

# REFLECTION OF THE INNER WORLD OF A PERSON IN EDUCATION

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## INTRODUCTION

Figuratively, one can say that water is burnt hydrogen - this is how two hydrogen atoms and one oxygen atom are united. So in nature, a variety of elements will be connected by internal and external connections. The notorious "theory of reflection" (reflection of reality in human consciousness) only states, claiming the role of an axiom or *a priori*, which is already paradoxical. Physiologically, a person cannot perceive even a few "reflections" with five senses. Any system, first of all, a social one and a person, can consist of a variety of parts, **external** and **internal** connections between which determine the functions of this system. Or we can only talk about those parts of the system that can be connected in some way.

The system as a whole should be considered as a transition from parameters characterizing its stable state to fixed functions, but through clarifying the connections between these parameters, when the process of establishing a connection transforms the initial energy (internal) state into a directed one, thereby discharging the inevitable and initially specified **internal** system voltage.

So, nevertheless, a system or a method? What is more important: the system or the method? A system is not a method, but a structure, an order born of chaos. For example, an algorithm, refers to a method, although it seems that this is the order, structure, system. When there is a structure (form, order), then one can pick up the content, i.e. only suitable content is matched to the structure ("content structuring").

Mikhail Bakhtin has a method of studying literary texts, Lev Vygotsky has own approach, like a method in the setting of Hamlet, that is, each researcher has own method of research, teaching, etc. What is needed is not a result that will inevitably change in its meaning over time, but the process itself is important, which allows achieving new results through improvisation, the transformation of the old into the new, and, which allows maintaining value, but in a different guise. This tendency is becoming all-encompassing in all aspects, manifestations of life - one has only to recall the transformation of value orientations, improvisation of the style of behavior.

Confucius and Lao Tzu present contradictions as two in one: **external** and **internal**, logic, and paradox ("creating order in the world, you create chaos"). The analysis of the emerging socio-cultural situation, which is also reflected in the field of education, literally pushes to designate productive contradictions and the key research problem associated with the need to highlight the role and place of the internal as related to the external in a person, manifested in the field of education.

In our research, we hypothetically assumed that the role and place of the internal as related to the external will be revealed when justifying (confirming) that 1) the internal and external in a person constantly interact based on the contradiction between the desire for stability (determinism) and variability (probability); 2) based on this, it can be argued that the nature of the interactions of the internal (hidden) with the external (explicit) indicates the need for improvisation, interpretation, transformation; 3) this leads to the conclusion that, based on the

well-known provisions of the theory of activity, the content of education can be divided into internal and external components.

For the methodological basis of the study, a system-activity approach was defined, which can be expressed as follows: the transfer of the student's need for acquiring knowledge into educational need - the appearance, thereby, of a motive for educational activity (for example, motivation can be achieved by creating a situation of lack or excess information, and not only verbal) - the setting of tasks by the student himself - the transition to specific actions - obtaining certain results - the student's reflection in the classroom, in front of the teacher.

The study aimed to analyze the role and place of the internal as related to the external, and the research tasks were set, which do not yet claim the status of new scientific tasks: 1) the actual analysis of the existing theory and emerging practice in the field of interactions between internal and external in a person in the field of education; 2) the study of processes, one way or another associated with the disclosure of the role and place of the internal as related to the external in a person; 3) the allocation of definitions, definitions (scientific research apparatus); 4) development of a theoretical model for solving the research problem; 5) experimental testing of the model; 6) making the necessary changes and adjustments in the implementation of the model in the practice of pedagogical activity; 7) generalization of the obtained data and results, reaching conclusions and conclusions. All these research tasks are formulated based on the theory of activity, on the psychological construction of individual activity according to A.N. Leontiev (SLOBODCHIKOV and ISAEV, 1995, p. 132).

## LITERATURE REVIEW

This review is based on the analysis of the continuity of the views of N.A. Bernstein, V.V. Davydov, V.A. Ignatova, A.S. Fedorov, and other authors.

