Basic Concepts of Reading Instruction

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ABSTRACT

Reading act is performed by connected physiological, psychological and cognitive processes. The operations taking place in these processes are expected to continue for life by being developed with certain strategies. A lot of information is gained with reading skills in education life. Therefore, basic concepts that constitute reading education in teaching and improving reading are important for teachers. The aim of this study is to submit information compiled from the literature about reading education process and which basic concepts are used in reading education. While teaching reading from part to whole, from whole to part and interactional approaches are used. From part to whole approach is at the forefront. Then with interactional approach strategies, both code solving and making sense is improved. Teachers should know the characteristics of bouncing, stopping, turning back, and scanning movements of the eye both in code solving and making sense. The teacher should configure the teaching for the students to gain fluid reading elements by making use of reading out and reading silently. After reading act is acquired; good reader characteristics should be gained by improving asking questions, guessing, summarizing, and interpretation skills in integrated readings. Reading skill is improved by studies on the text. Therefore, the students should come across texts that are suitable to their levels, textuality and readability criteria. The vocabulary of children should be improved in a planned way with text-based word and meaning studies. Reading fluency, making sense and interpretation skills of children should be pursued with different evaluation types. In the long term, work should be done to make reading a habit for them.

Key Words: Reading instruction, eye movements, reading strategies, comprehension.

1. Introduction

Reading is a crucial skill which takes us to choosing wisely from piles of information presented in several forms in an information society (Yıldız & Okur, 2013), using other information acquired by utilizing different types of literacy (visual, media, academic, graphical, financial, cultural, etc. literacy) when learning new information and producing information based on the reading is based on association "word groups, sentences, inter-sentence relationships, inter-paragraph connections, comparison between the whole text and preliminary knowledge, etc.) and meaning making as well as perception of visual elements (recognition of letters and forms, and words) (Arı, 2014a: 539).

Reading is described as a complicated process as it covers interrelated physical and cognitive attributes. Individuals try to improve the reading skill acquired in primary school with many aspects of it in secondary school. It is enhanced with literature classes in secondary education to continue for a lifetime. Alongside the world knowledge, academic knowledge and problem-solving skills are reinforced with reading. In this sense, it is of importance in affecting individuals' thinking skills. Reading education, which concerns the individual-social aspect of reading, is provided with

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curriculum, textbooks, instructional process and methods, and other printed and electronic materials, etc. Reading skill enables student to access different resources to meet new information, events, situations and experiences (Özbay, 2007: 4). Since this would be a lifelong case, reading skill is crucial due to guiding individuals' activities such as acquiring information, learning, and having fun both during the academic life and later. Students can learn how to comprehend themselves and their surroundings and steer their attitudes and behaviors by developing certain emotions and thoughts about the world and life by means of reading skill. When they make a habit out of reading, they can remove the obstacles before the ability to improve themselves further affectively and cognitively (Arı & Okur, 2013).

Reading is to vocalize letters and signs that constitute a text or comprehend the thought (Turkish Language Association - TDK, 2011). Two dimensions of reading in the educational process are addressed in this definition: decoding and comprehension of texts. A reader learns the rules of decoding the text first and then the rules of making meaning from the decoded text (Banks et al., 1990). After having learned how to read, the reader becomes the receiver who communicates with author. Akyol (2012: 1) defines the reading which emphasizes this as follows: It is a meaning making process based on the communication between author and reader which utilizes preliminary knowledge and is performed in an organized environment in accordance with a proper method and objective. Basic attributes of reading which involves the process of making meaning from the written text, requires cooperative operation of interrelated information resources and is a complicated skill can be summarized as follows (Anderson et al. 1985: 17-18):

• It is the process of constructing the information.

• It must be fluent.

• It must be strategic.

• It must be motivating.

• It takes a lifetime.

The study describes foci including the eye movements, learning to read, construction of information, reading fluency, reading comprehension strategies and reading habit which represent the basic attributes and concepts that form the reading education.

2. Eye Movements and Cognitive Processes in Reading

The first step in the performance of the reading action by any healthy person is to see. Cicero who observed that a text which is seen is kept in mind better than a text which is heard introduced the idea that "the keenest sense is eyesight" (Manguel, 2015). Studies conducted since the time of Cicero to date have proven this idea. It has been accepted at the end of detailed that 70% of the information that arrives at human brain is through eyes (Durna & Arı, 2016). Some researchers argue that this rate is 80% (see Doğan, 2001). Consequently, most of the information that comes to brain is conveyed via eyes and processed in related centers in the brain.

