The contribution of language to reading and writing and reading comprehension in elementary school

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June 2014

Key-words: Writing, Reading, Reading comprehension, Script system
Written discourse system, linguistic knowledge.

Abstract

This article has focused on the importance of the contribution of linguistic faculties reading and writing and reading comprehension in elementary school. Writing, reading and reading comprehension processes are processes that complement one another. Reading channels the ideas of readers through a text of the author whereas writing forces a writer to control the process and leads him to form meaning. Writing ability is acquired through the use of writing, and it is reinforced by actual experience and is improved in the process of being exposed to written texts and enriching of vocabulary.

Reading is cognitive (processing of orthographic information into linguistic meaning) which develops throughout a reader’s life. It begins with acquiring specialty in decoding of words, and continues in consolidation of the decoding act into an “automatic” action that consumes less attention resources and allows the “brain” to route attention resources to higher processes of reading comprehension and production of meaning out of a text. Enriching of linguistic from a text and a profound and significant familiarity with the word when it is relevant and achieved by means of multiple repetitions in various forms and different contexts, contributes to reinforcing of reading, writing and reading comprehension [41,65]
The Linguistic, Verbal and Mental Skills of Reading

Reading comprehension constitutes a foundation for further studies, many occupational skills and satisfaction from life and it also enhances mental perception. The following processes influence reading comprehension: phonology, acquisition of graphic-phonetic principle, morphology, syntax, relations between words that comprise a sentence, semantics, contextual knowledge, vocabulary, understanding, motivation and worldly knowledge [55,58]

Researchers assume that verbal linguistic development runs parallel to the child’s meta-cognitive development. Ericsson and Simon [62] discern two situations of verbal linguistic mediation:

1. Talking aloud – a situation wherein the reader processes thought into verbal symbols, and then in turn processes these symbols into sounds.
2. Thinking aloud – internal thought in verbal symbols.

This is a method for the structuring of meanings using strategies, by means of inspection and control processes. It improves comprehension and learning ability and reflects the meta-cognitive behaviors of the readers in the problem solution processes.

Verbal linguistic ability which accompanies the meta-cognitive awareness process refers to the term “thinking aloud” [29,62]. Until recent years, this method was regarded a tool for learning how readers construct meaning. Today, psycho-linguistic and cognitive researchers employ this method in order to learn how readers acquire knowledge, create information and comprehend the significance of the reading processes.

Dewey [23] states that the exposure of students to the thoughts arising in their minds by means of the “thinking aloud” technique improves their comprehension and learning ability. Sarig [62] refers to verbal linguistic ability as a knowledge-generating means which helps solve learning problems. Intermediate instruction, where the teacher focuses on the question of how we learn, think, read or write, has a decisive effect on achievements in these fields.
The acquisition of language during school years (Later Language Development) is characterized by three main fields of development: acquisition of a new and extensive linguistic variety of items, categories and syntax structures; development of new ways of connecting between items and systems in order to create more complex and richer language patterns; and acquisition of more effective and explicit means of representation and thinking about the language [31,40,10]. Linguistic acquisition is performed with mutual support of one another of its various components (bootstrapping), so that the acquisition of each knowledge dimension is affected by and affects other knowledge dimensions, and the complex linguistic system evolves on its own [57].

**The Contribution of Language to Reading and Text Comprehension**

A rich language and extensive vocabulary have a central role in the child’s ability to read and comprehend. Research shows a link between a rich vocabulary and text comprehension [38].

Many studies point at a relation between vocabulary and reading success [21,71] and show that school children who have a rich and literate vocabulary present better reading and writing skills as compared to their siblings with a more limited knowledge of words [28,47]. The relation between vocabulary difficulty and verbal expression and between low functioning and difficulties in reading comprehension have been explained by Nation, as stemming from a lack of semantic-lexical knowledge and less effective semantic processing and decoding processes. Those practicing in this field, agree that with the rise in age, a limited dictionary knowledge comprises a potential difficulty in reading comprehension [14,66], and define the relationship between possession of vocabulary and reading comprehension skills as being reciprocal – a wide dictionary knowledge leads to a successful reading comprehension, and extensive reading accompanied by good comprehension leads to a wider vocabulary [67].

