

УДК 378.147:37.011.3

DOI: 10.52534/msu-pp.7(1).2021.26-35

Маріанна Василівна Горват, Марія Іванівна Кузьма-Качур

Мукачівський державний університет

89600, вул. Ужгородська, 26, м. Мукачево, Україна

Професійна діяльність вчителя початкової школи з учнями покоління Альфа

Історія статті:

Стаття надійшла: 27.12.2020

Доопрацьовано: 25.01.2021

Схвалено до друку: 10.03.2021

Анотація. У статті обґрунтовано актуальність проблеми професійної діяльності вчителів початкової школи з учнями покоління Альфа, подано хронологію поколінь у Західній Європі, здійснено теоретичний аналіз публікацій науковців щодо вивчення особливостей покоління XXI ст. з активним впровадженням у соціум цифрових технологій. Метою дослідження є аналіз особливостей дітей покоління Альфа й обґрунтування методів і прийомів професійної діяльності сучасних вчителів початкової школи з ними. У сучасному світі стрімко розвивається сфера цифрових технологій, а діти вже з народження піддаються їхньому впливу. У процесі дослідження авторами здійснений аналіз наукової літератури з філософії, психології та педагогіки, здійснений аналіз чинників впливу на формування психологічних особливостей школярів покоління Альфа, проведено бесіди з передовими вчителями та тренерами щодо оптимізації освітнього процесу в початковій школі. Автори рекомендують методи та прийоми для організації освітнього процесу в початковій школі, які спрямовані на досягнення мети та реалізації завдань задекларованих у Державному стандарті початкової школи та Концепції Нової української школи: ненасильницьке спілкування, сторітелінг, тімбілдинг, ігрові ситуації, інтерактивні технології та методи проблемного викладу. Акцентується увага на пошуку шляхів поєднання цифрових технологій з методами навчання, які б сприяли розвитку творчого та критичного мислення. Практична цінність наукового дослідження полягає в аналізі особливостей сучасних молодших школярів, що народилися та виросли в цифровому суспільстві, та представленні методів активізації їхньої пізнавальної активності та формування суб'єкт-суб'єктних відносин на партнерських засадах

Ключові слова: молодші школярі покоління Альфа, методи професійної діяльності, вчитель сучасної початкової школи, ненасильницьке спілкування, сторітелінг, тімбілдинг, ігрові ситуації

UDC 378.147:37.011.3

DOI: 10.52534/msu-pp.7(1).2021.26-35

Marianna V. Horvat*, **Mariia I. Kuzma-Kachur**

Mukachevo State University

89600, 26 Uzhhorodska Str., Mukachevo, Ukraine

Professional Activity of Primary School Teachers with Alpha Generation Students

Article's History:

Received: 27.12.2020

Revised: 25.01.2021

Accepted: 10.03.2021

Suggested Citation:

Horvat, M.V., & Kuzma-Kachur, M.I. (2021). Professional activity of primary school teachers with Alpha generation students. *Scientific Bulletin of Mukachevo State University. Series "Pedagogy and Psychology"*, 7(1), 26-35.

Abstract. The study covers the relevance of the professional activity of primary school teachers with Alpha Generation students, presents the chronology of generations in Western Europe, and examines the studies on the features of the 21st-century generation with the active introduction of digital technologies into society. The purpose of the study is to analyse the characteristics of Alpha Generation children and to reason the methods and techniques of professional activity for modern primary school teachers. In the modern world, the field of digital technologies is rapidly developing, and children are already exposed to them from birth. In the course of the research, the authors analysed the scientific literature on philosophy, psychology, and pedagogy, examined the factors influencing the development of psychological characteristics of Alpha Generation schoolchildren. The authors also interviewed leading teachers and coaches on optimising the educational process in primary school. The authors recommend methods and techniques for organising the educational process in primary schools, which are aimed at achieving the purposes and implementing the objectives declared in the state standard for primary schools and the New Ukrainian School concept: nonviolent communication, storytelling, team building, game situations, interactive technologies, and methods of issue presentation. Attention is focused on finding ways to combine digital technologies with teaching methods that would contribute to the development of creative and critical thinking. The practical value of research consists in analysing the characteristics of modern primary school students born and raised in a digital society and presenting methods for activating their cognitive activity and developing subject-subject relations on a partnership basis

Keywords: primary school students of the Alpha Generation, professional activity methods, modern primary school teachers, nonviolent communication, storytelling, team building, game situations

*Corresponding author

INTRODUCTION

The modernisation of primary education is necessary for a new generation of students in grades 1-4, who were born in a fully digital society and perceive it in a new way. A modern primary school teacher, according to the NUS (New Ukrainian School), should have the competencies to skillfully organise the educational process with younger students of a new generation [1]. Confirmation for this is found in the methodological recommendations for teaching in primary schools for the 2019-2020 academic year within the course "I explore the world", which states: "a competency-based approach is a key feature of presenting the content, process, and results of learning in an integrated course. This implies not only a sufficient amount of information on the studied subject, its quality but also ensuring the research activity of students in identifying cause-and-effect relationships; providing an advantage to knowledge that can be obtained independently, applying the acquired experience in new situations" [2].

