Using Verbal Reports to Explore Reading Test-Taking Strategies of Saudi, EFL University Students

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Abstract
Reading test-taking strategies (RTTS) play a central role in test-takers’ performance. Identifying these strategies and understanding their appropriate use is crucial for improving the test-takers’ accomplishment. Thus the present study attempts to further our understanding of EFL reading test-taking strategies (RTTS) by attempting to explore qualitatively the reading test-taking strategies (RTTS) of Saudi, EFL female students while completing a multiple choice reading comprehension test. The participants are 26 level-three, foundation-year students at a big Saudi University. The study uses think-aloud techniques, retrospective interviews, observations, and test protocols to deduce the participants’ reading test-taking strategies (RTTS). The data were analysed inductively using some elements of grounded theory to explore the participants’ strategy use. The result of the study is a list of 127 reading test-taking strategies (RTTS) classified under seven main categories and 21 subcategories. The classification of the strategies follows a narrative order that mirrors the test-takers’ experience while completing the test.

Keywords: reading test-taking strategies, retrospective interviews, Saudi EFL students, think-aloud protocols, verbal report

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1.0 Introduction

English as a second/foreign language has become widely spread all over the world. Thus, attaining a certain level of English language proficiency has become a requirement in many contexts, such as university entrance, or employment requirement. This level of proficiency is usually measured through tests (e.g. standardized exams such as IELTS or TOEFL, local entrance exams, end of programmers’ exams etc...). Hence, the results of these tests are vital for many people. Among the factors that influence individuals’ performance in these tests is their capability of strategy use. According to Oxford and Ehrman (1995) and Oxford (2010), a positive relationship exists between the use of appropriate learners’ strategies and proficiency. Likewise, they maintained that “conscious use of appropriate learning strategies typifies good language learners” (Ehrman & Oxford, 1989, p. 1). Thus, it seems crucial to deepen our understanding of EFL/ESL learners’ use of test-taking strategies in different content areas of exams (i.e. reading, writing, speaking, or listening), particularly because learners use of strategies differ based on many factors among which is the nature of the task under demand. According to White, Schramm, and Chamot (2007) “strategy use is not a fixed attribute of individuals, but changes according to the task, the learning conditions, and the available time” (p. 93). Despite its importance, the area of test-taking strategies particularly that is related to a specific content area (i.e. reading, writing, speaking, or listening) with relation to a specific type of questions is still under researched particularly qualitatively. Thus, the present study will attempt to qualitatively find out Saudi, EFL learners of English reading test-taking strategies on a multiple-choice reading comprehension test. Then it will attempt to analyse and categorise them in a way that best describes their use in an MCQs’ reading comprehension test situation. Hopefully, this will help to further our understanding of EFL learners’ RTTS use in such tests.

2.0 Literature Review

Test-taking strategies are “the consciously-selected processes that the respondents used for dealing with both the language issues and the item-response demands in the test-taking tasks at hand” (Cohen, 2011, p. 305). Though strategies are described as “consciously-selected” in this definition, many researchers believe that strategies may vary in their degree of consciousness (Al Fraidan & Al-Khalaf, 2012; Purpura, 1999). According to Cohen and Upton (2006) and Cohen (2011), any language test involved three types of strategies: language learner strategies, test management strategies, and test-wiseness strategies. Methods used to investigate test-taking strategies are the same as those used to investigate language use strategies in general as the former is a special area of the latter (Cohen, 2011; Phakiti, 2003). In fact, language learning/use strategies are generally mentalistic (internal), thus investigating them adequately is a rather challenging task (Cohen, 2011; Cohen & Scott, 1996; Macaro, 2001; White et al., 2007). Methods used to assess language learning/use strategies have been reviewed by many researchers (Cohen, 2011; Cohen & Scott, 1996; Macaro, 2001; Mackey & Gass, 2005; Oxford, 2010; White et al., 2007). One of the prominent reviews is Oxford (2010) who listed nine approaches: 1) observations; 2) actual-task verbal reports; 3) individual interviews for strategy assessment (not based on immediate tasks); 4) learner portfolios that include task-related strategy assessment; 5) colour-coding of actual-task strategies; 6) group strategy assessment interviews or discussions; 7) strategy questionnaires; 8) narratives (e.g., learner diaries and histories); and finally, 9) discourse analysis for strategy assessment. To Cohen (2011), “every assessment method offers unique advantages as well as disadvantages. The challenge for researchers is to choose an assessment method that
will provide the desired type of information for the given study” (p. 95). Among these methods, actual-task verbal report methods have become a major tool for investigating test-taking strategies (Cohen, 1992, 1997). This method “involves reporting the strategies for an authentic task, e.g., reading a passage in the L2. The learner identifies strategies he or she is using (or has finished using) to accomplish the L2 task” (Oxford, 2010, p. 143). The merit of using this method is that it “provides data on cognitive processes and learner responses that otherwise would have to be investigated only indirectly. Furthermore, verbal report has at times provided access to the reasoning processes underlying cognition, response, and decision making” (Cohen, 2011, p. 98).

