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## **Genesis-modeling Method in the Educational Process**

**Ivan Bekh<sup>1</sup>, Yurii Pelekh<sup>2</sup>**

### **Abstract**

Innovative development ideas in the modern educational process lead to the search for adequate methods that should provide, firstly, humanistic orientation, secondly, be interactive, thirdly, be based on the ideas of higher psychological mechanisms of consciousness and self-consciousness. The genesis-modeling method has to provide an educational strategy for the growing personality. The peculiarity of the genesis-modeling method is that it aims at both the model (ideal representation) of a particular personal formation (value) and the optimal way to achieve it. Due to a dual purpose, this method can be qualified as an innovative psychological-pedagogical project, which has its own value, because its content allows productive educational variations. Genesis-modeling method involves the means of organizing own behavior by a person at the stage of perception as well as at the stage of arbitrary acceptance of an ethical requirement (spiritual value). These characteristics of the genesis-modeling method are deduced from a number of methodological principles: 1) The principle of activity of the situation components, which states the relationship between the subject and social environment; 2) The principle of systematic personal development reveals in internal relations the difficult stage of their transformation in the process of cultural development of the subject; 3) The principle of the active nature of personal development explains the peculiarities of their origin: from natural-reactive to arbitrary-sustainable. The transformative possibilities of the genesis-modeling method are considered using the example of such a value as diligence, which is ranked from high to low level. It reveals the four stages of the personality's growth to the designated value. For each of them, in the task-oriented way, the research presents the specific purpose of the educator's actions, tactics, direction, content, mode of presentation, conditions of action, as well as the nature of the student's response. The task-oriented form of realization of these stages allows carrying out timely postoperative control. The fifth stage is the reflexive one, which includes the appropriate exercises aimed at providing the development of student's value of diligence. The research also presents quantitative results, which testify to the high efficiency of the genesis-modeling method in the general educational process.

**Keywords:** Genesis-modeling method, Stages of formation, Principles of organization, Levels of diligence, Developmental results.

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## Introduction

The technology-oriented paradigm (Paap, 2001) in modern education has come into a marked contradiction with the need for spiritualization of knowledge, which functions as a value, a tool for the development of personality in the world. Educators and psychologists are rightly looking for a solution to this contradiction and for the creation of new methodological systems of education and training that will use the untouched reserves of the human psyche (Bekh, 2008; Pelekh, 2009; Savchyn, 2013; Copp, 2016).

Just as a chain reaction does not occur until a certain concentration of the substance is reached, the fragmentation of the information flow makes it difficult to consolidate knowledge, which is the purpose of an educational process focused on the complete humanistic development of an individual. Most of all, it concerns ethical knowledge, which should serve a substantive basis for certain values of a growing personality (Graham et al., 2011).

Whether they will become true spiritual regulators of socially meaningful life, or will turn out to be only formal segments of knowledge without any social embodiment depends on the method of their presentation to a student. The method itself has to constitute the transformative possibilities of the innovative upbringing theory (Cohen & Manion, 1994).

It is possible to make a scientific understanding of a particular method and to discover its internal development potentials only by referring to its historical progress considered as a process of corresponding transformations.

Historically, the process of education as a scientifically organized social phenomenon acquired this status when it was associated and agreed with the methods appropriate to its purpose. Up to this scientific moment, education was factual and depended on the individual ideas of parents or adults about how to influence the student. At best, the educational action of the influencer was associated with direct communication aimed at personal transformation. A common feature of such communication as the method was the lack of directional reflection on the educational action of the subject. Therefore, it was not possible to talk about a certain educational method in action as the methodological equipment of the educational process.

Cognitive methods appeared to be the basis for a true (scientifically appropriate) educational method. Therefore, cognition should be based on cognitive testing, and then it will produce effective results (Collins, 2003). Since the time of Francis Bacon, it was becoming more and more clear that relying solely on the intuition of the subject of educational influence is not enough, and one should think about the relevant theory in this transformative sphere. This meant that without knowledge of the mechanisms, methods, means and conditions that accumulate (as structural components) in educational methods, the process of education would not be effective for its purposes.

This was already a significant step in the overall understanding of the role of the educational method. However, it still had its functional limitations, as it only stated, albeit in a differentiated sense, the relation "the path of achievement – the goal of achievement." This approach to the problem of the educational method as a whole can be classified as formal. A further logical step was the dialectical approach, both at the philosophical and scientific levels. The explanatory principle was central here, as it affirmed the social and cultural role of personality formation (Marginson & Dang, 2017). It was directly associated with the idea of managing certain processes, both cognitive and object-transformative. The latter include educational processes.