The pedagogical history provides numerous outstanding names of classical teachers (Ya. Komensky, S. Rusova, V. Sukhomlinsky, K. Ushinsky) [3], whose achievements are taken as a basis today. This is the solid foundation that allows building a modern education using practical experience confirmed by time. Therewith, researchers note that now the need to foster personal qualities that combine a high level of humanism, spirituality, tolerance towards all ethnic groups and the desire for spiritual and moral self-improvement is being actualised [3]. Technological change in society, enriching the environment with digital technologies leads to a change in the very way of learning. The student changed from a passive recipient in a classical school of the last century to a participant in cognition in a 21st-century school. Generation Z students mastered new knowledge resources, the internet, along with teachers of Generation Y, X. Along with the teacher, they influenced the way knowledge was obtained.

The field of digital technologies, which is rapidly developing in the modern world, already affects the child's consciousness from birth. At an early age, they begin to master a variety of gadgets, learn to use the Internet. At present, younger students are descendants of Generation Y, less often Generation X. They are completely different from previous generations: they cannot be forced to do something without desire, because coercion as a method of learning does not work on them; they will be interested in receiving knowledge if they realise why they need it; they will not be able to get good results in completing tasks if there is no motivation to learn. It is very important to develop effective teaching methods and techniques based on research of Alpha Generation students'

characteristics that can motivate them to actively cooperate, contribute to better information acquisition and assimilation, and develop skills to apply them in the process of reflection. The mentality of modern students and graduates of pedagogical universities should be distinguished by their readiness for constant changes because the intensification of digital technologies is taking place at a faster pace. Modern primary school students were already born during the period of active introduction of digital technologies, so the teacher should act as a facilitator, tutor, mentor. A student comes to school with a general understanding of digital technologies and some skills in working with them, and the teacher must guide them on an effective path to achieving the purpose. It is important to note the noticeable dependence of modern children on digital technologies, which leads to inadequate perception, reduced self-control, a tendency to avoid responsibility, et cetera. L. Ilnitskaya focuses the attention of researchers and practitioners on the fact that internet-addictive behaviour encourages a departure from reality to the virtual world [4]. In this virtual world, it is easier to find friends, meet urgent needs, et cetera.

Therewith, researchers I. Kornienko and B. Barchi upon conducting the study with ANOVA analysis of variance using the anatomy knowledge test and a four-dimensional school engagement scale prove the effectiveness of knowledge acquisition using VR tools [5]. The relevance of the issue is also confirmed by the clearly defined purpose in the state standard for primary education. Nevertheless, the document clearly identifies value orientations, among which the authors highlight "the development of a free personality by maintaining independence, independent thinking, optimism, and self-confidence" [6].

The purpose of the study is to analyse characteristics of Alpha Generation children and reasoning the methods and techniques of professional activity for modern primary school teachers. *The research objectives:* to describe the features of primary school students of the Alpha Generation; to reason the methods and techniques of professional activity for modern primary school teachers with Alpha Generation students.

LITERATURE REVIEW

Psychologists and teachers have repeatedly addressed the issue of studying the characteristics of Generation Z and Alpha students and searching methods for organising the educational process: L. Korostil [7], G. Soldatova [8], O. Strutinskaya [9], A. Miroshnikova [10]. In particular, the researcher L. Korostil, based on the study results, presents "psychological and pedagogical recommendations of foreign and national researchers to teachers

on shaping an adequate learning style for Generation Z students” [7]. G. Soldatova draws the attention of modern psychologists and teachers to the fact that modern children actively develop such psychological functions as transactive memory, decreased concentration, sensory deprivation, clip thinking, and identity building. Therefore, according to the author, improving digital competence is the most important task of modern time [8].

