



Taxonomies in L1 and L2 Reading Strategies: A Critical Review of Issues Surrounding Strategy-use Definitions and Classifications in Previous Think-aloud Research

Tarek A. Alkhaleefah

Al-Imam Muhammad Ibn Saud Islamic University, Saudi Arabia

ABSTRACT

Considering the various classifications of L1 and L2 reading strategies in previous think-aloud studies, the present review aims to provide a comprehensive look into those various taxonomies reported in major L1 and L2 reading studies. The rationale for this review is not only to offer a comprehensive overview of the different classifications in L1 and L2 reading strategy research but to highlight the problem of inconsistencies found in many of these taxonomies and strategy-use definitions due to the different wording used for similar or even the same strategies. Overall, there are four main objectives in reviewing the 41 studies using think-aloud reporting methods. First, the review aims to highlight the considerable overlap of (think-aloud/think-out-loud) taxonomies found in main studies in L1 and L2 reading research (listed in alphabetical order). Second, the review produces a meticulously organized chart to help reduce the confusion caused by the different wording of strategies in verbal protocols. Third, the review aims to contribute to the body of literature reviews in L1 and L2 reading research by presenting a unique and original approach in identifying, comparing, cross-referencing, and addressing overlaps found in many think-aloud taxonomies reported. Finally, the present review aims to introduce the reader to an easier (entries by alphabetical order) and probably more efficient alternative access to comparing strategy-use taxonomies in L1 and L2 reading than some previous reviews available in L1 and L2 reading strategy-use research.

INTRODUCTION

Since the end of the 1970s onwards, there has been a growing interest amongst researchers in investigating the process of reading and how readers' strategies can play a role in the meaning-construction process. Whether in L1 reading research (Afflerbach, 1990a; Crain-Thoreson, Lippman, & McClendon-Magnuson, 1997; Garner, 1982; Hare and Smith, 1982; Kavale & Schreiner, 1979; Kletzien, 1991; Meyers, Lytle, Palladino, Devenpeck, & Green, 1990; Olshavsky, 1976-77) or in L2 strategy research (Abbott, 2006; Alkhaleefah, 2011; Anderson, 1991; Block, 1986, 1992; Davis & Bistodeau, 1993; Fotovatian & Shokrpour, 2007; Hardin, 2001; Hosenfeld, 1977; Lau, 2006;

Mushait, 2003; Pritchard, 1990; Pritchard & O'Hara, 2008; Yoshida, 2007, 2008; Zhang & Wu, 2009), empirical studies on reading strategies have varied in scope, subjects, reading contexts, materials, methods and findings reported. In L2 reading research, this interest in investigating the reading process has been part of a research trend that focused on language learner strategies which examined the types of strategic processes ESL/EFL learners used in language learning contexts (Cohen, 1994; Erler & Finkbeiner, 2007).

Defining strategies: a problematic issue

One of the early debates amongst researchers in L1 and L2 reading research has been maintaining a concise and comprehensive definition of what a 'strategy' means in reading research. Various definitions of the term have been raised. This resulted in some problematic issues surrounding the term and what it involves (see Appendix A for the various definitions in the literature). First, there is the question of whether strategies are seen as *conscious* or *unconscious* behaviors. To Birch (2002), Davies (1995) and Johnston (1983), strategies can be *both* as long as they are aimed at either facilitating or solving comprehension of the text. Birch (2002: 2) asserts that "[t]he processing strategies can be optionally consciously or unconsciously applied; that is, they can operate automatically beneath the level of our awareness or they can kick in selectively because of our attention to something we perceive." However, these views might not be shared by other researchers (Block, 1986; Brown, 1980; Cohen, 1989, 1990; Garner, 1987; Pearson, Roehler, Dole and Wixson, 1994) to whom strategies can only be consciously executed by a reader who employs some strategic processing in constructing meaning from text. It is this conscious control over the cognitive processing that sets *strategies* apart from *skills* which are often viewed as being automatically processed beyond the reader's conscious knowledge (Block, 1986; Cohen, 1989; Garbe and Stroller, 2002; Pritchard, 1990a). Davies (1995), however, asserts her view that strategies can be utilized within or beyond readers' conscious knowledge. Grabe (2009: 221) recognizes that "strategies are cognitive processes that are open to conscious reflection but that may be on their way to becoming skills" although he acknowledges that such distinction is not always distinct in different contexts where conscious use of strategies cannot be determined.