A child with a limited verbal vocabulary will encounter more difficulties in text comprehension than the child who was encouraged to use language freely and
acquired a rich verbal vocabulary [15, 30, 36, 37]. Culturally deprived children whose language has not developed sufficiently are also apt to think “small”. The scant reservoir of words keeps the child from understanding fine points and he cannot differentiate between words with similar meanings. Significant reading is related to the understanding of verbal concepts and their hidden meanings. Since reading is mostly a process consisting of identification of familiar words, children with a limited vocabulary will find it more difficult to understand a text including uncommon words than children with a rich vocabulary. A culturally deprived reader who attempts to interpret words whose meanings are unknown to him may feel as if he is reading a text in a foreign language. Such a child may impose his own interpretations to the text he is reading. When a child understands most of the words he usually understands those he does not know by their context, the name of the text or an illustration, but when a large percentage of the words are unfamiliar, the child cannot understand the text and it sounds like a foreign language to him.

Pupils with a very limited vocabulary find it difficult to form clear ideas. The linguistic poverty makes matters difficult for both pupil and teacher, since the pupil cannot repeat the information he has learnt in other words and the teacher cannot ascertain whether the student has understood the subject matter or is merely repeating it “like a parrot”. Another difficulty is the time required to explain a text, instead of devoting it to discussions of the subject, an evaluation of the material being taught and a criticism of the text.

Biacarosa & Snow, Edmonds, Kamil, Torgesen, [14, 27, 35, 69] , indicate that effective readers use strategies for production of meaning in the reading process; they distinguish a text structure and the way it is organized, identify a central idea, raise hypotheses regarding the content of the text and examine those hypotheses throughout the reading, summarize the text for themselves, integrate prior knowledge with new knowledge they read, draw conclusions in the process of reading and use visual similes.

Improved verbal linguistic skills with a rich vocabulary sometimes enhance mental capabilities such as: memory, the drawing of conclusions and problem solving. Understanding is based on language. The more words one learns, the more precise one’s thinking [20]. A person with a rich language can engage in numerous thinking
assignments, employing synonyms, abstract thinking and accepted symbols, as in labels and definitions. It seems that children with a poor vocabulary and children lacking these skills use imagery, picturesque symbols or non-verbal symbols as language substitutes. And Reading comprehension is a process that evolves and develops from linguistic understanding and language comprehension [38].

**Contribution of language to writing development**

Writing skills, with significant lingual resources are acquired in school years, a period characterized by intensive lingual and literacy development, termed “latent” as opposed to “early” language acquisition that takes place in the first years of life [5, 50]. In school years, a wide and diverse lexicon is acquired, that includes advance and specific dictionary items from a high and formal lingual register from various fields of knowledge (such as conductivity, probability) [24, 50], use of lexical items in a high abstract level appears (challenge, courage) and abstract and metaphorical meanings are added to existing words (the way to peace, the key to success) [3, 49]. In parallel, school children are exposed to long and complex forms of words based on obscure and less canonical morphological structures, such as multiple-syllable and multiple-morphemic words (childish, becomingness) [1, 17, 46]. The complex and abstract morpho-lexical units constitute the foundation for development of complex and long syntax and discourse structures [9, 42, 60]. On a syntax aspect, it leads to a spoken and written discourse that is diversified in information, is informative and effective [68, 12], in which children show an appropriate knowledge of the relation between level of compressibility of information in clauses to the character of formal or informal communicative context [34, 63].

