



The Problem of Students' Text Comprehension and Intellectual Speech Development under Literacy Competence and Bi-Multilingualism (whatever that means)

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Abstract

The article is devoted to processes' interrelation of perception, reconstructing and producing academic text in secondary language, methodical interpretation of understanding academic text as the basic unit of study. There are determined intellectual speech skills required for effective intellectual speech activity, their structure and dynamics in different periods of schoolchildren's intellectual speech development; developed pilot program of schoolchildren's intellectual speech development under bi-multilingualism (whatever that means); created model of schoolchildren's intellectual speech development under bi-multilingualism (whatever that means).

Keywords: Academic text; Bi-multilingualism (whatever that means); Intellectual speech development; Intellectual speech skills; Interdisciplinary integration; Literacy competence; Linguo-semantic analysis; Transcoding the content of academic text

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Introduction

In today's world, cultural, scientific, economic and simply human communications' development require knowledge of more than one language. Therefore, linguistic pressure arises in the space of languages' contact. This is one of the main parameters to assess the viability of language culture. This is of great theoretical and practical significance in the study of mother language in contact with the secondary (non-native) language. As it became known from the works of Segalovits, in studying and comparing the main brain functions of bi-multilinguals (whatever that means) and monolinguals, there were no differences; two languages are developed with the same success as one language [1].

Bilingual children's lexicon formation is one of the most widely discussed issues of domestic age linguistics [2].

According to Chirsheva GN [3], there were the most important problems in the last quarter of the twentieth century - the main hypothesis were put forward in the field of early childhood bilingualism, described methods of its formation based on increasing number of language combinations. Therefore, there is no aim to describe in detail all works on child bilingualism - in depth study, there are only individual cases or specific issues of this, now extensive research.

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The first decade of the twenty-first century in the history of children's bilingualism is a new stage in their quantitative and qualitative parameters. Firstly, this difference is manifested in the contact of bilinguals or multilinguals and society as the norm, which is reflected in ever-growing interest of all parties in these phenomena. Different countries of the world now regard as normative both bilingual and monolingual upbringing and

development of the child. One of the issue in matter is the impact of bilingualism on cognitive and speech development of a child.

The most authoritative work on the cognitive development of bilingual children in the last decades are the works of Bialystok, in particular, the monograph "Bilingualism in Development: Language, Literacy, and Cognition" [4-7].

National children's bilingualism in Russia was studied much more intensively in the Soviet period. However, now such issues are still been developed based on the speech of bilingual children, for whom Russian language is not native [8]. In the former Soviet republics, scientists study Russian language in contact with the official languages in the territory of their countries under bilingualism: Russian-Estonian children in Estonia [9], Russian-Kazakh children in the Republic of Kazakhstan [2], Russian-Belarusian children in the Republic of Belarus [10,11].

The purpose of schoolchildren's intellectual speech development (form 5-9) under bi-multilingualism (whatever that means) is bilingual students' personality development as knower aimed at the creative mastering secondary language as a tool of learning and expression. Realization of this aim requires solving a number of specific problems: to ensure mastering secondary (Russian) language and speech as a tool and means of knowledge, bilingual students' development as subjects of knowledge; to introduce the student to cultural values and meanings expressed in words, form values, cognitive activity experience, to develop intellectual needs, enrich the learning experience; to develop the skills necessary for proper perception, of academic texts' processing and creation; to form a single system of analytic, reconstructive and productive skills to ensure the effectiveness of cognitive activity; to train the bilingual student as a subject of knowledge.

Data, Results and Discussion

The concept of universal educational skills under metadisciplinary connections has become a topical term nowadays. Social society demands to be met by training, teacher dictates research of new forms of learning. One of the most pressing issues is the problem of integration of learning outcomes or implementation of metadisciplinary approach. This approach performed in textbooks and implemented in the classroom provides comprehend development of information (material) not only of language, but also of culturological nature. Text understanding development cannot be separated by language and culture and cannot be transferred, it is rather constructed by each student on the basis of what is already known, as well as the strategy developed during the learning [12].

