

Zankovian system of education: development, characteristics and psychological foundation¹

Sistema Zankoviano de educação: desenvolvimento, características e fundamentação psicológica

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RESUMO

O presente artigo teve como objetivo apresentar as fases de desenvolvimento, as características e bases de fundamentação psicológica do Sistema Zankoviano. Observou-se que o sistema foi implantado por etapas que paulatinamente foram sendo ajustadas até aumentar a sua abrangência dentro do sistema de educação russo. O Sistema Zankoviano privilegiou a prática da formação escolar, mostrando que o sujeito que aprende deve ocupar a centralidade no desenvolvimento do processo e que o desenvolvimento humano está mais relacionado com a diversidade de conhecimentos. Também deixou como legado a evidencia da imprescindibilidade das teorias pedagógicas, metodologias, abordagens pedagógicas, princípios didáticos serem desenvolvidos e solidificados na prática da realidade escolar por meio de experimentos didático-formativos.

Palavras-chave: Sistema Zankoviano. Educação. *Obutchénie*. Aprendizagem

ABSTRACT

This article aims to present the stages of development, characteristics and psychological foundations of the Zankovian System. It was observed that the system was implemented in stages that were gradually adjusted to increase its scope within the Russian education system. The Zankovian System privileged the practice of school education, showing that the subject who learns must occupy the centrality in the development of the process and that human development is more related to the diversity of knowledge. It also left as a legacy the evidence of the indispensability of pedagogical theories, methodologies, pedagogical approaches, didactic principles to be developed and solidified in the practice of school reality through didactic-formative experiments.

Keywords: Zankovian system. Education. *Obutchénie*. Learning

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1 Introduction

Psychology's historical-cultural perspective provides a huge gamut of possibilities to think about research in Education (LIBÂNEO, 2004). Roughly speaking, we can identify research in education that is destined to the interventional practical processes as being traditionally polarized on two investigational fields, meaning what concerns to the tasks of the one who learns and what is established as the attributions of the one who teaches.

Going on the opposite direction of traditional pedagogy, this theoretical study starts from the dialectic premise of the Belarusian psychologist L. S. Vigotski (1896-1934) that states that there is an integrative, reciprocal formative meaning on the actions of the students as well as on the teacher's actions on the teaching/learning process. Otherwise, it can be said that on the development process everyone is a learner, for both the student and the teacher learn and teach, considering the development places of each subject.

On his studies, Vigotski gave center stage to the maximization of human capabilities resulting from the intervention quality of the formative processes. Thus, what is routinely understood as a teaching/learning process or teaching, will be here understood from the concept of *obutchénie*, a word from the Russian language that, as written by Puentes (2017), refers, at the same time, to the didactic activity of the one who teaches and to the internal transformation that happens to the student during his learning process, while developing throughout the study activity.

About the idea of *obutchénie* and the maximization of human development, this study has focused on the production of the Soviet scholar Leonid Vladimirovich Zankov⁵. This scholar already raised questions in 1963 to justify the need of more specific research on Education. The results of his studies can be

⁵ Leonid Vladimirovich Zankov was born in April 23, 1901, on the city of Warsaw, and passed away in November 27, 1977, in Moscow (Russia). On Brazil and throughout Latin America, Zankov and his writings are still very unknown and scarce. For example, no work by Zankov can be found translated to Portuguese in its entirety. Concerning to works that explore and approach the conceptual basis created by the author, there are a few studies on the literature (AQUINO, 2017a, 2017b; FEROLA, 2019; GUSEVA, 2017, 2019; PUENTES; AQUINO, 2019).

considered relevant to this day when facing the questions presented by the Brazilian educational system. For example, when Zankov and his group of researchers identified on their observations that the mental progress of children on initial grades did not present itself as a direct consequence of the attainment of knowledge and quality abilities (GUSEVA, 2017).

Zankov demonstrated on his investigative studies a preoccupation about listing the impacts of the teaching methods (nature and degree) and their influence on promotion and broadening of development of young students, which means that this author saw on *obutchénie* the possibility of a teaching based on the development reached by the student.

Thereby, Zankov gave an essential contribution with his experimental pedagogic investigations, that justify the relevance of this exploratory study during the pandemic period (Covid 19) of humanity, in which it has been routinely questioned what would be the most adequate way of maximizing the didactic triangle relations of “student-object-teacher”.

On that account, intending to contribute with the propagation of the system created by Zankov, this article aims to present the development phases, the characteristics and the bases of psychological foundation of the Zankovian System.