Traditional (or classical) approaches focused on the main educational tasks: organization, group formation and of its development (Bredeson, 2000). It included the formation of the students' outlook, equipping them with ideological and moral, scientific knowledge and transforming this knowledge into beliefs. It also included practical training of students, formation of their special

knowledge, a certain degree of skills in various activities as well the pedagogical management of students' activity and its stimulation.

The leading role in the solution of each of these tasks belongs to four groups of methods, respectively: the methods of organization of the educational group; methods of ideological and moral persuasion; methods of practical training; methods of pedagogical influence. The methods of organization of the educational group include unified requirements, self-care, competition, and self-management. Persuasion techniques include information, search, discussion, and education. Practical training methods include coaching, exercises, control, and mutual learning. Methods of pedagogical action are connected with the demand, perspective, encouragement and punishment, and public opinion. (Korotov, 1980).

The use of the discussion method is indicative for the traditional educational approach. It is possible only if the students are sure in their correctness, in the truth of the provisions, which they uphold. In our view, this is a simplified view of this complex problem. The method of pedagogical action offers encouragement and punishment.

It is clear that traditional methods do not stand the test of our time, because they are based, first, on external reinforcement and the process of information, and secondly, they are not based on deep psychological mechanisms of consciousness and self-consciousness in their unity, do not control emotions, in particular, ideological and moral beliefs. In general, the analyzed methods are not adequate for the development of humanistic, high-meaning, and unconditional personal spiritual values that define the sense of the worthy life of an individual (Sagiv, Roccas, Cieciuch, & Schwartz, 2017).

### **Research hypothesis**

The genesis-modeling method is able to fully reveal its developmental educational possibilities at the technological-operational level, if it is systematic concerning its mental-emotional unity, which will undergo regulated transformations from direct emotional experience to its reflexive enrichment and the acquisition of a certain spiritual and moral value.

### **Research objectives**

- 1) To develop a methodological basis for the study of the genesis-modeling method in the form of explanatory principles.
- 2) To formulate a theoretical model of the final product in its essential dynamics, following the logic of meaningful growth.
- 3) According to the model, to develop goals provided by the appropriate methods of action as a transformative dialogue in the system "educator – student."
- 4) To form in the subject of educational influence reflexive-psychological readiness for action according to the content of a certain spiritual value.

**Aim of research:** To develop a logical and psychological basis and create a consistent program-operating procedure for the implementation of the genesis-modeling method.

The research is addressed to practical educators, methodologists, and scientists in the field of psychology and pedagogy.

### **Research methodology**

#### *General Background*

The following scientific positions were methodological prerequisites for the creation of the genesis-modeling method.

1. The opinion of L.S. Vygotsky, according to which the dynamic unit of personality's consciousness is not the process of understanding, but the experience. It is precisely in the experience, there is a component of cognition on the one hand, and on the other hand, a relation to the known. It is a cognitive-emotional integrity as a representative of consciousness. "An experience has a biosocial orientation; it is between the personality and the environment, it means the relation of the personality to the environment, it shows what the moment of the environment is for the personality." (Vygotsky, 1984).

2. Philip Lersch's (2001) opinion on the dialogical nature of a person. According to it, a human is what he/she is because of the way he/she reflects the world and how he/she behaves in it. A person behaves in a constant circular process of communication of the individual with the world; it actually constitutes a dialogue between a human and the world. Therefore, the soul and the world form a polar-coexisting unity.

3. Provisions of D. Miller, E. Galanter, and K. Pribram (1965) on the peculiarities of plans and structures of human behavior. Of paramount importance in this regard is the thought about a "Plan" as a series of actions that affirm a hierarchical system of behavior. Knowledge should be included in the Plan, since otherwise the Plan cannot serve as a basis for behavioral guidance, and, according to scientists, this system is the only correct one.

#### *Sample*

The total sample included 352 respondents (adolescents) from Rivne (Western Ukraine), Mykolaiv (Southern Ukraine), and Zaporizhzhia (Eastern Ukraine) regions. As the participants of the experiment were children aged 12 to 14, it was considered incorrect to determine the specific age and gender of the subjects.

#### *Conceptual model*

The peculiarity of the genesis-modeling method is that it provides not only a model (ideal representation) of a particular inner formation, but also an optimal way of achieving it. It should be clarified that this method can fully reveal the process of stepwise, psychologically verified emergence (genesis) of a particular psychological (mental or personal) new formation (scientific concept, ability, spiritual and moral quality as values). It is this dual model, both at the level of the goal and the method of achieving it, the genesis-modeling method provides, and in this way, it is truly developmentally innovative.

The versatility of this method is that it allows managing any moral and spiritual value, regardless of its specific nature.