Thus, if strategies are argued to be inherently conscious cognitive activities, then readers should use them to achieve certain purposes. In other words, strategies should be seen as *goal-oriented* processes carefully and *deliberately* selected by readers when approaching texts (Abbott, 2006; Anderson, 1991; Brown, 1980; Kletzien, 1991). Garner (1987: 163), for instance, asserts that a strategy is "something executed by a learner, often as a mean of attaining a goal (e.g. reading part of the text), something either developed or selected to make cognitive process or to monitor it." Similar views are also expressed by Olshavsky (1977: 656), who regards a strategy as "a purposeful means of comprehending the author's message," and by Paris, Waskik and Turner (1991: 692) to whom strategies mean "actions selected deliberately to achieve particular goals." A similar definition is also suggested by Carrell, Gajdusek & Wise (1998: 97) who view strategies as "actions that readers select and control to achieve desired goals or objectives." To Graesser (2007: 6), a reading comprehension strategy is "a cognitive

or behavioral action that is enacted under particular contextual conditions, with the goal of improving some aspect of comprehension.”

Another view of cognitive strategies is that readers often resort to them to attack or solve problems that arise throughout the reading process. In other words, strategies are seen as *problem-solving tactics* (Barnett, 1988; Garner, 1982; Johnston, 1983; Kletzien, 1991; Yang, 2006). To Garner (1987: 50) strategies are “generally deliberate, planful activities undertaken by active learners, many times to remedy perceived cognitive failure.” Similar views are also expressed by Yang (2006: 335) who claims that strategies are “cognitive actions taken to repair problems resulted from the insufficiency of language knowledge and to get liberal meaning.”

One of the aims of this review is to accommodate for the various definitions of strategies in L1 and L2 reading research. As will be discussed later, part of the inconsistency and overlapping that emerge from previous taxonomies in the reading strategy research is often due to these various conflicting definitions of the word ‘strategy’ (see Appendix A). In a more cautious approach, the researcher views reading strategies as involving four attributes mentioned earlier. In other words, the term ‘strategies’ can be defined as *any physical or mental processes that are consciously and deliberately employed by EFL/L2 readers in order to either solve problems in and/or facilitate comprehension of texts during the reading task(s)* (Alkhaleefah, 2011: 31-32). We believe that our definition of reading strategies account for the various issues addressed in this review of those previous studies that defined the term.

Strategy-use taxonomies in L1 and L2 reading research: the problem of inconsistencies and overlapping

With a growing interest in reading strategy research, many studies have provided various classifications of reading strategies elicited through a number of instruments that include questionnaires, introspective and retrospective verbal reports, recalls, and so forth. However, this paper is only interested in reviewing studies that utilized verbal reporting (think-alouds) to draw on the cognitive and metacognitive processes readers engage in when undertaking various tasks. Before reviewing the major classifications of strategies in some of the main L1 and L2 reading studies, we need to make an important note here. A careful review of this line of research in reading strategies reveals striking inconsistencies and conflicting views on how strategies are classified.

Given the knowledge that investigators differed in their definitions of reading strategies, it is not surprising that categorizing the strategies varied as a result. Some of these studies applied two or three general categories (Block, 1986, 1992; Fagan, 1987; Hosenfeld, 1984, Olshavsky, 1976/1977) some four or five broad categories (Anderson, 1991; Kucan & Beck, 1996; Pritchard, 1990) and some studies extended their strategy-use taxonomies beyond the five categories (Alkhaleefah, 2011; Lau, 2006; Mushait, 2003; Pang, 2006).