Eyes are in motion during reading. This motion is not a constant, slidable movement but performed basically in two ways: "saccade" and "fixation". We can point out the French researcher Javal as the source of this core information (Göğüş, 1978; Güneş; 1997, Akyol, 2012). Javal explored in 1789 that eyes cannot acquire information from the page constantly but by pausing from one point to another during reading (Samuels et al., 2011). Saccade and fixation are very fast eye movements that can be measured in milliseconds. Eyes cannot see when they are saccadic. Smith (2004: 85) described it as functional blindness as eyes cannot see. Fixation is very quick and visual information (acquired by reading) is conveyed to brain to be processed during the pausing time. Saccade is quicker than fixation because no visual information flows from eyes to brain during saccade (Smith, 2004, Rayner & Liversedge, 2004; Kucer, 2014). The previous visual information is emptied in the short-term memory in each new fixation. This is called masking (Kucer, 2014: 128). Visual information in the text can be drawn out only during fixation (Wolverton & Zola, 1983). In other words, the reader needs to pause to process the information out of the text. Along the saccades and the consequent fixations, visual information conveyed to brain by millions of neurons tries to enable comprehension by being processed with readily available non-visual (preliminary) knowledge. It can be thought that these eye movements have a direct impact on reading fluency, reading accuracy, and legibility.

During reading, sight has an angle of 2 degrees in the field of vision (Rayner, 1995; Yalçın, 2002; Samuels, et al., 2011). Yet, what matters in saccade is not angle but letter-spacing (Rayner, 1995). During fixation, how many letters or characters eyes see and findings about the fixation time differ. Fixation is generally within the range of 6-8 letters (Rayner, 1995; Rayner & Liversedge, 2004, Samuels, et al., 2011). Some researchers (Wolverton & Zola, 1983; Reichle et al., 1998) determined that it is 5-9 characters. Brysbaert et al. (2005) argues that it is 1-18 letters while Legge et al. (2007) suggests that it differs from 6 to 7 at an accuracy of 80%.

Decision of the eye for saccade at the moment of sight is a direct attribute of brain's word processing. It is about whether brain knows a given word or forms. Saccade is decided to achieve a greater meaning. If the words or units processed in the brain are recognized or known, sight leaps forward (saccade). In case of not recognizing or knowing the words or forms during processing in brain, eyes do not move or do go back for accessing the meaning. Meanwhile, intermittent or skip eye movements longer than saccade can be referred to. Eyes do not fixate for every word in the text during reading. Readers skip parts of a text that are foreseeable or easily predictable as soon as general expressions or phrases end (Anson & Schwegler, 2012). Rayner (1997) find that readers fixate about 70% to 80% of the words in a text. This rate is 60% in the study conducted by Poulson and Goodman (2008). Duckett (2002) states in the study conducted with first-grade students that good readers did not fixate the words but read them orally.

Some researchers, i.e. Engert et al. (2002), argue that decision for saccade is made by automaticity based on time and this depends on certain conditions and attributes. Consequently, part of brain associated with linguistics guide the eye movements during reading (Rayner & Liversedge, 2004). Millions of neurons transport visions to brain. Visions are processed here with preliminary knowledge. There is no reading center in brain. Many parts of brain work during reading (Smith, 2004). After information transmitted from eyes to brain via neurons has been subjected to the process of clarification and decomposition, filtering and evaluation are performed in the recognition center. The information is process for the last time in the vision interpretation area (Yalçın, 2002).

Mind focuses on a meaning-making activity regarding what has been read during the reading process. Reading skill is situated as a model system among cognitive approaches to establish connection between cognitive operations associated with low-level perceptual processes and high-level linguistic functions of brain systems (Schlaggar & McCandliss, 2007). All activities performed by the individual in accordance with this model is the same perceptually; however, different texts construct individual's mind activities by the constant improvement of preliminary knowledge in the light of new information (Arı, 2014a). Research shows that eyes cannot catch up with brain's working and apprehension speed no matter how fast they move (Yalçın, 2002).

Especially teachers who teach to read should update their knowledge on eye movements and follow research on eye movements because perceptions, wishes, and performances change with generations

3. Learning to Read

Learning to read means problem-solving for a child (Yıldız and Okur, 2013). There are three approaches for learning and improving to read in the literature for learning and improving to read (Gunning, 2006; Akyol, 2012; Karatay, 2014; Çakır, 2015):

Part-to-whole: The main point in this approach is encoding. Individuals advance from low-level to high-level cognitive processes stage by stage (Gunning, 2006; Akyol, 2012). In other words, upon the establishment of the sound-letter relationships, it requires a ranking toward sentences and text.

Students can learn to read gradually from the beginning to the end of the first grade. The process of learning to read is composed of the following phases (Yıldız, 2003: 90):

• Acoustic analysis of sounds in the language

• Optical analysis of letters

• Recognition of sound-letter relationships and placing them in brain

• Making words out of letters and letter combinations (syllables)

• Comprehension of words' and sentences' meanings

Students are taught the sounds in words they have known at first. The purpose with this is to introduce frequently used words and sounds and provide infrastructure for visual material. Next, forms and sizes of letters are introduced. Sounds and letters are matched to improve students' awareness. Writing and reading activities are performed simultaneously and the phase of word recognition is next. By the time students learn to read, meaning activities on words and sentences are started. Time of learning to read may vary depending on individual differences.