Genetic-modeling method contains the means by which the subject organizes own behavior at the stage of both perception and arbitrary acceptance of social demand (value). These means function in the processes of forming emotional images and volitional experiences. Genesis-modeling method fully implements the idea of social conditionality of the human psyche, because social determinants act as psychological tools for the deployment of the internal process.

Any method of education is a certain way of organizing the pedagogical influences and activities of the subject aimed at their acceptance. The developmental effectiveness of the method depends on this organizational function. Therefore, when employing the genesis-modeling method in the field of personality education, we should distinguish its basic principles regarding the organizational function.

The theoretical analysis of the essence of the genesis-modeling method allows formulating the *principle of activity of the situation components*. It establishes the relationship between the subject and the social environment. The subject and the social environment are seen as primary unity, a situation that is the driving force of person's behavior. It should be borne in mind that social factors

are not only favorable but also passive to the subject. It is a matter of active action of these factors concerning a person. In addition, they become involved in the structure of mental operations, begin to perform the functions of active "agents" which externally control internal processes.

If we take into account the approach developed in the psychology of education to the relation "social action – the subject", it turns out that its structural components are presented unequally. Emphasis is placed on the external and internal activity of the subject. Social action – the action of the environment – remains methodologically impoverished, under-operationalized, which reduces its transformative effectiveness.

The activity of social factors (requirements, events, etc.) should be taken into account because they influence the subject and cause his/her mental activity. With regard to the task of arbitrarily adopting an ethical standard, an activity is important not by itself, but by the degree of its manifestation. The reflection by the subject of social demand does not end in the form of an image of perception, but it should give rise to the process of emotional experience of the perceived. The generated emotional image of the ethical-moral requirement continues to show activity in terms of encouraging the subject to inner work aimed at the arbitrary decision-making to act in the proposed way (in terms of a certain value).

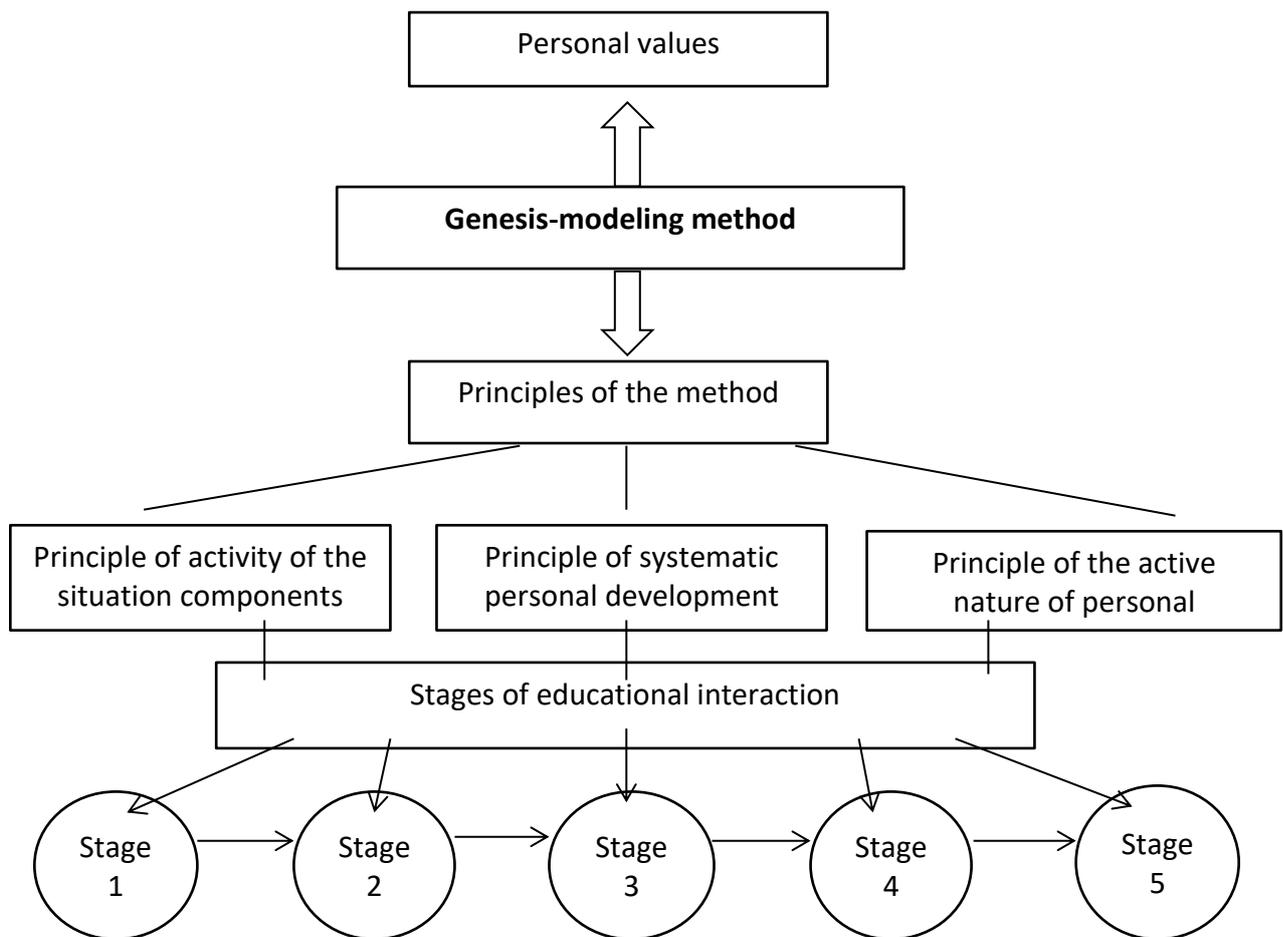
*The principle of systematic personal development* reveals in internal relationships and patterns the difficult stage of their transformation in the process of cultural development of a person. The origins of personal qualities are elementary emotional experiences, which are transformed into an awareness of feelings and motives for behavior and activity. These two basic forms of emotions are the essence of the development of personal qualities. Thus, awareness transforms a simple internal structure of the emotional response into a complex, systemic formation – cognitive-emotional integrity, the psychic equivalent of a personal quality. A primitive, unconscious emotional experience causes situational behavior, which causes the child to become a passive subject controlled by the environment. The transition from situational to conscious socially determined behavior happens due to the manifestation of personal qualities.

