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Adolescents of Generation Z: the Development of Personal Agency in the Environment of Additional Education

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Abstract

The article reveals the theoretical and practical aspects of the development of adolescent's personal agency in the environment of additional education. A theoretical analysis of studies that determine the set of personal characteristics of adolescents of generation Z is presented.

The author substantiates the author's understanding of the personal agency of a teenager as an integrated characteristic of his personality, manifested in his ability to self-organize and self-realize, build effective social communications, social interaction and moral and value relations with others, aimed at satisfying his activity needs in world-building.

Additional education institutions are characterized as spaces that provide a high level of intensity of joint activities and communication of adolescents, opportunities for various activities, a positive psychological atmosphere of cooperation and creation with peers and adults.

The thematic content of the additional educational program "Social Testing Ground" is presented, which allows developing creative abilities and leadership potential, as well as improving those qualities of adolescents that made it possible to increase their level of personal agency. The program involved the development of four modules: social-individual, social-communicative, social-interactive, social-moral. The methods for studying the development of personal agency of adolescents are described.

The results of a longitudinal pre-experimental research design are presented, during which a complex impact on the personality of an adolescent was realized, which allowed him to more productively realize his self, readiness to express and defend his own opinion, accomplish goals both independently and in creative interaction with other people. The high efficiency of the socially

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enriched environment of additional education for the formation of the personal agency of the younger generation Z has been confirmed.

Keywords: generation Z, personal agency, adolescent, socially enriched environment, additional education.

1. Introduction

The theory of generations, which is now widely used in science and practice, developed in the 1990s and is associated with the names of American scientists N. Howe and W. Strauss (Malykhina, 2014). Describing the cyclicity and change of four human archetypes based on the analysis of the history of the development of American society, the researchers noted that there is a certain periodicity (about 20 years) with which a new generation, significantly different from the previous one, appears. The change of generations is closely related to the alternation of the stages of the socio-economic development of society, among which are awakening, flourishing, destruction and crisis.

Each stage is characterized by a specific set of conditions and events that influence the formation of the younger generation, determining the content of its values. Within the framework of this theory, dominant and recessive generations are distinguished by social orientation. At the same time, based on the type of socio-economic relations during the formation of this generation, they are classified by analogy with the seasons (Gurova, Evdokimova, 2017).

In various sources, the time limits of generations differ somewhat, but their names and basic characteristics, as a rule, coincide. The following generations are distinguished: "silent" (1924–1943), the "Baby Boomer" generation (1944–1963), generation X (1964–1984), generation Y (1985–2002), generation Z (2003–2023). Such factors as economic, political, technological, social, cultural and other processes of social life have a significant impact on the formation of the way of thinking, values and behaviors of each generation.

Researchers use the theory of generations by N. Howe and W. Strauss both in the framework of scientific works and projects of popular science (Ozhiganova, 2015; Skoblik, 2019), while their special attention is directed to young representatives of generation Z, adolescents in particular. This age period is sensitive for changes in relationships with others and changes in oneself. Therefore, the question of their psychological characteristics is natural.

So, U.A. Kogteva and E.V. Kogteva write that the life values of the representatives of generation Z are still in the process of formation. That is why situations of gaining experience and impressions, the desire for self-realization, the priority of leadership over management, partnership, collective decision-making, and lack of attachment to the workplace are important for them (Kogteva, 2019).

J. Twenge highlights the desire of adolescents for greater physical security, a tendency to depression, suicide, psychological immaturity, infantilism, and a lower level of involvement in relationships with peers (Twenge, 2017).

M. Prensky focuses on the features of their cognitive sphere such as a high speed of information processing, multitasking instead of sequence, development of spatial thinking with a decrease in critical thinking, and a high level of digital skills (Prensky, 2015).

C. Similler and M. Grace distinguish less propensity to take risks, being influenced by parents and peers, openness to new things, entrepreneurship, some political apathy, social liberality, readiness for individual study, digitalization of social binds and other characteristics (Seemiller, 2015).

T.H. Davydova and D.A. Zykova in a joint article note that modern adolescents, representing generation Z, are more fluent in technology, therefore they flexibly adapt to existing conditions. They have the following generalized characteristics: a decrease in the spread of bad habits (alcohol consumption, smoking, etc.), a fairly high degree of empathy, and awareness of the value of human life. According to the authors, the presence of communication skills is of particular importance in modern conditions (Davydova, Zykova, 2020).