Whole-to-part: It is the approach related to meaning making and is based on confirmation of guesses. In other words, it aims to reach sentence and reading content with guesses in accordance with morphologic attributes. Reading comprehension requires information and explanation for guessing the meaning instead of decoding each letter. According to Goodman, word processing takes place through the phases of recognition, guessing, approval, confirmation, finalization (in Karatay, 2014).

Reading researchers criticize the whole-to-part model and argue that the part-to-whole approach is better (Gunning, 2006; Akyol, 2012; Karatay, 2014).

Two basic ways are accordingly followed in learning to read. Phonics-based (part-to-whole) and sentence-based reading (whole-to-part).

Transactional approach: Experts suggest that holistic and analytic approaches cannot explain reading completely. Reader operates both with low-level and high-level skills. Hence, two domains of memory are in progress in the operation of memory. Reading does not proceed linearly (Gunning, 2006; Akyol, 2012). This approach attaches importance to both decoding and meaning making. The reader learns to infer meaning and organize his/her preliminary knowledge.

The wrong use of the right method for learning to read is not failure of the method or student but the failure of teacher (Binbaşıoğlu, 1988a). What matters in the end is to know how to use methods and strategies in accordance with these approaches.

3.1. Reading Fluency

Involving elements such as word recognition, automaticity, reading accuracy, decomposition, prosody [stress, tone, pause, rhythm] (Kuhn, Schwanenflugel and Meisinger, 2010) reading rate, reading fluency constitutes an important aspect in the acquirement and improvement of reading skill. According to Zuttel and Rasinski (1991), fluent reading is reading performed automatically without showing much effort for word recognition, by paying attention to meaning units within sentences, applying intonation and stresses properly where necessary and reflecting author's excitement and emotions on the act of reading (in Keskin, 2012: 20). However, it does not have an exact and clear definition in the literature. Basic concepts of reading fluency associated with skills are as follows (Wolf & Katzir-Cohen, 2001): automaticity, processing rate, reading rate, word recognition. Fluency provides information about how well a child comprehends, how automatic his/her word recognition and his/her ability to use strategies when facing new words (Serravallo, 2010: 31). Hence, fluency reading plays a key role both learning, acquirement, and development of reading skill and the achievement of comprehension.

Word recognition: A word is a linguistic unit which is composed of one or more syllables, equivalent of a concrete or abstract concept when used alone in mind between individuals who speak the same language (meaningful words) or contribute to establishment of temporary relationships between concrete or abstract concepts (functional words) (Korkmaz, 2007: 144). Word recognition is defined as the process of identifying a pronunciation or part of a word's meanings (Harris & Hodges, 1995: 282). The relationship between word recognition and word interpretation can be explained with two theories (Akyol, 2012: 201): sentence context and alphabet knowledge through sound-letter relation.

Reading rate: Identifying the reading rate is based on measuring number of words read in a given time. Reading rate can be measured with several methods. It is determined how long it takes to read a text in seconds and the words in the text are counted. Number of words is divided by the second. This is the reading rate of the text. When the result is multiplied with 60, it is the number of words read a minute. The following is the most accepted method: Chronometer is started and the text is read.

Chronometer is stopped when it is one minute. Words are counted. However, words that have been read improperly should be deduced from this number.

Reading accuracy: It is the act of uttering the sounds that constitute a word completely, clearly, audibly and in a way that they do not mean anything else without adding, skipping, omitting sounds and by hitting the right notes. The contrary of this term, misreading, is an error made by children frequently during the period of learning to read and adults from time to time.

Prosody and prosodic elements: Prosodic reading is performed by paying attention to the pieced of meaning with rhythm and proper voice tone that possess the reading text (Dowhower, 1991). Prosodic speech and oral reading are situated in the center of auxiliary elements within the shared concept area of reading fluency. The reason is that all elements that provide pronunciation are in a complementary role. Because core components of speech/oral reading are articulation, raising/lowering voice, intonation, stress, stopping and pausing. Liaison can be included among them.

Punctuation marks are the audial signs that enable proper relay of emotions and thoughts with attributes such as intonation, emphasis, speed, and pause in verbal language. In written language, they are the visual marks that facilitate proper perception of words and sentences. Therefore, punctuation is of importance in the implementation of prosodic elements and achievement of comprehension in reading.

Articulation: Articulation, which means phonation by creating sounds via phonation organs (Vardar, 2002: 91), is performed through opening, closing, narrowing, whistling (Korkmaz, 2007: 49), and wheezing and nasalization. In the end, proper pronunciation is achieved.