N.A. Bernstein revealed the essence of the ring motion control mechanism; introduced the method of cyclogrammetry (DAVYDOV, 2010, p. 104-109).

From the point of view of N.A. Bernstein, I.P. Pavlov's theory of conditioned reflexes was methodologically outdated for a long time. The neurophysiological teachings by N.A. Bernstein is used in medicine (restoration of movement in wounded soldiers), the method of sports training, the design of computer devices, biocybernetics (DAVYDOV, 2010, p. 104-109). V.A. Ignatova identifies external and internal parameters in the "teacher-student" system. Based on the works of many authors (ZAGVYAZINSKY, 2012; ILYENKO, 2003; KOSTYUK, 1999; NISSINEN, 1994; SADOVSKY, 1970; SALIKHOV, 2017; TRETYAKOV, 2003; CHERNIKOVA, 2005; SHEVELEVA, 1997). It should be emphasized that the main source of the emergence of new qualities is in the education system itself, i.e. it is **internal**. In this connection, there is a need for a reflexive style of managing the development of education.

Supporters of a synergistic approach in education (ARSHINOV, 1999; BOGUSLAVSKY, 2004; BUDANOV, 2009; BONDAREVSKAYA, 2007; KAPITSA, 1999; KNYAZEVA, 2020; KULNEVICH, 1997; KURDYUMOV, 1996; MALINETSKII, 2018; MATKIN, 1999; RYZHAKOV, 2006; TALANCHUK, 1991; SHEVELEVA, 1997) are also based on the proposition that the main source of the emergence of new qualities is internal.

But, here the contradiction is revealed - the internal source can no longer this "self-". To overcome the contradiction that has arisen, it is necessary to assume the "openness" of such a system as a person. The teacher of the Yakutsk College of Culture and Art, A.S. Fedorov, as the author of a unique teaching method, resorts to such a launch of openness, compares it with entering a special psycho-emotional state (in Yakut - "Turuk") (ZABOLOTSKAYA and FEDOROV, 2008).

## MATERIALS AND METHODS

The study used the methods of analysis, pedagogical observation, survey (interview), questionnaire, testing, diagnostics, and monitoring of the obtained (achieved) data and results. In general, the analysis sequentially included the following stages: 1). collection of factual material as parts of the future system (in our case, a theoretical model for solving the research problem), - the initial stage; 2) linking parts together according to the most obvious external signs, - the stage of highlighting **external** ties; 3) determining the formulation of the newly emerged connectedness of parts, - the formulation stage; 4) designation of the

connectedness of parts - the stage of highlighting the **internal** connectedness; 5) determining the adequacy of the various connections of parts according to their main parameters (characteristics, properties) - the stage of model approbation; 6) reaching the designation of the general principle (action, functioning) - the final stage.

The departments "Technology" and "Primary Education" of the Pedagogical Institute of the Ammosov North-Eastern Federal University, educational institutions of Yakutsk were chosen as an experimental base for the study. The time experiment covered 2018-2021, the selection of experimental and control groups was carried out on the principle of equalization, the sample was 750 people.

We have introduced the designation of expert assessments of preference for students in their choice of internal or external factors in the interconnection of criteria, indicators of their achievement, and indicators of the educational activity (see Table 1).

**Table 1.** Interrelation of criteria, indicators of their achievement, and indicators

| Criteria            | Scores  | Indicators   |
|---------------------|---|--|
| <b>Motivational</b> | The presence of a motivational situation, motives of activity, choice of goals in education; presence/absence of orientation, guidelines, idea, ideal, models, and the education paradigm   | The transition of the need for acquiring knowledge into an educational (cognitive) need indicates the dominance of the internal factor. Civilization needs; the influence of society, economic conditions, the material base of education - indicate the dominance of external factors   |
| <b>Search</b>       | The existing base of competencies of the student and the teacher, analysis of the situation, highlighting the key problem in the field of education; planning, setting tasks, elaboration of program actions; dividing events into stages | Potential capabilities of a student and a teacher, adaptability, independence, initiative, reflection, value orientation.<br>- indicate the dominance of the internal factor. Methods for structuring and filling content; ways and means of teaching; features of the teacher's activity, their creative potential - indicate the dominance of external factors |
| <b>Individual</b>   | Content of educational activities   | Plasticity to the perception of information, personal experience - indicates the dominance of the internal factor. The patterns of assimilation of information and the development of pedagogical systems - indicate the dominance of external factors   |

Source: Search data.