Comparing the life course of the representatives of generations X and Z, an increase in the importance of material well-being, an expansion of the comfort zone and the transformation of traditional stereotypes regarding the family have been established. The representatives of generation Z are also distinguished by their unwillingness to take risks if there are no reliable guarantees of success, insufficient involvement in various areas of life, a willingness to give up

accomplishing a goal in case of obstacles to achieving it, and a growing level of infantility (Belova et al., 2020).

By integrating various characteristics of adolescents, scientists propose to study the characteristics of this generation through the phenomenon of "personal agency", which focuses on the most important characteristics of human personality such as activity, responsibility, self-organization (Panov, 2018). In foreign literature, the most accurate English analogue of the capacity of an actor to act in a given environment is "agency", which is seen as the ability not to become dependent on the external environment, to act independently, to take on certain functions (Mdivani, Lidskaya, 2014).

From our point of view, personal agency of an adolescent is an integrated characteristic of his personality, manifested in his ability for self-organization and self-realization, building effective social skills, social interaction and moral and value relations with others, aimed at satisfying his activity needs in peacemaking.

The process of making personal agency of modern adolescents is recognized by researchers as uneven and socially conditioned. But it is precisely within the boundaries of this age that decisive changes occur, setting an individual, characteristic of personal agency for each personality, which determines the prospects for a further course of life (Shchukina, 2004).

The development of individual components of personal agency in adolescents can be combined with the lag of others (Volkova, 2020), and the personal agency of an adolescent in digital activity can be combined with the lack of it in other types of activity such as politics, for instance. Being in different environmental conditions, adolescents, as they are especially sensitive to changes and the requirements of the society, can choose those types of activities that guarantee them success, rarely falling into the group of those who are ready for risk and change (Guseltseva, 2019).

To ensure the effective development of personal agency, teachers create social environments such as a "social oasis" (E. Fromm), "socially enriched" environments (Antopolskaya et al., 2020) in institutions of additional education. The life activity of adolescents in these organizations (centers of development, children's art houses, and summer educational centers) is distinguished by the fact that it has a high level of intensity of joint activities and communication, opportunities for various types of activities, and is characterized by a positive psychological atmosphere of cooperation and creativity with peers and with adults. For an adolescent, in the field of additional education it is important that he can make not only a voluntary choice of the direction and types of activity, but also the time, pace of mastering educational programs, as well as the teacher as their main initiator.

2. Materials and methods

The experiment on the development of personal agency of adolescents in the environment of additional education, which has been going on for the third year (Antopolskaya et al., 2020), made it possible to assess the dynamics of a number of personality characteristics of schoolchildren participating in it from the very beginning. All the participants of the experiment are the adolescents, who study in the development center of additional education "Dialog", Kursk. The participation in the educational programme "Social Testing Ground" allowed them to develop their creative abilities and leadership potential, to improve those qualities that made it possible to increase the level of personal agency. The content of the program implied the development of four modules: social-individual, social-communicative, social-interactive and social-moral.

As a part of the social-individual module, the adolescents mastered the following thematic blocks: "Personality and its formation. Character. Temperament. Skills". "Time management. Proactive approach to problem solving. Wheel of life balance. Pyramid of personal effectiveness. Formulation of SMART goals. "Introduction to Reframing Techniques".

As part of the socio-communicative module, the adolescents participated in learning of such topics as: "Communication. Verbal and non-verbal means of communication. Rules of contact establishment. Listening Techniques. Communication barriers"; "Perception. Mechanisms of interpersonal perception: identification, empathy, reflection. Mechanisms of intergroup perception. Effects of Perception"; "Cybersecurity. Information Security. Methods of working with information"; "Mastering the techniques of effective communication, familiarity with the technology of preparing for public speaking" and the "Presentation in an Elevator" technique.

The social-interactive module included the following topics: "Interaction strategies. Cooperation. Rivalry. Avoidance. Compromise. Adaptation"; "Team. Distribution of roles in a team. Methods for solving team problems"; "Collective. Stages of collective development"; "Conflict. Conflict situation. Dynamics of the conflict"; "Leader. Leadership. Leader types. Leader qualities.

The socio-moral module involved the study of the following topics: "Health and Its components"; "Risk behavior. Agents of influence"; "Techniques for resisting influence. Development of skills to resist manipulative influence during the exercise"; "I am changing the world for the better", etc.

The diagnostic results obtained at the beginning of 2020 at the ascertaining stage of the experiment, are compared by us with the data of the beginning of 2022, when the control stage of the experiment passed. Although a total of over 300 people participated in the implementation of this study, 50 adolescents were included in the current sample. The criteria for their selection were, firstly, the fact that they have been participating in the work of the Center for Creative Development "Dialog" for two years without any noticeable pauses. Secondly, during this period they were not included in the activities of any other institutions of additional education or creative associations. This allows us to fix the results of the implementation of our impact with higher reliability. At the beginning of the experiment, the students were 13-14 years old, today they are 15-16 years old.