Features of the modern generation students in the context of a digital society development were studied by O. Strutinska. The researcher described both “the positive impact of digital technologies on modern youth development (factors of children’s involvement in the use of digital technologies; the impact of working in an online environment and communication using digital devices on modern generation development) and considered some of the negative consequences of their influence, described the most common threats in children’s work on the internet and possible ways to ensure their information security” [9]. A. Miroshnikova makes interesting conclusions about interaction with the “digital” generation of children. The author believes that the students should engage in the following activities:

- speaking in “tweets”, that is, briefly and intermittently. Send tasks to gadgets. It is better to divide any task into a dozen small ones. Describe every step and not rely on curiosity;
- modern children have little knowledge about basic everyday things. Therefore, it is necessary to draw conclusions about the maturity of a student based on their intellectual work, and not on social adaptability;
- presentation of the material in the lesson, curiosity, and the game element have never been so important. If there is no upgraded material base, the original printouts and non-standard cabinet design should be used;
- the teacher should provide time in class for feedback from peers, experience exchange, and group tasks. A social network group for the class should be created. However, it should be run by children, not adults. Occasionally, a teacher should post something there that will encourage discussion of training;
- the training should rely on the love of publicity. The students should be asked to make a video about their experiment performance. The children will do this more willingly than write down the results in a notebook” [10].

Features of Generation Z and Alpha and methods of pedagogical interaction with them are also described in the studies of such foreign authors as D. Coates, M. McCrindle, S. Popov, A. Sapa, E. Shamis [3]. Despite a significant amount of research on the chosen issue, not all aspects of the professional activities for primary school teachers with Alpha Generation students have been completely covered in the scientific literature.

MATERIALS AND METHODS

Research methods that were used to achieve the purpose and solve issues: analysis of scientific literature on philosophy, psychology, pedagogy to determine the main characteristics of the 21st-century Generation (Z and Alpha); examination and description of factors influencing the development of children’s psychological characteristics; study of textbooks and educational manuals for primary school on methods and techniques for organising professional activities with modern primary education applicants; interviews with leading teachers and coaches in order to generalise and concretise the most optimal methods and techniques for obtaining information and its application, the acquisition of subject-subject interaction skills and teamwork; observation on cognitive learning activities of primary school students.

Despite the fact that the term “Alpha Generation” appeared in scientific resources quite recently, mainly in its definition there are similarities with Generation Z features. It is advisable to determine this definition in accordance with research results by both foreign and Ukrainian researchers. The theoretical source analysis allowed determining the life cycle period and features of the Alpha Generation, which affect the personality development of younger schoolchildren and the dominant sphere of their activity – interaction with digital technologies. To describe the factors influencing the development of psychological characteristics in Alpha Generation schoolchildren and the selection of methods and techniques for implementing the educational tasks in primary schools, the authors analysed the content of textbooks and educational manuals for primary school (for linguistic and literary, natural, informational, mathematical branches).

Therewith, to identify the dominant methods of obtaining information for their organised implementation, the applicants for primary education in Mukachevo city were interviewed. The participants of the experiment were 28 schoolchildren, including 16 girls and 12 boys. The interviewed individuals were chosen using the non-probability selection method. All parents allowed their children to participate in the experiment. All participants’ parents were aware of their right to refuse at any time and gave informed written consent. The procedure was the same for each student. Participation was voluntary, and responses were anonymous. All respondents expressed a positive attitude to the use of Internet resources, and after the survey, mostly, were still willing to give reasons. Teachers who participated in the experiment were also instructed. Teachers were given questions about the educational process organisation in accordance with modern educational reforms. The study was agreed on the condition of anonymity.

RESULTS AND DISCUSSION

According to the Strauss-Howe generational theory [11], “the history of social processes is cyclical and ‘repeats’ every 80-90 years. During this period, society goes through four stages: rise, awakening, decline, and crisis”. Researchers distinguish the following generations, starting from the end of the 19th century: The Lost Generation, The Greatest Generation, The Silent Generation, Baby Boomers, Generation X, Millennials, Zoomers, and the Alpha Generation (Fig.1). Generations of the 21st century are Zoomers and the Alpha Generation. They were born in a world

that is characterised by clicking on buttons, scrolling, swiping. This century is called the Information era, children receive it from everywhere. The task of the teacher is to develop the student’s ability to distinguish objectively presented information from false, and skillfully apply it in solving issues. Digital technologies affect all structural components of the educational process. This is especially noticeable when children move from text tasks to digital media apps that focus primarily on images, such as Instagram and Snapchat.