2 The constitution and phases of the Zankovian System of Education

The Zankovian System⁶ started to be developed in 1957. According to Guseva (2017), already on the beginning of the 1950s, Zankov and his collaborators from the Russian Academy of Pedagogical Sciences started an experimental investigation on 25 elementary schools aiming to compare lectures and classes that utilized visual resources. However, the most significant discovery did not come specifically from the results of said comparison, but from

⁶ “[...] The fundamental theses of this system were developed by L. V. Zankov, in cooperation with a group of scientists (I. I. Arguinskaia, T. Berkman, I. Budnitskaia, N. Y. Dmitrieva, R. Zhuravliova, M. Zvereva, N. Indik, M. Krasnova, U. Kuznetsova, G. Kumarina, N. V. Nechaieva, A. V. Poliakova, Z. Romanovskaia, M. Studenkin, I. Tovpinets, Galina S. Rigina, N. A. Tsurulik e N. Chutko, among others) and professors of the cities of Moscow, Leningrad (currently Saint Petersburg), Tula, Kalinin, Riazan, Riga, Kiev, Kharkov, Baku, Kazan, Gorki, Omsk, Alma-Ata, Novosibirsk, Abakan, Krasnoiarsk, Vorkuta, Vologda, Tiumen, Penza, Frunza, among others (PUENTES; AQUINO, 2019, p. 351)”.

finding that the development of the school students in elementary school was excessively slow.

Subsequently, willing to understand the reason why the development of the students was so slow, Zankov and his team conducted a research that demonstrated that the factors that most generated and corroborated such problematic situation were: the fact that the school curriculum was extremely limited and the tedious practice of repetition of the contents (GUSEVA, 2017, 2019). About this issue, Zankov (1984) argues that

The assumption that the general development of the students reached through traditional methodology is not sufficient is based upon the analysis of the program, of the books created for the first grades and the traditional methodology of teaching. The simplification of study materials, the slow study rhythm, the various tedious repetitions seem to not be able to contribute to an intensive development of the students. The limitations of theoretical knowledge, its superficial character, the subordination to the ingraining of habits also constituted an unfavorable circumstance. (ZANKOV, 1984, p. 18, translated by the authors of the present article)

In view of this alarming picture, Zankov and his collaborators were facing a hermetic challenge. They had to develop a new didactic system of *obutchénie* (and consequently new curricula, books, didactic materials, etc.) that provided favorable conditions to the enhancement of the complete development of the students and, at the same time, undermined the paradigmatic traditional educational system. Zankov's group put traditional education at stake when empirically proved its great discrepancy. However, this constatation alone was not enough, so they had to gradually put the new system into practice, aiming to prove that it actually contributed to boost the full development of the students.

According to Zankov (1984), the starting point to changing educational perspective was the structuring of the new didactic system's framework. The first step consisted of its theoretic foundation (philosophic, methodological, didactical,

pedagogical, psychological, and physiological). In consonance with Puentes and Aquino (2019), the Zankovian System was mainly based upon the philosophical assumptions of Lenin (Historical-dialectical Materialism), the pedagogical contributions of Ushinski, Vigotski and Leontiev's psychological and pedagogical basis, Rubinstein and Ananiev' personality constructs and upon Pavlov's physiological thesis of the superior nervous activity.

Starting from the theoretic foundation, the group led by Zankov initially outlined two didactic principles (*obutchénie* with high degree of difficulty and the leading role of theoretic knowledge) that guided and ulteriorly promoted the creation of school programs, materials, curricula and didactic books. Subsequently, they started putting into practice the pilot project of the didactic-formative experiment.

On the experiment's first phase, the project was implemented in only one class of Moscow's elementary school number 172 (FEROLA, 2019; GUSEVA, 2017). Zankov (1984) comments that the fact that the project had started on only one class was very meaningful, because "on the first phase, during the process of the practical instructional-educational work, each section of the didactic process was previously reconsidered and afterwards, analyzed" (ZANKOV, 1984, p. 25, translated by the authors of the present article).

Furthermore, the application of the pilot project on only one experimental class gave the opportunity to Zankov and his followers to know how was the life of the community of the class as a whole and to also know how was the life of each student in their particularity. This process of knowledge of the entire community and of each student in their individuality was performed over the course of four years (ZANKOV, 1984).

