



НАУЧНЫЙ
ФОРУМ
nauchforum.ru

ISSN: 2542-2162

№8(187)
часть 2

НАУЧНЫЙ ЖУРНАЛ

СТУДЕНЧЕСКИЙ ФОРУМ



Г. МОСКВА



Электронный научный журнал

СТУДЕНЧЕСКИЙ ФОРУМ

№ 8 (187)
Февраль 2022 г.

Часть 2

Издается с февраля 2017 года

Москва
2022

УДК 08
ББК 94
С88

Председатель редколлегии:

Лебедева Надежда Анатольевна – доктор философии в области культурологии, профессор философии Международной кадровой академии, г. Киев, член Евразийской Академии Телевидения и Радио.

Редакционная коллегия:

Арестова Инесса Юрьевна – канд. биол. наук, доц. кафедры биоэкологии и химии факультета естественнонаучного образования ФГБОУ ВО «Чувашский государственный педагогический университет им. И.Я. Яковлева», Россия, г. Чебоксары;

Ахмеднабиев Расул Магомедович – канд. техн. наук, доц. кафедры строительных материалов Полтавского инженерно-строительного института, Украина, г. Полтава;

Бахарева Ольга Александровна – канд. юрид. наук, доц. кафедры гражданского процесса ФГБОУ ВО «Саратовская государственная юридическая академия», Россия, г. Саратов;

Бектанова Айгуль Карибаевна – канд. полит. наук, доц. кафедры философии Кыргызско-Российского Славянского университета им. Б.Н. Ельцина, Кыргызская Республика, г. Бишкек;

Волков Владимир Петрович – канд. мед. наук, рецензент АНС «СибАК»;

Елисеев Дмитрий Викторович – канд. техн. наук, доцент, начальник методологического отдела ООО "Лаборатория институционального проектного инжиниринга";

Комарова Оксана Викторовна – канд. экон. наук, доц. доц. кафедры политической экономии ФГБОУ ВО "Уральский государственный экономический университет", Россия, г. Екатеринбург;

Лебедева Надежда Анатольевна – д-р филос. наук, проф. Международной кадровой академии, чл. Евразийской Академии Телевидения и Радио, Украина, г. Киев;

Маршалов Олег Викторович – канд. техн. наук, начальник учебного отдела филиала ФГАОУ ВО "Южно-Уральский государственный университет" (НИУ), Россия, г. Златоуст;

Орехова Татьяна Федоровна – д-р пед. наук, проф. ВАК, зав. Кафедрой педагогики ФГБОУ ВО «Магнитогорский государственный технический университет им. Г.И. Носова», Россия, г. Магнитогорск;

Самойленко Ирина Сергеевна – канд. экон. наук, доц. кафедры рекламы, связей с общественностью и дизайна Российского Экономического Университета им. Г.В. Плеханова, Россия, г. Москва;

Сафонов Максим Анатольевич – д-р биол. наук, доц., зав. кафедрой общей биологии, экологии и методики обучения биологии ФГБОУ ВО "Оренбургский государственный педагогический университет", Россия, г. Оренбург;

С88 Студенческий форум: научный журнал. – № 8(187). Часть 2. М., Изд. «МЦНО», 2022. – 28 с. – Электрон. версия. печ. публ. – <https://nauchforum.ru/journal/stud/187>

Электронный научный журнал «Студенческий форум» отражает результаты научных исследований, проведенных представителями различных школ и направлений современной науки.

Данное издание будет полезно магистрам, студентам, исследователям и всем интересующимся актуальным состоянием и тенденциями развития современной науки.

ISSN 2542-2162

ББК 94
© «МЦНО», 2022 г.

Оглавление	
Papers in english	4
Rubric «History and archeology»	4
INVOKE THE LORD: IN MEMORY OF PATRIARCH TIKHON	4
Galina Nosova	
Julia Knajkina	
Chernyaeva Irina	
Rubric «Psychology»	7
CHILD PSYCHOLOGICAL TRAUMAS AND THEIR IMPACT	7
ON THE STUDENT'S PERSONALITY DEVELOPMENT	
Ramina Shamshieva	
Natalya Khan	
Rubric «Agricultural sciences»	12
PROSPECTS FOR DEVELOPMENT AND FEATURES OF APPLE	12
PRODUCTION IN KAZAKHSTAN	
Saltanat Maulenova	
Aigul Zhapparova	
Niyet Abdirakhymov	
Kamshat Mansurova	
Ingkar Zamanbek	
Tursynay Kydyrbek	
DEPENDENCE OF WINTER WHEAT GRAIN YIELD ON THE METHOD	17
OF TILLAGE AND CULTIVATION TECHNOLOGY IN THE CONDITIONS	
OF SOUTHERN KAZAKHSTAN	
Sagadat Turebayeva	
Aigul Zhapparova	
Z. Bimurza	
A. Balgabaev	
A. Salykova	
Rubric «Technical sciences»	22
THE USE OF BLOCKCHAIN TECHNOLOGY IN INTERNATIONAL TRADE	22
Botagoz Baizhokina	
Mariyam Abdualiyeva	
Akmaral Kuatbayeva	
Rubric «Philology»	25
THE IMPORTANCE OF TECHNOLOGY IN LANGUAGE LEARNING	25
Barno Khabibullaeva	