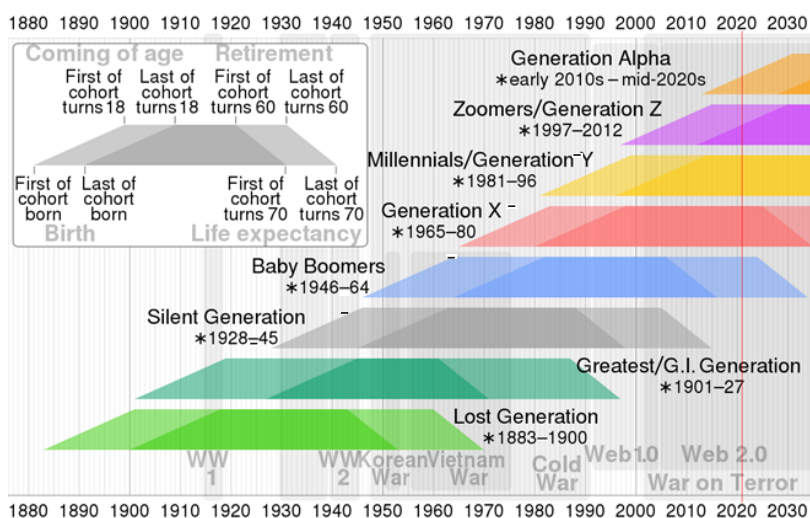


Figure 1. Graph of the main demographic groups since the end of the 19th century in Western Europe

Source: [12]

Generation Z and Alpha are modern schoolchildren and students of higher education institutions, whose world of values is largely subject to online socialisation. Demographer M. McCrindle notes that the Alpha Generation is children born in the period from 2010 to 2024 [13]. These are, in his opinion, screen children who are “tied” to displays, whose consciousness is developed mainly in the virtual world. For the most part, the virtual world becomes the only place where the children feel confident, have no fear and worries. Social negative phenomena such as bullying, humiliation, lack of support from parents and other adults in the children’s setting lead to the fact that they avoid reality, find “their own environment” with like-minded people, where they are comfortable in a friendly virtual world without restrictions and borders. According to V. Ognevnyuk: “it is here, unlike in real life, that they quickly meet their heroes and friends, change their identity and experiment with their status, interpret and spread information. In the virtual world, they are free to choose the content and style of communication, make decisions, etc.” [14, p.17].

“Children of the Alpha Generation are the generation of Google babies. They learn how to use Youtube

before they learn to read and write. Whereas, a smartphone or iPad is a toy that falls into their hands before they turn one year” [13]. It is difficult for them to comprehend that once there were no mobile phones and the Internet, they do not understand why there is a handset in the phone and how to switch TV channels unassisted, et cetera. According to M. McCrindle, the Alpha Generation should “create their own identity on a blank canvas”, which will be unique [13]. Since 2016, Children of the Alpha Generation have started school. These are younger students who:

- are subject to training only if they realise the ultimate purpose;
- prefer agreements over coercion;
- are most focused on partnerships and cooperation;
- require certain methods of incentive and reasoned approval;
- do not follow formal rules and are guided by self-control;
- are characterised by multitasking, mobility, and dependence on digital technologies;
- will be the impetus for new changes in this century [1].

Therefore, a modern primary school teacher cannot

follow past stereotypes in terms of way of thinking and activity, the teacher must become a facilitator, a carrier of a new approach and modern technologies for optimising the educational process in accordance with the requirements of New Ukrainian School. To support the above arguments, the authors interviewed primary school teachers, coaches, and applicants for primary education, who were asked a number of questions. The study focuses on the two most important issues for research:

1. “What are the most optimal methods and techniques for obtaining information?”

2. “What methods of developing the subject-subject interaction skills and teamwork are the most effective?”

For the first question, respondents were offered three groups of methods: printouts, internet resources, and communication. Figure 2 presents the results in the respondent groups.