A pedagogical laboratory was built on a school in Moscow for the execution of the pilot project. The laboratory consisted on two rooms, one being destined to be the room of the experimental class and the other one the place where the scientific team stayed. The adjacent placement of these two rooms was thought so that it would be easier for the researchers to observe the classes through a special window installed on the room they stayed in. The proximity of both rooms was such that it

allowed for the installation of a voice recorder at the researchers' own room (ZANKOV, 1984). Still about this issue, the Soviet author wrote the following:

[...] on the investigation methodology we used procedures for the study of the observation activity, of intellectual activity and practical actions. At the laboratory there were the necessary materials and equipment. For the study of the superior mental activity of the students we had the necessary facilities and the apparatus for investigating the reactions correspondent to the conditioned reflexes of the children, an equipment for registering the speed of the motor reaction, etc.

At the laboratory were gathered synoptic materials of different kinds that were needed for the classes, as well as for the extra academic activities that resembled a children's club in which there were many circles: circle of drawing techniques, circle of modeling, circle of literature, among others. To be utilized in the classes and in the extra academic activities there was a library with children's books, classic books, illustrated albums, booklets about the life and work of the authors (ZANKOV, 1984, p. 25, translated by us the authors of the present article).

This first stage of the Zankovian System was critical for its development. The study conducted with a lot of diligence over the course of five years on only one experimental class allowed Zankov's group to reflect about the possibilities and limitations of the initial project. Thus, they had conditions to reevaluate the aspects that were truly fruitful for the integral development of the students. Through this reevaluation of the initial project, they could determine new outlines so that the didactic experimental system could proceed to be applied on other educational contexts of elementary education in Russia.

In accordance with Puentes and Aquino (2019), the main contributions brought on by this first stage were:

[...] in the first place, the development, starting from the pilot study of the initial version of the system, of principles for the new didactic conception; secondly, the proposition of a method of pedagogic experimental research. The system of didactic principles, even though it had not yet taken its definitive shape at the time, had the

role of orienting and regulating the *obutchénie* process that was being conceived (PUENTES; AQUINO, 2019, p. 354).

As the first stage of the process presented expressive results for the integral development of the students, at a second moment they considered important to expand it. Thereby, the project was applied on more than 20 experimental classes in several cities and rural districts of Russia. According to Guseva (2017), between the years of 1962 and 1963, the Zankovian System started to be integrated to 30 schools at the cities of Zalinin and Tula.

Not only the system was expanded, there was also the expansion of the didactic principles of the Zankovian System. More three were added to the first two, forming a system consistent of five didactic principles, as follows: 1 – *obutchénie* with high degree of difficulty; 2 – the ruling role of theoretic knowledge; 3 – fast pace of studying; 4 – evoking the consciousness of the students concerning their study process; 5 – thorough planning of classes favoring the learning of each learner in its particularity (AQUINO, 2017a; FEROLA, 2019; GUSEVA, 2017, 2019; PUENTES; AQUINO, 2019; ZANKOV, 2017).

Also on the second phase of the Zankovian System, the teachers were prepared to conduct their pedagogical practices in a way that was loyal to the principles and fundamentals of the didactic-formative experimental system.

Once every trimester they reunited with the scientific collaborators at the cities of Moscow, Kalinin and Tula. The researchers went to Kalinin and Tula, observed the experimental classes and discussed them in detail. With the active participation of the teachers, the work for each trimester was planned. On the second phase, they still didn't have the experimental manuals for the students, each class had the manuals of the corresponding degree and of the following one. With the intervention of the teachers, the requirements were established for the order and character of the assignments, of the exercises, and they proceeded to develop new teaching materials. (AQUINO, 2017a, p. 270).

The preparation for the third phase started with the work of developing school programs, curricula, experimental materials for the learners and the creation of didactic books for the orientation of the elementary education teachers

that would work with the new system of *obutchénie*. At this stage, institutional committees of scientific collaborators were formed. These committees, in turn, gave clarifications and instructions on the seminars geared towards the formation and preparation of teachers of the experimental classes with the objective of advising them. They also observed the experimental classes, conducted the process of verification of the monitoring works that arrived at the laboratory and made the preliminary evaluation. This way, the institutional committees were responsible for passing information and results about the realization of the experimental work (ZANKOV, 1984).

As the culmination of the significant results attained on the first two phases of the experiment, in 1964 the Zankovian System gained many followers and was officially recognized, being disseminated throughout the elementary school system of Russia. Already in 1965, the system started being utilized and executed on more than 100 classrooms in all of the Soviet territory. Between the years of 1966 and 1967, the Zankovian System was at its peak, given that more than 1,200 classrooms of independent and autonomous republics, (urban and rural) regions of all of the territory of what was then the Soviet Union applied Zankov's didactic-formative experimental system. According to Guseva (2017, p. 239), in 1968 Zankov's Laboratory of Social Education and Development started to be called "Laboratory for the Teaching Problems and School Development". Relating to the contributions that arose from the second phase of the Zankovian System, Puentes and Aquino (2019) highlight the following:

The pedagogic material of the second phase gave place to the bigger and richer literary scientific collection of the Zankovian System. During fifteen years of work, more than two hundred significant publications were created, being didactic books the biggest part of it. However, three were relevant: *Дидактика и жизнь* (Didactic and life, 1968), *Беседы с учителями* (Conversations with Teachers, 1970) and *Обучение и развитие: экспериментально-педагогическое исследование* (*Obutchénie* and development: experimental pedagogic investigation, 1975) (PUENTES; AQUINO, 2019, p. 360).

