Students from Generation Z: Trends in Education and Development

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The objective of the article Is to determine the essence of generation Z students and trends in their education and development. **A** theoretical analysis of foreign and domestic psychological and pedagogical literature, conversations, analysis of portfolios, questionnaires, used in this research. Results showed the article gives a theoretical analysis and analysis of the research results, which enabled the researchers to clarify the concept of "a student of generation Z"; to determine the reasons for their psychological immaturity, delayed maturity, lack of educational activity, infantilism in behavior, attitude to career and work, understanding of self-improvement as an awareness around personal ideals; the role of self-improvement, self-realisation and self-development, as the most important installations of Centennials; the importance for them of self-control and self-esteem. Judgments about good education for students from generation Z are given; reasons for changing the "Z"'s value system in Russia and abroad. The methodological basis of the study was the axiological and activity approaches. The role of the computerization of the educational process, independent cognitive activity of students from generation Z is revealed. It is noted that the effectiveness and quality of the education of a modern student allows individual educational paths, a methodological resource that includes the best examples and practices, methods of training events in the electronic environment, online learning, and access to digital technology.

Key words: *Students Of Generation Z, Centennials, Self-Improvement, Self-Realization, Self-Development, Values Of Modern Students, Ways to Implement Individual Educational Trajectories, Comfortable Environment for the Student, Methodical Resource, Digital Environment.*

Introduction

Student age, according to B.G. Ananyev, is a representative of the sensitive approach for the development of its main sociogenic potentials. It is characterized by the strengthening of conscious motives of behavior, determination, resoluteness, perseverance, independence, initiative. Education at the university contributes to the development of theoretical thinking, attention, memory, speech, emotions, feelings, the qualitative transformation of the student's cognitive abilities.

Representatives of student age have a fairly high level of educational potential and cognitive motivation. They are socially active, they strive for maximum self-realisation and harmoniously combine intellectual and social maturity, they openly accept everything new that contributes to the development of "a system of views not only on the world, but also on their place in it, self-awareness as the bearer of certain social values" (Gewirth, 1998; Akopova & Baranova, 2013).

In September 2019, representatives of the Z generation became university students (some researchers note that they were born after 2000, other researchers insist on 1996). They grew up on social networking sites and can no longer imagine their life without a network and mobile phones. And their thoughts and views on the world and their place in the world were formed against the background of the economic turmoil of 2008-2009, the legalisation of same-sex marriage, terrorist attacks, global warming and violence, in the face of uncertainty, and income inequality (Stilman & Stillman, 2018; Belinskaya, 2014). The psychological immaturity of students from generation Z, delayed adulthood, lack of educational activity, infantilism in behavior, irresponsible attitude towards themselves and others, the desire to enter into communication on social networking sites are accompanied by an increase in psycho-emotional stress, anxiety, depression, and the experience of intrapersonal conflict.

Does this lead to the fact that in Russia for every 100,000 young people aged 15-19 years old there are almost 20 cases of suicide, which exceeds the world figure by 2.7 times? Pavel Astakhov, the Commissioner for Children's Rights under the President of the Russian Federation presented these figures (korrespondent.net, May 2011). Psychologists attribute this incidence of suicide to the economic and social environment and family relationships. According to rough estimates, 62% of the total number of suicide are committed due to problems with loved ones. James Mazza, Professor of Educational Psychology at Washington University, has observed that, "When it comes to suicidal thoughts, young people often perceive family relationships as more decisive and important than contacts with friends" (NMC horizon report, 2016).

It has been found that students from generation Z ("Z's") are less ambitious. Almost half of them do not seek high salaries and wealth. Career and prestigious work are not the main thing for them. They are sure that work should be fun, and making a living should not be time-consuming. Further, 87% of them prefer flexible work hours. However, the "Z's" in Russia are more ambitious than the "Z's" in other countries. About 41% of Russian Centennials want to start their own business. They are confident in their own uniqueness, highly value personal freedom, value calmness, wait for praise and recognition of their actions, strive for popularity in social networks and among friends, demonstrate obedience and conformism. They have no reverence for elders, they do not believe in higher justice (Sletkov, 2012). They have been observed to be a generation without ambition.

The main task for the "Z's" is to change the lives of their loved ones for the better. They are trying to make life more comfortable. And their main request for life is the desire to be happy. In order not to be disappointed in their expectations, they do not set ambitious goals for themselves. They strive for comfort, well-being, peace, and sometime, perhaps at the age of 25-27 they plan to create a family and have children. The most important orientations of Centennials include self-improvement, self-realisation, and self-development (Novikova & Muravleva, 2016).