Since the main thinking organization system, according to research, is not a language, but semantic categories, the possession of several languages does not imply the existence of several ways of thinking. A bilingual person can use two languages at the same time depending on the situation and the person, with whom he communicates. According to Ferrer AV [13], we argue that successful bilingual skills develop in students only if they can clearly express any thought, at least in one of the languages.

It helps to understand how the linguistic and metalinguistic factors influence the teaching skills' development and academic texts' learning in certain language and to learn how these or other

side of the language react to the impact of another language system. Interference solution processes at all levels of language interactions contribute to certain language skills' formation in academic texts' perception.

Psycholinguistic and cognitive approach to the study of bi-multilingualism (whatever that means) can be considered as a part of linguistic phenomena learning and analysis as a method of thinking that creates knowledge and uses it [14,15]. It determines the understanding of the essence of language knowledge, explanations of linguistic phenomena, meanings' analysis and their perception, linguistic learning structures' processing in schoolchildren's intellectual speech development.

The purpose of this article is to build a model of schoolchildren's intellectual speech development under bi-multilingualism (whatever that means).

In targeting the aim, we should base on realization of interrelation of academic texts' perception, reconstruction and production in secondary language, on methodological interpretation of academic text as the basic unit of learning, as well as pay attention to intellectual speech skills' development necessary for effective intellectual speech activity.

Schoolchildren's intellectual speech development under bi-multilingualism (whatever that means) is understood as a process of learning culture cognitive activity and involves development of cognitive motives, needs, interests, value attitude formation to knowledge obtained in the study of secondary language, plays, rational methods and techniques of perception, academic text's processing, independent use of received information and speech in two or more languages [16].

The proposed approach provides student's transfer from author's academic text analysis to their own academic texts' creation, from the analytical and intellectual speech activity to productive activities; the intermediate and an important stage in this process is the reconstructive activity.

The theoretical basis for creating a model of schoolchildren's intellectual speech development under bi-multilingualism (whatever that means) was:

Consideration of academic texts' perception and creation in secondary language as interrelated speech processes characterized by the similarity of psychological mechanisms;

Interpretation of academic text as the basic unit of study taking into account its unique features – generality, logic, abstraction, system organization, interrelation and interdependence of all the elements; specifics of scientific speech [17].

Conditioning perception of academic text in secondary language by psychological, linguistic, social, and cultural factors; the need in mental processes' development, as well as psychological characteristics and abilities of the person involved in the process of text perception and creation.

Wherein, the most important training methods are linguo-semantic analysis of academic text, its content transcoding, speech act building of academic nature.

The purpose of schoolchildren's intellectual speech development

under bi-multilingualism (whatever that means) is the understanding of a content area performed in academic text in secondary language. A means of content learning are linguio-semantic analysis, proposed text transcoding, as well as own statements' creation based on studied material. This and methods of schoolchildren's intellectual speech development under bi-multilingualism (whatever that means) are the natural stages of studying material, regardless of the discipline and language of learning.

In linguio-semantic analysis, there is taken into account the specificity of the text as a fact of speech, on the one hand, and the features of its content and form, associated with a particular academic discipline (knowledge area), on the other hand. The textbooks' texts (or children's encyclopedias) in Russian or Kazakh language are available for analysis: mathematics, biology, geography, chemistry etc. They make it possible to observe the features of academic texts' structure and its specificity in relation to a particular academic discipline.

Transcoding the content of academic text is the main method of reconstructive activity aimed at skills' formation to provide academic text in a different graphic code (in the form of tables, charts, graphics, pictures, maps, translation in a second language etc.), as well as skills to read these tables, charts, graphics, maps, that is, to translate them into words in primary or secondary language. Academic texts' reconstruction is the most important stage in learning, because, understanding of the studied material demonstrates the ability to present the text content in some form or another language.

The basic method of productive text activity is the method of text building. This method is related to the method of text linguio-semantic analysis and relies on it. In creating speech acts, student is guided by the communicative task, his or her own author's intention, which determine the choice of style, genre, statements' content and speech.

Realization of analytic, reconstructive and productive text activity in secondary language under their interrelation in the educational process is the most important condition for effective schoolchildren's intellectual speech development under bi-multilingualism (whatever that means).