Based on our above definition of personal agency, as an indicator of the personal agency development of adolescents of generation Z, such personal qualities as activity, self-control, responsibility, independence, own position, ability to interact with people, creative nature of interaction with people, self-organization, persistence, interest, and general level of personal agency have been singled out.

The following psychodiagnostic methods were used to assess them:

- "Self-assessment of the qualities of personal agency of adolescents, manifested in interaction with the social environment" (N.M. Saraeva, modification by T.A. Antopolskaya) allows you identifying the development of ten personal characteristics that ensure the implementation of personal agency;

- "Definition of the social creativity of an individual" (Batarshev A.V.) assesses the readiness for unusual solutions to various problems, for non-standard options for the implementation of interpersonal and group interaction, for subject-subject forms of communication with people;

- "Determining the level of leadership potential" (N.P. Fetiskin and others) diagnoses the degree of readiness of a teenager to realize the leadership qualities. The authors identify three normal levels of leadership manifestation: weak, medium and strong, as well as a destructive level, defined as a tendency to dictate.

The degree of reliability of differences in the indicators obtained in the ascertaining and control phases of the experiment was assessed with the Wilcoxon T-test.

3. Results

The peculiarities of the manifestation of individual qualities of adolescent personal agency were diagnosed using the technique "Self-assessment of the qualities of adolescent personal agency, showed in interaction with the social environment". Table 1 presents both these results and the average values of individual qualities of personal agency and its general level.

Table 1. Manifestation of the qualities of adolescent personal agency in the dynamics

Quality of personal agency	Arithmetic mean (M)		Value according to Wilcoxon t-test
	Ascertaining stage	Control stage	
Activity	4,34	4,74	146**
Self-control	3,73	3,79	482

Responsibility	4,17	4,21	512
Independence	4,02	4,33	402*
Own position	4,1	4,75	184**
Ability to interact with people	4,13	4,34	456*
Creative nature of interaction with people	4,18	4,62	234**
Self-organization	3,76	3,94	443*
Perseverance	4,16	4,35	424*
Interest	4,17	4,59	213**
General level of personal agency	4,09	4,32	399*

Notes:

* Statistically significant differences ($p \leq 0.05$);

** Statistically significant differences ($p \leq 0.01$)

From the data obtained, it can be seen that over 2 years of participation in the experiment, there is a positive trend in the growth of the degree of manifestation of all the studied qualities of personal agency. However, the intensity of this growth differs markedly in individual parameters: minimal differences were found in the positions of "self-control" and "responsibility". Their averages have risen by less than 0.1 points. From 0.18 to 0.21 points, the average values for such qualities as "self-organization", "perseverance" and "ability to interact with people" have increased. The quality indicator "independence" has increased by 0.31 points. What is even more noticeable is that the arithmetic mean value of the qualities "activity", "interest" and "creative nature of interaction with people" has increased from 0.4 to 0.44. And the maximum dynamics were noted for such a parameter as "own position" - 0.65 points.

It is obvious that the high stability of the development level of such a quality as "self-control" over the period of the study is associated both with the complexity of its implementation in adolescence and with the rather self-critical attitude of most adolescents towards themselves. In the interviews conducted after the survey, the adolescents indicated that they had not always been able to control themselves well even in those cases when it had been necessary and explained that by their sensibility and lack of life experience.

The quality of "one's own position", which stands out for its highest growth over a given period, is, according to many authors, along with "activity", the most striking characteristic of individual personal agency. At the ascertaining stage of the experiment, it took only the seventh place out of ten, but at the control stage it becomes the most highly developed. This can be explained by the fact that the targeted impact that adolescents were exposed to in the developing environment of additional education was largely aimed at helping them learn to be aware of their opinion and defend it if necessary. "Activity" is now in the second place, although in absolute terms their arithmetic mean values differ by only one hundredth. In the third place there is "the creative nature of interaction with people." This quality steadily occupies a leading position in this hierarchy, which is associated with the creative atmosphere of interpersonal interaction during the implementation of our educational programme.

Comparing the individual indicators of adolescents according to this method, at the ascertaining and control stages of the experiment, we have found out that there are significant differences between eight out of ten studied qualities. At the 1 % level of significance, they are characteristic of such qualities as "activity", "one's own position", "the creative nature of interaction with people" and "interest". At the 5 % significance level, the indicators "independence", "ability to interact with people" and "self-organization" vary. Significant differences are absent only between the indicators of the qualities "self-control" and "responsibility". We believe that this fact confirms the effectiveness of the work on the development of the adolescent personal agency, which is provided by a socially enriched environment in the system of additional education.