For instance, Olshavsky (1976-77) classified her subjects’ strategic processing into word-level strategies, clause-related strategies and story-related strategies. The first category included strategies like 1) use of context, 2) synonym substitution, and 3) stated failure to understand a word, and the second category consisted of 4) re-reading,

5) inference, 6) addition of information, 7) personal identification, 8) hypothesis, and 9) stated failure to understand a clause while the third category included 10) use of information about the story. Extended taxonomies in L2 reading strategies were introduced almost ten years later when Block (1986) reported two main categories of strategies used by ESL readers: *general (comprehension) strategies* and *local (linguistic) strategies*. The first includes 1) anticipating content, 2) recognizing text structure, 3) integrating information, 4) questioning information in the text, 5) interpreting the text, 6) using general knowledge and associations, 7) commenting on behavior or process, 8) monitoring comprehension, 9) correcting behavior, and 10) reacting to the text. The second category includes 11) paraphrasing, 12) rereading, 13) questioning meaning of a clause or sentence, 14) questioning meaning of a word, and 15) solving vocabulary problem.

Sarig (1987) provided another taxonomy which listed 35 ‘reading moves’ used by L2 readers and classified them into four major categories: 1) technical-aid moves (moves the reader uses to facilitate text processing), 2) clarification and simplification moves (moves the reader uses to clarify and/or simplify utterances in the text), 3) coherence-detecting moves (moves that display the reader’s intention to produce coherence from the text), and 4) monitoring moves (moves displaying the reader’s active monitoring of text processing (whether metacognitively conscious or not). Three years later, Pritchard (1990) identified 22 processing strategies L1 and L2 readers employed when reading two texts. These processes were classified into five major categories: 1) developing awareness, 2) accepting ambiguity, 3) establishing intrasentential ties, 4) establishing intersentential ties, and 5) using background knowledge. Similar strategies were also reported in Anderson’s (1991) taxonomy which included 47 reading and test-taking strategies classified into five major categories: 1) supervising strategies, 2) support strategies, 3) paraphrase strategies, 4) strategies for establishing coherence in text, and 5) test-taking strategies.

Introducing an original approach in addressing inconsistencies in most of previous taxonomies of L2 reading strategies

Considering these various definitions (see Appendix A) and strategy-use taxonomies in previous think-aloud reading studies, the present paper aims to provide a comprehensive review of various taxonomies reported in major L1 and L2 reading studies (see Appendix B), listed in chronological order, which involved a variety of different reading tasks and procedures (e.g., some involve test-taking instructions, some using retrospections, etc.). The rationale for this review is not only to offer a comprehensive overview of the different classifications in reading strategy research but to highlight the problem of inconsistencies in many of these taxonomies due to the different wording used for similar or even the same strategies. As for our classification of the reading strategies, categorizing the (explicit) problems and cognitive and metacognitive reported by EFL readers should reflect our view of reading as an interactive process involving bottom-up and top-down processing as we expect that EFL readers process different texts from different word and text levels.

Overall, there are *four* main objectives in reviewing the 41 studies using think-aloud reporting methods. First, the review aims to highlight the problematic overlap of (think-aloud/think-out-loud) taxonomies (listed in alphabetical order) found in many