It is well known that the creation of the text requires the grasp of communicative skills. However, it is impossible to form all the skills at the same time. Therefore, the curriculum of each form has its own features [17], there is a certain group of skills for each form.

Intellectual speech skills are considered as mastered ways of intellectual speech actions with academic material [18]. It is important that the methods of intellectual speech actions are not dependent on subject matter knowledge. They are the same both in the study of Russian or Kazakh language and in the study of history, physics, chemistry etc. There are three groups in the system of intellectual speech skills: analytical, reconstructive and productive. The content and dynamics of text skills' formation in different periods of schoolchildren's intellectual speech development are shown in **Table 1**. All skill groups share a common goal-schoolchildren's intellectual speech experience formation

in secondary language. Learning the system of intellectual speech experience in secondary language is an essential part of schoolchildren's intellectual speech development under bi-multilingualism (whatever that means). Having regard to the above, we have developed a pilot program of schoolchildren's intellectual speech development under bi-multilingualism (whatever that means). The content of the program corresponds to the basic social experience and is a system that includes the following elements:

-Cognitive activity experience, which manifests itself in the choice of directions and methods of academic texts' linguio-semantic analysis, identifying the reasons for its transcoding and learning the operational side of speech acts while it is created, motivated choice of compositional techniques and language means to implement the author's intentions;

-Reflective activity experience, which manifests itself in readiness to assess and correct their speech acts, to find adequate linguistic means of expressing the author's intention in academic text, alternative solutions of speech tasks, to shift from object to subject, think about the motives of the speech acts of their own and other schoolchildren;

System of intellectual speech skills, which highlighted the analytical, reconstructive and productive skills, designed to form students' learning experience in secondary language and provide a basis for the transfer of these skills into cognitive activity in native language; at the upper-division stage-in English language: to provide communication by academic text, academic texts' processing, productive activities and reflexing in terms of their own intellectual speech activities;

Speech study knowledge as the basis of cognitive activity in secondary language and (indirectly) the knowledge about different fields of science, which are the subject of the speech; Intellectual speech activity that forms value attitude to knowledge and understanding of the role of academic texts as a source of initiation to moral and cultural values. All content elements of the pilot program of intellectual speech development are interrelated; their specific saturation in different periods of study is determined by cognitive activity experience and value attitude experience to knowledge as a system component.

Consideration of academic texts' perception, reconstruction and production as a cognitive activity led to the selection of main methods of schoolchildren's intellectual speech development under bi-multilingualism (whatever that means): linguio-semantic analysis, academic texts' transcoding and producing in secondary language. All methods of schoolchildren's intellectual speech development include the elements of analytic, reconstructive and productive activities. The use of each method is intended to contribute to value attitude formation to the knowledge obtained by secondary language, the need in consequentiality of his or her own speech, contribute to the enrichment of cognitive experience, ensure the formation of the system of intellectual speech skills.

The content and dynamics of intellectual speech skills' formation is determined by the laws of academic texts' perception, reconstruction and creation and meets the needs of students in these skills for successful understanding of academic text, as well

Table 1 The content and dynamics of text skills' formation in different periods of school children's intellectual speech development.

