Thus, curriculum designers employed questions to motivate students to think critically and use English effectively while measuring their knowledge.

According to Strother (1989:324), questions stimulate students, guide their attention and inspire their information processing, and show them how well they understand the material, Therefore, comprehension questions will help students grasp the content. Questions are more significant than responses since they may help students learn and improve their thinking (Muayanah, 2014:22).

Coreley and Raucher (2013:1) noted that questions are categorized by the degree of thought needed to answer them. Starting with low-order processes, thinking will progress to high-order. The first level of questions requires students to absorb and memorize teacher-illustrated facts and information. In contrast, the second level of questions requires critical thinking to respond using previously studied material. These levels will be more valuable and successful in learning and teaching processes that correspond to several educational goals. Woolfolk (2007 under "educational psychology") explained that questions can be divided in two types which are open-ended questions and closed-ended

questions. The first one has unlimited responses such as essay questions but the second type has limited responses such as true/false, yes/no, multiple choice and simple statistical questions “e.g. what's your height?”. So, the closed-ended questions are used for tests, forms and surveys.

6.2 Thinking Skills and Costa’s Taxonomy of Questioning

According to Manivannan (2010:196), thinking is the greatest mental activity. Thus, man's greatest achievement is his ability to think, learn a language, solve problems, form abstract concepts, and generate new ideas. Language, problem-solving, concepts, creativity, intelligence, and reasoning are all interrelated and based on thinking. Additionally, thinking involves planning and manipulating knowledge. It is anticipated to be a covert operation that will occur in concealed manners. Because of this, thinking is difficult at all times, whether when people are awake or asleep. Alvino (1990:50) defined thinking skills as "the set of basic and advanced skills and sub-skills that govern a person's mental processes." Knowledge, attitudes, and cognitive and metacognitive functions are included. Shalhoom (2019:7) defined skill as the ability to perform exercises, tasks, and activities exactly using mental cognitive and physical psychomotor capacities, saving time and effort. Nickerson (1984:29-35) revealed that there is a relative relationship between knowledge and thinking. In the educational environment, the cognitive and thinking skills of learners are effectively activated and enhanced through the use of a variety of activities and tasks, which are dependent on a variety of knowledge that is developed through the thinking process. In accordance with the previously stated, the researchers believed that skill is an aspect of thinking and is regarded as a part of the thinking operations that enables individuals to utilize their mental and physical abilities in a variety of situations, including in every aspect of their lives. Thus, educational institutions should enhance these skills to produce competent thinkers who can address numerous life difficulties. Many researchers focused on integrating thinking skills into school courses and developing innovative ways. Especially when working with students at varied educational stages, ages, and cognitive capacities. Under teaching thinking skills, Cotton (1991) said that thinking skills may be taught. Accordingly, teachers can use these skills in the classroom to help students grow intellectually and become more creative and freer by experiencing new things. The researchers saw that educational material designers should present information and knowledge with thinking gradually from simple to complicated forms that integrate all educational stages without gaps.

Costa and Kallick (2008: 138) claimed that questions evoke different levels of thinking in learners, who should be aware of syntactic cues to learn how to behave or think. Questioning strategies offer a significant opportunity to enhance learners' engagement in the learning process and encourage them to effectively utilize their cognitive abilities. However, they also cause learners to raise numerous concerns, including uncertainty regarding the content, as they attempt to understand the information being presented to

them (Ibid: 135). Costa (2001:361) clarified the three-story intellect model by Holmes, thereby establishing that the questioning technique offers three levels of thinking. Costa's taxonomy has three levels of questioning as follows:

1. The first level is called data-gathering (input). It is used to elicit the senses of the learners to collect data for the next higher level which is processing- information. This level of thinking process has contained many thinking skills such as recalling, completing, identifying, observing, listing, reciting, counting, defining, matching, scanning, describing, selecting and naming (Costa and Kallick, 2008: 138-139).
2. The second level is data processing (process). Questions like these investigate the relationships between causes and effects. The cognitive abilities that comprise this level include comparing, contrasting, categorizing, differentiating, explaining, sequencing, synthesizing, analyzing, creating analogies, reasoning, organizing, combining, sorting, and inferring (Ibid: 140).
3. The third level involves applying information (output). This level's questions encourage students to use their imagination and identify a value system or make a judgement. At this level, learners must produce a sense of the resource material and reply to a question that demands they to develop new concepts in the hypothetical situation. Many thinking skills, including applying, imaging, judging, hypothesizing, model building, generating, transferring, forecasting, and extrapolating, have been impeded by this level of thinking. This level is the highest in Costa's Taxonomy because learners must utilize high skills to apply information in new situations and produce new ideas in order to solve problems (Costa and Kallick, 2008:142).