studies in L1 and L2 reading research. Second, the review produces a meticulously-structured table to help reduce the confusion arising from the different wording of strategies in verbal protocols. Third, the review aims to contribute to the body of literature reviews in L1 and L2 reading strategy research by developing an unprecedented approach in identifying, comparing and addressing overlaps found in many think-aloud taxonomies reported. Finally, the present review aims to introduce the reader to an easier (entries by alphabetical order) and probably more efficient alternative access to comparing strategy-use taxonomies in L1 and L2 reading than some previous reviews available in the literature. Our main approach was to group those individual strategies that are similar in meaning and/or purpose but *different* in wording in one single row and that, when necessary, across-reference comparison of similar strategies has been stated in bold font (e.g., ‘See **Predicting**’ in Appendix B)¹. Those cognitive and metacognitive processes singling *explicit* difficulties/problems reported by L1 and/or L2 readers are inferred by the researcher and identified in *grey* color for easy marking (see Appendix B), although most studies reported these processes as reading strategies and not problems *per se*. However, we argue that stating a problem during a think-aloud reading task does *not* necessarily imply a strategy being executed. For instance, one of the common behaviors coded in previous studies is a reader ‘*stating failure to understand a word*’ or ‘*acknowledging lack of knowledge about the content*’ which many studies (e.g., Anderson, 1991; Crain-Thoreson, Lippman & McClendon-Magnuson, 1997; Olshavasky, 1977) regarded a strategy. Although a reader’s awareness of certain problems in reading can be regarded as prerequisite for executing problem-solving strategies, this knowledge in and by itself does *not* necessarily qualify it to be labelled as strategy which should imply an action being taken.

CONCLUSION

This review should help future research identify the overlapping and sometimes conflicting definitions of reading strategies found in the literature. But most importantly, this review should draw researchers’ attention to the various taxonomies of strategy use in L1 and L2 reading process and how emerging taxonomies in future studies can be cross-referenced to those categories of codes that are similar in purpose and/or functions but might still be different in the wording. In other words, future research in L2 reading problems and strategies should be attentive to the numerous existing strategy-use taxonomies when engaged in the qualitative coding of EFL readers’ cognitive processing of texts. Hence, our hope is that this review can help provide L2 think-aloud reading research with a more efficient and accessible approach not only in identifying inconsistencies in strategy use definitions and taxonomies but in comparing them to those pre-existed taxonomies (listed in the alphabetical order in Appendix B) found in previous think-aloud reading studies.

As for the implications of this review to language teaching, our comprehensive review can provide help to EFL teachers in selecting the most appropriate list of cognitive and metacognitive strategies (as covered in the review) to design L2 reading

¹ What proceeds // (OR) refers to the exact wording of strategies identified in some studies (although similar in meaning to other strategies grouped within the same box) with each similar strategy beginning with a capital letter

strategy instruction lessons for EFL students who might lack sufficient and efficient training in strategy use. Furthermore, it is our hope that the present review can assess EFL teachers in recognizing the large variety of strategic processing that EFL readers can produce in think-aloud reading tasks. Hence, language teachers might be interested in conducting action research that looks into learners' practical reading difficulties and problem-solving strategies via making use of concurrent think-aloud activities (with different tasks and text types) in the classroom.

However, it is important to mention the limitations of our approach in reviewing and comparing the 41 taxonomies of individual strategies. For instance, the table (Appendix B) does not include studies using *inventories/questionnaires* of reading strategies or *recalls* but only limited to think-aloud/self-reports studies. Another limitation of our approach is that it was almost impossible to make one-to-one connection between a given study and the exact wording of its list of strategies (only grouping of same or similar strategies used in studies is given here) nor does the table (Appendix B) provide information on main categories of strategies used in studies since it only shows *individual* strategies reported but not *categories* of these strategies.

Tarek Alkhaleefah is currently an Assistant Professor of Applied Linguistics in the College of Languages and Translation (CLT) at Al-Imam Muhammad Ibn Saud Islamic University, Saudi Arabia. He holds an MA in English from California State University, Long Beach (CSULB) and PhD in Applied Linguistics from University of Essex, UK. His main research interests include EFL/ESL reading, language learning/learner strategies, metacognition, individual differences in language learning, and mixed-methods research in ELT.