PAPERS IN ENGLISH

RUBRIC

«HISTORY AND ARCHEOLOGY»

INVOKE THE LORD: IN MEMORY OF PATRIARCH TIKHON

Galina Nosova

*Master's student Belgorod National Research University,
Russia, Belgorod*

Julia Knajkina

*Master's student Belgorod National Research University,
Russia, Belgorod*

Chernyaeva Irina

*Master's student Belgorod National Research University,
Russia, Belgorod*

Abstract. The article deals with the Orthodox apologist of His Holiness Patriarch Tikhon (Bellavin) of Moscow and All Russia, the life and struggle of the Holy Church during the Revolution and the Civil War. The Christian position of Patriarch Tikhon on church-state relations is revealed.

Keywords: theological devotion; secularization; Bellavin; invoke; revolution; persecution of the church; theomachism.

Russia. 1917. The theomachism among the people was gaining strength at a tremendous pace. Russia crossed out enthusiastically and easily all the values that had been built up over the centuries. It would seem that hell covered Russia with its darkness. The Church Council did not remain indifferent to the difficult situation that our Motherland was going through. In the midst of total devastation, a salutary idea appeared about the restoration of the Russian patriarchate. It was decided to convene a Church Council without delay. Traditionally on August, 15 on the day of the Repose of the Mother of God, the hallowed Church Cathedral was opened,. But destructive ideas have also spread to the church. They couldn't come to an agreement on whether the dying Russia needed a Patriarch until mid-autumn. It was also the height of the civil war. It was decided to elect the patriarch on November 5, but not in the Assumption Cathedral as usual, but in violation of customs in the Cathedral of Christ the Savior. Everyone was waiting for this day with hope, and the huge temple was crowded with people on the appointed day.

576 Cathedral Folk came to Moscow, among them were 277 clergy and 299 laity. There were ten metropolitans, seventeen archbishops and sixty bishops, well-known metropolitan archpriests and unknown rural priests, statesmen and scientists, officers and soldiers, merchants and peasants. At the end of the liturgy, Metropolitan Vladimir of Kiev took out of the altar and placed on a small table in front of the icon of the Mother of God an ark with the names of candidates for the Patriarchs. Then, a blind old man was led out under the arms from the altar. It was Hieromonk Alexy a recluse of the Zosima Hermitage. He approached the icon of the Mother of God and began to pray. There was total silence in the temple. Then they led him to the ark. The elder took out a note with his name and handed it to the metropolitan... - Metropolitan Tikhon of Moscow and Kolomna. Aktsios! (Worthy) [3].

And Vladyka Tikhon said on the day of his election: “Your message for me about my election as a patriarch is the scroll on which it has been written: Weeping, and groaning, and grief, and which scroll was to be eaten by the prophet Ezekiel [Ezek. 2, 10; 3, 1]. How many tears and groans will I have to swallow in my forthcoming patriarchal ministry, especially in such a grievous time! Like the ancient leader of the Jewish people, the prophet Moses, I will also have to say to the Lord: Why do You torment Your servant? And why did I not find favor in Your sight, that You laid on me the burden of all this people? Did I have all this people inside my womb and did I give a birth to them, that You say to me: Carry them in your arms, as a nurse carries a child ... I cannot bear all this people by myself, because they are too heavy for me [Num. 11, 11–14]. From now on, the care of all Russian churches is entrusted to me and I will have to die for them all the days” [3].

So a cavalcade of trials for the Holy Church, the entire Orthodox world, and Patriarch Tikhon began. Since November 1917, an albatross has placed around the restored Russian patriarchate’s neck to lead the oppressed and destroyed Russian Church, to preserve the Orthodox spirit and true faith in pristine purity. Remembering the words - “No temptation has overtaken you except what is common to mankind. And God is faithful; he will not let you be tempted beyond what you can bear. But when you are tempted, he will also provide a way out so that you can endure it.” [2].