The extensive experience in communication situations, leads to improvement of pragmatic skills and is known in ability to raise a subject for conversation and preserving it in a relevant, clear and informative manner and in a discursive literacy – the knowledge of how to decode and produce a discourse while employing lingual forms that are compatible with the genre and methods [15, 32, 48]. Acquisition in the various lingual dimensions advances alongside with establishment of meta-linguistic thinking that allows a speaker to manipulate the units of language and consciously
criticize his own lingual knowledge [13]. Latent acquisition takes place, then, in every lingual level and characterized in integration of lingual knowledge with all its types. From representation of isolated structures, lingual knowledge turns into a complex, compressed and accessible network that connects between the different lingual systems and allows for creation of rich and complex lingual schemes, as well as explicit meta-linguistic ability regarding langual structures [59]. At the end of the process, a lingual flexibility is achieved – an ability to observe the lingual structures from various perspectives simultaneously and representing by them items and structures that allows for a fast extraction, speech and writing [31, 40, 10]. Lingual acquisition in school years is based on development of cognitive abilities of a high order, and based on the firm basis of “early” spoken language acquisition and on foundations of literacy acquired in the first years of school – basic skills of reading and writing, meta-linguistic thinking regarding language, and extensive exposure to various study genres and written texts from a variety of sources of information [54, 55]. Latent lingual acquisition and consolidation of writing ability move in circle of acquisition alongside with one another – the prolonged school exposure to a wide variety of written styles in various fields of contents promotes exposure and encourages use of advanced vocabulary, figurative meanings and complex morphic-syntax structures [34, 51, 19]. Oppositely, the ability to master up rich language resources allows for a creative production of diverse contents, while a quality control of writing and adjusting it to communicational circumstances it is intended for and to its recipients [8, 45, 68].

A comprehensive study of McNamara, Crossley and McCarthy [44] has revealed that the three most powerful indexes that predict the high quality of connection at the age of college are syntax complexity, lexical variance and use of uncommon words. The lingual characteristics involved in a writing process change depending upon the various study genres, that define the communicational circumstances of writing and differ from one another in the lingual and cognitive challenge they set before a writer on the way of production thereof [9, 22, 26].
Genre, lingual structure and development of writing ability

Writing is defined by its communication purpose and circumstances of its production, which means, through a genre. The term genre relates to the lingual patterns typical of a style of text according to its cultural-social designation and according to its communicational purpose [16]. A wide variety of textual types belongs to genres and sub-genres with different designation, such as a story, theoretical text, scientific text, contracts, recipes, songs, riddles, jokes, personal letters and more. The various school disciplines create discourse genres and sub-genres that are different from one another and at the same time, share similar characteristics [4]. The discourse genres are different from one another in the communicational purposes they serve [18] and in various mental structures they create – that are expressed in contents, in principles of organizing information and thus, in the global structure, in syntax and grammatical structures, and in vocabulary characterizing them [59]. The research literature is saturated with empiric evidences relating to writing development in a narrative and theoretical genre – most common genres in a written school discourse. The narrative genre exists in all cultures of the world since the beginning of human history and represents a basic and universal text that is familiar to children since infancy [7,43,73].

A story text describes the proceedings of events in a specific context, characterized by oriented agents and in its center is a conflict between purposes or heroes that motivates the plot until a solution [11]. Although a story indicates a sequence of events – opening, series of episodes (plot) and closing – its global organization if hierarchical, as it is built on a foundation of search-conflict-solution that motivates the plot and supply a meaning and path to it. The components of a story are related to one another in relations of time (before, after, while) and in logical relations (but, as, for that) that lead from the point of opening of a story to its end. The research reveals that in lower grades and in beginning of reading acquisition, children are exposed mainly to texts saturated with narratives, such as stories of the Bible, history or literature and the narrative serves as the most significant platform for familiarity with a written school language [11]. A theoretical text, on the other hand, is mainly a product of school learning and deals in issues and processes that have a social-cultural character.
that logically are related to one another [73]. The “heroes” of a theoretical text are ideas, concepts, arguments and abstract subjects (topic oriented). In difference from a story text, the information in theoretical texts organized in a thematic-causal sequence by means of rhetorical units: motion unit that presents a new subject; expansion unit that develops and explains a subject already presented; and a summating unit, that summates acquired information. Theoretical texts are common in all the studied subjects in a school, and variance of their appearance significantly rises in Junior High and High school years, where discussion of ideas, concepts and theories lies in the very center of education [61]. The language of theoretical text suits the abstract subjects and issues it deals in and carries an abstract, distant and general character. The factors that distinguish between a narrative text and a theoretical text are what makes a theoretical text into more difficult for writing in communicational processes, to the extent of exposure to genres and in cognitive processes required for production of a discourse in a logic-scientific paradigm [8,16]. Writing is, therefore, genre-dependent in each of its aspects, and therefore, genre constitutes a central factor in evaluation of writing.