Mispronunciation is a behavior that stops reading accuracy. Mispronunciations can be exemplified as follows:

Addition is adding a sound which is not in the word: mide/miğde

Ellipsis means not creating a sound in the word: müthiş/mütiş

Alteration means creating another sound than one of the sounds in the word: tasfiye/tasviye

Alteration may occur softening and strengthening. Softening: mevlit/mevlid, strengthening: barkod/barkot

Stress: Stress can be defined as the pressure on a syllable when saying a word (Çevik, 2002: 177). It is saying syllables or words in a word or sentence in an emphasized and different way than others (Gürzap, 2002: 127). In other words, it can be divided into the stresses of syllable (saying strongly - semantic distinguisher), word (putting pressure on syllable) and sentence (distinguishing words and word groups by their importance - emphasizing the word nearest to the verb) and there are many rules to them.

Intonation: It is the sound tracking composed of plain and periodical movement, that is, vibrations repeated in a given time and in a given order (Özbay, 2005). Dynamics in the sound requires descending, ascending, elongating, softening, strengthening, thinning and thickening. Monotony

occurs in oral reading or speech if these attributes are not exhibited. This may in return have a negative impact on interaction.

Pausing: Individual needs to inhale and exhale to make sounds. Pausing is a must during inhalation and exhalation at the moment of reading or speaking. It is the sound interruption required by the meaning among words during reading or speech (Yaman, 2010: 46). Meaning requires stopping or pausing in accordance with the attributes of punctuation during reading.

Liaison: Liaison means reading the last sound consonant of a word by combining it with the first syllable of the next word starting with a vowel. It is a general rule of diction.

Example: Syllabification of the sentence "Dev anasının oğlunun elbisesi yırtılmış." in Turkish is shown with liaison as follows:

(1) De-va-na-sı-nı-noğ-lu-nu-nel-bi-se-si-yır-tıl-mış.

If liaison rules do not apply, the sentence is syllabified incorrectly:

(2) Dev-a-na-sı-nın-oğ-lu-nun-el-bi-se-si-yır-tıl-mış.

Despite this rule of diction, some researchers argue that this is not a general rule but should be a term specific to poems. For instance, Karaağaç (2013: 143) suggests that liaison causes a linguistic or communicational fault. However, as far as we are concerned, it is an element that provides fluency in speech and reading in Turkish because liaison is a crucial factor in pronouncing a single syllable rather than two syllables, therefore achieving fluency. It is also in compliance with the rule of "the least effort" in linguistics. On the other hand, it can be considered a linguistic or communicational fault if liaison is performed where pausing is required.

Rhythm: It is the repetitive pattern of strong and weak syllable stress (Harris & Hodges, 1995: 221). Rhythm is indeed a holistic performance achieved by stress and intonation throughout the reading of a text.

Effective implementation of fluent reading elements requires applying different methods regularly at different times. Some of these methods include (Duran & Sezgin, 2012): repeated reading, forced reading, pair reading, echo reading. Verbal choir and reading theater are activities that also improve reading fluency because such activities require word recognition, reading accuracy, a given reading rate and prosodic attributes.

4. Types of Reading

There are two types of reading behavior: oral and silent reading. Visual reading is a supportive element for comprehension.

Oral reading: The purpose of oral reading is to enable students to comprehend how words in a text are pronounced and in what context they are used. Oral reading helps students determine their reading level while contributing to the development of listeners' mental activities. It improves

students' proper speech ability. Oral and good reading makes listeners engage in the subject and arouse pleasure in reading (Ministry of National Education - MEB, 2006: 66).

According to Güneş (2013:131), the following is the benefits of oral reading:

• It improves phonics, stress, and intonation.

• It improves word recognition skills.

• It improves reading, listening and speaking skills.

• It improves comprehension and mental skills.

• It facilitates learning.

• It enhances culture and expands the point of view.

Research shows that transition to silent reading before the development of oral reading skills on the elementary school level has a negative impact on the development of students' speaking skills. Because students do not take notice of stress, intonation, and pronunciation in silent reading and they cannot improve these skills sufficiently. This redounds on speech and students start speaking regardless of stress, intonation, and pronunciation. Hence, oral reading activities should be given emphasis throughout the elementary school (MEB, 2005).

Oral reading is the common ground of speaking and reading skills; it is the vocalization of what is read. Number of participants is high in oral reading. In silent reading, there are only author and reader while author, reader and listener is in interaction in oral reading.

Silent reading: The purpose in silent reading is to enable students to read fluently and fast (MEB, 2006: 66). This is the type of reading that individuals use throughout their lives. Whereas oral reading is rather a type which increases interaction in classroom activities, silent reading is performed only with eye movements. In silent reading which individuals use independently and constantly and enables meaning making, lips cannot move and what is read cannot be followed with finger.