The Holiest Tikhon ascended the patriarchal throne at the very height of the revolution. There was not just separation of the Church and state but it was rebellion against the most scared – the Lord and His Church. In Russia the process of secularization started, and the Church and the clergy took the brunt of it. The Decree "On the separation of the church from the state and the school from the church" of 1918 let loose the new government. There were savage persecution and barbaric actions against people who had at least any relation to the Orthodox Church, in particular, to the clergy. A wave of repressions spread throughout Russia. Those humiliations, persecutions and reprisals could be only compared with the Roman emperor Nero. The first persecution under the emperor Nero [54 - 68 years. AD]. The severe persecution spread throughout the Roman Empire, but it promoted more to strengthen the spirit of Christians than to suppress it [4]. Arrests, exiles, executions, uncovering of relics were only a small part of anti-church outrages.

The life of Russia fell apart. In the sake of saving thousands of lives and preserving the Church from the onslaught of the proletariat’s dictatorship, the Patriarch took measures to protect the clergy from political statements. On September 25, 1919, he issued a Message demanding and appealing to the clergy not to enter into a political struggle and not to interfere in the state’s affairs. In 1921, there was a great famine in the Volga region of Russia, and this invisible enemy broke the people’s spirit.

Millions of people’s lives should be saved.

In August of that year, the Patriarch founded the All-Russian Church Committee for Assistance to the Starving and addressed with a prayer "To the peoples of the world and to the Orthodox people." But the new government did not appreciate such steps of salvation. And it issued its own decree, according to which all precious objects should be seized. The Patriarch could not hold with the defile of the holy things and allow sacrilege. He openly expressed his negative attitude towards the outrage that was taking place in the next epistle, as he knew and strictly observed the "Rule of the 73 Holy Apostles" [1]. Protests and the tide of public discontent took place throughout Russia. The Patriarch’s message was regarded as counter-revolutionary, agitating for the undermining and weakening of power, for which he was imprisoned from April 1922 to June 1923.

Along with the steadfastness of spirit, strong faith, and trust in God, there were also those who refused to support the Hierarchy, being broken by the authorities, and fled dropping everything. And also many a man who had once sworn an oath to God, even among the great men of the church, were no longer following the divine way, but the human way, adjusting themselves to the new authority. They were taking care of their bodies and forgetting about their souls. The Patriarch was strong until the very last, and even the ardent foes of the Church, accepted his uniqueness strength of spirit.

For Orthodox people, His Holiness Patriarch Tikhon became the hope for salvation of the Holy Church and Russia during the chaos. He had been honored and revered not only as a historical figure - the Patriarch - but also as a kind man who achieved a high degree of wisdom, fortitude and strong faith. Throughout his life, from his early years until his death, he displayed the moral character of a Christian, that was further reflected in the spirit of Christianity, its destinies and masses. The Orthodox people of Russia and their will were brought together as Patriarch Tikhon. It was he who set the path for the Russian Orthodox Church in those years. There were many examples in the Bible and Sacred Tradition of how prayer became powerful and meaningful, and that was what the Patriarch taught. Who better to turn to in trouble than the Father? This has always distinguished him as a man and as a confessor. His example instilled faith in people, and it grew like a mustard seed and reached enormous magnitude. And there is no idea what Russia would have become without Vasil Bellavin.

Saint Tikhon lived, bearing his cross as the Patriarch for just about seven years. He faced arrests, countless interrogations, imprisonment and several attempts on his life. But even in the last seconds of his life, he turned to God. Saint Tikhon passed away to the Lord at the age of sixty. And he continues to pray for the Holy Church and Russia till nowadays as an uncreated soul of the martyr.

References:

1. Azbuka Very [Electronic resource] // site. - URL: https://azbyka.ru/otechnik/Nikodim_Milash/pravila-svjatyh-apostolov-i-vselenskih-soborov-tolkovanijami/224#:~:text=Rules%2073%20of%20theSixth%20Congregation%2C,we%20are%20saved%20from%20the%20ancient%20sinfall (accessed 19/11/2021). in rus.
2. The Bible. Books of the Old and New Testament Scriptures with parallel passages and appendices. In synodal translation. - Moscow: Nicaea, 2021. - С. 1482. in rus.
3. Vostryshev M. I. Patriarch Tikhon. [Electronic resource] // site. - URL: <https://www.rulit.me/books/patriarh-tihon-read-243541-33.html> (accessed 17.11.2021). in rus.
4. Fox D. The Book of Martyrs. History of the persecution of Christians. [Electronic resource] // site. - URL: <https://predanie.ru/book/218232-kniga-muchennikov> (accessed 09.11.2021). in rus.