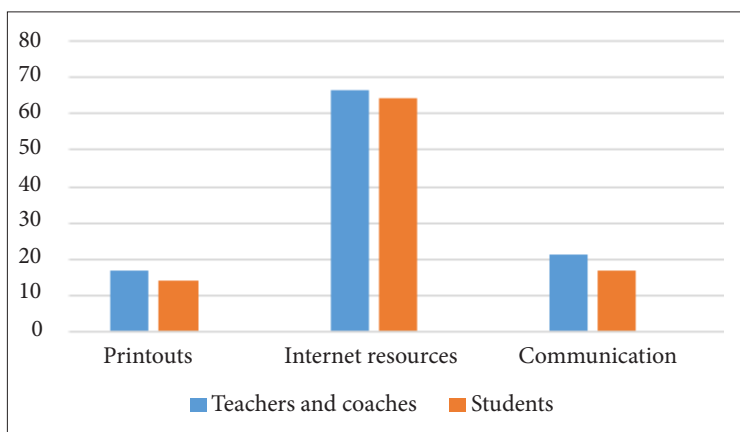


Figure 2. Survey results on the most optimal ways to search for information

For the development of subject-subject interaction and teamwork, teachers prefer methods of cooperative learning. In order to organise students for cognitive activities, the teacher of the Alpha Generation must master nonviolent communication technique. Nonviolent communication is a method created by American psychologist Marshall Rosenberg, which is based on feelings, in particular empathy. Empathy is a fundamental principle of child-centrism, which, for its part, is the basis for NUS. Nonviolent communication is interaction without aggression, incrimination, and cruelty, it is the ability to understand what you need and what you want from another person, and express your needs in a safe form. First of all, teachers need to learn how to control their own emotions and behaviour to be able to regulate the emotional state of the child. The teacher's behaviour sets the tone for communication with students and helps motivate children to make certain decisions [15]. Nonviolent communication helps to develop both respect for each other and for themselves in younger students. Such communication type involves reporting facts without evaluation. The “you (the class) don't respect me” should be rephrased as “you haven't prepared a story about the Red Book plant for today”. This communication type provides for simply stating a fact that the student must agree with. At the next stage, it is worth noting that “when you do this, it upsets us. You have already performed such a task correctly”. At the initial stage, this activity requires

effort, which is rewarded with wisdom in relationships and the joy of mutual understanding.

Nonviolent communication can be combined with storytelling technique. Storytelling is the ability to convey the necessary information through a fascinating narrative to influence the affective and cognitive sphere of listeners, which, in turn, acts as a motivation and guide in daily activities. Storytelling implements comprehensibility, as younger students better perceive stories than directives and definitions. Thus, there is a hero in the story who develops when solving issues (conducting observations and experiments, etc.). Therefore, it is interesting for students to observe the results of the hero's activities. Clip thinking, developed in younger schoolchildren due to the influence of digital technologies, ensures that they perceive plot stories better than scientific texts. Each story affects the child's emotions, so it is easier to reproduce it in memory.

It is important to use methods of activating educational and cognitive activity. These can be “productive (the studied material is applied in practice), heuristic, or partially search (the student finds individual elements of new tasks by solving cognitive issues), problem (the student is aware of the issue and finds ways to solve it), interactive (active interaction of all students, during which everyone understands their activities, feels their success) methods” [16, p. 135].

In organising younger students for cognitive

activity, it is advisable to take into account that Alpha Generation children learn if they understand why they need this information, if they are motivated to deepen their knowledge on a particular subject. Therefore, the teacher needs to focus on the possibility of integrating knowledge and skills in different disciplines and critically evaluating how these parts interact. An example is studying the content of the subject “What is a calendar for” within the discipline “I explore the world” in the 2nd grade. Integration of knowledge and skills regarding the natural and technological educational sectors contributes to creating the autumn calendar by students during reflection [17, p. 40-43].

The educational process of modern primary schools is based on subject-subject interaction, on partnerships. The New Ukrainian School notes the basic principles of partnership pedagogy:

- “respect for the individual;
- benevolence and positive attitude;
- trust in relationships;
- dialogue – interaction – mutual respect;
- distributed leadership (proactivity, right to choose and responsibility for it, horizontal relationships);

- principles of social partnership (equality of the parties, voluntary acceptance of obligations, mandatory implementation of agreements)” [1, p. 14].

Among the characteristics that will determine the demand for specialists in the labour market of the New Ukrainian School [1, p. 4] (individuals who are able to learn throughout life, think critically, set purposes and achieve them, work in a team, communicate in a multicultural environment, and have other modern skills), the authors highlight “work in a team”. The teacher’s use of various activities aimed at team cohesion and developing skills for solving common tasks in the team, which is called “team-building”, will help to establish the ability of younger students to work in a team. Team building is a collective term for various activities used to enhance relations within a group of people.

Gaming techniques can create a sense of unity and cohesion. For example, the game What is in the box? helps to unite group members, discuss common issues and create a favourable psychological environment in the team. It lasts approximately 30 minutes. Up to 25 people can participate. For a high-quality game, it is necessary to familiarise participants with its rules (Fig. 3).