*The principle of the active nature of personal development* explains the originality of the moment of their emergence, and their development is an arbitrary process, because an individual always has a steady desire to function according to the laws of natural behaviors, which resist conscious acceptance of socially produced ways of life. Arbitrariness is characterized by the fact that the subject acquires the ability to construct own behavior consciously (based on personal traits, which are in the process of formation), becoming free from the power of both natural state and a particular situation.

Based on the psychological concept of the genesis-modeling method, it is possible to determine the structure of the corresponding personal task. In order to achieve the goal, the educator and the student must solve a personal task jointly. The educator (it can also be a group of students) as a subject of action (SA) does this by directing own activity at the students who are an object of action (OA), causing in them appropriate intellectual and emotional activity, which helps to solve the task of self-education and self-change. If the student does not solve this problem, then the target set by the educator will not be reached.

The proposed personal task is connected with the formulation by the educator of a socially important requirement and the organization of activities of the student aimed at its conscious acceptance. A complete deployment of a personal task occurs when it is solved in extremely difficult circumstances, that is, when an individual child or group does not accept the requirements, which results in a disruption of the joint activity. An example of such a personal task may be the situation of the need to involve students in community activities and the rejection of several of them to be involved, that is, the situation of forming diligence in them as spiritual value.

## Structure of genesis-modeling method



**Figure 1. Structure of genesis-modeling method**

## Levels of diligence development

*High level.* A person consciously and willingly carries out work orders. A person has a respectful attitude to the work of adults and peers. Work skills are age-appropriate and are creatively used in new types of work. A person strives to do the work independently and as best as possible. A person notices the difficulties of peers and always helps. A person has great emotional satisfaction with the results of work. A person takes good care of school property and demands it from others.

*Average level.* A person performs work orders willingly, especially if they enable him/her to meet personal needs. Work skills are sustainable, but they are not used creatively. A person works honestly. A person is willing to help others depending on the situation. A person treats personal belongings with care, does not spoil them, but does not stop others. A person has developed self-care skills.

*Below average level.* A person performs work orders after reminders. A person does it reluctantly and carelessly. Work skills are unstable. Knowledge about certain labor operations is superficial. A person tends not to notice situations when there is a need to help peers and adults, helps only at their request. The emotional component is poorly manifested. A person carelessly treats school property. Self-care skills are underdeveloped.

*Low level.* A person refuses to perform work orders. Work skills are poorly developed and age-inappropriate. A person refuses to help peers and adults, revealing traits of selfish behavior. There is no emotional component. Sometimes a person spoils school property, keeps personal belongings in disarray. Self-care skills are not developed.

*Instruction:*

The teacher should systematically record the behavior of the younger students in different situations of school and extra-curricular life and classify it according to the standards of the given diagnostic procedure.

Let us consider a level model of value "diligence".