RUBRIC

«PSYCHOLOGY»

CHILD PSYCHOLOGICAL TRAUMAS AND THEIR IMPACT ON THE STUDENT'S PERSONALITY DEVELOPMENT

Ramina Shamshieva

*Master student,
Kazakh National Pedagogical University,
Kazakhstan, Almaty*

Natalya Khan

*Doctor of Pedagogy, Professor,
Kazakh National Pedagogical University,
Kazakhstan, Almaty*

Abstract. This article actualizes the problem of the influence of child psychological trauma on the formation and development of the personality of a person of student age. The factors that have a negative impact on such areas of a student's personality as emotional, cognitive and behavioral are analyzed. The author explains, "Returning to the experience of childhood traumas and their elaboration in the course of psychotherapeutic techniques can be an effective method of correcting the socio-psychological problems of adults associated with child psychotrauma" [1]. The main idea implemented in this work is the definition of conditions and factors that prevent the improvement and achievement of goals and heights in the development of personality. Untreated psychotrauma received in childhood may be one of these factors. Because of the analysis of foreign and domestic experience, literary sources, the author concludes that it is necessary to study children's psychotrauma, to create the necessary conditions for effective work with the negative consequences of children's psychotrauma.

Keywords: child psychological trauma, personality development, psychotherapeutic techniques, Murray method, the influence of psychotrauma.

Introduction. Recently, researchers have been concerned about the presence of a risk of psychological trauma in adults based on negative childhood experiences. Studies show that the more often traumatized in childhood, the more this fact can affect life in adulthood. The task of practicing psychologists is to identify the conditions and factors that impede the achievement of heights in personality development. Unprocessed childhood psychotrauma may be one of these factors [4]. M. Murray, a childhood trauma researcher writes: "When a child experiences a traumatic event and is unable to express his feelings, he subconsciously suppresses his pain, and over time this can cause serious physical and emotional harm. Prolonged suppression of feelings associated with a traumatic event leads to more dire consequences than the trauma itself" [5]. Researcher Donald Kalshed states that mental trauma is caused by not only external events, then the inner work of the psyche begins, and this process has a very specific dynamics. One of the main conclusions made by D. Kalshed is that "the traumatized psyche continues to injure itself," moreover, such people constantly find themselves in life situations in which they are subjected to repeated traumatization [1]. Childhood psychotraumata not worked out in a timely manner have a complex effect on a person. Problems arise in the cognitive, emotional and behavioral spheres of the individual. Over time, psychosomatic problems may arise because of untreated childhood psychotraumata. Memory reliably preserves untapped psychological trauma. These memories subsequently form a special type of human personality, with a special type of thinking and behavior aimed at survival and avoidance. Thus, untreated psychotrauma can be the foundation of the psychologically unhealthy personality of an adult.

Analysis of publications on the research topic. Many foreign and domestic scientists have dealt with the problem of the influence of childhood psychological trauma on the further formation and development of the personality of an adult. In domestic science, E.A. Petrova, M.V. Bulanova-Toporkova, H.A. Vaskova, Dalrybvtuz; N.G. Sadova, V. B. Sokolov, E. Krishtopova and others developed these issues.

Research methodology. Since the problem of the negative impact of childhood traumas on the development of an adult's personality requires study, and as this work, an adult needs to return to the state of childhood, when there was an experience of receiving direct trauma, the Murray method proposed by an American psychologist was considered. This method is based on the concept of scindo syndrome (from the Latin "divide", to break), i.e. the theory that, as a defense mechanism in case of mental trauma or violence, the personality is divided into three different states in one person. In the first state, a person re-experiences the entire event of traumatic experience, which subsequently left a negative residue, the second state is characterized as a "crying child", where he lives all the pain of what is happening in himself, and in the third state he allows himself to control the situation, that is. It is like an internal a defense mechanism that suppresses emotions and feelings, uses techniques for pain relief and distraction from painful experiences, but at the same time allows you to build healthy personal boundaries. This method allows you to return to the state of trauma and, with the help of the third state, proposed by Murray, to complete the negative impact of the trauma received in childhood on the prospects and possibilities of an adult.

Research findings and discussion. Student age is also characterized by the fact that during this period many optima of the development of intellectual and physical forces are achieved. However, quite often the "scissors" between these possibilities and their actual realization are simultaneously manifested. Continuously increasing creative possibilities, the development of intellectual and physical forces, which are accompanied by a flourishing of external attractiveness, hide in themselves the illusion that this increase in strength will continue "forever", that the completely better life is still ahead, that everything that has been planned can be easily achieved [1].

The time of study at the university coincides with the second period of adolescence or the first period of maturity, which is characterized by the complexity of the formation of personality traits. The process analyzed in the works of such scientists as A.V. Dmitriev, I.S. Cohn, V.T. Lisovsky, Z.F. Esareva, etc.