Many studies in the literature have investigated the reading test-taking strategies of EFL/ESL students. An early example is Nevo (1989) who explored: a) the possibility of immediate feedback from participants’ use of strategy on an item-by-item basis; b) the frequency of strategy role to correct and incorrect answers in L1 and L2 MCQs reading comprehension test; c) the degree of contributory and noncontributory strategy transfer from L1 to L2 while completing a test; d) and the effect of the response format (multiple-choice) and the stimulus formation of the test (text and questions) on the selection of the test-taking strategies. The participants were 42 Hebrew grade-ten students studying French as L2. They were asked to complete a reading comprehension test on four reading texts (two in Hebrew and two in French with varying levels of difficulty). Each text was followed by five multiple-choice comprehension items and open-ended questions regarding the participants’ evaluation of the test items. After each item, the participants were asked to introspectively fill in a checklist of specific strategies use. They were also asked, at the end of the test, to retrospectively complete a questionnaire about the more general strategies they used on the entire test. The results confirmed the possibility of taking immediate, item by item feedback on participants’ strategy. They also assert the role of contributory strategies in achieving correct answers in both languages with students using more non-contributory strategies in the target language than in the first one. Likewise, strategy transfer from L1 to L2, and the role of both the stimulus formation of the test and the response format on the choice of strategy use were confirmed. Another example of studies that used a questionnaire to collect test-taking strategies is (Purpura, 1997, 1999). He examined the relationship between test takers reported cognitive and metacognitive strategy use and their performance on L2 tests. He asked 1,382 participants to complete a 70-item standardised language test and an 80-item cognitive and metacognitive strategy questionnaire. The questionnaire was about what the participant usually used, not what they actually did in the test. Other studies used verbal reports to investigate test-taking strategies. For instance, Phakiti (2003) combined the use of a questionnaire and verbal reports to look into EFL students’ test-taking strategies. In line with (Purpura, 1997), he examined the cognitive and metacognitive strategies used by 384 Thai students. The participants were asked to complete a reading comprehension test, followed by a cognitive and metacognitive strategy questionnaire to measure their use of strategy in the test. This was triangulated by retrospective interviews of a subset of four highly successful and four unsuccessful test-takers. Phakiti (2003) concluded that “the findings in the study suggest that cognitive and metacognitive use of strategy could explain variation on language test performance. The use of cognitive and metacognitive strategies across the achievement groups (highly successful, moderately successful and unsuccessful groups) differed quantitatively and qualitatively” (p. 50).
Another example of studies that examined RTTS using verbal reports is Anderson (1991). He explored the strategies used on a standardised reading comprehension test and academic reading tasks, the individual differences in strategy use in these two contexts, and differences between good and poor comprehension. The participants were 28 Spanish students enrolled in a university-level intensive ESL program. He used immediate retrospections and think-aloud protocols to gather the types of strategies used to complete the test and tasks. Anderson (1991) analysed the data both qualitatively and quantitatively. The qualitative analysis resulted in a list of 47 strategies under five categories: supervising, support, paraphrase, establishing coherence in the text, and test-taking. The quantitative analysis resulted in a mixture of relationships between the strategy use, the test scores, language proficiency level, and the type of the task.