Skills	Initial visions' creation period in terms of academic texts' features (form 5-6)	Development period of academic texts' grammatically semantic structure definition and semantic processing (form 7-8)	Visions' formation period in terms of academic texts' semantic processing (form 9)
Analytical	<ul style="list-style-type: none"> • Define the theme by the title; • Put the title into English or foreign language; • Define the topic and the central idea; • Define text's relation to the studied subject; • Analyze the title and relate it with the content of the text; • Define the author's intention as a hypothesis – clarify or refute the author's intention defined as a hypothesis by text analysis; • Define the type of speech by its characteristic features; • Define the features of scientific style; • Highlight the keywords, terms and determine their role; • Prepare a copy outline; • Define the role of graphic design in the text within the meaning of the topic and the central idea. 	<ul style="list-style-type: none"> • Define the text subject by the title analysis; • Define the author's intention by keywords and terms; • Find the characteristic features of scientific style in the text; • Define the type of speech by its characteristic features; • Find the characteristic features of the type; • Highlight the keywords, terms and definitions; • Highlight scientific concepts in the text and determine their structure; • Define the field of science performed in the text; • Prepare academic text's copy outline in theses 	<ul style="list-style-type: none"> • Academic text analysis; • Define the field of science and the sub-discipline of the academic text; • Define the author's intention by keywords and terms; • Define the type of speech by its characteristic features; • Differentiate the new and known information; • Structure the information performed in academic text; • Define certain themes and present them in a condensed form; • Prepare a complex copy outline; • Analyze the examples given in the text.
Reconstructive	<ul style="list-style-type: none"> • Correlate the identical information presented verbally and nonverbally; • Analyze information presented nonverbally; • Determine reasons for presenting information in a different graphic system; • Build information verbally in foreign language; • Transform nonverbal information into verbal. 	<ul style="list-style-type: none"> • Transform verbally information presented as diagrams, graphics and slides; • Translate the Kazakh scientific concept into Russian; • Present verbal information as a table; • Prepare an algorithm based on two or several rules; • Present the concept hierarchy as a scheme, diagram, graphic; • Determine reasons for presenting verbal information nonverbally in the academic text (pictures, slides). 	<ul style="list-style-type: none"> • Structure the information performed in academic text; • translate the Kazakh and English academic text into Russian; • Present verbal scientific material as slides.
Productive	<ul style="list-style-type: none"> • Prepare simple cope outline of the future text; • Create monologue speech acts of different functional-semantic types of speech; • Build an answer in terms of studied material; • Create a title for your own speech act of academic nature; • Determine the subject and predicate of the future text; • select the actual material in accordance with the theme of the future text; • Use language means, relevant scientific type of speech; • Answer the questions of theoretical and theoretical-practical nature. 	<ul style="list-style-type: none"> • Consciously choose the style of the future text; • Consciously choose the genre of the future text; • Consciously choose the composition of the future text; • Consciously use a fragments' combination of different types of speech; • Create a text taking into account the requirements of scientific type of speech. 	<ul style="list-style-type: none"> • Select and systemize the actual and language material to the essay based on its theme, style and genre; • Create the text and implement your own intention following the requirements of the chosen style and genre.

as the needs in expressing their thoughts in creating speech act of a scientific nature and its assess.

The structure of the skills system reflects the interrelation of text perception, reconstruction and creation, as well as the structure of academic text as an object of perception, reconstruction and creation. Therefore, the initial statements for skills system creation were the statements on similarity of the mechanisms of analytical and productive text activity and the ways of intellectual speech activity formation, allowing allocating private analytical, reconstructive and productive skills, and matching them with a certain stage of cognitive activity.

Taking into account the structure of cognitive activity, methodological support of each stage of the learning process in their interrelation allows considering schoolchildren's intellectual speech development under bi-multilingualism (whatever that means) as a single process of capabilities' development, causing speech acts' (texts) creation and perception [18,19] in secondary language. In other words, learning all levels of language in interrelation and interdependence brings students to the level of the text and contributes to linguistic persona formation, who, realizing interdisciplinary integration, stimulates intellectual activity with simultaneous transfer to other disciplines, thus realizing methodological approach. Having regard to the above there was created a model of schoolchildren's intellectual speech development under bi-multilingualism (whatever that means) (**Figure 1**). Empirical testing of the material may be the prospect of further research to create the necessary framework in order

to identify general, particular, universal and specific features in schoolchildren's intellectual speech development under bi-multilingualism (whatever that means).

Conclusion

Thus, there is studied the problem of text understanding in the context of schoolchildren's intellectual speech development in terms of literacy competence and bi-multilingualism (whatever that means), defined the interrelation of academic texts' perception, reconstruction and creation in secondary language. Understanding the content area performed in academic text in secondary language is achieved by linguo-semantic analysis, transcoding, speech acts' creation based on the studied material. There are disclosed the content and dynamics of intellectual speech skills necessary for effective intellectual speech activity in different periods of schoolchildren's development. There is developed the experimental program of schoolchildren's intellectual speech development under bi-multilingualism (whatever that means). The content of the program corresponds to the basic social experience and is a system, all elements of which are interrelated; its specific saturation in different periods of learning is determined by cognitive activity experience and value attitude experience to knowledge as a system component. The result of the study was the creation of a model of schoolchildren's intellectual speech development under bi-multilingualism (whatever that means). This is a practical and scientific value of the research.