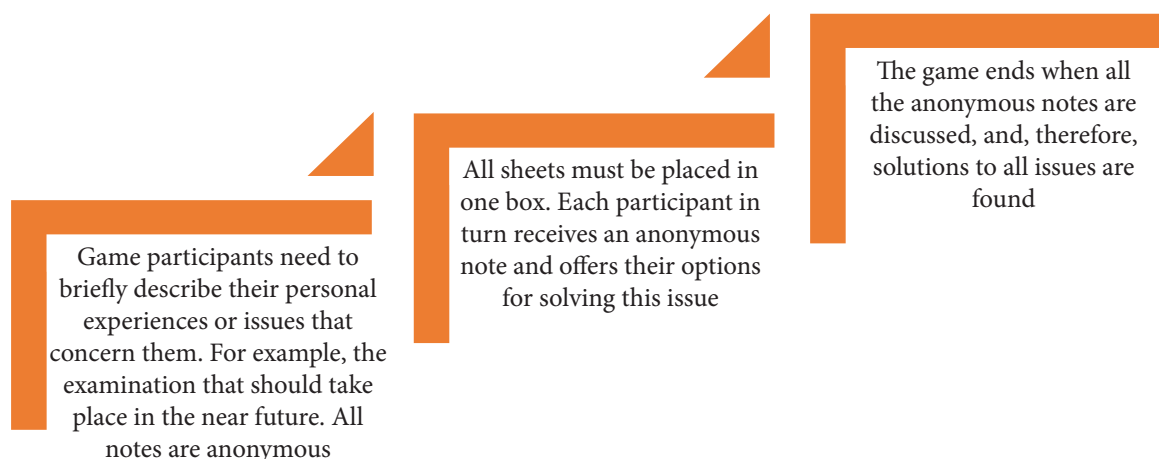


Figure 3. Rules of the game “What is in the box?”

The game “Who is around me” (10-minute duration) will help to unite the students, improve their mood, and introduce them to each other. Figure 4 presents the rules of the game. Approximate statements can be: “has a pet”, “rides a bicycle”, “has a brother/sister”, “was abroad”, etc.

Although Alpha Generation children take material values for granted, as they grew up in a society where all their basic needs are already met, the exemplary statements should not include materialistic questions such as “What kind of smartphone do you have?”.

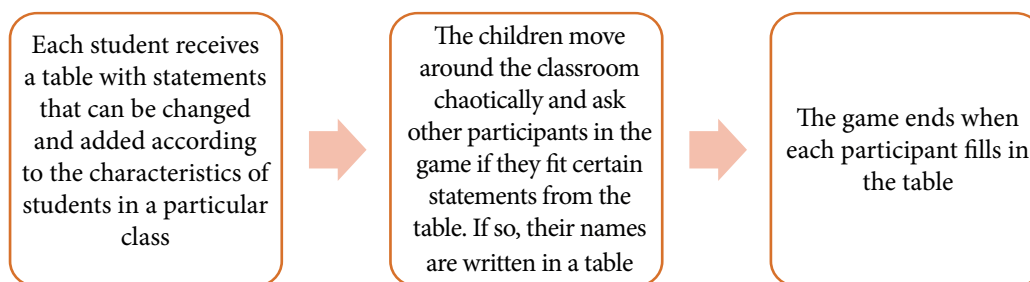


Figure 4. Rules of the game “Who is around me?”

Observations of younger students show that Alpha Generation children are not focused on following certain rules or subordination. For students, the most important are the teacher's principles and views, which, in fact, can spark the respect or the desire to imitate them by children. Considering all the arguments and trends, it is worth noting that the created educational environment in the classroom does not always meet modern requirements. It refers to a lack of touch boards and smart tables to draw, solve issues, and build simple models on, and watch videos on YouTube, etc. However, the emergence of alternative private schools brings closer the time when touchpads and interactive services will be available to everyone. Thus, it is easier for the Alpha Generation to get information. Nonetheless, it is important for the teacher to remember that there will be no personal development without critical and creative thinking.

A child's attachment to a gadget can only be overcome with a larger gadget. The "digital" generation should get new boards. This generation makes it possible to combine digital technologies with interactive ones, which are aimed at motivation in solving: the global river pollution issue (exercise "Fish skeleton"), the development of a moral and value attitude to nature (exercise "Model-environment of living organisms"), attention issues (The exercise "Traps". Finding and composing "traps" develops the child's cognitive interest, teaches them to reason, explain certain phenomena, monitor their own and others' mistakes), et cetera. The Alpha Generation student is interested, hyperactive, open-minded, creative, mobile, gadget-dependent, straightforward, confident, and sociable.