In line with Anderson (1991) Rupp, Ferne, and Choi (2006) explored ESL students’ RTTS qualitatively via verbal reports. The study looked into the unconscious skills and conscious strategies test-takers use when completing MCQs on reading comprehension tests, and how the characteristics of both the questions and the text influence such usages. Ten ESL students were requested to complete a reading comprehension test which consists of three texts with MCQs. The first text was used as a preparatory phase and used for observation purposes. The second text was followed by retrospective questions related to students’ strategy use and questions’ difficulty rating. The last text was concurrent with think-aloud protocols and followed by the same retrospective questions. On completing the test, the students were asked to fill in a profiling questionnaire. Several interesting results emerged from this study, among which is the authors’ taxonomy of test-taking strategies. They divided the participants’ test-taking strategies into two groups: macro and micro strategies. They defined the macro strategies as strategies that are “concerned with general approaches that test-takers chose to employ, either consciously or subconsciously, when they are given a MC reading comprehension test” (Rupp et al., 2006, p. 460). This category was then subdivided into unconditional and conditional strategies. The unconditional strategies are usually used for MC reading comprehension test, while conditional ones are selected according to perceived characteristics (difficulty and length) of the text and the questions. Whereas, the micro-strategies are used with individual items.

In agreement with Anderson (1991) and Rupp et al. (2006), Cohen and Upton (2006, 2007) used verbal reports to explore participant test-taking strategies. The aim of their study was to explore the reading and test-taking strategies used to complete the reading tasks in the LanguEdge Courseware (2000) materials, and the variation in the types of strategies used to answer different types of reading questions. The participants were thirty-two high intermediate to advanced L2 learners of English. The data were analysed qualitatively for strategies use and the found strategies were classified under two main categories: reading strategies (28 strategies), and test-taking strategies which were subdivided into: test-management (28 strategies) and test-wiseness (3 strategies). The data were further analysed quantitatively to find that: the aim of the test-takers was to answer the questions and not to gain anything else from reading the texts; the three item types (basic comprehension, reading to learn, and inferencing) required and assessed academic-like approaches to reading in a similar way; and the new format (selected-response multiple-selection multiple-choice formats) is not more difficult than the traditional single-selection multiple-choice formats. Unlike the above literature, (Jamil, Aziz, & Razak, 2010) attempted to explore the students’ RTTS on open-ended questions rather than different types of
multiple-choice questions format. They looked into the RTTS of ten tertiary-level Malaysian female students completing an open-ended reading comprehension test. The aim of their study was to compare the RTTS used by high proficiency (HP) and low proficiency (LP) students. They used retrospective protocols and playback session to elect the participants’ RTTS. The result showed that HP students used 24 test taking strategies compared to the 22 strategies used by LP students. The researchers also attempted to find the commonly used strategies among the two groups and the variation of strategy use between them. Finally, they concluded that LP participants favour strategies that did not involve deductive reasoning or inference, whereas HP participants use strategies that involve more analytical thinking. They also found that the number and type of strategies used by both groups are fairly the same (repertoire). It seems that the way participants utilise the strategies is more important than the type or the number of strategies they apply.

To conclude, verbal reports are widely used in strategy research in general and in test-taking strategies in specific (e.g. Anderson, 1991; Cohen & Upton, 2006, 2007; Jamil et al., 2010; Rupp et al., 2006). Using verbal reports, many researchers have attempted to identify and classify their participants’ RTTS (e.g. Anderson, 1991; Cohen & Upton, 2007; Rupp et al., 2006). However, these efforts are not sufficient, and there is still a need for further research in this area to help us better understand students’ reading test-taking strategy use. Thus, the current study will attempt to help further our understanding of this topic.