Silent reading helps students learn by reading by themselves, study independently and utilize their time and strength more efficiently. A student reads faster in silent reading, achieves what to be learned in a short time, learns actively and improves himself/herself constantly. Therefore, students should be encouraged for silent reading (MEB, 2005).

Visual reading: Visual reading involves the comprehension of materials such as shapes, symbols, pictures, caricatures, photography, graphics, tables, diagrams, and flow charts and the mental construction of them. Concept of visual literacy was first introduced by Debes. According to Debes (1969), this concept is a series of competences associated with eyesight that can be improved by integrating it visual and affective experiences (Akyol, 2014b). Visuals are based on image and involve the appearance of a being, presentation of any objects, physical presentation of an abstract element, the body of dots and shapes, and the attributes of everything that can be processed with eyes (Güneş, 2013).

"Students learn various emotions, thoughts and pieces of information through visual reading. Visual reading facilitates the processes of comprehension and mental construction. It is easier to create mental images, comprehend things and envisage certain concepts and events with visuals. Therefore, students should be included in activities on examining, interpreting, associating and questioning several visuals" (MEB, 2005).

5. Vocabulary

Vocabulary is a term which involves all words and meaning structures in a language. Students improve their persona vocabularies, in other words, knowledge of words and meanings with their listening/watching skills in the preschool period and both with their listening/watching skills and reading skills later. Vocabulary of students is the most important element that enables them to use preliminary knowledge and experiences in reading comprehension and also continues its development with reading. Depth, width, and weight are vital concepts in vocabulary. Depth means knowing and comprehending several meanings of words, width means knowing words in various matters, and weight means knowing many words in a matter (in Göğüş 1978). These are of importance in interpreting the meaning of word based on the context when facing an unknown word.

Reading activities/studies play a key role in the development of personal vocabulary. Semantic activities on unknown words help students comprehend. Students guess the meanings of word or word groups they do not know by utilizing the context. These guesses are made in the following order (Karadağ, 2013: 84-86): referring to the context which involves the word, looking for the word in another expression, sentence or text context, using the morphologic awareness. They confirm their guesses by the help of teacher. They benefit from the dictionaries when studying alone. Vocabulary activities in reading are shaped by semantic relations; homonymic, synonymous and connotational, term, metaphorical words; and idiom and proverb activities.

Frequently used words in the language should be utilized for improving student's vocabulary. Such words are short and not informative (Martinet, 1998: 221). The following semantic activities should be performed on less frequent words: Meanings and semantic relations should be provided first. Literary and cultural values of words, if any, should be emphasized. Activities should be performed on proper writing, pronunciation and usage of the words. The next stage covers the activities of association with grammar, referring to dictionaries, and puzzles. Finally, words or word groups are rehearsed to add them to students' efficient vocabularies with various in-class activities.

6. Comprehension

Comprehension is a cognitive operation that covers a process with all its aspects. Reading comprehension is defined as the process of constructing the text-based knowledge. Throughout this process, the reader creates a mental representation of the meaning of the text using its attributes and his/her own world knowledge. Deep comprehension is achieved once the reader integrates his/her text-based knowledge with preliminary knowledge (Hock et al., 2015:100). There are three important factors that enable comprehension: "The reader needs to keep the text structure under control during the reading process. He/she should use metacognitive features to acquire information about the content when reading the text. He/she needs to have a sufficient vocabulary to do all those things" (Tankersley, 2003: 90).

The comprehension level can be handled in three groups: surface comprehension, inferential (deep) comprehension, and critical evaluation Surface comprehension refers to find the information in the text on the level of word, sentence and text without adding something from oneself while inferential comprehension is about achieving the implicit information in the text and critical evaluation is to pass judgment on the text by filtering and interpreting the information obtained with surface and deep comprehension (in Ülper, 2010).

Eventual objective of reading is comprehension. Duffy (2009) lists core characteristics of comprehension as follows:

It is activeness: Readers need to think efficiently and follow the meaning all the time.

It is temporary: Guesses made at one moment may change at another one.

It is personal: Reading is reviewed with preliminary knowledge and contributes to interpretation by the reader.

It is interaction: Reader's knowledge and author's intention is in interaction with each other.

It requires thinking and attention: It is necessary to analyze tips that help acquire the message that author wants to relay.

It is symbolic (especially narrative texts): The author uses a descriptive language to create an image in reader's mind.

It requires inference: The reader makes well-prepared guesses about the meaning that the author wants to convey.

It is reflective: Good readers evaluate what they have read. They dwell on the importance of them and determine how to use them after the reading has ended.

The reader needs to determine things in the text to exhibit these characteristics. Determining the subject, main idea and supporting idea. These require following up the key concepts and identifying inter-sentence relations (goal-result, cause-effect, condition-result, etc.) In addition, identifying the tips and references to contribute to the inference are important operations done by good readers.