The overall level of an individual personal agency, calculated on the basis of a set of assessments of 10 individual qualities, has also increased markedly over the period under study. Its average scores have increased from 4.09 to 4.32 points, and the individual results of adolescents at

different stages of the experiment have statistically significant differences at the 5 % level. This once again allows us to speak about the effectiveness of the program being implemented and the possibilities of the social environment of the additional education center for the comprehensive self-realization of adolescents.

In order to assess the dynamics of social creativity of adolescents, we used the method "Determining the social creativity of an individual." It allows us to distinguish nine levels of development of the diagnosed quality. However, the first three levels such as "very low", "low" and "below average", were absent in our sample. Therefore, Table 2 presents data on the six detected levels.

At the ascertaining stage of the experiment, it turned out that "high" and "very high" levels of creativity are the least common. The level "slightly below average" is found somewhat more often (in 10 %), and the vast majority of adolescents have levels of "average" (24 %), "slightly above average" (30 %) and "above average" (30 %) (see Table 2). Accordingly, in general, the creative potential of most adolescents has a sufficient level of development for the implementation of tasks, the solution of which requires a certain novelty. But it is hardly possible to talk about a stable ability to find one's own, original ways of achieving the goal.

At the control stage of the experiment, the number of adolescents with an "average" level of social creativity decreased most noticeably – from 24 % to 6 %. The proportion of adolescents with the levels "slightly above average" and "above average" practically did not change, and the proportion of schoolchildren with "high" and "very high" levels of social creativity increased. At the ascertaining stage, their total number was only 6 %, and on the control it was 32 %. Consequently, during the period under review, it was possible to significantly increase the ability of adolescents to be creatively active, including in the social sphere.

Table 2. The development level of adolescent social creativity in the dynamics (%)

Level of development	Stages of the experiment	
	Ascertaining	Control
Slightly below average	10 %	4 %
Average	24 %	6 %
Slightly above average	30 %	30 %
Above average	30 %	28 %
High level	4 %	20 %
Very high level	2 %	12 %

Comparing the number of individual scores got by adolescents at the ascertaining and control stages of the study with the Wilcoxon T-test, $T = 268$ was obtained, which corresponds to statistically significant differences at a 1 % significance level ($p \leq 0.01$). This confirms the developmental effect of the experimental impact on this personality characteristic.

The method "Determining the level of leadership potential" was used to assess the dynamics of the leadership potential of adolescents at the ascertaining and control stages of the experiment (see Table 3).

Table 3. Leadership potential of adolescents in the dynamics (%)

Level of expression	Stages of the experiment	
	Ascertaining	Control
Weak	50 %	26 %
Medium	46 %	56 %
Strong	4 %	18 %
Tendency to dictate	0 %	0 %

If at the beginning of the study half of all adolescents rated their leadership abilities as weak, then two years later, only 26 % of the respondents adhered to this point of view. The average level of leadership potential has grown from 46 % to 56 %, and the percentage of teenagers with a high level has noticeably increased: from 4 % to 18 %. An excessive level of leadership, defined by the authors of the method, as a "tendency to dictate" has not been found in anyone.

Although, at first glance, there were no dramatic changes, but comparing the individual results got by the respondents at the ascertaining and control stages of the study using the Wilcoxon T-test, the value $T_{emp} = 65$ was obtained, which corresponds to statistically significant differences at the 1 % significance level ($p \leq 0.01$). That is, there has been an objective shift in adolescents' self-assessment of their leadership qualities, which allows them to evaluate themselves more highly in the system of interpersonal and intragroup interaction.

Assessing the overall results of the study, it can be argued that we observe a stable, statistically significant positive trend in all the selected parameters of adolescent personal agency. As a result of the experiment, a complex impact on the personality of a teenager was implemented, which allows him to more productively realize his self, readiness to express and defend his own opinion, accomplish goals both independently and in creative interaction with other people. The high efficiency of the socially enriched environment of additional education for the formation of personal agency of the younger generation Z has been confirmed.

4. Discussion

As the literature data show, the discussions of scientists related to the search for the basic characteristics of the "generation Z", with the development of important subjective qualities in modern adolescents and with the definition of effective environmental conditions for this development, continue.