## RESULTS

At the ascertaining stage of the experiment, interviews, questionnaires, and testing were carried out to identify the experimental and control groups. At the formative stage, work was organized with experimental groups on the choice of the participants in the experiment aspirations for stability and variability; the possibilities of improvisation, interpretation, transformation, and division of the content of education into internal and external components. At the control stage, the obtained data and the results of the study were summarized.

Experimenting requires extrapolation of the results (conclusions) obtained in the experimental groups to the control groups. Only a positive approbation of the hypothesis put forward in the control groups allows for ascertaining the practical confirmation of the hypothesis put forward. The groups are aligned in terms of qualitative and quantitative characteristics. The hypothesis itself goes through idealized, working, and experimental stages. Only the passage of all the above stages allows one to proceed to the representation of the results obtained, for example, to the publication of an article. Conducting an experimental study allows concluding the following that it is not possible to:

- Simply and all the time expand the semantic load of the concepts used, sometimes abusing the analysis of the conceptual apparatus, the search for definitions;
- Artificially search for the result of the experiment;

- Reduce the tasks of experimental activity to the problem of experimental research.

## DISCUSSION

Most researchers believe that antinomies according to I. Kant and contradictions according to Hegel always arise between the **external** and **internal**, and it turns out that some adhere to the position of domination (determinism according to S.L. Rubinstein) of the **external**, others - **internal**. In describing human behavior, the reasons prompting a person to do certain things were most often looked for outside the person. Thus, AA Leontiev, referring to the scientific heritage of LS Vygotsky, writes: "To understand **internal** mental processes, one must go beyond the limits of the organism and look for an explanation in the social relations of this organism with the environment. He (Vygotsky - A.L.) liked to repeat: those who hope to find the source of higher mental processes within the individual fall into the same mistake as the monkey trying to find own reflection in the mirror behind the glass. Not inside the brain or spirit, but in signs, language, tools, social relations, there is a solution to the mysteries that intrigue psychologists" (VYGOTSKY, 1996, p. 8).

According to I. Kant, it is easier to think about dualism or the principle of determinism of S.L. Rubinstein (**external** causes act only through **internal** conditions). "Determination of a person's activity in isolation from own consciousness is just as impossible as the determination of own consciousness in isolation from those real relationships that are established in the activity. Just as the phenomenon of consciousness cannot be unambiguously determined outside its relationship to the object, so the act of behavior cannot be unambiguously determined outside its relationship to consciousness. The same movements can mean different actions, and different movements are the same action. The **external** side of behavior does not define it unambiguously, because the act of activity itself is a **unity of external and internal**, and not just an external fact, which only externally correlates with consciousness" (RUBINSTEIN, 2012, p. 22).

If we assume that neoplasms in the mind of a student can arise only due to testing by action, i.e. the content of a student's education (arises, is formed) in own very activity (in the process itself, in the course of activity), and the materialized content of education (books, textbooks, etc.) acts only as a means of teaching, then, therefore, the content of education is the method or a learning tool. According to the formula of L.S. Vygotsky: S (stimulus, goal of activity) - X (means) - R (the result of activity), in contrast to the well-known formula of behaviorism: S-R.

## CONCLUSION

If the early publications (ROMANOV et al., 2017; BORTNIK et al., 2017; ROMANOVA et al., 2018) considered the preparation of future bachelors, the teaching methods used (the method of introspection, etc.), then the presented article attempts to highlight the problem of the role and place of the internal as related to the external in a person in the field of education. The tasks set in the study were completed thanks to:

- 1) The choice of the author's algorithm for analyzing the existing theory and emerging practice (see the section of the article "Materials and Methods");
- 2) The study of the processes associated with the disclosure of the role and place of the internal as related to the external in a person;
- 3) The allocation of definitions, definitions (scientific research apparatus);
- 4) Development of a theoretical model for solving the research problem;
- 5) Experimental approbation of the model;
- 6) Making the necessary changes and adjustments (extrapolating conclusions, taking into account negative consequences and risks) during the implementation of the model in the practice of pedagogical activity;
- 7) Generalization of the obtained data and results (representation of the results).