Factors affecting the comprehension negatively can be text- or reader-oriented. Situations that cause failure to make the right meaning or misunderstanding are as follows (Göğüş, 1978): Multitude of unknown words in a text, how narration is loaded up with figures of speech, content or concepts that are found unfamiliar by reader, effort to combine contrast or incoherent thoughts, failure to get rid of prejudices, and failure to find the main idea.

6.1. Reading Comprehension Strategies

Given the research on reading, it is seen that various methods and strategies are used for different purposes during the reading process. These methods and strategies can be listed as follows (Tama & McClain, 1998; Gunning, 2006; Duffy, 2009; Akyol, 2014a; Akyol; 2014c; Karatay, 2014): AR, Coop-Dis-Q, DRA, DR-AT, KWL, PARS, PEAP, POSSE, PQRS, PQ4R, STOP, RIPS, SQ3R, SQ4R, TELSQA, etc.

Using mind maps, story maps, inference, highlighting and repetition can be listed among many other strategies and techniques. Utilization of sub-strategies such as asking questions, guessing, summarizing in these strategies indicates that these methods have lots of comparable aspects.

There are very few strategies used by readers with different forms of regulation repeatedly with minor alterations from another reading. These include (Duffy, 2009):

• Guessing

• Follow-up and questioning what it is

• Regulating the guesses depending on the alteration

• Creating symbols in mind

• Eliminating the attributes that prevent meaning inference

• Reflecting the importance or essence of reading

Methods of which short names are given above are mixed strategies in which multiple steps and sub-strategies are used in general. Strategies used by readings are addressed in three parts: pre-reading, during-reading, and post-reading (Tama & McClain, 1998; Gunning, 2006; Duffy, 2009; Ülper, 2010; Güneş, 2013; Akyol, 2014c; Karatay, 2014).

Pre-reading strategies: setting an objective, looking at the title, reviewing the visuals, having a look at the text, taking the text length into account, setting the reading rate, setting the reading method, following up the key concepts, guessing the important points, asking questions about text, etc.

During-reading strategies: using the tips for context, concentrating on words of which meanings are unknown, guessing the word meaning contextually, guessing what to read next, controlling the guesses, controlling the comprehension, rereading by going back, referring to other methods when having difficulty, utilizing visuals, highlighting important points, taking down notes, etc.

Post-reading strategies: matching and questioning what has been read for reading purposes, summarizing, stating/interpreting main idea and supporting ideas, participating in discussions about the text, making guesses about what happens next after the text, etc.

Using these strategies can facilitate cognitive operations such as identifying the main idea and supporting ideas, evaluating what has been read, and inference and interpretation which are among main principles of comprehension. Consequently, it can be said that using different strategies and methods have a positive impact on comprehension.

Akyol (2014a: 33) listed the benefits of using strategies, methods and techniques in reading as follows:

• It helps comprehend the content presented in the text.

• It contributes to the comprehension of organizational structure in the text.

• It helps concentration on reading.

• It provides efficient participation in reading process.

• It connects material content with personal experience.

• It contributes to criticism and evaluation of the text read.

• It helps keep what is read in memory for a long time and remember it quickly.

"Several research with students which study at different times, in various countries and at different academic stages shows that use of these strategies are considered better than reading techniques and strategies in the mother language curriculum applied at the moment. Not every reading strategy can be utilized in every genre. Teachers need to attach importance to the instruction of reading comprehension strategies, teach students and set models for them. They should encorage them to use different strategies" (Arı, 2014a).

6.2. Assessment of Reading and Comprehension

It is necessary to identify what status the reading skill is in, toward what direction the skill improves, for what reasons the improvement is prevented and what to do to eliminate them. Assessment and evaluation can be performed in various ways. Reading rate, efficiency, reading fluency and comprehension levels can be evaluated after the learning to read.

Teachers should monitor the development of reading efficiency in primary school with regular assessments. Efficiency in reading is calculated with the following formulation (Akyol, 2014): Reading efficiency = number of words read a minute x comprehension percentage/100.

Reading fluency can be assessed with the rubric developed by Zutell and Rasinski (1991). Rubric is composed of four dimensions: expression and volume, phrasing and intonation, smoothness, and pace. Student's reading is observed in accordance with rubric dimensions and a holistic score is given for each dimension. A scale should be used with the rubric for reading comprehension.

Comprehension questions are irreplaceable elements for each text. Questions can be diversified using assessment tools such as open-ended, short-answer, multiple-choice, close-test, right-wrong tests in consideration of grade and age levels. Questions should advance in a systematic order in compliance with surface, inferential and critical levels. Cognitive taxonomy can be utilized in this order. The higher quality the questions are, the further students' inferential and critical comprehension levels will improve. For inferential and critical comprehension, open-ended questions are more useful. Questions in textbooks are surface questions in general and their contents are rather focused on remembering and comprehension (Arı, 2014b). Hence, teachers should attach importance to high-level questions even more.