A characteristic feature of moral development at this age is the strengthening of the conscious motives of behavior. The qualities that were not fully enough in the senior grades are noticeably strengthening: purposefulness, decisiveness, perseverance, independence, initiative, self-control. At the same time, in the second and third courses, the question often arises about the correct choice of a university, specialty, profession. By the end of the third course, this issue is finally resolved. Interest in moral issues (goals, lifestyle, duty, love, fidelity, etc.) increases.

At the same time, experts in the field of developmental psychology and physiology note that a person's ability to consciously regulate his behavior at the age of 17-19 is not fully developed. Psychological trauma is often defined as a condition caused by a stressful event that is outside the scope of normal human experience and that could clearly inflict suffering on almost anyone. This definition includes experiencing special situations.

The search for effective forms of work with child psychotrauma in adults remains relevant now. The method, created by the American psychologist Marilyn Murray, can be proposed as a proven, effective method of psychological assistance to adults who have experienced psychotraumatization in childhood. The method is based on the idea of the scindo syndrome (from the Latin "divide", tear), i.e. the theory that, as a protective mechanism in case of mental trauma or violence, there is, as it were, a separation of the personality into three different creatures in one person. That is, when experiencing psychological trauma that cause painful emotions, three types of subpersonality are formed:

- "The original child (emotional, undivided integrity of a person, his essence, abilities, potential, desires, etc.);

- a crying child (it is a consequence of negative influence from the outside and carries painful feelings, experiences, as well as the ability to empathize with others);
- a controlling child (an internal defense mechanism that suppresses emotions and feelings, uses the techniques of pain relief and distraction from painful experiences, but at the same time allows you to build healthy personal boundaries) "[4, p.13-14].

These types of subpersonalities can be unbalanced, for example, each adult who has experienced psychotraumatization can have his own, unique ratio of these three elements. Most often, either the crying child or the controlling child becomes dominant. The dominance of any subpersonality forms a special type of adult behavior and a special type of reactions to painful experiences in the present. The goal of the Murray method is to achieve the integrity of the personality, this integrity is defined by the author of the method as "Healthy balanced personality." "A healthy, balanced personality is a full-fledged personality that can experience deep feelings, and at the same time maintain common sense, make informed decisions and be responsible for them, it unites three subpersonalities in a balanced union. This type of personality is formed throughout a person's life and embodies his maturity" [4, p.17]. In the course of work on the Murray method, there is a study of childhood psychotraumata. For this, elements of regressive therapy, art therapy and cognitive-behavioral techniques are used. Personal growth and alignment of interpersonal relationships take place in the context of healing trauma, violence, and deprivation. That is, the negative events of the past become the starting point from which therapy begins. As a result of the work, after returning to the experiences of the past and working through the traumatic events, a significant improvement in the person's condition occurs.

Based on the observations of foreign researchers, a person in adolescence can be characterized as a person from three sides:

- *Of the psychic, that is the unity of psychological processes, states and personality traits. The main thing on the psychological side are mental properties (orientation, temperament, character, abilities), on which the course of mental processes, the emergence of mental states and the manifestation of mental formations depend.*

- *Social, in which social relations are embodied, characteristics determined by membership of a particular social group, nationality, etc.*

- *Of biological, including the type of higher nervous activity, the structure of the analyzers, unconditional reflexes, instincts, physical strength, physique, facial features, skin color, eyes, height, and so on. This side is determined by heredity and innate tendencies, but changes within certain limits under the influence of living conditions. [1].*

If we study a student as a person, then the age of 18-20 years is the time of the most active development of moral and aesthetic feelings, the formation and stabilization of character and, most importantly, mastery of the full range of social roles Adults : civil, professional, labor, etc. This period is associated with the beginning of "economic activity", through which demographers understand a person's involvement in independent production activities, the beginning of a work biography and the creation of a family of their own. The transformation of motivation, the whole system of value orientations on the one hand, the intensive training of special skills related to professionalization on the other, characterize this age as a central period of character and intelligence development. This is the time of sports records, the beginning of artistic, technical and scientific achievements.

The manifestation of traumatic events in each person is individual. Different people may experience different reactions to a similar trauma. T.N. Strabachina writes: "Human problems can only look alike from the outside, but since they arise, develop, exist in the context of a unique human life; the problems themselves are actually unique" [7, p. 36]. Pathological stress reactions due to trauma are attempts to recreate the old worldview in a slightly modified form, which do not lead to success. Thus, a person changes the cognitive schemes for judging reality and continues to live in a distorted world. Researchers also ask the question of "cognitive complexity" - does the worldview become simpler or more complex after psychological trauma? It can be assumed that some characteristics make understanding the world easier - building a clearer hierarchy of values,

a greater awareness of what is important and what is not. On the other hand, assessments and judgments become less transparent; a person understands that anything can happen, but the fragility of being does not lead to the idea of the uselessness of the world and the uselessness of existence.