Let us clarify that *self-improvement* of Centennials is accompanied by the realisation of a personal ideal, the comparison with which causes discontent with oneself, the desire to change oneself, to relate one's goals and actions to it. They are not sure that gradual efforts will lead to the goal. And the goal setting for them is not a real fact. They do not listen to the opinions of official and recognised speakers, they choose their own experts. The teacher is not an authority for them; they have no respect for him: they communicate with him freely and on equal terms. Students from generation Z are better than adults in a modern, ever-changing life. Dissatisfaction with oneself, assessment and reassessment of oneself is peculiar to them partially, as well as the search for the meaning of life (Ching; Hedges, 2009).

Self-realisation of Centennials allows them to identify the individual and professional capabilities of future specialists. They change priorities very quickly. They have a very skeptical attitude to the prospects of the economy, which does not allow them to purposefully realise their positive opportunities, or to fully reveal their tasks and abilities. They are waiting for praise and recognition of their actions, striving for popularity on social networks among friends and in this way assert themselves.

The "Z'"s are constantly talking about *self-development*. But for them this is not a focused educational activity, not a qualitative transformation of their activity. Self-development for them is any hobby, travel, music, drawing, going to the cinema, theatre, exhibitions, photography. They understand that one needs to be able to quickly process huge flows of

information in a limited time for self-development. But, as the researchers note, "the 'Z's' do not maintain their attention on anything for more than 8 seconds. Quickly grasping the idea, they supplement it with details if they need it. They do not want and cannot learn according to the methods of their parents; they prefer interactive to lectures" (Petrovichev, 2012; Montag et al. 2015).

That is, the experience of self-development acquired by the "Z's" is structured traces of activity that reflect the events of their life – "immediate experiences, individual characteristics of the perception of the world" (Vakhromov, 2002; Perekrest, 2019).

The results of the study of urgent problems relating to modern students allow us to note the importance of self-control and self-esteem, the skills and abilities of self-organisation for them in mastering the training program (Kushcheva & Terekhova, 2019; Catts, 2008; Ryndak, 2014).

However, there is a problem of analysing voluminous, but ambiguous information and the lack of experience in its use for their own benefit. The initial focus on studying at the university as a simple and tireless craving for high technology complicates the process of "active search for yourself", of mastering of the basics of future professional activity (Elliott & Turnbull, 2005; Shutenko, 2015).

We chose a student as an optimistic pedagogical guide who is characterized by the ability to navigate in the information flow; with the ability to easily adapt to new situations, find innovative solutions, work in a team, get out of conflict situations, be able to generate new ideas, create jobs for oneself, organise a business in his\her profession, be ready for continuous self-development and self-education, acquire self-cognitive skills and practice (*Methodology of Pedagogy: Monograph*, 2018).

The Theoretical Basis of the Study

"In many developed countries of the world community, the paradigm of education is aimed at the learner" (Zadonskaya, 2014; Kushcheva & Terekhova, 2018).

In the situation where there is a choice of a clear educational trajectory for a growing person, education is becoming a conscious investment.

The judgments of a good education for students from generation Z are as follows:

- The formation of a "socially useful personality" with a high educational level, active consumption of culture, a high level of cognitive motivation, social activity and a harmonious combination of intellectual and social maturity, and moral principles;
- Providing motivated self-education as a continuous process;
- Formation of a student's personality, responsible to society and focused on the interests of this society (Akopova & Baranova, 2013);
- Increasing educational motivation;
- Formation of a holistic picture of the world.
- Development of critical thinking skills;
- The formation of an organisational culture based on mutual respect and support;
- Development of national and culturally oriented education, as a prerequisite for the activation of creative forces and abilities;
- To teach Centennials who do not want to work for the sake of money, yet think about how to earn it, taking into account the interests of society;
- To teach them to work meaningfully;
- To foster an organisational culture based on mutual respect and support, the development of spiritual values;
- To ensure the activation of creative forces and abilities, self-actualisation in national and culturally oriented education (Akhmetova & Esaulova, 2015);
- To develop creativity and innovative habits, and the ability to cooperate;
- To introduce "developmental assessment" (term is introduced by E.V. Yakovleva, 2018) based on a demonstration of the strengths of the student's work, the identification of his/her weak points and recommendations on how to overcome them productively during online exams, colloquiums, essay preparation, independent work;
- To teach them to think critically and solve non-standard problems that reinforce the duty and responsibility of the individual to society.