It is also necessary to assess students' book reading performances. Reading portfolios can be utilized for the assessment.

7. Reading Materials

Reading materials have a very extensive scope. This section addresses formal attributes of the materials, generic-textual attributes of the texts that constitute the content, and readability.

Physical attributes of reading material include material used (cover cardboard, paper, binding materials), material's dimensions, weight, signature number, etc. Page layout regarding students' visual perception (font, font size, color, line spacing, margins) is related to both design and physical attributes.

A situation that may affect eye movements and readability is also one of the attributes of the text read. Material's page surface is important in terms of light absorption and reflection. It is more appropriate to use serif font types (Times New Roman, Bookman, Couirier, etc.) for students in the learning and developmental age. Serif font types enable them to distinguish and read the letters more easily and clearly. According to Binbaşıoğlu (1988a), font size in the material should be 12-16 in early stages of reading and become 12-10 with the adolescence. Much as font sizes differ by font character in textbooks for children new to reading, 18-20 font size should be lowered down to 14, 12, and 10 as age and level advances (Yalçın, 2002).

It is also important whether the material is digital (computer, tv, mobile phone, tablet). Alongside font size, graphics, tables, and visuals, there are other animated images in internet. Advertisements that affect the reading of text negatively in internet can distract reader and its perception (Güneş, 2013).

7.1. Text

According to Günay (2001: 33), a text can be defined as a "meaningful structure in which linguistic sings that form a closed structure with a beginning and an end are successive." It is emphasized in modern linguistic approaches that texts should be regarded as bigger units than sentences (Günay 2001; Onursal, 2003; Tanyolaç-Ertokat, 2005; Coşkun, 2014). Text is a written or verbal linguistic product which is formed by creating a meaning unity pursuant to the criteria of cohesion and coherence among the sentence sequences that constitute it. It is produced for a given purpose and its beginning and end are limited with certain lines (Onursal 2003: 124).

"Memory extends to what there is before the text when reader's conscious faces a situation that does not meet his/her expectation at a stage of the text. This is the effort of the new situation to connect with an intratextual background. Yet, not every meaning that comes to life at that moment with such effort is not final but open to development in the next reading phases" (Göktürk, 1988: 124). An important attribute that establishes these relationships is textuality.

7.2. Criteria of Textuality

Textuality criteria must be complied for the comprehension of text. De Beaugrande and Dressler (1981) determined within the framework of textlinguistics that there are seven criteria of textuality so that a text can be accepted as a linguistic product and provide communication. These criteria can be listed as below (Kocaman 1990, Keçik & Subaşı-Uzun, 2004; Coşkun 2014; Karatay, 2014):

Cohesion: Cohesion covers the relationships of nouns and pronouns, word repetitions, conjunctions, subject-verb relations, and elliptical usages observed in the surface structure of text.

Coherence: It is the body of thought relations in the deep structure of text. It is the logical unity that achieves meaning unity in text. This unity is the coherence between the concepts and relations among sentences and paragraphs.

Intentionality: It is how the text author puts forth his/her intention, that is, what he/she wants to tell the reader. Whether the intention is achieved depends on the status of reader. Comprehension may differ from person to person by their statuses. Considering this situation, author needs to reach the object of his/her text within the framework of cohesion and coherence.

Acceptability: It is reader's attitude toward text. Acceptability may differ by genre, reader's educational and cultural level, and historical periods. Cohesion and coherence are also effective in text's acceptability.

Informativity: It is text's ability to give reader new information.

Situationality: It is organization of text's genre, subject and purpose. (This criteria is described as "required situation" and "conformity with situation" in rhetoric; in other words, it is the fact that what is narrated is suitable for the object's level.)

Intertextuality: It is the association of text with other text by reader. The text is implicitly or explicitly affected by text written before in terms of genre, content, and form. This may manifests itself in the surface or deep structure.

Criteria of textuality are attributes that enables comprehension and interpretation and evaluated in the triangle of text, author, and reader. These attributes also organize the examination of genre.