Despite all of the success that the Zankovian System was achieving, from 1969, suddenly, it started to decline. That way, on subsequent decades, only a few classrooms continued to use the experimental didactic system created by Zankov and his collaborators. The starting point of a more intense decline of the Zankovian System was Zankov's death in 1977. Subsequently, the laboratory led by Zankov was closed. The system had almost no relevance; only the few teachers that took part on the first experiment and saw the effectiveness of the system for the complete development of the students continued to apply it on their classes, counting, for that endeavor, on the support and collaboration of Zankov's followers (GUSEVA, 2017; PUENTES; AQUINO, 2019). Guseva (2017) presents us some factors that might have contributed for the sudden collapse of the Zankovian System, such as these:

The Zankovian System was introduced in a social and educational culture that was contrary to individualism. Communism stood up for collectiveness, cooperation and communitarian spirit. Like the educators of other parts the world, it was expected that the Soviet educators conveyed values that were predominant on their society. These educators' task was to reproduce Soviet culture, not to initiate a social change. Zankov's experimental didactic system, since it emphasized the development of the student's individual potential, not only showed to be inconsistent concerning the dominant value system, but also seemed to exceed the task of education. Those facts explain its sudden decline. Articles that criticized Zankov's system questioned the different and new ideas proposed for education. Some authors argued that the Zankovian System was complex, to the point of needing simplification. There was also an opposition inside the educational system. Some saw Zankov's system as a threat to the *status quo*. For example, a key characteristic of his model was the reduction of the initial school years from four to three. However, an obstinate resistance to this proposal prevented its implementation (GUSEVA, 2017, p. 239).

These elements presented by Guseva provide us conditions for us to understand the motives that led to the weakening of the Zankovian System. As seen so far, the reasons derive from the fact that Zankov's experimental didactic system brought innovative elements that went against the social paradigm that

prevailed on the period of the former Soviet Union. If we resort to history, we shall remember that the period was marked by tension arising from the ambivalence of the Cold War, with communism on one side and capitalism on another. The Soviets vehemently defended the principles of communism, meaning that any dissonant perspective was considered hazardous, and needed to be fought against. Possibly, when they saw Zankov's proposals, they conjectured them according to their ideologies without understanding his propositions on their wider sense. If the Zankovian System's proposal of potential individual development is analyzed out of its entirety, it could lead to a misguided idea that the system supports individualism. About this issue, Zankov states:

With the desire of demonstrating the students' possibilities, of creating favorable conditions for development, we consider necessary to give space to individuality. That, naturally, does not mean to reduce the importance of the collectivity on the development of the schoolers. We start from the premise of K. Marx that "the development of an individual is conditioned by the development of all of the others with whom there are direct or indirect relations." The development of the individuality is not possible in isolation or separately, but only on the environment of the diverse and full of content life of infantile collectivity, that presents a certain ideological orientation and that, at the same time, expresses the motivations of the students, their desires and their aspirations (ZANKOV, 1984, p. 34, translated by the authors of the present article).

Furthermore, Guseva (2017) also cites that the way that the Zankovian System was being applied favored and promoted its decline. Contrarily to what Zankov proposed, the system was being utilized in a fragmented way from the application of the didactic principles in a disconnected manner. It can be said that "conciliating parts of systems which methods and objectives are entirely opposite was fated to produce frustrating results" (GUSEVA, 2017, p. 240). On this context, practically no transformation on the model of education of the Soviet elementary schools was verified. Traditionalism kept prevailing, so the teaching kept being focused on the transmission by the teacher, the main objective being the memorization of contents and the excessive and repetitive execution of

exercises and evaluations.