It is possible that here the most striking example will be the well-established and completely different life values among the peoples of agricultural and pastoralist cultures, which are

preserved among the representatives of their culture (among the so-called representatives of the concept of “basic personality” as opposed to the concept of “modal personality”) **internal** resistance to modernization, as **an external** factor, in various spheres of life and marginalization of the way of life, the desire for a new style (way) of life, the possession of the benefits, the comforts of life.

The research leads, for example, to describe the phenomenon of the transformation of traditional crafts into modern technological processes. The description of this phenomenon was devoted to the final qualification works of three future bachelors of pedagogical education in the “Technology” profile. In more detail, the results of research on the transformation of traditional crafts into modern technological processes will be published in another article. Here this example is given as the interaction of the inner world of the master and external factors that affect own work.

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### Reflection of the inner world of a person in education

Reflexo do mundo interior de uma pessoa na educação

Reflexión del mundo interior de una persona en educación

#### Resumo

Os processos de globalização e integração que estão ocorrendo no mundo, bem como a transição para a digitalização de todas as esferas da vida humana na sociedade da informação, ajustes introduzidos na vida das pessoas, causados por situações imprevistas que abrangem o mundo inteiro, exigem uma revisão do conteúdo da educação moderna. A relevância do estudo está relacionada à necessidade de buscar apoio estável em uma pessoa em um mundo em constante mudança, o que inevitavelmente leva a estudar o papel do interno como relacionado ao fator externo em uma pessoa no sistema educacional. O objetivo do artigo é revelar o papel do mundo interior de uma pessoa na educação. O principal método de pesquisa foi a análise das disposições teóricas existentes e da prática emergente nas esferas da pedagogia e da educação. Os resultados do estudo sobre a análise do papel e do lugar do interno (motivação, impulso como início do desenvolvimento, auto-ordenação) relacionados ao externo (fatores, causas e condições).

**Palavras-chave:** Estrutura. Movimento. Transformação. Conteúdo de educação.

#### Abstract

The processes of globalization and related integration that are taking place in the world, as well as the transition to the digitalization of all spheres of human life in the information society, adjustments introduced into people's lives, caused by unforeseen situations that cover the whole world, require a revision of the content of modern education. The relevance of the study is related to the need to search for stable support in a person in a constantly changing world, which inevitably leads to studying the role of the internal as related to the external factor in a person in the education system. The purpose of the article is to reveal the role of the inner world of a person in education. The leading research method was the analysis of the existing theoretical provisions and emerging practice in the spheres of pedagogy and education. The results of the study on the analysis of the role and place of the internal (motivation, impetus as the beginning of development, self-ordering) as related to the external (factors, causes, and conditions).

**Keywords:** Structure. Movement. Transformation. Content of education.

#### Resumen

Los procesos de globalización e integración requieren una revisión del contenido de la educación moderna. La relevancia del estudio está relacionada con la necesidad de buscar apoyo estable en una persona en un mundo en constante cambio, lo que inevitablemente conduce a estudiar el papel de lo interno como relacionado con el factor externo en una persona en el sistema educativo. El propósito del artículo es revelar el papel del mundo interior de una persona en la educación. El principal método de investigación fue el análisis de las disposiciones teóricas existentes y la práctica emergente en los ámbitos de la pedagogía y la educación. Los resultados del estudio sobre el análisis del papel y el lugar del interno (motivación, impulso como inicio del desarrollo, auto-ordenación) relacionados con lo externo (factores, causas y condiciones).

**Palabras-clave:** Estructura. Movimiento. Transformación. Contenido de la educación.