The cross-lingual dichotomy, that is recognized in production of various genres at a young age, testifies to the fact that as early as at a pre-school age, children distinguish between a story and a theoretical genre [25].

Story texts produced by young children include almost only specific and extremely dynamic events that are plotted in a past tense; and oppositely, theoretical texts are very general, expressed in present tense or in timeless structures and use general referents [12, 6]. A comparison of production of various genres in primary school ages reveals that a syntax complexity in a theoretical-convincing genre is higher in comparison to a narrative genre, and an informative genre is characterized by the highest number of words in a clause, due to the presence of more complex and longer noun combinations [4]. Similarly, another comparative study [53], reveals that scientific writing in 5th grade is characterized by greater use of content words and in extensions in a way of noun phrases; a more diverse and richer theoretical writing in a lexical aspect and is characterized by a higher register than the one appears in narrative and scientific writings; whereas a narrative text has the ripest structure and,
lexically, more diverse than a scientific text. Researchers have concluded that in Primary school age, a lexical dimension predicts the quality of text in all three genres.

The study of Ise [33] has compared between two schools in different European countries. The findings of the study have indicated the fact that there have been less pupils that had reading and writing difficulties in school that teachers have specialized and received current instruction from an expert. The researchers have concluded that supplying of training in the field of teaching of reading and writing to the teachers’ team according to guiding lines, contributes to reading, reading comprehension and writing abilities of pupils. Presently, for several years, educational studies emphasize the central position of teachers in the teaching-learning process. The studies consider an intelligent and independent planning of teaching as a link between a formal-obligating study program and between the professional knowledge of a teacher that becomes and structured by experiencing in teaching.

According to this approach, the study program should therefore have association to the planning processes of an independent teacher, and allowing him to derive the class study program from it. The personal work of planning of teaching might instill additional meaning to a teacher’s work, raise his sense of personal capability and also to enrich the overall body of knowledge out of sensitivity stemming from proximity to the field of teaching [74].

The approach of Vygotsky that considers the learning process as a social-cultural process, in which interaction between a child and an adult develops the cognitive skills of a child, has constituted the theoretical foundation of integration of discourse, class discussion, in the school learning process [70]. A class discussion means a discourse between pupils, in the process of which pupils express their opinions regarding the text. In the process of class discussion, pupils are required to critical thinking and reaching conclusions based on their exposure to a competitive viewpoint proposed by their classmates, a conflict between these viewpoints and an attempt to resolve the contradictions between them. A class discourse allows for a pupil to reach conclusions and insights that he might have not reached in an individual independent work, but beyond the high thinking abilities involved in the process of participation in the discussion, there are additional advantages to this way of learning: encouragement of active involvement and interest in studies and the possibility of pupils with
language impairment to study the material through listening and fully participating in a class [64]. Studies indicate a positive correlation between discussion in class and between achievements in reading comprehension and expression in writing.