Although very much weakened, the propositions of the Zankovian System were not extinct after the fall of the Berlin wall and, especially, with the end of the Cold War in 1991, Russian society started to go through a gradual transformation. This scenario caused a more conducive ideological atmosphere for the Zankovian System (GUSEVA, 2017). According to Puentes and Aquino (2019), in 1993 the Russian Ministry of Education started to integrate the experimental didactic-formative system developed by Zankov from the creation of the L. V. Zankov Methodological Research Center of the Russian Federation. The task of running and directing this research center was given to the followers and old collaborators of Zankov, but new researchers also joined the group. They resumed the experimental didactic works (started by Zankov) about the development of the schoolers, producing more than 500 publications contributing to education. As an appreciation of this preeminent work, in 1996 the Zankovian System was publicly recognized, receiving several accolades for the excellence of the didactic materials that were developed.

Supported by Puentes and Aquino (2019) and Chaves (2019), we sought to outline and denote a more didactic synthesis of the phases of the Zankovian System. As a product of this synthesis, through Zankov (1984) and other studies (GUSEVA, 2017; PUENTES; AQUINO, 2019; CHAVES, 2019), five phases of the Zankovian System were identified and are synthesized on the chart below:

Chart 1 – Synthesis of the phases of the Zankovian System of Education

| Phases of the Zankovian System | Events and accomplishments of the period |
|---|--|
| Phase 1 – Emergence and implementation (1957-1962) | <ul style="list-style-type: none"> -Experimental introductory investigation of the elementary education starting from the comparison between classrooms with the lecture model and with visual resources aiming to analyze the relation between <i>obutchénie</i> and the integral development of the students; -Outlining of the experimental didactic-formative system: theoretic, philosophical, physiological, methodological and didactic support; development of the initial didactic principles (<i>obutchénie</i> with high degree of difficulty and leading role of the theoretic knowledge); -Diagnostics of the experimental class: getting to know the class, the analysis of the particularities of each student and of their social context; -Execution of the Pilot Project on an experimental class. |
| Phase 2 – Expansion of the system (1962-1963) | <ul style="list-style-type: none"> -Expansion of the system for more than twenty experimental schools (schools of the urban areas as well as rural areas) in several cities; -Integration of three more didactic principles to the system (fast pace of studying; evoking the consciousness of schoolers concerning their study process and thorough planning of classes favoring the learning of each student in their particularity); -Trimestral meetings with the purpose of preparing the teachers and realizing seminars to discuss the planning of the process of teaching. |
| Phase 3 – Propagation and stabilization of the system (1964-1969) | <ul style="list-style-type: none"> -Production of school programs, curricula, experimental materials for the students, elaboration of didactic books for the orientation of teachers of elementary education that would work with the new system of <i>obutchénie</i>; -Diffusion and acceptance of the Zankovian System in all of the Soviet elementary education; -Formation of teachers with the objective of capacitating them to act on the Zankovian System in a way to contribute to the integral development of children. |
| Phase 4 – Collapse of the system (1969-1993) | <ul style="list-style-type: none"> -Sudden weakening of the Zankovian system; -With the death of Zankov in 1977, the Zankovian system starts to intensively decline; -The closing of Zankov’s Laboratory happens [on this phase]; -Application of the system only on a few experimental classes, especially in the class of teachers that participated of the first experiment counting on the support of friends and collaborators of Zankov; -Although weakened, the didactic-methodological propositions of Zankov do not disappear. |
| Phase 5 – Reestablishment and recognition of the system (1993 until the present time) | <ul style="list-style-type: none"> -The Ministry of Education of Russia reintegrates the Zankovian System in 1993; -Building of the L.V. Zankov Methodological Research Center of the Russian Federation; -Resumption of the practical works of the Zankovian System, counting, mainly, on Zankov’s disciples; -The return of the practical works of the Zankovian System propelled the publishing of more than 500 works on the educational field; -In 1996, alongside the Elkonin-Davidov system, the Zankovian System was recognized by the Ministry of Education, receiving several accolades for the quality of the materials created. |

Source: the authors based on Puentes and Aquino (2019) and Chaves (2019)

The objective of this topic was to present and approach the constitution and phases of the Zankovian System of Education. Thus, it is our hope to have achieved the intent of bringing substantial theoretic elements able to contribute with the comprehension of the historical process of the emergence and development of the Zankovian System.

3 Characteristics and psychological foundation of the Zankovian System

With the presentation of the historical process of the Zankovian System, we will subsequently approach its main characteristics. Zankov, being one of the forerunners of the historical-cultural theory, knew very well the theoretic assumptions of Vigotski. Therefore, to systematize his experimental didactic-formative system, he started from Vigotski's main thesis about learning and development, which refers to the principle of the imminent development⁷, which states that the ideal education is the one that makes the psychic development go further.