E-mail: takhalifa@imamu.edu.sa

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Appendix A: Summary of the various definitions of reading strategy(ies) in L1 and L2 reading research

STUDY	DEFINITION OF READING STRATEGY(IES)/ STRATEGIC PROCESS(ES)	KEYWORDS NOTED IN THE DEFINITION
Olshavsky (1976-1977)	“..purposeful means of comprehending the author’s message” (p. 656)	RS as <u>purposeful means</u>
Brown (1980)	“any deliberate, planful control of activities that gives birth to comprehension” (p. 456)	RS as <u>deliberate</u> and <u>planful</u>
Garner (1982)	“..something executed by a learner, often as a means of attaining a goal (e.g. reading part of a text), something either developed or selected to make cognitive process or to monitor it” (p. 163)	RS as <u>attaining a goal</u>
Johnston (1983)	“..reading comprehension...involves conscious and unconscious use of various strategies, including problem-solving strategies, to build a model of meaning which the writer is assumed to have intended.” (p. 17)	RS as <u>consciously</u> and <u>unconsciously</u> employed RS as <u>problem solving</u>
Van Dijk & Kintsch (1983)	“..the idea of an agent about the best way to act in order to reach a goal” (pp. 64-65)	RS aimed for <u>a goal</u>
Block (1986)	“comprehension strategies indicate how readers conceive a task, what textual cues they attend to, how they make sense of what they read, and what they do when they do not understand” (p. 465)	RS as <u>making sense of</u> texts read
Cohen (1990)	“...those mental processes that readers consciously choose to use in accomplishing reading tasks. Such strategies may contribute to successful comprehension or detract from it. In principle, what distinguishes strategies from other processes is the element of choice involved in their selection” (p. 133)	RS as being a <u>conscious process</u> and involving the <u>element of choice</u> on the part of the reader
Garner (1987)	“..generally deliberate, planful activities undertaken by active learners, many times to remedy perceived cognitive failure” (p. 50)	RS as being <u>deliberate</u> and <u>planful</u> RS as <u>remedying cognitive failure</u>
Barnett (1988)	“..the mental operations involved when readers approach a text to effectively and make sense of what they read. These [are seen as] problem solving techniques..” (p. 150)	RS as <u>purposeful</u> for readers
Pritchard (1990a)	“..a deliberate action that readers take voluntarily to develop an understanding of what they read” (p. 275)	RS as <u>deliberate actions</u>
Wade, Trathen, & Schraw (1990)	“..a deliberate action—the conscious selection of one alternative over another. Thus, it is accessible to introspection and conscious report” (p. 149)	RS as <u>conscious & deliberate actions</u>
Anderson (1991)	“..deliberate, cognitive steps that learners can take to assist in acquiring, storing, and retrieving new information” (p. 460)	RS as <u>deliberate steps</u> used for <u>different purposes</u>