A fairly large study in this area was carried out by N.V. Bogacheva and E.V. Sivak (National Research University Higher School of Economics). The authors point to the internal heterogeneity of generation Z adolescents and to the need to take into account age specifics, described in the classic works of D.B. Elkonin, E. Erikson and others (intimate-personal communication as a leading activity, search for identity, etc.). The researchers also emphasize that it would be methodologically incorrect to compare generation Z and older generations, since the former is still in the process of developing moral guidelines and cognitive capabilities. And therefore, at the moment it is impossible to state categorically what they will be like for representatives of generation Z in their adulthood. At the same time, fragmentation and, in some aspects, inconsistency of existing ideas about the psychological characteristics of adolescents of generation Z are revealed. There is a fairly large number of "myths" in this area, many of which are not confirmed in practice.

For example, the ability to multitask distinguishes not only modern adolescents, but also the older generation due to the high pace of life in general and the active use of digital technologies, the instability of attention characteristic of adolescents can be largely explained by age characteristics, since the attention of adults is better developed in general. The lower level of development of critical thinking in adolescents and their greater pragmatism in matters of education do not have a sufficient scientific basis that could confirm this. It is also not entirely correct to say that modern teenagers communicate less with their peers, because they use other communication channels (e.g. social networks, instant messengers, etc.) (Bogacheva, Spivak, 2019).

A new factor "wedging" into the development of modern adolescents is the digitalization of social interactions, digital technologies with elements of artificial intelligence and online learning. A discourse is unfolding about the possibilities of the information environment for the development of the adolescent personal agency. The information environment facilitates access to information, implements the freedom of an adolescent's choice, provides a demonstration of the educational results of the subjects of the educational process, communication, and the possibility of comparing actively the obtained results. In the study of N.S. Kramarenko it is shown that the likelihood of positive dynamics in the development of an adolescent's personal agency in the Internet environment is mediated by the goals of its use: for entertainment or for self-development. It is not about their opposition, but about the relationship. Adolescents, focused primarily on receiving positive emotions through online communication or games, have lower rates of self-actualization and self-confidence than those of their peers who, in addition, are interested in

creative activity and self-presentation through the creation of various online communities. (Kramarenko, 2013). E.A. Nikitina argues that the socialization of modern adolescents is turning into technical socialization. Today information and communication technologies are the basis for the formation of intelligence, which, from her point of view, is equal to the formation of personal agency (Nikitina, 2016).

Although there is evidence of inconsistency and uneven development of individual qualities of personal agency of modern adolescents, it is possible to talk about the need for their participation in special additional educational programs in order to harmonize their personal agency and achieve a balance between the qualities that are formed in response to the challenges of the time and the key components of personal agency associated with the ability "change yourself without betraying yourself" (L. Antsyferova). All this requires not only studying the characteristics of personal agency of generation Z adolescents but also organizing special assistance to teachers in designing socially enriched environments for "live" communication and interaction between adults and adolescents as a prerequisite for the full development of adolescent personal agency.

5. Limitations

The limited sample volume does not allow extrapolating the research data to all the students in institutions of additional education. In this case, they characterize only adolescent schoolchildren studying in the system of additional education in Kursk. Moreover, the reliability of the results obtained is somewhat reduced due to the absence of a control group in this study, which is associated with the chosen design longitudinal pre-experimental research design.

6. Conclusion

1. From the literature data, it follows that the development of personal and subjective qualities in adolescents of generation Z is the focus of many authors, whose studies present diverse and sometimes conflicting data. However, for the most part, they agree that, due to a sharp change in the social situation of the development of modern children, the problem of studying and developing the personal agency of adolescents of generation Z continues to be relevant.

2. In order to test the hypothesis about the positive impact of the socially enriched environment in the institution of additional education on the development of the personal agency of adolescents of generation Z, a complex of pedagogical influence was formed within the framework of the additional educational program "Social Testing Ground", intended to develop the main characteristics of personal agency of adolescents, their social creativity and leadership potential.

3. The experimental data obtained at the same time showed the effectiveness of using a socially enriched environment in additional education as a condition and factor for personal development and subjective qualities of adolescents of generation Z. The abilities of adolescents to productively realize their self, their readiness to express and defend their own opinion, to solve their goals both independently and in creative interaction with other people were most obviously developed. At the same time, the dynamics of the development of subjective qualities is characterized by unevenness, which is explained by the influence of a number of both age and social factors on adolescents.

4. In general, the data obtained confirm the need to design socially enriched environments of "live" communication and interaction between adults and adolescents as a prerequisite for the full development of the adolescent's personal agency, in order to help to identify those who are at risk of the consequences of adverse development of personal agency.

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