CONCLUSIONS

Modern society puts forward new requirements for educational process organisation in primary schools, which would direct students not only to acquire knowledge, but also teach them to think critically, be tolerant, and be able to actively cooperate in a team using modern digital technologies. The modern world is extremely changeable,

which has influenced the development of hyperactivity, openness, creative inclinations, mobility, gadget dependence, straightforwardness, self-confidence, and sociability in younger schoolchildren. Alpha Generation children are being born since 2010, these are screen children who are "tied" to displays, whose consciousness is established mainly in the virtual world. For the most part, the virtual world becomes the only place where the children feel confident, have no fear and worries. The Alpha Generation students need an attitude that the authors present in the form of recommendations:

- the children should feel free in their actions both in the classroom and during extracurricular hours; in choosing the method of completing tasks and the presentation of results (within acceptable limits);
- having the opportunity to receive ready-made information from various digital means of communication in a very short time, the teachers should not give children ready-made conclusions, but provide a subject for thinking;
- it is advisable to model the educational process in such a way that students themselves notice a false result or their own mistakes;
- the students should be taught to be ready to change their own minds;
- the schoolchildren should be encouraged to analyse the viewed or read information.

Based on the study results, the authors propose to use numerous methods that would diversify and enrich the activity types for students in the classroom: team building, game techniques ("What is in the box?", "Who is around me?"), critical thinking ("Fish skeleton", "Model-environment of living organisms", "Trap"). However, the study does not fully cover the issue of organising the activities of primary school teachers with Alpha Generation students. In further research, the authors' attention will be focused on deepening and identifying new approaches to educational process organisation as a platform for establishing an active life position of a modern primary education applicant.

REFERENCES

- [1] Bibik, N.M. (Ed.). (2017). *New Ukrainian school*. Kyiv: TOV "Vidavnychij dim "Pleyadi".
- [2] Annex to the letter of the Ministry of Education and Science of Ukraine No. 1/11-5966 "Methodical Recommendations for Teaching at Primary School at 2019/2020". (2019, September). Retrieved from <https://osvitoria.media/metodychni-rekomendatsiyi-shhodo-vykladannyav-pochatkovij-shkoli-u-2019-2020-navchalnomu-rotsi/>.
- [3] Horvat, M.V., Mochan, T.M., & Kuzma-Kachur, M.I. (2017). Diagnosis of students' readiness to cultivate a valued attitude towards people in junior high school students. *Science and Education*, 12, 151-157.
- [4] Ilnytska, L.A. (2017). Features of the locus of control of a person prone to Internet addictive behavior. *Science and Education*, 7, 31-36.
- [5] Korniienko, I.A., & Barchi, B.V. (2020). Influence of virtual reality tools on human anatomy learning. *Information Technologies and Learning Tools*, 77(3), 66-75.

- [6] Resolution of the Cabinet of Ministers of Ukraine No. 688 “About Changes at State Standard of Primary Education”. (2019, July). Retrieved from <https://zakon.rada.gov.ua/laws/show/688-2019-%D0%BF#Text>.
- [7] Korostil, L.A. (2018). Generation Z: Finding ways of pedagogical interaction. *Narodna Osvita*, 1(34), 82-88.
- [8] Soldatova, H. (2016). *Generation Z: A psychologist told how the Internet has changed modern children*. Retrieved from <https://ukr.media/science/272956>.
- [9] Strutynska, O.V. (2020). Features of the current generation of pupils and students in the development of digital society. *Open Educational E-environment of a Modern University*, 9, 145-160.
- [10] Miroshnykova, A. (2017). *How teachers can communicate with the “digital” generation of children*. Retrieved from <https://osvitoria.media/opinions/yak-vchytelyam-porozumitysya-z-tsyfrovym-pokolinniam-ditej-porady-psyhologa>.
- [11] Straus, W., & Hove, N. (1991). *Generations: The history of America’s future, 1584 to 2069*. New York: Perennial.
- [12] Chronology of generations in the Western world, according to the theory of generations. (n.d.). Retrieved from https://uk.wikipedia.org/wiki/Покоління_Z.
- [13] McCrindle, M. (2015). *Generation Alpha: A with the New York Times*. Retrieved from <https://mccrindle.com.au/insights/blog/generation-alpha-mark-mccrindle-q-new-york-times/>.
- [14] Ohnevyyuk, V. (2017). “Avatars” of progress. *Ridna Shkola*, 9-10, 17-24.
- [15] Rosenberg, M.B. (2003). *Nonviolent communication: A language of life* (2nd ed.). Encinitas: PuddleDancer Press.
- [16] Kuzma-Kachur, M.I., & Horvat, M.V. (2019). Activation of educational and cognitive activity of junior schoolchildren in the process of formation of natural science competence. *Scientific Bulletin of Mukachevo State University. Series “Pedagogy and Psychology”*, 2(10), 127-130.
- [17] Hilberh, T.H., Tarnavska, S.S., & Pavych, N.M. (2019). *I explore the world* (Vol. 1). Kyiv: Genesis.