Paris, Wasik & Turner (1991)	“..actions selected deliberately to achieve particular goals” (p. 692)	RS as <u>deliberate</u> and <u>goal-oriented Actions</u>
Kletzien (1991)	“..an action (or series of actions) that is employed in order to construct meaning (Garner, 1987). Readers who know what strategies are, how to use them, and when they are appropriate are considered to be strategic readers (Paris, Lipson, & Wixson, 1983a)” (p. 69) “..deliberate means of constructing meaning from a text when comprehension is interrupted” (p. 69)	RS as <u>deliberate</u> and <u>problem-solving</u>
Pearson, Roehler, Dole & Duffy (1992)	“..conscious and flexible plans that readers apply and adopt to particular texts and tasks” (cited in Jimenez, Garcia & Pearson, 1996)	RS as <u>conscious</u> and <u>flexible plans</u>
Paris, Lipson, & Wixson (1994)	“..deliberate actions and therefore are available for introspection or conscious report. They may not always be accurate or useful but strategies are identifiable to the agent and to others by intentions and selected goal states. In a sense, strategies are <i>skills under consideration..</i> ” (p. 790) “Strategies are not necessarily different actions [than skills]; they are skills that have been taken from their automatic contexts for closer inspection.” (p. 790) “Because strategic actions are, in a simplified sense, skills that are made deliberate, it follows that a ‘strategy’ can mirror any level of skill.” (p. 791)	RS as <u>conscious & deliberate actions</u>
Davies (1995)	“..a physical or mental action used consciously or unconsciously with the intention of facilitating text comprehension and/or learning” (p. 50)	RS as <u>physical</u> or <u>mental</u> RS used <u>consciously</u> or <u>unconsciously</u>
Jiménez, García & Pearson (1996)	Strategic processing in reading defined as “any overt purposeful effort or activity used on the part of the reader to make sense of the printed material with which he or she was interacting.” (p. 98)	RS as <u>overt purposeful effort/activity</u>
Carrell, Cajdusek, & Wise (1998)	“..actions that readers select and control to achieve desired goals or objectives” (p. 97)	RS as <u>goal-oriented actions</u>
Chamot & El-Dinary (1999)	“..mental procedures that assist learning and that occasionally can be accompanied by overt activities” (p. 319)	RS as <u>mental procedures</u>
Birch (2002)	“..strategies allow the reader to take the text as a source of information, and, drawing on the knowledge base as another source, make sense of what is on the printed page. The processing strategies can be optionally consciously or	RS as <u>optionally consciously</u> or <u>unconsciously</u> used

	unconsciously applied; that is, they can operate automatically beneath the level of our awareness or they can kick in selectively because of our attention to something we perceive.” (p. 2)	
Abbott (2006)	“..the mental operations or comprehension processes that readers select and apply in order to make sense of what they read” (p. 637)	RS as <u>mental operations</u> that readers <u>select</u> and <u>apply</u>
Yang (2006)	“..cognitive actions taken to repair problems resulted from the insufficiency of language knowledge and to get liberal meaning” (p. 335) <u>Comprehension monitoring strategies</u> are “those intentional techniques by which readers monitor or manage their reading” (p. 337)	RS as <u>cognitive actions</u> used to <u>repair problems</u>
Graesser (2007)	“..a cognitive or behavioral action that is enacted under particular contextual conditions, with the goal of improving some aspect of comprehension” (p. 6)	RS as <u>cognitive or behavioral action</u> with the <u>goal of improving comprehension</u>
Grabe (2009)	“..processes that are consciously controlled by readers to solve reading problems.” (p.221).	RS as <u>consciously controlled</u> to <u>solve problems.</u>
Alkhaleefah (2011)	“..any physical or mental processes that are consciously and deliberately employed by EFL/L2 readers in order to either solve problems in and/or facilitate comprehension of texts during the reading task(s)” (pp.31-32)	RS as <u>physical or mental processes,</u> <u>consciously</u> used to <u>solve problems</u> and/or <u>facilitate comprehension</u>

Appendix B: List of strategies identified in taxonomies in main L1 and L2 reading studies employing think-aloud protocols/self-reports (introspective and retrospective) for different reading tasks and contexts.

MAIN L1 AND L2 STUDIES IN READING STRATEGIES	
READING STRATEGIES REPORTED (in alphabetical order)	Olshavasky (1976-77)
	Hosenfeld (1977)
	Olson, Duff & Mack (1984)
	Hare & Smith (1982)
	Bereiter & Bird (1985)
	Block (1986)
	Sarig (1987)
	Meyers et al (1990)
	Afflerbach (1990b)
	Pritchard (1990)
	Wade, Trathen & Schraw (1990)
	Horiba (1990)
	Kletzien (1991)
	Anderson (1991)
	Fehrenbach (1991)
	Block (1992)
	Kletzien (1992)
	Davis & Bistodeau (1993)
	Deegan (1995)
	Kucan & Beck (1996)
	Jiménez, García & Pearson (1996)
	Crain-Thoreson et al (1997)
	Shearer, Lundeberg & Coballes-Vega (1997)
	Chamot & El-Dinary (1999)
	Narvaez, van den Broek & Ruiz (1999)
	Abdulmajid (2000)
	Hardin (2001)
	Van den Broek, Lorch, Linderholm & Gustafson (2001)
	Linderholm & van den Broek (2002)
	Mushait (2003)
	Bråten & Strømsø (2003)
	Lau (2006)
Parera (2006)	
Abbott (2006)	
Pang (2006)	
Yang (2006)	
Pritchard & O'Hara (2008)	
Zhang, Gu & Hu (2008)	
Lee-Thompson (2008)	
Alkhalafah (2011)	
Lin & Yu (2015)	