3.0 Methodology
3.1 Participants
The participants are 26 Saudi, female, EFL foundation-year students at a big Saudi University. Their age ranges between 19 and 21 years. All the participants are volunteers.

3.2 Methods
The study uses think-aloud technique, retrospective interviews, the researcher’s observation, and the participants’ test protocols to qualitatively explore the participants’ RTTS on an MCQs reading comprehension test. However, as many of learners’ strategies are “mentalistic and not behaviorist” (Cohen, 2011, p. 73) the think-aloud technique and retrospective interviews are considered the main instruments, whereas the researcher’s observation and participants’ test protocols are used to support and validate the findings from the other two methods. The think-aloud is used because, besides its popularity in strategy research, it is “introspective and nonmentalistic in nature, and is seen as most accurately reflecting learners’ cognitive processes” (Cohen, 2011, p. 80). Similarly, the retrospective interviews are selected because they “provide an opportunity for investigators to ask directed questions to gain clarification of what was done” (Cohen, 2011, pp. 80-81).

3.3 Materials
The materials for the current study consist of verbal reports instructions, a model task, two warm-up tasks, and the actual reading comprehension task. The sample verbal reports instructions provided by (Green, 1998, pp. 46-47) were translated into Arabic and slightly adopted to incorporate the specification of the language of the protocol (either Arabic L1 or English L2 as preferred by the participants) (Bowles, 2010; Dörnyei, 2007; White et al., 2007). Then it was
provided both verbally (recorded) and visually (written). The model task was a translation of Green’s (1998, pp. 47-48) task where the participants are asked to first think aloud and then retrospectively report what they are thinking as they are adding up all the windows in their houses. Both the instruction for the task and the actual verbal reports (think-aloud and retrospection) were performed and recorded to ensure uniformity in modelling the task to all participants. The warm-up tasks are a non-verbal and a verbal task. The first is an arithmetic task where students are asked to multiply 16 by 25. The second is an anagram where students are asked to rearrange the anagram word “OMTEHR”. The actual task was an authentic reading test (a progress test). The time specified on the test sheet was 30 minutes. The test consisted of a comprehension passage followed by ten multiple-choice questions. The comprehension passage was a narrative text from the biography of J.K. Rowling, the author of the Harry Potter series books. It is an authentic text that has been adopted from http://www.celebsa-z.com/bios/jk_rowling.htm. The passage is divided into five paragraphs and consist of 524 words. The Flesch-Kincaid grade level for the passage is 10 and the Flesch-Kincaid readability ease score is 52. This was calculated via the readability index calculator at http://www.standards-schmandards.com/exhibits/rix/index.php. The test included ten multiple-choice comprehension questions. Each question consists of a stem and four response options. The first question is about providing a suitable title for the passage. The second question is about the main idea of a paragraph. The third question is a reference question (pronoun reference). The fourth and fifth questions are about guessing the meaning of a word from context. The sixth and seventh questions are about specific information. The last three questions are reasoning questions.

3.4 Data collection
The data was collected by inviting the participants to attend individually for a single think-aloud and retrospective interview session. The session was divided into several, successive parts. The first part is an introductory part where the participants were given a detailed information about the session structure and content, and where her consent is taken. The second part is a modelling part where the recorded instructions and the model task are played and the participant inquiries, if any, are answered. The third part is a training part where the participant is given the arithmetic and anagram tasks consecutively. This part is used to solve any problem or difficulty the participant may have with the think aloud and retrospection. The fourth part is the actual think-aloud of the participant while doing the reading comprehension test. Two things are emphasized at this stage: the importance of treating the test as a real one and the freedom of reading or not reading the passage aloud as this is not a requirement of the task. Once the student starts the test, the researcher starts her note taking. The fifth and final part is the retrospective interview. On the completion of the test, the student is asked to give a summary of what she did in details by going over the questions one by one, of course, the test protocol was kept in front of the student to help her remember the information. Then the session is ended.