As a result, it can be assumed that the sooner a traumatic event occurs, the more distortions and transformations cognitive schemas acquire for judging reality. The patterns established in childhood often persist into adulthood. For example, an adult can sometimes work on a child's cognitive schemas formed in response to trauma. Since there is an accumulation of negative states and cognitive errors in judging reality, "...there is a negative cumulative effect, a weakening of personal resources. The resulting shortage of this resource leads to a decrease in stability, the individual's resistance to the negative effects of adverse external conditions "[8, p. 54]. The current situation may affect the degree of adaptation to the society and personal self-realization. Researchers have always been interested in how previous trauma affects an adult's personality. Peter Levine writes: "When an animal (be it a lion, a dog, a deer, a horse, a bird or a lizard) is in danger, its brain immediately generates an unusual amount of energy - like adrenaline buckwheat. This creates an accelerated heart rate and other bodily changes so that the body can defend itself. It was therefore fully mobilized to address life-threatening conditions. Unused energy does not disappear by itself: it creates a traumatic reaction" [3, p. 60]. Therefore, Peter Levin believes that the less energy resources are spent in a dangerous situation, the more they will stay and the more likely they are to develop traumatic signs in the future.

Z. Freud says in his book: "Trauma does not always manifest itself in pure form, as a painful memory or as an experience". It becomes as if it were "the cause of the disease" and causes symptoms (e.g., tics, stuttering, obsessions, etc.), "which remain unchanged, then, by gaining independence" [8, p. 20]. In addition, Freud made an analogy between mental and physical trauma: "Mental trauma or the memory of it acts as a foreign body, which remains an active factor for a long time after entering it" [2, p. 22]

There are some of the psychological traumas have a direct impact on student performance:

- *psychological discomfort associated with problems in the parent-child relationship;*
- *problems in the peer group that started during the school period.*

It should be noted that the injuries from the second group are balanced in the team of high school students: if the "nerves" of high school tend to irritate and harass. Then in high school everything happens the other way around - students who exercise well and easily learns to enjoy authority and respect in a team, so that they gradually get rid of negative school memories [6].

The situation is much worse with the psychological trauma of the first group - those related to family relationships. Such injuries, in turn, are divided into several types:

- *parents and / or other relatives place too high an expectation on the child;*
- *parents and / or other relatives convince the child that he / she is completely absent*
- *talents and talents of all kinds;*
- *over-protection from parents;*
- *lack of parental attention [6].*

If the child is given too high a hope, he is afraid that he will not live up to that hope. In addition, the child's abilities do not always correspond to the views of his or her relatives. For example, they may consider him a genius in practice, even though his academic abilities are quite modest. In addition, the offspring may require occupational relatives, who compel him to enter the relevant university for a particular specialty and whose interests are in a completely different field. In these cases it is not necessary to expect good academic performance, even if the student has sufficient abilities to be practically an excellent student. But pressure from relatives will prevent this, especially if the student does not want his or her relatives to choose this specialty. In the event of overprotection, everything will be done to get rid of the intrusive attention of loved ones, and this may be a failed session, abandoned studies - all to prove their complete independence and independence from relatives.

Conclusions. It is important to keep in mind that trauma is not a "life sentence" but a real event that can be turned into a blessing that can help change a person's quality of life, change their personality, their belt, restore and increase their vitality and abilities. Examining aspects of the

learner's personality development, such as psychological, social, biological, it can be concluded that these aspects reveal the learner's characteristics, abilities, age, and personal characteristics in the response phase to signs, the optimum. absolute and differential sensitivity. Analysts, high plasticity in the development of complex psychomotor skills, etc.

Compared to other adolescents, changes in working memory and attention during adolescence, solving verbal and logical tasks, etc. acceleration is observed. Therefore, the age of the learner is characterized by the achievement of maximum and "maximum" outcomes based on all previous biological, psychological, and social developmental processes.