Vigotski's thesis has backed the elaboration of the following question: “[...] through which didactic system an optimal result can be achieved for the development of the students?” (ZANKOV *et al.*, 1984, p. 15, translated by the authors of the present article). So, the author has formulated some questions to delimit the construction of his experimental didactic-formative system, them being as follows:

Is the development of the students reached by traditional methodology enough?

If it is not enough, which should be the didactic system that would bring better results for the development of the learners?

Which is the process of general development of the students through traditional education and which is it through the

⁷ This concept is derived from the Russian term *blijaichego razvitia zone*. The translation of this term to Brazilian Portuguese had variations, so, in literature it can be found appearing as proximal development zone, zone of proximal development, immediate development zone and potential development zone. However, on the present text the option is for using the term zone of “imminent” development.

experimental system of elementary school?

Is the assumption justified that, on the basis of a substantial process of the general development of the students, a really high quality absorption of knowledge and basic mastery of habits can be reached? (ZANKOV, 1984, p. 17, translated by the authors of the present article).

All of these questions came from Zankov and his collaborators' concern to create an innovative didactic system that was more fruitful to potentialize the development of the schoolers. According to Puentes and Aquino (2019), Zankov had as a postulation the understanding that the creation of adequate didactic methods would contribute to boost the integral development of the students.

In accordance with Aquino (2017b), on the investigations conducted by Zankov's group, the particularity of the experiment had its origin on the study activity done by the learners, through the organization and orientation by the teacher, on the experimental system, included by the teaching plan, "by the learning tasks, through the work and previous preparation of the teachers, by the manuals created and by the idea that guided the experience" (AQUINO, 2017b, p. 329). All of these phases of the pedagogic experiment were delimited and regulated by the didactic principles. That being said, it is evident that the didactic principles had a leading role on the development and application of the Zankovian System.

To Zankov, the way that *obutchénie* is structured constitutes a determining process for the integral development of the schoolers. If *obutchénie* isn't well structured, the development of the schoolers will be damaged, not going further; however, if it is conducted by a good method, their psychic development can be boosted.

Following Guseva (2017, p. 228), it is pertinent to highlight that, besides Zankov stating that the development is directed by *obutchénie*, he understands that it happens in an indirect manner, because "[...] everything that is taught is always mediated by the intellect and by the child's personality". In addition to that, the Soviet author considered that the development could be originated by the process of formation of new mental abilities without having been directly provoked by the process of *obutchénie*. Thus, for him, the development was not

limited to the learning process.

It is noted that, to Zankov, *obuchénie* is a fundamental source of development, but not the only one. For him, the development is not restricted to the educational process. So, in the Soviet author's view, it is a mistake to consider that children only develop through instruction; it is necessary to consider that the development also depends on the internal processes of the children, in other words, on their individual psychological particularities.

For the psychological foundation of his didactic-formative experiment, Zankov sought support on the conceptual basis of the Historical-cultural Theory (basis which he had helped develop). According to Aquino (2017b), one of the theses that Zankov resorted to and that deserves to be highlighted is the one of the historical conditioning of the human mind. When explaining about the psychological constructs concerning the relation of *obutchénie* and development, Zankov (1984) stresses that before Vigotski's contributions it was not well defined how that relation happened. So, the conception that the development happened independently from teaching was very recurrent and expressive. To Vigotski (*apud* ZANKOV, 1984, p. 7, translated by the authors of the present article) this perspective leads to the understanding that “[...] the cycles of development always precede the learning cycles. Learning follows the development without modifying it in essentially anything.”

So, according to Zankov (1984), willing to make a counterpoint to those naturalist and idealist views of the human mind, Vigotski developed the principle of the historical conditioning of the human mind. For him “the source of historical evolution of behavior is not to be searched for on the interior of man [...] but outside of him, on the social environment to which he belongs” (VIGOTSKI *apud* ZANKOV, 1984, p. 8, translated by the authors of the present article). This thesis by Vigotski brought to light the comprehension that the development of the child's mind happens through the influx of their social context; consequently, the matrix of development consists on cooperation and teaching.

To address the issue of the unity between consciousness and activity, Zankov based himself upon Rubinstein's (*apud* ZANKOV, 1984, p. 9,

translated by the authors of the present article) assumption that “the consciousness that is formed on the activity – the consciousness in activity – manifests itself on the behavior”. Consequently, this assertion leads to understanding that the unity between consciousness and activity makes it possible to know the personality, allowing to analyze their feelings and their consciousness through the exterior references of the behavior, of actions and doings of the human being.