There are five stages of solving a personal task related to diligence. For four of them, there are the specific purpose of the educator's actions, tactics, direction, content, method of presentation, conditions of action, as well as the nature of the student's response. The fifth stage includes the process of self-awareness.

**First stage. Purpose of the action:** by analyzing the content of the act, to disclose to the student (OA) his or her real attitude toward learning.

*Tactics:* at this stage, the SA should neutralize the negative impact of the OA's act on the moral and psychological climate of the group.

*Direction of the action* is a means of purpose implementation. It can be personal, behavioral, or a combination of these. If the direction is personal, then the motives and qualities of the OA should be analyzed and evaluated, and if it is behavioral, the actions should be analyzed and evaluated. At the beginning stage, the direction of the action is personal. The object of evaluation is not so much the act of refusing to work, but the educational motive, which is objectively consistent with the act. For example, the content of the direction of action is formulated as follows, "You consider school is not a place to study, as you say, but a place to have fun, as your act proves."

*Content of the action* (tactics is revealed through it): the educator in the presence of the OA addresses to the group with a judgment about the willingness to take over the performance of its functions. The group accepts this judgment as one of the motives of activity. For example, "Let us do this without Oleg, we will do his share of work. Do you agree?"

*The course of action* can be direct and indirect. At this stage, it is indirect because the educator influences the OA not directly but via the group.

*Conditions of the action:* it can occur in and outside the group. In the first stage, the group performs the educational action.

*OA's response:* ignoring demands, being self-contained, demonstrating imaginary independence from the group, being alone.

**Second stage. Purpose of the action:** to cause in the OA the fight of motives.

*Tactics:* practical implementation of the normative way of behavior as a means of influencing OA.

*Direction of the action:* personal. The tutor reveals the actual and potential motives of the OA, reveals the perspectives of behavior and attitude of the group to the student if he/she wishes to work.

*Content of the action:* fulfillment of the requirement for the group to work in conditions of certain restriction of interpersonal contacts with the OA for the realization of psychological influence on him/her.

*The course of action:* direct.

*Conditions of the action:* in the group.

*OA's response:* beginning of the process of emotional experience about own position and the given requirement.

**Third stage.** *Purpose of the action:* to achieve a full reflection process of the OA.

*Tactics:* carefully mobilizes the OA to make a proper decision.

*Direction of the action:* personal-behavioral. Both the act and the personal qualities of the OA are the subject of evaluation.

*Content of the action:* the educator conducts the conversation, which includes:

a) formation in the OA of the proper attitude to the rules of behavior in the group; b) clarifying OA's opinion on the implementation of the rules of conduct by the members of the group; c) evaluation by OA of own performance in terms of its impact on the life of the group as a whole; d) explaining by the OA of the actions of the group regarding his/her acts. For example, "Do you think that at school every student can behave as he wants?", "Do other members of the group follow the rules?", "Does your act negatively affect the life of the group?", "What do you think about the group's attitude to you?" Then the educator emphasizes on the correctness of actions of the group concerning OA, confirms the given earlier personal assessment and the evaluation of the action, expresses confidence in the identification of positive traits, reveals the prospects of an important for the group way of behavior).

*The course of action:* direct.

*Conditions of the action:* in the group.

*OA's response:* critical assessment of own behavior.

**Fourth stage.** *Purpose of the action:* to form in the OA the initial psychological readiness for the normative way of behavior.

*Tactics:* supports new behavioral motive.

*Direction of the action:* behavioral. SA (students) direct efforts to the behavioral sphere of OA.

*Content of the action:* some members of the group show supportive and directional speech reactions about the right way to solve the moral problem by the OA. The rest of the group members do not yet enter interpersonal contacts.

*The course of action:* direct.

*Conditions of the action:* both individual and in the group.

*OA's response:* primary conscious acceptance of a social demand.

**Fifth stage.** *Purpose of the action:* consolidation of "diligence" value in the internal world of the student as a social requirement. The purpose of the fifth stage is achieved through a comprehensive process of self-awareness in the form of appropriate exercises.

**Exercise for the development of "diligence" value.**

1. Forget any wishes, intentions, etc. Focus on the concept of diligence and reflect on it. What kind of value is it, what is its nature, meaning, etc.?

2. Try to realize the importance of diligence, its purpose, its usefulness in establishing positive interpersonal relationships and good moral and psychological atmosphere in the group. Wish to possess it.
3. Try to evoke the experience of diligence by imagining the particular behavioral situation in which diligence should manifest itself. Try to see and feel yourself diligent in this situation.
4. Promise yourself that you will always be diligent.
5. Make a plate with the word "diligence" written on it, using a color that you think most fully reflects this value.