<p>Guessing meaning of words// (OR) Guessing using immediate context// (OR) Guessing a word from its context// (OR) Using context// (OR) Guessing word meaning// (OR) Guessing meaning of unknown word using contextual clues// (OR) Use of context using clues// (OR) Guessing meaning of the current context// (OR) Use of context// (OR) Using context clues to interpret a (difficult) word or phrase// (OR) Using local context clues to interpret a word or phrase// (OR) Using context clues// (OR) Make use of contextual cues to interpret a different word// (OR) Using textual sources (including dictionaries)</p>	•																																													
<p>Guessing by using morphology/grammar// (OR) Guessing a word from its lexical structure// (OR) Guessing morphological/ grammatical function of word/ phrase (see Use of context)</p>																																														

<p>Inference(s)// (OR) Inferring// (OR) Using inference or drawing conclusions// (OR) Drawing an inference based on information presented in the text// (OR) Making an inference or drawing conclusions// (OR) Inference or use of evidence to assess hypothesis or prediction, to answer own question, or to resolve doubt (as a Reasoning move)// (OR) Inferencing (as part of Parsing/organization)// (OR) Inferencing (as part of Background knowledge)// (OR) Inferring ideas from text// (OR) Make elaborative inference to interpret the content of the text (such as relationships among the characters, characteristic of the characters, cause and effects of the incidents, etc.)// (OR) Make elaborative inference to achieve in-depth understanding of the theme// (OR) Reinstatement inferences (See Considering</p>	•		•					•					•	•			•					•	•		•	•				•	•															
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<p>Re-reading (e.g., text, unknown word, phrase, etc)// (OR) Rereading selected portions of the text// (OR) Repeated reading of same decoding unit// (OR) Rereading difficult part to resolve comprehension difficulty// (OR) Rereading aloud// (OR) Backtracking// (OR) Rereading previous text// (OR) Rereading portions of text aloud without adding any comments// (OR) Rereading parts of the text to increase memory of it, facilitate question answering or clarify unclear parts (as post reading strategy)// (OR)Text repetitions</p>	•			•	•	•	•			•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<p>Re-accessing the lexicon to try to find/recall the meaning of a word he/she thought to be known// (OR) Repeating a selected word to locate/retrieve or confirm its meaning within mental lexicon</p>																									•					•													•		
<p>Reacting (affectively) to the text// (OR) Make affective reactions to the overall content of the text// (OR) Emotional reaction</p>					•																																							•	

<p>Stating failure to understand a word/ (OR) Failing to understand a word// (OR) Recognizing a problem in retrieving meaning of an unknown word/phrase// (OR) Recognizing a problem in comprehending meaning of an unknown word/phrase</p>	•																																											
<p>Stating failure to understand a clause</p>	•																																											
<p>Stating failure to understand a portion of the text// (OR) Stating failure of comprehending a portion of the text// (OR) Failing to understand story//(OR) Recognizing/ acknowledging problem in comprehending text (or part of it)</p>							•																																					
<p>Stating success in understanding a portion of the text// (OR) Signalling understanding by reporting understanding of text without paraphrasing// (OR) Providing evidence of recognition of successful comprehension (same as Understanding)</p>							•																																					
<p>Stating title of the text</p>																																							•					