3.5 Data analysis
The previous data collection stage results in three types of data: audiotapes of the think-aloud protocols and immediate retrospective interview; the researcher’s observation notes; and the participants’ test protocols. First, the audiotapes were transcribed. Then it was combined with other types of data in one document, for each participant, to facilitate data retrieval, evaluation and decision making during the analysis. The document was designed to account for the fact that
the think-aloud protocols and the immediate retrospection are the main types of data and that the other data are there to support and provide insights into the evidence found in the protocols and retrospections. After that, all the files were uploaded into Nvivo 10 (a qualitative data analysis software) for analysis.

The current study adopted an inductive data analysis approach using some aspects of the grounded theory. The codes were developed from the data itself. The analysis took several phases. The first phase was for reviewing and exploring the data which is important for preparing the researcher for more informed decisions in the next phases of the analysis. The second phase is the first cycle of coding. The purpose of this phase was to examine all the data for possible codes and generate a complete list of them, define these codes, and resolve any challenges might arise. The third phase of the analysis was a review of the resulted list of codes from the first cycle. The review included the content of the codes, the length of the list, the names of the categories, and the relevance of the codes to their categories. The fourth phase of the analysis was the second cycle of coding using the reviewed list of codes generated in the previous stage. The fifth and last phase of the analysis was a second review of the list of codes (strategies) after the second cycle of coding. The purpose of this phase was to refine the list of codes: check the spelling, names of the codes, repetition and/or overlap between the codes, sequence of presenting the codes and the definitions of the codes. The reliability of the encoded data was measured using intra-coder reliability method (i.e. the probability that the same individual might code the whole set of protocols or part of it, usually 10-25 %, twice using the same categories (Green, 1998)). In this type of reliability, the percentage of agreement between the two coding is calculated. Fifteen per cent of the protocols were recorded and their percentage of agreement with the original coding was 92.98% which is a fairly high degree of agreement. In relation to the validity of the encoded data, several steps were taken to increase the validity. First, the list of codes was a result of a thoughtful analysis which took place over several phases. Second, the list of codes has been reviewed by an expert in strategy research. Third, the list of codes was a result of triangulating data coming from different resources (think-aloud protocols, retrospective interviews, the researcher’s observation and the test protocols). Finally, the list of codes was checked, after the first cycle of coding, against Nevo (1989) and Cohen and Upton (2006) lists of RTTS to increase the validity of the encoded data.

3.5.1 Results
The result of the current study is 127 RTTS categorized under seven main categories and 21 subcategories. These strategies are not a representation of all possible variations of strategy use, rather they are a representation of what the participants in the present study actually used. They mirror the logical flow of events while taking a test.

3.5.1.1 Starting the Reading Test
01. Starting the reading test by reading the title
02. Starting the reading test by reading the instructions
03. Starting the reading test by previewing the test
04. Starting the reading test by reading the questions
   A. Starting the reading test by reading the first question
      a. Starting the reading test by reading the first question stem only
b. Starting the reading test by reading the first question stem and some of the options
c. Starting the reading test by reading the first question stem and all options

B. Starting the reading test by reading some of the questions

05. Starting the reading test by reading the passage
A. Starting the reading test by reading parts of the passage
B. Starting the reading test by reading all of the passage
   a. Starting the reading test by reading all of the passage superficially
   b. Starting the reading test by reading all of the passage thoroughly

3.5.1.2 Reading the Question

01. Reading the stem
02. Reading the stem and one option
03. Reading the stem and some of the options
04. Reading the stem and all of the options
05. Reading the stem and scanning the options
06. Reading the stem and skimming the options
07. Scanning the options
08. Skimming the options
09. Reading an option
10. Reading some of the options
11. Reading all of the options
12. Previewing the question/s
13. Going back to the question
14. Paying attention to the response format of the question

3.5.1.3 Going to the Text (Text Reference)

01. Going back to read the title
02. Visualising the passage
03. Scanning for a highlighted word
04. Scanning
05. Continue scanning
06. Rescanning
07. Skimming
08. Continue skimming
09. Re-skimming
10. Reading a portion of the text
11. Continue reading the following portion of the text
12. Identifying and reading the portion of the passage related to the highlighted word
13. Identifying and reading the portion of the passage related to the question
14. Identifying the determinate word in the text
15. Going back to the passage
16. Going back to read the passage
   A. Going back to read all of the passage superficially
   B. Going back to read all of the passage thoroughly