References:

1. Bulanova-Toporkova M.V. Pedagogika I psihologiya vysshei shkoly: uchebnoe posobie-2019.
2. Freud Z., Breuer J. Studies of hysteria // Sigmund Freud. Collected works in 26 volumes St. Petersburg: East European Institute of Psychoanalysis, 2005. Vol.1. - 466 p.
3. Levin P. Healing from trauma. M.: Ves', 2011. - 128 p.
4. Murray M. The Murray method the problem of finding effective methods of work to overcome the influence of child psychotrauma on the personality of an adult - St. Petersburg: Shandal, 2012. - 416 p.
5. Petrova E.A. Problema poiska effektivnyh metodov raboty po preodoleniyu vliyaniya detskih psihotravm na lichnost' vzroslogo. Belgorod, spornik - 2015.
6. Sokolov V.B. Krishtopova E.A. Detskie psihologicheskie travmy i ih vliyanie na uspevaemost' studentov.
7. Strabahina T.N. Prakticheskaya psihologiya raboty s personalom, couching, nastavnichestvo. Velikiy Novgorod- 2008.- s.120.
8. Vas'kova N.A., Dalrybvtuz, Sadova N.G., Grigorenko I.N. Osobennosti razvitiya lichnosti studenta- 2016.

RUBRIC

«AGRICULTURAL SCIENCES»

PROSPECTS FOR DEVELOPMENT AND FEATURES OF APPLE PRODUCTION IN KAZAKHSTAN

Saltanat Maulenova

*Doctoral student of the Department of «Soil Science and Agrochemistry»
of the Kazakh National Agrarian Research University,
Republic of Kazakhstan, Almaty*

Aigul Zhapparova

*Professor of the department of «Soil Science and Agrochemistry»,
Kazakh National Agrarian Research University,
Republic of Kazakhstan, Almaty*

Niyet Abdirakhymov

*Assistant of the department of «Soil Science and Agrochemistry»,
Kazakh National Agrarian Research University,
Republic of Kazakhstan, Almaty*

Kamshat Mansurova

*Assistant of the department of «Soil Science and Agrochemistry»,
Kazakh National Agrarian Research University,
Republic of Kazakhstan, Almaty*

Ingkar Zamanbek

*Undergraduate student of the Department of «Soil Science and Agrochemistry»
of the Kazakh National Agrarian Research University,
Republic of Kazakhstan, Almaty*

Tursynay Kydyrbek

*Undergraduate student of the Department of «Soil Science and Agrochemistry»
of the Kazakh National Agrarian Research University,
Republic of Kazakhstan, Almaty*

Abstract. At present in Kazakhstan the rates of development of the fruit growing industry and the existing assortment do not fully meet the modern requirements of intensification. In Kazakhstan, the apple tree occupies a leading place among industrial plantings. The increase in the gross production of fruits, berries and grapes should be carried out not only by expanding the area of plantations, but also by intensifying the industry on the basis of a correct varietal policy, scientifically substantiated distribution of species and varieties, modern technologies, financial and technical support of the industry.

Keywords: apple fruit production, yield, gross harvest, intensive gardening, introduced varieties, import dependence, dwarf and semi-dwarf rootstocks, scientifically substantiated distribution of varieties.