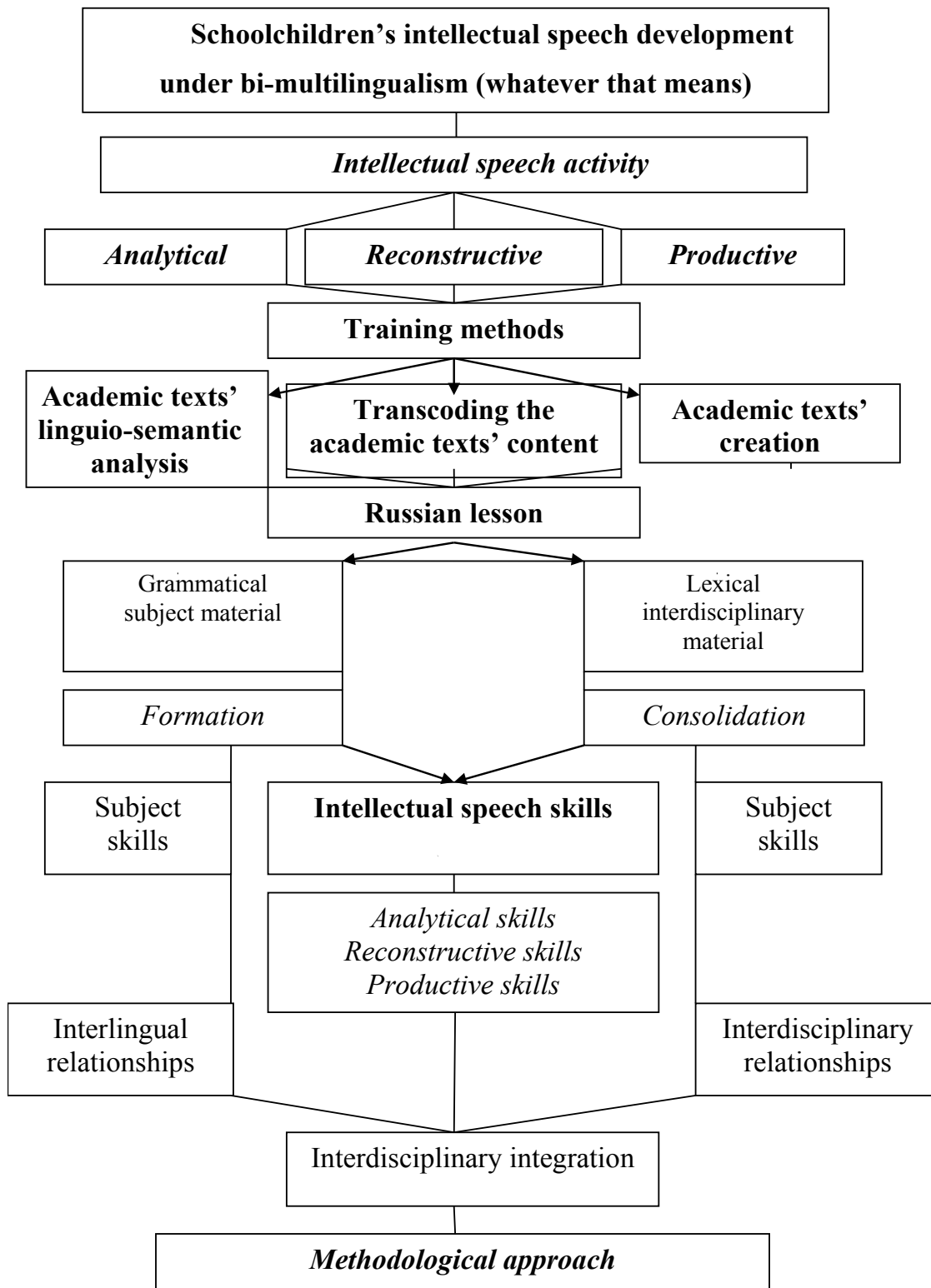


Figure 1 The model of schoolchildren's intellectual speech development under bi-multilingualism (whatever that means).

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