3.5.1.4 Cognitively Pre-Choosing an Answer Elaboration Strategies

01. Paraphrasing
A. Paraphrasing in L1
   a. Paraphrasing the stem or part of the stem in L1
   b. Paraphrasing an option or part of an option in L1
   c. Paraphrasing a portion of the passage in L1
B. Paraphrasing in L2
   a. Paraphrasing the stem or part of the stem in L2
   b. Paraphrasing a portion of the passage in L2

02. Interpreting in L1 or L2
   A. Interpreting a word in L1 or L2
   B. Interpreting the stem in L1 or L2
   C. Interpreting a part of the passage in L1 or L2

03. Translating

04. Rereading
   A. Rereading a keyword
      a. Rereading a keyword in the stem
      b. Rereading a keyword in an option
      c. Rereading a keyword in the text
   B. Rereading a difficult word
      a. Rereading a difficult word in the stem
      b. Rereading a difficult word in an option
   C. Rereading the stem or part of the stem
   D. Rereading the options
      a. Rereading one option
      b. Rereading some of the options
      c. Rereading all the options
   E. Rereading the stem and options
      a. Rereading the stem and one option
      b. Rereading the stem and some of the options
      c. Rereading the stem and all options
   F. Rereading a phrase, sentence, or a paragraph

05. Rehearsing
   A. Rehearsing a key word in the stem
   B. Rehearsing a key word in the option
   C. Rehearsing a key word or phrase in the text
   D. Rehearsing the stem
   E. Rehearsing the suggested answer

06. Summarising
   A. Summarising in L1 the main ideas of the paragraph
   B. Summarising in L2 the main ideas of the paragraph
   C. Summarising in L1 the main ideas related to the question from memory

07. Reasoning

08. Inferencing

09. Using a pen, pencil, or finger to follow along with the reading

10. Marking the questions or the text
   A. Underlining
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B. Underlining and circling
11. Using visual aids
12. Using the passage structure to locate the answer

3.5.1.5 V. Answering the Question

01. Evaluating an option
   A. Evaluating an option by examining the details of the option
   B. Evaluating an option by re-examining the details of an excluded or previously considered option
   C. Evaluating an option by ceasing to look for the option in the passage
   D. Evaluating an option by using the option to fill in the blank in the stem
   E. Evaluating an option by using the option to replace the word in the text
   F. Evaluating an option by limiting the options to two
   G. Evaluating an option by considering the options and wrestling with the option meaning (Adopted from Cohen and Upton (2006)).
   H. Evaluating an option by eliminating some of the options while reading them

02. Excluding an option
   A. Excluding an option based on thinking it was not mentioned in the passage
   B. Excluding an option based on its containing wrong information
   C. Excluding an option based on background information
   D. Excluding an option based on not knowing the meaning of the option
   E. Excluding an option based on the sound of the word
   F. Excluding an option based on feeling
   G. Excluding an option based on containing irrelevant information
   H. Excluding an option based on finding more evidence that supports another option

03. Nominating an option

04. Suggesting an answer

05. Selecting a preliminary answer
   A. Selecting a preliminary answer based on a word repetition in the options
   B. Selecting a preliminary answer based on matching a word in the option with a word in the text
   C. Selecting a preliminary answer based on memory
   D. Selecting a preliminary answer based on guessing

06. Selecting a second preliminary answer

07. Re-choosing a crossed-out answer

08. Giving an oral account of the answer

09. Choosing an answer
   A. Choosing an answer based on background knowledge
   B. Choosing an answer based on clues in the passage (inferencing)
   C. Choosing an answer based on feeling
   D. Choosing an answer based on guessing
   E. Choosing an answer based on literal matching of a word in the option with a word in the text
   F. Choosing an answer based on matching a word in the stem with a word in the option