This exercise can form the basis of a larger program. It is advisable to find works of poetry, painting, postcards, biographical passages, etc. that evoke or symbolize diligence for you. By surrounding yourself with such materials, you will be able to develop this personal value.

Creative imagination is an effective tool of personal self-development, it is used to form an ideal model of a specific moral and spiritual image of "I", which becomes a benchmark for growth, empowerment and can be embodied in life. In this case, it will be a matter of self-development of the desired personal value, which is not yet the basis of a specific image of "I". Below, there is the ideal model exercise for individual use.

The sequence of the exercise based on the example "diligence" value.

1. Close your eyes and think about a specific image of yourself in the context of a certain personal value. Let it appear in your inner vision.
2. Imagine what you would be like if you were fully diligent. Allow this image to be fully detailed. See how this value is manifested in the look, body position, and facial expression. (At first, the image may not be sufficiently stable, blurred, appear and disappear, but even in this way, it will affect your subconscious.) Hold this image in thought for a few moments, urging it to more fully identify the chosen value of diligence.
3. Imagine that you enter this image and form one whole with it, as if you were putting on new clothes. When you merge with this image, try to feel that diligence is becoming a part of you. Imagine what it means to fully possess this value. Feel that diligence has penetrated every cell of your body, flows through your veins, permeates your whole body, your feelings, your way of thinking, and your motives.
4. Imagine yourself being in one or more situations of daily life, showing diligence beyond the ordinary. Imagine in detail how these situations unfold.
5. Open your eyes and draw this image or its symbol. If your imagination has not created an image, start drawing and it will appear.
6. Write down the thoughts that have arisen in connection with this image, describe the emotional experiences caused by it, the meaning of your drawing, and how it relates to your everyday life.
7. Answer the question: on what grounds, beliefs, motives, and experiences do I consider the model of a particular image of "I" to be ideal?
8. Complete the exercise by declaring your determination to act all day according to the ideal model.

### ***Identification***

For the act of identifying the subject with a particular personal value (diligence) to happen, it must cause in the subject at some point a sense of the fullest life, be subjectively unmatched and profound. As a result of this identification, a person experiences him/herself, and speaks for the most part within the life expression of this value, considers it to be one of the central and closest components of the s personality. A person rejoices in own moral gain and seeks to make full use of it. Prolonged identification with one's personal values ultimately leads to the harmonization of life situations, the elimination or significant mitigation of crisis phenomena, since such self-identification is an internal basis for gaining personal experience as a stabilizing factor in human behavior and activity.

The self-identification exercise offered below will help to master, manage, and use a certain personal value (diligence).

#### **The sequence of the exercise**

1. Having relaxed, tell yourself slowly and meaningfully, "I realize that I am diligent".
2. Focus on the basic idea, "I am a carrier of diligence, without it I do not imagine myself."
3. Try to realize this as a fact of personal experience in following direction: Who am I, what is the essence of my "I"? The essence of my "I" is my personal values, including diligence. I affirm my identity with them and realize their resilience and strength.
4. Keep diligence in mind and joyfully experience it.

#### ***Inner dialog***

Imagine your diligence in the image of the girl who radiates it. Enter an internal dialogue with this image. Ask what you would like to know about diligence with regard to its expression in the appropriate action.

#### ***Symbolization***

A certain personal value (such as diligence) is symbolized by visualizing a visual representation of the process of turning a rosebud into an exposed flower.

#### **The sequence of the exercise**

1. Close your eyes. Relax.
2. Imagine a rose in the bud stage. Now look directly at the bud. It is still covered with green sepals, but at its very apex, one can see a small speck of a future flower. Focus on this image.
3. Very slowly, the sepals begin to separate, unfolding and opening the still closed petals. The sepals continue to open until you see the whole future flower.
4. The petals also begin to slowly unfold; you see a fragrant rose, already fully exposed. Try to smell the rose and feel its aroma.
5. Now identify in your imagination your image of diligence with a rose. The rose, the blossom of which you have clearly imagined, symbolizes the development of your diligence.
6. Realize everything you have imagined. Open your eyes.

The technique of "directional representation" serves the same purpose. Having identified him/herself with a certain personal value (diligence), the student uses the symbol of ascent. As you start climbing, imagine the landscape that unfolds in front of you, how you wade through the thickets

of trees, walk through a mountain meadow or along the edge of a cliff. Feel the rising sense of ascension, how the air becomes clear, listen to the silence that prevails around. Throughout the climb, do not forget your personal worth. The imaginative experience of mountain climbing is an internal ascent to a higher level of the possessed personal value. Here is a pattern observed by psychologists, according to which the attempt of ascent, carried out by a person in the imagination, causes the emergence of life-giving images, accompanied by various euphoric (joyful) experiences. On the contrary, the descent causes gloomy images and feelings of sadness, anxiety, and suffering. If we imagine that we are climbing up a mountain, taking with us some personal value, then we can cause some changes in it: to emotionally enrich, to understand its present and future contribution to the personality.