Still trying to base his investigation on the psychological foundations of the authors of the Historical-cultural Theory, Zankov highlights the eminent contributions of Leontiev, especially on what concerns to the development of the mind of the child and its relation with activity. Making a reference to that and citing Leontiev, the author writes:

An entire series of essential postulates that refer to the theory of the development of the child’s mind is owed to Soviet psychologist A. Leontiev (1903-1970). “The first one we must highlight about it – he writes – consists of the following: on the development process of the child, under the influx of the concrete circumstances of their life, the place they objectively occupy on the system of human relations changes.” “The main activity – A. Leontiev continues – is the one whose shape shows up on the interior, from which other new types of activities can be differed, on where the partial psychic processes are formed or restructured on which depends the fundamental psychological transformations of the personality of the child that can be observed on the mentioned period of development” (ZANKOV, 1984, p. 9, translated by the authors of the present article).

From his investigations which showed that the traditional teaching model did not promote the development of children, Zankov realized that the activities executed on the schools with elementary education students explored only the zone of actual development, not consisting of activities that challenged or boosted the potential of the students, being repetitive and restricting themselves to the memorizing field only. Aiming to reverse that process, the Zankovian System was constructed looking to explore the

imminent development zone of the schoolers, willing to challenge their potential with activities that caused qualitative changes on their consciousnesses, meaning activities that boosted the integral development.

Puentes and Aquino (2019), when addressing some of the differences of the Zankovian System with other Russian didactic developmental systems (Elkonin-Davidov and Galperin-Talizina), highlight the differentiated comprehension that Zankov and his followers had of the psycho-pedagogic contributions left by Vigotski⁸. Another expressive difference consists on the fact that Zankov concluded

[...] from the factual material obtained on the course of research, the so-called zone of proximal development did not represent the only viable alternative (as had been suggested by Vigotski (1933/34)) of *obutchénie* affecting the mental development of children. On the contrary, the specific role of *obutchénie* could act upon the development even on those situations where the imitation of the teacher by the child is discarded, that is, on the process of independent solution of the didactic questions proposed. This way, the Zankovian System, still recognizing the importance of the cooperation of the child with the adults (the teacher) on the zone of proximal development, at the same time, “transfers the center of gravity to the learning on the shape of autonomous activity of students”, and with that it limits “the role of the cooperation of the teacher on development” (Elkonin, 1966, p. 30). From Zankov’s point of view, the consideration of “other ways”, reveals the diversity of ways of inter-relation between *obutchénie* and development. (Davidov, 1997, p. 67) (PUENTES; AQUINO, 2019, p. 360-361, highlights by the author).

That being said, it is possible to notice that, although Zankov has utilized the zone of imminent development and the cooperation as the basis of his investigation, he found on the course of the execution of his didactic-formative experiment that the psychic development of children could also be reached on the *obutchénie* process through the autonomous resolution of didactic activities proposed to the learners.

⁸ The way that Vigotski’s work was read, alongside the influence of Ushinski’s (1857, 1908) thoughts, Rubinstein’s (1976) and his followers, as well as the members of the school of Leningrado, gave a very particular direction to the Zankovian System. More than that, it generated numerous and accentuated theoretic-methodological discrepancies between his and the other didactic systems, not only on what concerns to the focus of his studies, but also relating to the premises developed and defended. (PUENTES; AQUINO, 2019, p. 352).

Zankov was criticized for it, but this issue needs to be analyzed considering all of its details, because if it is thought about in a generalizing manner, not considering its entirety, one could fall into the mistaken assumption that the Zankovian System supports individualism (just as it happened on the former Soviet Union). Zankov does not defend that children learn in an individual way without relation to others; in other words, without the cooperation process, especially because he seeks support on Marx's thesis that the development of the human being happens from its direct and indirect relationship with its social environment. What can be interpreted from this affirmation of his is that if the child has more mature foundations (that were matured from the process of cooperation and the individual psychic activity of children), depending on the activity, they will have conditions of executing and solving it in an independent way and autonomously.

The criticism uttered to Zankov seems to not consider that children have psychic abilities and that the learning process is not restricted to the cooperation of the teacher who is fundamental to the cooperation process, but learning with others can also happen through an object, from a toy or game, as verified by Vigotski (2000). Thus, we understand that Zankov did not restrict the function of the cooperation of the teacher with the process of development, he only added that there are other ways of *obutchénie* influencing children's psychic development beyond the zone of imminent development. This way, we agree with Zankov, as what we see as limiting is his critic's assumption of circumscribing learning with others only to the cooperation of the teacher.