We will not ignore the fact that in the context of globalisation, the value system of the current generation Z of sufficiently educated young people in Russia and abroad has changed dramatically compared to the results of the study over the past five years. "They are focused on real freedom – not on work on a schedule, on superiors . . . These people do not work anywhere, do not have a service certificate. If they work, then only where they want, without registration, by oral agreement" (Chekhov, 2017). This is, first of all, about programmers who have free access to the labour market, both in their own country and around the world, and who work in different companies. However, having a fairly good intellectual training, they are mainly motivated to earn a living, and not to perform major tasks of responsibility. The reason for this lies in the fact that they were brought up on business morality and were witnesses to how a person was used until he was needed, and then was refused (Borg, 2006; Ryndak & Saldaeva, 2019; Scheuermann, 2009). This gave rise to unscrupulousness, lack of

initiative, lack of enthusiasm for work. They do not fit the employer, so it is seen as easier for them to change jobs. Therefore, it is necessary, first of all, to stimulate the student's knowledge of himself, the self-organisation of his internal resources.

Researchers N.L. Korshunova, Jiang Nan note that education in a modern university should not be based on the transfer of statistical knowledge, but on the formation of a technology for working with information (Kushcheva & Terekhova, 2019).

Methodology and Research Methods

The works of a number of domestic and foreign researchers (A. Milkus, David Stilmann, Chris Hedges) are devoted to the general issues of education and development of students from generation Z, their values and ideas about a career.

A substantial analysis of the motivating digital environment, digitalisation, educational interaction, Internet resources, and online courses is presented in the works of N.B. Kushcheva, V.I. Terekhova, E. Knyazeva, B.V. Palchevsky, T.O. Puchkovskaya, A. Korzeeva, Y.B. Yakovleva, S.I. Volkov (Vorotylo, 2009; Zadonskaya, 2014; Kushcheva & Terekhova, 2018; Petrovichev, 2012).

The methodological basis of our study consists of the axiological and activity approaches.
The research procedure required a theoretical analysis of domestic and foreign psychological and pedagogical literature and analysis of the results of individual conversations, consultations, analysis of portfolios, questionnaires, situations, experience of the authors of the article, assessments of teachers and experts, self-esteem, observations, feedback on practice, and systematisation of the data.

A selection of diagnostic tools was based on an analysis of the theoretical models of a student from generation Z; ad on the activities of a teacher who works with students from generation Z.

The following diagnostic methods were used in the study: the personal methodology of R. Ketell; self-actualizing test (SAT); modeling; questioning; pilot study on students' self-fulfillment in the educational process of the university; ranking of cognitive needs; analysis of students' opinions on the conditions and quality of vocational training; factor analysis of satisfaction with the quality of education. The main empirical study was implemented in the first, second, third and fourth courses of Orenburg State Pedagogical University. Three hundred and twenty bachelors and twelve teachers of the department of pedagogy and sociology took part in it. To clarify the representativeness of the sample, a delayed verification of the experimental results was carried out.

Research Results

The approaches to education are revealed: sociocentric (provides socialisation, development of a profession, development of personal qualities of a future specialist); personality-centric (aimed at identifying the specifics of the personality, developing the creative potential of a future specialist, mastering the profession and socialisation); subject-centred (ensures the quality of training of specialists responsible for training and personal self-development) (Ananyev, 1974).

A modern student actively consumes information, but finds it difficult to critically evaluate it. The significance of his/her subjective qualities was revealed, namely: responsibility for one's self-development and self-realisation (Ananyev, 1974). A student from generation Z, firstly, acquires the experience of cognitive and subject-practical activity, through self-awareness of their interests. Secondly, the role of morality in the conscious choice of profession and vocational education is noted. This allows him to become an independent social subject in adulthood, to be in demand on the labour market, to realize his creative potential with positive motivation for learning and self-development.

The role of computerisation of the educational process, which consists, first of all, in the information enrichment of the student's independent cognitive activity; high-quality transformation of diagnostic, control and evaluation functions of the educational process, selection of its content and organization. Students gained the opportunity to systematically model, simulate and implement real situations, pedagogical tasks of training and education; and to design didactic complexes, systematise tasks for independent work and methodological instructions for their implementation.

As a result, second-year students (Faculties of History, Philology, Foreign Languages) had a professional interest. By the fourth year, a holistic view of pedagogical activity, its value meanings among students of Faculty of Physics and Mathematics, Institutes of Natural Sciences and Economics, Physical Education and Sports, has increased.

Gradually, students learned to understand where and how to acquire the knowledge they lack, and acquired the skill of obtaining information for continuous professional growth. Mastering the technologies of e-learning made it possible to independently study lecture materials, quickly take individual homework, and get acquainted with additional materials.