СПИСОК ВИКОРИСТАНИХ ДЖЕРЕЛ

- [1] Нова українська школа: порадник для вчителя / за заг. ред. Н.М. Бібік. Київ: ТОВ «Видавничий дім «Плеяди», 2017. 206 с.
- [2] Методичні рекомендації щодо викладання в початковій школі у 2019/2020 навчальному році: Додаток до листа Міністерства освіти і науки України від 01.07.2019 р. № 1/11-5966. URL: <https://osvitoria.media/metodychni-rekomendatsiyi-shhodo-vykladannya-v-pochatkovij-shkoli-u-2019-2020-navchalnomu-rotsi/> (дата звернення 24.11.2020).
- [3] Горват М.В., Мочан Т.М., Кузьма-Качур М.І. Діагностика готовності студентів до виховання ціннісного ставлення до людини у молодших школярів. *Наука і освіта*. 2017. Вип. 12. С. 151–157.
- [4] Ільницька Л.А. Особливості локусу контролю особистості, схильної до інтернет-адиктивної поведінки. *Наука і освіта*. 2017. Вип. 7. С. 31–36.
- [5] Korniienko I.A., Barchi B.V. Influence of virtual reality tools on human anatomy learning. *Information Technologies and Learning Tools*. 2020. Vol. 77, No. 3. P. 66–75.
- [6] Про внесення змін до Державного стандарту початкової освіти: Постанова Кабінету Міністрів України від 24.07.2019 р. № 688. URL: <https://zakon.rada.gov.ua/laws/show/688-2019-%D0%BF#Text> (дата звернення: 24.11.2020).
- [7] Коростіль Л.А. Покоління Z: пошук способів педагогічної взаємодії. *Народна освіта*. 2018. № 1(34). С. 82–88.
- [8] Солдатова Г. *Покоління Z: психолог розповіла, як інтернет змінив сучасних дітей*. URL: <https://ukr.media/science/272956> (дата звернення: 4.02.2021).
- [9] Струтинська О.В. Особливості сучасного покоління учнів і студентів в умовах розвитку цифрового суспільства. *Електронне наукове фахове видання «Відкрите освітнє е-середовище сучасного університету»*. 2020. Вип. 9. С. 145–160.
- [10] Мірошникова А. *Як вчителям порозумітися з «цифровим» поколінням дітей*. URL: <https://osvitoria.media/opinions/yak-vchytelyam-porozumitysya-z-tsyfrovym-pokolinniam-ditej-porady-psyhologa> (дата звернення: 18.01.2021).
- [11] Straus W., Hove N. *Generations: The history of America’s future, 1584 to 2069*. New York: Perennial, 1991. 544 p.
- [12] Хронологія поколінь у західному світі, згідно з теорією поколінь. URL: https://uk.wikipedia.org/wiki/Покоління_Z (дата звернення: 01.12.2020).

- [13] Mark McCrindle. *Generation Alpha: A with the New York Times*. URL: <https://mccrindle.com.au/insights/blog/generation-alpha-mark-mccrindle-q-new-york-times/> (дата звернення: 19.11.2020).
- [14] Огнев'юк В. «Аватари» поступу. *Рідна школа*. 2017. № 9–10. С. 17–24.
- [15] Rosenberg M.B. *Nonviolent communication: A language of life*. 2nd Ed. Encinitas: PuddleDancer Press, 2003. 222 p.
- [16] Кузьма-Качур М.І., Горват М.В. Активізація навчально-пізнавальної діяльності молодших школярів у процесі формування природознавчої компетентності. *Науковий вісник Мукачівського державного університету. Серія «Педагогіка та психологія»*. 2019. № 2(10). С. 127–130.
- [17] Гільберг Т.Г., Тарнавська С.С., Павич Н.М. *Я досліджую світ: підруч. для 2-го кл. закл. заг. серед. освіти у 2-х ч.* Київ: Генеза, 2019. Ч. 1. 144 с.