Each formed personal value in the process of education should act as a kind of a "sanctioning center", which gives permission for further intentions and decisions of the student. The creation of such a center and its expansion is, in fact, the development of the power of the child's beneficial "I". In the process of deploying inner speech, a person must constantly refer to the "sanctioning center", which is based on the internal spiritual and cultural values. This is an effective developmental technique, because the student mentally divides his/her "I" into parts that impede (selfish experiences) and promote (caring for others) personal growth. Using this technique, a person deals only with the latter, ignoring the former.

Therefore, for the proper perception and analysis, there must be a "psychological distance" between the sanctioning center and those mental entities that resist its action. In this activity, these mental entities lose their braking power, freeing up the space for the sanctioning center.

A certain personal value in the image of "I" functions as a relatively rigid program of certain types of behavior. If the image of "I" states that a person is diligent, but in some circumstances commits acts of the opposite content, then a person has emotional feelings related to the decrease of self-esteem. The discrepancy between the image of "I" and real behavior becomes the psychological basis for the generation of suffering. The more significant is the quality recorded in the image of "I", the more the difference is experienced.

Education must take into account the fundamental psychological pattern: the stronger and more stable the personal values of the child become, the easier it is to get rid of selfish aspirations and limitations that hinder the development of the moral and spiritual image of "I".

It is necessary to constantly and purposefully develop in the child the activity of his/her "I". An important role in this is played by the student's perception of his/her "I" which acts and initiates certain changes around (or inside) him/herself. In order to develop the activity of "I", the child must show emotional and value attitude not only to the concrete results of the actions or deeds, but also to the intentions, motives. For example, the student states, "I am glad that I showed my desire." This is where the logical emphasis is placed on own "I". The educator should do the same kind of assessment. The educator should support and welcome each, even a weak attempt of the student to discover his or her social and moral self.

With the help of such techniques, the student, first, transforms his/her "I" from the potential state to actual. Second, the specific manifestations of activity, which by their nature are emotional experiences, are generalized into a meaningful emotional formation, a kind of arrangement, the psychological mechanism of which is the emotional experience (the experience of conscious desire to act appropriately, for example, to be diligent). Since conscious desire psychologically corresponds to one's personal value, one can speak of its emotional support, that is, the activity of "I".

The student must emotionally experience the state of his/her involvement in (or even being the source of) changing the surrounding world. This desire to be the cause of one's actions is not a particular motive, but a guiding principle that unites various motives. A person has a certain emotional state – the joy of activity.

### Research results

Experimental verification of the genesis-modeling method was carried out in three stages: ascertaining, forming, and control-evaluation. The ascertaining stage of the experimental verification of the genesis-modeling method effectiveness had to check the initial “input” level of diligence of the respondents in the general sample and to differentiate the general sample into experimental and control ones. After ascertaining diagnosis, we obtained the following results (Table 1):

**Table 1. Level of diligence (as a value) of adolescents at the ascertaining stage of the study**

Sample	Level of diligence							
	Low		Lower than average		Average		High	
	N	%	N	%	N	%	N	%
General	109	31	148	42	53	15	42	12
Control	53	30	75	42	27	15	23	13
Experimental	57	32	74	43	24	14	19	11

The distribution of the diligence indicators among four levels (low, lower than average, average, high) corresponded to the normal distribution. In order to analyze the empirical data on the normal distribution, we used the Lilliefors criterion, whose value is fixed at 0.184, which exceeds the threshold value ( $p > 0.05$ ). This indicates a normal distribution of empirical findings of ascertaining diagnosis. According to the results of division of the total sample, the control sample included 178 persons, and experimental – 174 persons. For comparison of control and experimental samples (two independent groups) we used Student's t-test, the statistical value of which was 0.481, which exceeds the admissible one ( $p > 0.05$ ) and certifies the correctness of the selection of the control and experimental groups (samples are similar).

Quantitative indicators of diligence characterized the real picture of the traditional educational process. The control and experimental groups are dominated by students with low and lower than average levels of diligence.

The forming stage of the experiment involved 11 classes of secondary schools that were part of the experimental base. The forming tasks were implemented as follows: the experimental group was subject to all stages of the genesis-modeling method, the control group used only traditional educational approaches of diligence formation inherent in specific general education schools. The duration of the forming experiment was 24 academic hours.