7. Method of the Study

The researchers made use of the content analysis method to analyze the reading comprehension questions of the activity book for the Iraqi 1st intermediate stage by adopting Costa's Taxonomy of Questioning. The analysis results have been accurately obtained through a mixed method that allows researchers to employ both quantitative and qualitative methods to analyze, organize, and establish their inferences and results, presenting them in a subjective, objective, and scientific way.

8. Sample of Content Analysis

The English Activity book "English for Iraq" for the First Intermediate stage by Terry O'Neill and Peter Snow (2017) is analyzed in this study by the researchers, who analyze all of the reading comprehension problems as a sample. The study's population and sample were described in Table 1.

Table (1): Sample and Population of the Study

Population				Sample		
N	Activity Book	Stage	Pages	Units	Passages	Questions
1	"English for Iraq"	1st intermediate	128	8	13	114

9. Instrument of the Study

The researchers have adopted Costa's levels of questioning which have been divided into three levels (data-gathering (input), processing –data (process), and applying information (output)) that are used as a tool of the study to investigate the reading comprehension questions of the activity book "English for Iraq" for 1st Intermediate stage. The researchers have illustrated this taxonomy in **Appendix A.**

10. Procedures

Hsieh and Shannan (2005:1278) stated that content analysis as a method of data classification and themes or paradigms discriminations for getting the subject explanation of the content. Patton (2002:453) explained that the meanings are the core of the consistencies that are revealed in the content under analysis process. Accordingly, the researchers have determined the questions of the study to answer them by depending on the outcomes and the analysis data by identifying the population and the sample of the study. They used the cognitive functions for each level in Costa's taxonomy of questioning to be a checklist that includes an illustration of every variable. From this list, the researcher could collect data that are organized from the code sheet by depending on a specific coding scheme to convey the obtained data into a statistical form by totalizing the frequencies of the cognitive functions in each thinking level of this taxonomy. These steps will enable the researchers to draw their inferences from analyzing the reading comprehension questions, give obvious explanations for these inferences to get accurate results and conclusions.

White and March (2006:32) clarified that the explicit definitions and obvious examples and instructions must be implied in the coding scheme which enables the coder to symbolize and recode the same material in the same manner at several different times. Thus, the researchers used this merit of coding scheme to check the intra-rater reliability of the coding process by analyzing a random sample of the reading comprehension questions about the 10% from the total number of these questions (114) by the first researcher with a three-week interval and the second researcher can analyze the same data but at different times to get consistency for their coding process as interpreted in **Appendix B**. Table (2) below explained the consistency of the inter-rater reliability. Lastly, the researchers have adopted specific statistical instruments to draw all their inferences accurately, collect and calculate their results in a scientific manner as clarified in **Appendix C**.

Table (2): The Consistency of the Inter-Rater of Reliability

Analysts	Process of the Reliability	Rate
The first researcher	The same analysis data after three-weeks	90%
The second researcher	The same analysis data with a different analyst and at different times	90%