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3.5.1.6 Reviewing the Answer/s

01 Checking the answer to a question
   A. Checking the answer immediately as it is chosen or nominated
   B. Checking the answer for a previous question while answering another question

02 Checking the answer for a group of questions
   A. Checking that all of the questions have been completed
   B. Checking only some of the answers at the end of the test
   C. Checking all of the answers at the end of the test

3.5.1.7 Order of Answering the Questions

01. Following the order as written
02. Starting with the easy questions
03. Deciding to leave a question and returning to it later

4.0 Discussion

4.1 Representation of the found RTTS in the literature

Many of the strategies and subcategories of our RTTS have been embodied in various places in the literature. For example, representations of most of the strategies and subcategories in the first category I. Starting the reading test can be seen in studies like Anderson (1991), Cohen and Upton (2007), Phakiti (2003), and Rupp et al. (2006). However, this category developed as an effort to more clearly define this stage of taking a test and to give some order to the strategies and subcategories that constitute it. Likewise, Anderson (1991), Cohen and Upton (2007), and Phakiti (2003) have varying extent of representing many of the strategies available in our second, third, and fourth categories. For example, representations of the 14 strategies in our second category II. Reading the question is limited to a strategy or two that are broader in content and may integrate the different variations that we coded separately. Similarly, our third category III. Going to the text (text reference), which contains 16 strategies, is mainly represented in the form of two strategies: skimming and scanning. Anderson (1991) has also a representation of the second strategy in this group 02. Visualising the passage. Although this strategy occurred only once; it has been coded. The reason for coding this strategy has two folds: first: it was clearly stated in a participant’s retrospective interview, and second: its rare representation in the literature of RTTS. However, our fourth category IV. Cognitively pre-choosing an answer elaboration strategy (i.e. cognitive strategies used when deeply engaged in processing the text or the questions) has a larger representation in these studies. Many of the strategies in the fifth category V. Answering the question (i.e. strategies which describe: how the students evaluate the options, exclude some of
them, and come up with a decision about the answer) can be found in Anderson (1991), Cohen and Upton (2007), and Rupp et al. (2006). Also, some of the strategies in the sixth category VI. *Reviewing the answers* (i.e. strategies used to check the correctness of the answers and/or the completion of the questions) appear in Cohen and Upton (2007), and Phakiti (2003). Finally, the last category in our taxonomy of strategies VII. *Order of answering the question* is denoted in Anderson (1991), Cohen and Upton (2007), and Jamil et al. (2010).

4.1 Other issues
This section focuses on three points. First, the number of strategies extracted in the current study (127 RTTS) in light of the number of strategies in other studies in the literature (Anderson, 1991; Cohen & Upton, 2006; Nevo, 1989; Phakiti, 2003; Purpura, 1999; Rupp et al., 2006). Second, the content/type of these strategies. Lastly, the taxonomy of these strategies.

First, in relation to the number of strategies, studies on RTTS show diversity in the length of their strategy lists. For instance, Nevo (1989) checklist included 15 strategies. Purpura’s (1997, 1999) cognitive and metacognitive strategy questionnaire contained 70 items. On the other hand, Phakiti (2003) cognitive and metacognitive questionnaire consisted of merely 35 items. Researchers who used verbal reports to explore their participants’ RTTS found an array of lists that numbered 47 strategies (Anderson, 1991), 59 strategies (Cohen & Upton, 2006), and 24 strategies (Jamil et al., 2010). Several factors may explain the variation in the number of strategies found in the literature of RTTS. One of these factors is the instrument used to collect the data. The number of strategies in studies based on questionnaires is limited to the number of items in those questionnaires (e.g. Nevo, 1989; Phakiti, 2003; Purpura, 1997, 1999). On the other hand, the number of strategies found in studies based on verbal reports (e.g. Anderson, 1991; Cohen & Upton, 2006; Jamil et al., 2010) varies depending on the interaction of numerous variables, such as the test-taker variables (e.g. age, gender, L2 proficiency level, nationality, verbal fluency, cognitive style, and experience with test-taking), the reading test facets (e.g. the topic, length, type and difficulty of the text; and the type, purpose, length, and difficulty of the questions), the verbal report instructions, and the coding system used. Other factors that may also affect the number of RTTS are the definition of RTTS adopted and the aim of the study. The length of the RTTS list in the current study is larger than any other studies in the existing literature, to the best of the author knowledge. The large number of strategies in the present study is due to the fact that the present study accounts for all detailed subtypes of what is broadly the same strategy in other studies. For example, Anderson’s strategy number 23. *The reader rereads* is further represented, in the present study, by 13 sub-strategies (all of IV. 04.) which represent what is being reread and where it is considered; for instance, IV. 04. A.: a. *Rereading a keyword in the stem*, b. *Rereading a keyword in an option*, and c. *Rereading a keyword in the text*. It is important here to emphasise that the variations of a strategy in the present study represent what the study’s participants actually used and not all possible variations.