The values of modern students have undergone a number of changes. If in March 2017, in N. Nikolayeva's study "Who is a modern student?" (Loginova & Kuznetsov, 2015), career and prosperity take first place, then in July 2019 we observe the following: normal life, just

happiness, comfort, well-being, peace, that's what become the main thing. A career, a prestigious job for a modern student and a novice specialist is not in the top ten values.

The student's willingness to cooperate, operate with integrity, initiative, and tolerance remain underdeveloped, within the framework of interpersonal interaction. We found both a lack of willingness to productively manage their behaviour and emotions, and noted their exposure to stress and apathy. Activity and ambitiousness are combined with vanity, based on faith in oneself, understanding that one deserves all the best, the most prestigious, and the focus is on quick results (Bates, 2011).

It is possible to increase the productivity of teaching a modern student by implementing individual educational trajectories; use of multimedia; group tasks and collaboration on the Web; mastering gaming technology. Learning in a comfortable environment for a student is facilitated by virtual simulators, interactive whiteboards, WIKI, web quests, creative tasks, modeling professional activities, a joint discussion of problematic issues of educational institutions, and organisation of feedback (Perna).

The efficiency and quality of the education of a modern student will also provide a methodological resource, including the best examples and practices, methods of training events in the electronic environment.

"The development of online channels has been the main educational trend throughout the world for several years" (Babochkin, 2007). Online learning provides the formation of a system of continuing education, the ability to self-study and self-educate. The use of the coaching method ensured, firstly, the realisation of social, personal and creative potential. Secondly, obtaining maximum results and methods of organizing scientific research, their accompaniment on the path of scientific knowledge.

Technologies of distance educational interaction can improve the quality of students' educational activities management (Podlinyaev, 2012). This is also facilitated by the placement on the training sites of training materials, assignments and exercises for students, teachers' comments on completed tasks, and students' work that aroused the interest of the teacher.

Among the means of digital educational interaction, researchers single out an interactive way of learning, according to which, educators have access to digital technologies and Internet resources, which ensures the development of cognitive activation of students. The teacher provides knowledge of new technical tools, ideas, orientations for professional growth, the prospect of getting a prestigious job.

In our experience, when studying undergraduates in the discipline "Methodology and Methods of Scientific Research", the topic "Methodological Problems of Scientific Knowledge" is included. We chose coaching as the leading method of its study, which allowed us to realise general cultural and professional competencies: General Competence-1 (the ability to independently master new research methods) and Professional Competence-19 (the ability to collect, process, analyse and organise information on the research topic, the choice of methods and tools solving research problems) (Korshunova & Nan, 2017).

Let us single out the stages of activity of undergraduates in the lesson: setting goals and providing awareness to students of their real and potential capabilities; analysis and introspection of students' readiness to solve the goal; choice of strategy for achieving the goal; monitoring of the achievement of the goal and analysis of the results –… methods of the level scale based on the "ladder" of competencies:

- *Unconscious Incompetence* – indicates a lack of a student's awareness of their own incompetence, as he/she does not know, is not able and does not feel the need to acquire competency;
- *Deliberate Incompetence* – reflected in the belief that the undergraduate knows that he/she does not know and, as a result of acquiring knowledge of his "ignorance", gains the need to demonstrate it;
- *Conscious Competence* – based on the decision by the undergraduates to go to study, copying the actions of their teacher, eventually becoming established in the awareness of the desire to acquire knowledge;
- *Unconscious Competence* – indicates that the knowledge and skills often used by undergraduates have become familiar, and appear automatically.

The transition to the step of unconscious competence required the study of the methodological problems of research, the acquisition of experience in finding their own solutions and the transition from making ready-made decisions to creating your own.
We used the group coaching method according to four stages.

At the First Stage, undergraduates based on a self-analysis of competence in substantiating the methodology and methods of scientific research determined its level and collected information on what would ensure the transition to the highest level of competence.
At the Second Stage, undergraduates planned the choice of the scientific approach, the goal of its implementation, clarified the content of the scientific concept, determined its criteria and level indicators, research methods in the context of the problem being studied.
At the Third stage, undergraduates began to implement the plan.
At the Fourth Stage, the effectiveness of achieving the goal was assessed and the results were summed up.

Let us single out the questions, the answers to which allowed undergraduates to track the process from setting goals to understanding the criteria for the result:

- *At the planning stage*: what do you want to achieve?
- *At the organisation stage*: how can you achieve the goal?
- *At the control stage*: how do you know that you have achieved a result?
- *At the coordination stage*: why is this important to you? What do you expect to change in the previous steps? What result do you expect to get?