7.3. Genres

Genres are defined as the typical forms of texts which establish the relationships among situation, style, means, title, consumer (reader) and producer (author) (in Karahan, 2005). Basically, they are rhetorical actions used by authors to narrate the repeated situations and represent the styles of achieving similar contexts (Malmkjaer, 2010: 210). Each genre has its own characteristics in the text-author communication in accordance with these styles. Genres are differentiated from each other by comparable or different objectives. Genre is convenient for dividing similar genres into subparts and dividing different genres as it is an umbrella concept (Harris, 1995: 509). Therefore, genres can be divided into subgenres and genre classes. For instance, informative texts include essays and articles whereas narrative texts include tales, fables, stores, novels, etc. Stories themselves include incident stories, situation stories, fantastic stories, etc. "Determining the construct to be followed in a text is about the genre rather than the subject of text. The genre creates certain expectations about the construct among readers. A subject can be constructed in several forms in different genres. For example, a case of murder can be the subject of either a news report or a story. There is a difference between the expectations of a reader when reading a news report and a story text" (Coşkun, 2014: 254). Hence, readers prepare themselves for what and how the author will tell in the text and make an

evaluation in accordance with the genre. They create semantic schemas in their minds in consideration of the generic features.

7.4. Readability

Klare (1963) defines readability as how linguistic attributes in the text are found little or very acceptable by reader and uses it in three meanings (in Çetinkaya & Uzun, 2011: 141): Legibility as handwriting or printing type, content-oriented convenience, writing-oriented apprehension and comprehension convenience. "Readability formulations aim to identify the difficulty degrees of texts in numbers, therefore predicting the difficulty of text in terms of readability. These predictions are based on numbers of syllables, words and sentences" (Okur & Arı, 2013).

8. Book Reading

Free reading is performed for acquiring information, spending time, etc. If it ends with appreciation, free reading leads to reading other books; therefore, it becomes a habit by increasing students' interest in and desire of reading. In this sense, book reading is the phenomenon which meets the "lifelong continuance" quality of reading. Today, books (including digital books) can be read in every environment (home, school, vehicle, etc.) and every form.

"Free reading activities at home are more effective than the ones at school. Even though individuals believe that reading instruction is performed in a qualified way in the classroom setting, they tend to ignore other reading materials outside the school" (in Okur, 2013: 7). Students can read a book either at or outside the school. Hence, type of book, book selection, how it is read, etc. are more important than where it is read. The criteria to be followed when selecting the book to read can be the following (Yıldız, 2003):

• Compliance of book scope, content, language and difficulty degree with the grade level

• Separate sections in the book

• An important subject for the classroom (sibling problems, excluded children, persons with disabilities, usage of television, foreigners, etc.)

• Defendable subjects if books that address a certain problem are to be read (gender roles, examples for solution to the conflicts, etc.)

• The most important criterion is the literary quality of the book.

Reading habit is a crucial element for individuals to acquire so that they can perform reading enjoyable after having learned it. It is defined as the individual conducting the act of reading which is formed as a result of perception as a requirement for a lifetime and regularly (Tanju, 2010: 31). Reading turning into a habit depends on that it is felt as a necessity (Özbay, 2010). Individual's perception of reading as a requirement and making it a habit should take place at early ages. This is primarily responsibility of parents (Arı & Okur, 2013). Parents should choose good books for children and encourage reading. In book selection, children's wishes should be also taken into account or they should be included in the book selection process (Yıldız, 2003). It is also crucial that teachers

recommend qualified books and guide students for book selection. For the activation of reading motive, the books which teachers ask students to read should be both retrospective (i.e. Classics) and current books integrated with real life (Holloway, 1999).

It is reported that students who choose their own books and enjoy reading do not lose their reading habits (Krashen, 2001). Students in the period of acquiring the reading habit may not bring the habit to the desired level for reasons such as adolescent problems, holding fun important, and test anxieties. Teachers and parents need to learn how to fight this situation.

Bringing and improving the reading habit requires parents to plan regular reading hours and provide reading guidance. Trying to evaluate the act of reading and turn it into information exchange in certain ways such as discussing rather than summarizing what is read, giving the child chance to evaluate the book and providing one's own opinions as a parent or teacher are important examples of behaviors for the reading habit. It is known that actions like subscription to children's magazines, arranging library visits, performing reading activities at library are activities that encourage acquiring the reading habit.

9. Conclusion

Although eye movements in reading are important for teachers to update their instruction both in learning to read and improving this skill, scientific researches about eye movements of Turkish readers are inadecuate. Nevertheless, teachers should pay attention to the appropriateness of the visuals in material selection/choosing of the materials, the page structure, the font types, the size of the text, students' ages and levels in the stage of learning to read. Methods of learning to read should be constructed in consideration of part-to-whole and interactive approaches.

Teachers should perform oral reading activities to make silent reading accurate, regular and fluent and to improve speaking skills. Evaluation of prosodic reading at regular intervals and assessment of reading rates are crucial to improve reading fluency.

How students show progress in reading comprehension depends on learning and using the strategies. Their progress should be monitored and evaluations should be made using different techniques in each text study and at regular intervals. Different types of texts should be included in teaching reading, thus students could have an opportunity to gain experience. Texts utilized in instruction should comply with textuality and readability criteria.

The process of reading which is lifelong needs to be improved with books appropriate for student's level and it is important for acquiring the reading habit.

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