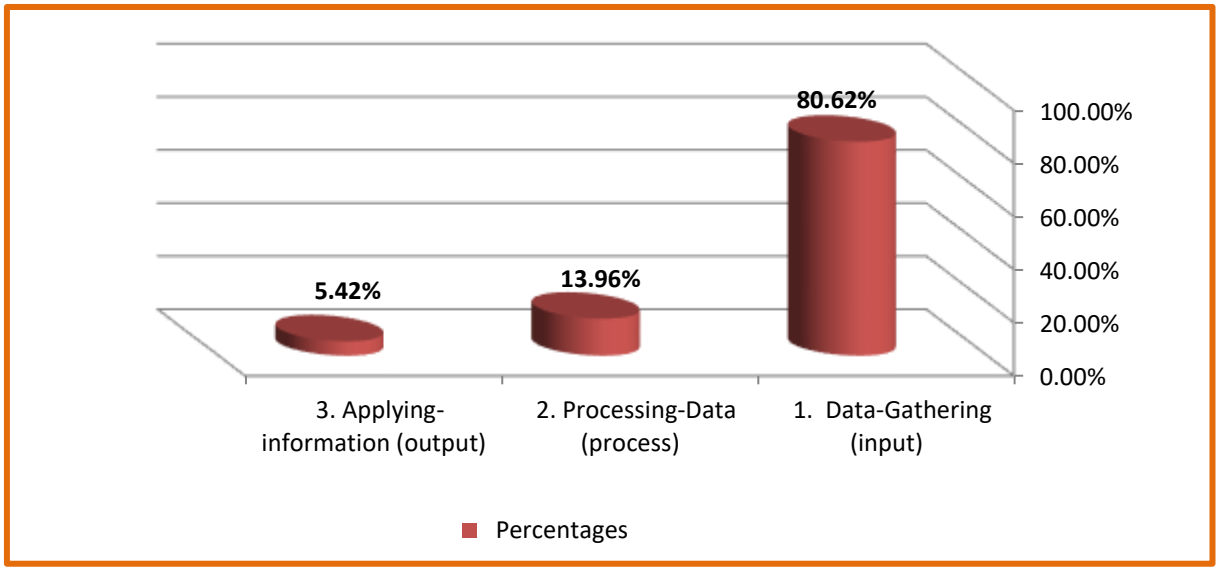
11. Results of the Study

The outcomes of the study are given after analyzing the reading comprehension questions by depending on Costa's levels of questioning to help the researchers to answer their research's questions. To begin with the first question "What are the levels that the reading comprehension questions focus on?" In fact, the reading comprehension questions have focused on all the levels of Costa's taxonomy but the distribution of these levels in the reading comprehension questions is not equivalent. Hence, these outcomes help the researchers to answer their second research's question "Are these levels distributed equally in reading comprehension questions or not?". The distributions of the levels are as follows: the first level data-gathering (80.62 %), the second level processing-data (13.96 %) and the third level applying- information (5.42 %) as shown in table (3) and Graph (1) below, which represent the statistical distributions of the levels of questioning that are included in Costa's Taxonomy of the activity book "English for Iraq" for 1st Intermediate stage.

Table 3. The Statistical Distributions of Costa's Levels of Questioning in the Reading Comprehension Questions

Costa's Levels of Questioning	Frequencies	Percentages
1. Data-Gathering (input)	104	80.62 %
2. Processing-Data (process)	18	13.96 %
3. Applying- information (output)	7	5.42 %
Total	129	100 %

Graph 1. Distribution of Costa's Levels of Questioning in Reading Comprehension Questions.



12. Discussion of the Results

Manivannan (2010:201-204) defined that a language is one of the elements of thinking which is considered as a tool to carry out the thinking process. Hence, when an individual reads, writes or perceives terms, phrases or statements and notices sign in any language that elicited the individual to think. In fact, a fundamental aspect in teaching and learning process is thinking. Therefore, the ability of the individual to learn and solve his problems which required the ability to think in a correct manner. In addition, learning to think is not a simple action that requires knowledge of the mechanisms and practice of proper thinking. According to the above, the educational content should enhance both language skills and cognitive or thinking skills to acquire the foreign language as rapidly as possible and save the effort for both teachers and learners. The outcomes of the study showed that the reading comprehension questions in the activity book covered all the levels of Coats' taxonomy (gathering -data, processing-data, applying- information) but the distributions of these levels are unparalleled and negatively affected. As a result, the distributions are not logical and purposeful. They are not logical because the intermediate stage is considered a link (connected) stage (thus, it will) that will build a bridge to connect the primary stage with preparatory stage. Therefore, the learners in this stage have much information and knowledge about the English language which are provided at the previous stage and with essential cognitive functions and skills. Moreover, this stage should be on the line to develop the higher cognitive skills with specific knowledge that are appropriate with intellectual growth and mental abilities of the learners at this age and enable them to apply the information or the knowledge by using them in many texts, exercises or tasks, manipulate them in the other situations and create new ideas that will enhance both their language and cognitive skills. On the other hand, the distributions of levels are not

purposeful because the content is focused just on the first level (gathering –data) which is provided previously and given less attention on the other levels (processing –data, applying- information) are needed for the learners to succeed in academic achievement gains. Eventually, analyzing content should take into consideration the balance of the distribution between these levels suggested in Costa's taxonomy of questioning, which is to equalize and graduate them in their transforming from one level to another.