An analysis of the answers to the above questions allows us to note that, firstly, the goals of undergraduates are understood, accepted and realized, if they are subjectively significant. Secondly, undergraduates clearly define the strategy and tactics of achieving the goal if trained in its step-by-step implementation. Thirdly, if the goal is valuable and personally significant, motivated, provokes an internal impulse to activity, then the undergraduate becomes an active and responsible participant in research activities. Fourth, the realisation of the way to achieve the result is acquired by the undergraduate, understanding the obvious dependence of the results on the ability to predict it; clearly define criteria for performance indicators; independence, responsibility and personal initiative.

That is, we have received confirmation that the basic principle of coaching: "each person is able to find the optimal path for achieving goals and choose the optimal pace for movement" is implemented. Undergraduates, realising their needs, learned to clarify problems and ways to solve them, to determine ways of implementation and methods of tracking the result.

Following the principles of coaching, we, coaches, have learned a number of invaluable lessons: competent questions stimulate the search for competent answers. Instead of saying, according to Mark Weinberger: "Do this and that", it's better to say: "This is the result that I want to achieve. How will you act to make this happen?" (Gamezo, 2003).

 And the coach's position is priceless. He/she accepts the opinions and views of others as they are. Belief in people, trust in them increases motivation. Positive results are important to note. Awareness of the personal success strategy is important. Partnership creates fertile ground for cooperation (Voogt et al. 2005). Each development takes place in stages and corresponds to a certain level. Everyone finds the answers to the questions posed. Strict instructions regarding assignments are inappropriate. Important questions are clarifying, correcting, and directing to the search for informed answers. And, therefore, a project is being created that requires a creative solution, individually and in a creative group.

Conclusion

It was revealed that education for students from generation Z will be good if, firstly, the acquisition of new knowledge is coupled with the development of critical thinking skills, solving non-standard managerial tasks, and analysing real cases from the experience of companies and educational institutions; along with the ability to independently solve the tasks set by the employer.

Secondly, education for students from generation Z will be good if the interaction between the teacher and the student is ensured through dialogue, live communication, interactivity, creativity by developing the trajectory of individual, interactive teaching of students, and programs for their implementation.

Thirdly, education for students from generation Z will be good if education allows students to develop and implement a project of personal self-determination in adult life, form a circle of personal and professional communication, take an active position in social relations and make breakthroughs into the unknown.

Among the "Z's" in Russia and the Occident there is a high turnover of personnel. In this regard, the search for the answer to the question is legitimate: how to teach students of generation Z? An analysis of Stilman and Stillman advice, and the experience of the authors of the article allows us to determine the strategy and tactics of successful training of the "Z's" (Gregersen, 2019). Namely: classrooms for classes should be equipped with modern gadgets; along with textbooks, and it is advisable to use periodicals, electronic books and manuals; as well as take into account the needs, capabilities and abilities of each student; provide orientation to the internal motivation for educational activity: create healthy competition among students. The teacher's monologues are for the "Z's" deeply archaic. Therefore, it is important to present complex topics in the form of presentations with visual images and a minimum of text. And it is legitimate to submit part of text tasks in the form of quest technologies. This allows teachers to present information on the monitor screen in a playful way, and to vividly and figuratively use artifacts and objects according to the theme and plot of the game. Let us clarify that the leading role of the teacher in such an organisation of the lesson is organisational. The lesson will be successful if the safety of students, originality, consistency, integrity, subordination not only to the topic, but also to a certain plot, is ensured.

The "Z's" also experience difficulty in specifying the purpose of their activity in the lesson. A teacher can help to overcome this difficulty, provided that he will fulfill the function of a professional partner who will orient students towards the creation and implementation of significant changes in the personal and professional fields in the future. The motivation for

conscious participation in the educational process helps students to reinforce their own motivation with personal goals, understand their capabilities and resources, and turn professional problems into personal tasks.

It is revealed that the teacher is not an authority for the Centennials. But who else but he demonstrates the skills of solving non-standard tasks of future professional activity, team building, and joint decision-making?

And, having adopted the installation: "I give a ticket to life", he is a competent knowledge conductor, consultant, specialist – a personality, a person of high culture, energetic, with practical life experience, able to find promising goals and set feasible tasks for each student, helping him to overcome his willfulness and disregard for working arrangements. Together with the teacher, students gain readiness to study social and business situations, understand the essence of urgent problems, track ways to solve real situations. That is, binary lectures, case studies, consulting and training methods (coaching), quest technologies, distance learning technologies, and online education become all-important in the work of educating the Centennials.

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