Moreover, as Guseva (2019, p. 220) demonstrates, it is worth noting that to Zankov the "[...] meaning of teaching derives from the fact that it creates the zone of proximal development, meaning that it stimulates the interest of the child on the environment that, in turn, awakens internal processes of development". Considering that, we can notice that the Soviet author had the zone of imminent development as the foundation to the structure of his didactic system, but he verified that the students in certain contexts were capable of solving educational activities in an independent and autonomous manner.

Final considerations

The theoretic-experimental research of the Zankovian System left a legacy of great value for us to think about new research and significant measures for the problems of low level of learning in education. Zankov's starting point was the acknowledgement that the way that the teaching-learning processes had been happening on Russian territory around 1957 did not allow for better conditions of the development of the schoolers. Zankov observed a delay (or impediment) on the development perspective of children when considered the ways of intervention and the expected level of development. This researcher and his followers noticed that the way that the schools taught only explored the "zone of actual development" and did not provide the conditions to potentialize the capabilities of development of children on elementary education. Thus, the low development of young people at schools denoted the collapse of Russian traditional education and the need to implement a new system that could boost the integral development of the students.

The developments that culminated on the implementation and deployment of the Zankovian System from the diagnostics of an education in deficit in a given historical moment provided us various teachings to be object of reflection and analysis of Brazilian education at the present time. While proposing a possibility for the transformation of the educational system of a country, Zankov was also a renowned scholar that collaborated with other researchers, working on a theoretic landmark defined upon the studies of the Historical-cultural theory of vigotskian origin. This way, the Zankovian System is born on a context of systematizations done by people willing to act on the new measures with potential of transforming Russian educational reality starting from practices based upon well solidified theoretic-scientific stances.

The first challenge to Zankov and his work group included establishing a new didactic system of *obutchénie* with the creation of new curricula, books, didactic materials and, above all, a new work perspective that would overcome

the traditional paradigm and its hindrances to the integral development of the students. To Zankov, this new formulation of the Russian didactic system should happen on a new basis and with the adequate philosophical, methodological, didactic, pedagogic, psychologic and physiologic foundation.

The experimental Zankovian System found theoretic support on Vigotski's thesis that the child's mind develops substantially in relation to the quality of the *obutchénie*. In other words, the idea that from the *obutchénie* the child could come to learn what they didn't know before and reach new levels of comprehension of the study objects led Zankov to believe that it was possible for the educational system to promote an interference increasingly more fruitful to elevate the learning level of the students.

On the Zankovian System there was an implementation by stages characterized by a meticulous following by the scientists that monitored and mapped all of the necessary circumstances to obtain the exact notion of the impact of the new measures and the reach of their results.

Therefore, initially developing the pilot project of the didactic-formative experiment for more than five years, Zankov could evaluate the possibilities and limitations of his system and delineate new outlines for a wider proposal of the Russian elementary education system, developing new stages. At the peak of its development, the Zankovian System was disfigured and neglected, but was reestablished afterwards, being this fact very relevant, because it teaches us that an educational system is aligned with interests that, at times, depending on the historical-social, cultural and political context, might represent a hindrance to its execution. On the Russian case, the Zankovian didactic experimental system proposed and developed measures of innovation that opposed the educational constructs of cultural, historical, ideological, and traditional nature of the former Soviet Union.

It can be said, in short, that the study of the Zankovian System brings to light the essentialities of the school formation practice, showing that the subject that learns must occupy the central position on the development of the process and that the human development is more related to the diversity of knowledge to

the detriment of the content-limited traditionalism, as well as the orientation for the range of practical and theoretic knowledge on the formative activities. It also left as a legacy the evidence of indispensability of the pedagogic theories, methodologies, pedagogic approaches, didactic principles being developed and solidified in the practice of school reality through didactic-formative experiments (a field that could very much contribute to the investigative context and to the Brazilian educational practice).

Sistema Zankoviano de educação: desarrollo, características y fundamentación psicológica

RESUMEN

El objetivo de este artículo fue presentar las fases de desarrollo, características y bases de fundamentación psicológica del Sistema Zankoviano. Se observó que el sistema fue implementado gradualmente, a través de etapas ajustadas, hasta alcanzar una amplia cobertura dentro del sistema educativo ruso. El Sistema Zankoviano privilegió la práctica de la formación escolar, mostrando que el sujeto que aprende debe ocupar un lugar central en el desarrollo del proceso y que el desarrollo humano está más relacionado con la diversidad de conocimientos. Además, dejó como legado la evidencia de que las teorías pedagógicas, metodologías, enfoques pedagógicos y principios didácticos deben ser desarrollados y consolidados en la práctica de la realidad escolar a través de experimentos didáctico-formativos.

Palabras clave: Sistema Zankoviano. Educación. Obutchénie. Aprendizaje.

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