The control stage of the experiment involved diagnosing the level of diligence in adolescents who were included in the experimental and control group after the introduction of the genetic-modeling method. The results of the control diagnosis are presented in table 2.

The overall results of the forming stage of the experiment are presented in table 2.

**Table 2. Level of diligence (as a value) of adolescents at the control stage of the study**

Sample	Level of diligence							
	Low		Lower than average		Average		High	
	N	%	N	%	N	%	N	%
Control	55	31	73	41	27	15	23	13
Experimental	40	23	69	40	37	21	28	16

As it can be seen, the number of adolescents with low levels of diligence (-9%) decreased significantly in comparison with the final stage of the study in the experimental group, and the number of students with intermediate (+ 7%) and high (+ 5%) levels increased significantly. At the same time, the indicators for diagnosing the level of diligence in the control group underwent very little change within 1%. The experiment showed a significant developmental advantage of the genesis-modeling method over traditional educational methods.

The genesis-modeling method has been brought to such technological condition that it can be used in the general educational process.

### Discussion

It is expedient to discuss different scientific positions in the context of our theoretical and methodological claims following certain lines concerning the transformative potential of the method, which developed in the traditional theory of education, the definition of personality as its purpose, and the psychological mechanisms implemented in the system “subject of influence – object of influence.”

In the widespread sense, the method of education means the ways and means of interconnected activities of educators aimed at achieving educational goals (Babanskiy, 1982; Sukhomlinskiy, 1975; Shchukina, 1966).

In such definitions, preference is given to the final results regardless of the relevant categories: moral traits, properties, ideals. However, it should be borne in mind that the educational effect of the method is not only its purpose, but by also its operational implementation. Moreover, not the result of education is a true holistic formation, but the result together with its formation. This is lacking in a real, modern educational process, in which a student is set up to achieve a goal without resorting to a means of achievement. Therefore, the complete personal development of the students as subjects of social transformation is not ensured when the collective being is transformed into co-being with the corresponding value norms.

The essence of the issue related to educational methods is the type of personality they are oriented towards. In this context, G. Allport (2002) relates it to a common way of adapting to the existing environment. Restricting one's personality in a certain way leads to the loss of own complete subjectivity, spiritual and moral beliefs, and (most importantly) failure to defend them contrary to the group opinion. Therefore, it is advisable to interpret the developed person as a subject of free and at the same time responsible spiritual and moral action (deed) in certain social situations.

Psychological mechanisms of consciousness and self-consciousness (as leading in the educational influence of the educator on the student) and the activity of the growing personality, which is determined by internal aspirations, should correlate with this definition. How to develop such drivers of self-activity? This is a problem of important methodological significance. D. Leontiev (1999) proposes explicating them through associative relationships with pre-existing personal needs in the inner world, mostly at the vital level. However, in the hidden form, we have an incentive – a jet scheme with all its developmental limitations. We support A. Langle's (2008) idea of meaningful personality formation as a result of understanding the value in the context of one's own experience.

However, it seems more promising to rely on the position of S. Rubinstein (2002), according to which there are no pure cognitive processes, and in each of them, there is a moment of attitude. They include emotional experiences, as components of personality, which are primarily spiritual values. Nevertheless, emotional experiences may not be strong enough. However, given that emotions are the result of the processing of information (in this case, ethical content), it is possible to enhance them as a component of spiritual value, which develops in the directed educational process built on the basis of the genesis-modeling method.

### **Conclusions**

The described normative model for solving the personal task of diligence development is the scientific and psychological basis for proper organization of education. Of course, in each specific case, it can be modified somewhat depending on the nature of the student's behavior: persistent negative, situationally negative, or situationally positive. It determines whether the educator needs to go through all the steps, or can remove or unite them.

The basic idea of the normative model, connected with the differentiation of the purpose and tactics of the educator's actions, and the exercises for the unfolding of the process of self-awareness, must be preserved, because it has been made taking into account the peculiarities of the inner world of the student, through which all educational efforts pass.

Practical testing of this model of educating children of all ages showed its rather high educational effect.

It was ensured by a general child-centered orientation of pedagogical influences, in which the student did not remain in his mental world, but perceived these impulses in inner harmony, adjusting own mode of action. The tactics, in which a certain personal quality or intention of a student was considered in the context of a corresponding act, which proved his or her inner-behavioral integrity by the key parameter of value self-presentation, was quite developmentally productive.

### **Compliance with Ethical Standards**

**Conflict of Interest** The authors declare that they have no conflict of interest.

**Ethical Approval** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed Consent** Informed consent was obtained from all individual participants included in the study. All subjects of the institutional survey gave consent for anonymised data to be used for publication purposes.

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