Second, the content/type of strategies extracted in the present study is quite different from other studies in the literature. There are several factors that may account for this difference. One of these factors is the difference in the aims of the studies, which can usually be noticed in the type of instructions given to the participants during the data collection. For example, Anderson (1991) and Cohen and Upton (2006) ask their participants to report two things: the “strategies
used while reading and understanding the passage and to report the strategies used in answering the comprehension questions at the end of the passage” (Anderson, 1991, p. 462). This led to strategy lists that contain some purely reading strategies which are not presented in the current study. In fact, the present study and Nevo (1989) focus on whatever strategies used to answer multiple-choice questions in a reading test, including some reading comprehension strategies which occur unavoidably when students read questions or go to the text to look for answers. Other factors that may affect the content/type of strategies found in any study include the time limit, the length of the texts, the type of skills measured, and the type of the task. For instance, Anderson (1991) used both an academic reading task (untimed) and a reading test (timed) as the basis for the verbal report, compared to a timed test in the present study. Another example can be found in Cohen and Upton (2006) who used different types of reading questions as the stimulus for the self-report, compared to one type of questions (multiple choice question) in the present study.

Lastly, the taxonomies of the RTTS in the present study is different. Earlier studies based their RTTS taxonomies on different considerations. For instance, Anderson’s (1991) 47 strategies are divided into five categories based on their function or role, mostly in general reading, which has a stronger presence in his study than in ours. His categories include: supervising strategies, support strategies, paraphrase strategies, strategies for establishing coherence in the text, and test-taking strategies. Rupp et al. (2006), on the other hand, classified their strategies based on the scope of their use (macro and micro level strategies). The macro-level strategies in Rupp et al. (2006) could represent our I. Starting the reading test category, and their micro-level strategies may represent all the other categories. Similarly, Cohen and Upton (2006, 2007) distinguished between reading strategies and test-taking strategies (test-management and test-wiseness). They based their distinction on the skill area of reading and test-taking which reflect the focus of their study. On the other hand, the present study classifies the strategies into seven categories based on the logical sequence of events that take place while completing a test.

As can be deduced from the above discussion, earlier classifications of RTTS in the literature were more based on thematic approaches rather than a narrative approach like the present study. Thus, the sequence of events that happen during a test has not been discussed in the literature and this gives us no room for comparison. In fact, the existing study attempts to come up with a classification that mirrors the students’ experience. In one word, the resulted RTTS taxonomy in the current study is a distinctive example that demonstrates some similarities and differences with the existing taxonomies in the literature. Its differences centre around three themes: the length of the list of strategies, the content/type of these strategies, and their classification.

Conclusion
The current study provides us with an emerging, descriptive taxonomy of what the test-takers do while completing a multiple-choice reading comprehension test. The new list of strategies is more detailed than any of the examples available in the literature and hopefully will help deepen our understanding of the RTTS and their use in MCQs tests’ situations. There is still a need to use this list with different groups of EFL learners while completing different MCQs reading comprehension test to further validate and improve the list and its categories.
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