Langer [39] has reviewed 21 Junior High and High schools in the United Stated and found that in schools with high achievements in standard tests, 11% of the teachers have initiated opportunities for discussion and mutual work during lessons, while in schools that are average in achievements, learning has been individual and has not integrated exchanging of ideas between pupils. A wide-scale study conducted by Applebee, Langer, Nystrand and Gamoran [2] has examined the extent to which a dialogue takes place in class, length of class discussion, extent of diversity in strategies used by the teacher in the teaching process and the extent to which a teacher has related between the materials studied in various subjects. From the findings, encompassing 2322 pupils from 13 classes, the findings have revealed that a discussion-based teaching method has impact on expression in writing ability. Many intervention programs use the discussion technique as a means to promote reading comprehension, while a discussion can be a class activity with a teacher’s guidance or activity in small groups which purpose is active reading and increasing of involvement in a text. Nonetheless, researchers indicate that not every discussion promotes reading comprehension, but only one that indeed operates a high-order thinking, drawing conclusions and critical thinking. Additionally, a greater impact of class discussion upon reading comprehension has been found in the population of readers with difficulties. In summary, one of the recommendations in the educational literature is allowing teachers to take an active and creative part.

One of the recommendations that appear in the educational literature is to allow teachers to take an active and creative part in the planning of studies and curricular activity [72, 75]. Indeed, one of the primary target audiences of the study program, presently, in a teacher. Therefore, an attempt has been made, lately, to make sure that the study programs would be clear in terms of opinions, basic assumptions and ways of evaluation that presently comprise an inseparable part of teaching itself. Additionally, there is a desire not to “close” the program too much, in order to allow a teacher for flexibility in teaching and the planning thereof.
Summary

The rules of mapping between written signs and spoken sounds allow to connect an unfamiliar written word (orthographic representation) to a spoken word (phonological representation) accumulated in him for some time in the long-term memory, and when there is interaction between all the channels, the word becomes understood and receives a meaning.

Reading and writing are complementary processes: reading channels the ideas of readers through the text of the author; whereas, writing forces a writer to master the process of memory and leads him to construct a meaning. Multiple reading and writing of texts of various kinds expands the conversational worlds of readers and writers. In the process of practicing in reading and writing, there has been a wide use of spoken language enriched by the reciprocal relations with the written language that supports it and is supported by it. In situations of listening and speaking, readers and writers discuss the contents of texts, consider lingual and rhetorical usages and respond to the words of others. The development of responsible, effective and critical speakers makes necessary an experience in a wide variety of usages of the spoken language. In these diverse experiences, speech is used as a means of self-expression, of dealing with the world, of developing a critical approach towards reality, of acquiring knowledge, discussion and leading of life as a group. Reading aloud in front of an audience has the purpose of participating others in texts from different worlds of discourse. Through reading aloud of texts from the theoretical discourse world, from interpersonal communication discourse world and from mass media discourse world, pupils can include others in information, arguments, instructions and stories. Reading aloud expresses the centrality of rhythm and tone, and contributes to the meaning of a text and of remembering it. Through language, thinking, empowering in reading and writing of various kinds of texts and in participating in diverse situations of speech and listening in various degrees of formality, pupils develop awareness of the relations between lingual usages and reality. What is being said and what is being written in texts and the way of saying or writing reflects world-views, overt and covert purposes that readers or writers wish to achieve through the text and that the readers and listeners wish to decode. Through use of language in experiencing in written and spoken language, pupils develop critical thinking regarding written and
spoken messages which empowers them as citizens and as free people, in organizing of a spoken text as a written one, merging between texts, summarizing a study subject, organizing a subject in writing for presentation in writing of by heart and more.

One of the common outcomes of writing in a school, in situations of studying, is the summary. A summary is a complex action and it has much significance for the development of independent learners. The action of summary includes choice, setting of hierarchies and organizing ideas. Writers must locate, when summarizing, the kernels of subject in the text, to choose and grade the information in terms of its necessity and importance and thus to assimilate and remember the studied material.
BIBLIOGRAPHY

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Hebrew