13. Conclusion

All the educational materials are designed to develop linguistic skills and thinking skills that are demanded for each stage by depending on the learners' intellectual growth and their mental abilities which are needed to achieve academic tasks, exercises and drills in successfully through stimulating their thinking skills that are provided inside these activities. Thus, the acquisition process of the English language will be enjoyable for the learners through presenting the linguistic context within specific cognitive functions to use and apply this language effectively and storing the information and knowledge in their memory as long as possible to manipulate them later in other situations. The analyzed content has shown that the distribution of these levels is unequal, which will affect the equality of this content by concentrating only on the first level, which is comprised of basic thinking skills, and leaving other levels with less attention. In fact, processing- data and applying- data are essential because they are needed in the advanced stages and prepared the learners' mental abilities to utilize and apply this language productively. In this way, the content will keep the line of progressive for the learners' achievement and the educational goals that are demanded in educational institutions in graduating both the linguistic forms and cognitive functions from the simple to complex in each stage and to achieve the acquired balance between knowledge and thinking skills which are considered fundamental aims for the teaching and learning processes.

Recommendations

1. Omitting and adding many reading comprehension passages and questions that are stimulated the students to use higher thinking skills besides the language skills productively and functionally.
2. Changing some questions to concentrate on the second and third levels through relating the thinking skills within linguistic forms to be more suitable for students' mental training and achieve the balance between them to motivate the students to be more creative and good thinkers.

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Appendices Appendix A (Costa's Levels of Questioning)

Costa's Levels of Questioning	**Thinking Skills**
	recalling
1. Data-Gathering (input)	completing
	identifying
	observing
	counting
	listing
	reciting
	defining
	matching
	scanning
	describing
	naming
	selecting
	comparing
2. Processing-Data (process)	contrasting
	classifying
	distinguishing
	Explaining (why)
	sequencing
	analyzing
	synthesizing
	Making analogies
	reasoning
	organizing
	Grouping (sorting)
	inferring
	applying
3. Applying- information (output)	imagining
	evaluating
	judging
	hypothesizing
	generalizing
	Model building
	predicting
	extrapolating
	speculating

	forecasting
	Transferring

Appendix B

The sample is used to measure the reliability for a coding process between the researchers.

Unit Three	Questions	Thinking Skills	First Level Input	Second Level Process	Third Level Output
Passage (1) Extra Activities p:45	1.Why is Mad Mack Happy?	Explaining Explaining Explaining		***	
	2.What does it do?	Defining Defining Defining	***		
	3.What is it doing now?	Defining Defining Defining	***		
	4.How many things has it done today?	Counting Counting Counting	***		
	5.Where is it now?	Identifying Identifying Identifying	***		
	6.What is on the floor of the kitchen?	Recalling Naming Naming	***		
	7.How many things are in the cake?	Counting Counting Counting	***		
	8.How does the robot speak?	Describing Describing Describing	***		
	9.Why can't Mad Mack have a piece of cake?	Explaining Explaining Explaining		***	
	10.What will Mad Mack have to do now?	Recalling Distinguishing Distinguishing	*	**	
Total	10	**Agreement** **Disagreement**	9 1		

Note:

* Analysis process for the first researcher at the first time.

* Analysis process for the first researcher after three weeks of analyzing process.

* Analysis process for the second researcher at different periods of time.

Coding process	Agreement	Disagreement	Rate
The first researcher after three weeks *	9	1	90%
The second researcher at different periods of time*	9	1	90%
Total	18	2	

Appendix c

Statistical methods that are used in this study.

1. The researchers have based on the frequencies to calculate the number of the observations which have a same characteristic (Riazi.1999).

2. Using a proportion to calculate the variables which are nominal or distance levels of measurement process. So, it reflects the grade of a specific group for dominating the whole (Riffe et al., 2005). The researchers have calculated the percentages for each skill based on the numbers of the frequencies for each skill and divided them on the total frequencies of the whole skills as showing below:

$(P = \frac{n}{N} \times 100)$

Where:

(P) is the percentage

(n) is the number of frequencies for a one skill.

(N) is the number of frequencies for the whole skills.

3. To achieve the reliability of a coding process between the researchers in the analysis process. Thus, the researchers based on the Holstis' calculation (1969) to calculate the consistency of the coding process between the analysts (laryea,2015) by using the following a calculation:

Holisti is $\frac{2M}{N1+N2}$

Where:

(M) is the number of coding decisions on the two coders are in agreement.

(N1 +N2) is the total number of coding decisions made by coders 1 and 2, respectively.