Kazakhstan, due to the favorable combination of soil and climatic conditions, is the most important region for the development of commercial horticulture and viticulture. Gardening is an important branch of the national economy, which provides the population with high-vitamin products, which has a positive effect on human health and longevity. The condition for strengthening the food security of the Republic of Kazakhstan is to provide the population of the country with locally produced products. Unique genetic resources of plant agrobiodiversity of world importance are concentrated in Kazakhstan. They include 194 plant species that determine the genetic potential of 24 crops. A number of them are of significant value both for the development of agriculture and for expanding the export potential. Fruit agrobiodiversity and, above all, the wild apple tree, which is highly resistant to many diseases, high frost resistance, and wide ecological plasticity, has received worldwide recognition. The south- and south-eastern region of Kazakhstan is the center of origin of the apple tree culture, where exceptionally favorable conditions have developed for its cultivation. The apple tree is one of the widely grown fruit crops in the temperate zones of both hemispheres. The apple tree is commercially the most important fruit and the fourth most widely produced fruit in the world after banana, orange and grapes. The wide distribution and popularity of the culture is explained by its valuable taste, nutritional qualities, as well as economic and biological features. One of the branches of agricultural production, in which the needs of the population are not fully met, is fruit growing and viticulture. Consumption of fruit and viticulture products by the population determines the quality of nutrition. FAO has included the main fruit crop, the apple tree, in the list of crops that determine the food security of the state. Currently, among a wide variety of fruit crops, the apple tree is one of the most common not only in our Republic of Kazakhstan, but also in other countries of the world. In the general structure of pome and stone fruit plantations in Kazakhstan, the apple tree prevails - the area of plantations is 31,6 thousand hectares. In Kazakhstan, the apple tree occupies a leading place among industrial plantations, and it is also grown in large quantities in home gardens. Apple fruits are an essential food item in the human diet. With a relatively low energy value, apples are a source of vitamins, organic acids and mineral salts, aromatic substances, fiber and easily digestible carbohydrates, which play an important physiological role in metabolism. Their consumption should be uniform throughout the year. In modern conditions of human life and activity, the importance of fruits and berries has increased, since they are the most effective means of increasing the activity of nutrition in the fight against adverse factors that intensively affect a person. These foods are valuable because they contain carbohydrates, proteins, fats, vitamins, enzymes, hormones, minerals and other substances. Fruit production in the world is 86,14 million tons per year, and the area occupied by orchards is 4904,3 thousand hectares. The leaders in the production of apple fruits are China – 39233,4 thousand tons / year (2071,5 thousand hectares), USA – 4652,5 thousand tons (117,8 thousand hectares), Poland - 3999, 5 thousand tons (161,8 thousand ha). These leading countries have a very developed nursery system with the introduction of biotechnology and intensive horticulture, as well as mechanization and the production of chemicals. In the neighboring country, the Russian Federation, apple orchards make up 207,3 thousand hectares, which is 22% more than the area of Poland, and the gross harvest is 1859,4 thousand tons. Kazakhstan is increasing the production of fruits and berries. However, domestic production does not cover the country's needs for fruits and berries. In Kazakhstan, on average, 197,2 thousand tons of apples are produced, the area of orchards is about 32,0 thousand hectares. However, in Russia, as well as in Kazakhstan, intensive horticulture and the production of high-quality, healthy seedlings on a large scale are not developed, and there are no local varieties suitable for intensive horticulture. In the 90s of the last century, the area occupied by the apple tree culture decreased sharply, but recently, the plantations have been actively restored. However, the share of domestic varieties in industrial plantings is small, the main part of plantings are introduced varieties Golden Delicious and Starkrimson, new introduced apple varieties included in the State Register are poorly represented, and even more so new Kazakhstani varieties that have passed the State variety testing. The reason for the reduction in the area occupied by local varieties of apple trees is the import dependence of our agricultural producers, who are forced to import planting material from abroad. The country's annual demand for high-quality virus-free planting material for fruit crops for intensive horticulture is 7,0 million pieces, and 80% of the required amount is currently covered by imports.

In the message of the President of the Republic Tokayev K.K. “Constructive public dialogue is the basis of stability and prosperity of Kazakhstan” was told to the people of Kazakhstan: “Agriculture is our main resource, but it is far from being fully used. We have significant potential for the production of organic and environmentally friendly products that are in demand not only in the country, but also abroad.” The tasks of the State Program for the Development of the Agroindustrial Complex of the Republic of Kazakhstan for 2017-2021 include ensuring the transfer of technologies and increasing the level of technical equipment and intensification of production in the agroindustrial complex. At present, in Kazakhstan, the pace of development of the fruit growing industry and the existing assortment do not fully meet the modern requirements of intensification. The share of imports of fruit products is steadily increasing, this trend may lead to the country's dependence on imports. At the same time, imported products entering the domestic food market do not always meet the requirements of quality, shelf life and health safety. The main suppliers are such countries as: China (23 million tons), USA (4,5 million tons), Poland (3 million tons), Turkey (2,3 million tons), Italy (2,1 million . tons), France (2,1 million tons), Germany (2 million tons). Fruits and berries are an indispensable source of natural vitamins, minerals, antioxidants, have healing and preventive properties. However, at present, the population of Kazakhstan is experiencing an acute shortage of fresh fruits and berries. With a scientifically based human need for fruits and berries of about 100-120 kg per year, the real consumption in Kazakhstan is 40-45 kg, and 35 kg of them are imported products and only 1/3 of them (10-15 kg) are products domestic manufacturers. In foreign countries, fruit consumption is much higher. Thus, in the USA 127 kg of fruits are consumed per capita, France - 135 kg, Germany - 126 kg, Italy - 187 kg. In the United States alone, the wholesale value of the apple harvest is nearly \$4 billion. Among the many varieties, clear favorites stand out: consumers around the world prefer the crisp, sour green Granny Smith apples or the sweet and soft red Red Delicious fruits. At present, the main goal in Kazakhstan is to provide the population of the country with high-quality fruit and berry products of its own production. In Kazakhstan, most of the old apple plantations are in disrepair. The main reason is the lack of a complex of agrotechnical measures and elementary tree care, including pruning. As a result, the average yield throughout the country does not exceed 4-6 t/ha, which is 10-15 times less than in European countries. At the end of 2019, Kazakhstan can produce about 300 000 tons of apples worth 54 billion tenge, with a total market potential of more than 80 billion. Last year, Kazakh gardeners managed to grow 222 000 tons of this fruit, according to the reports of the Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan. The main volume of apples was harvested by individual entrepreneurs and farms - more than 138,3 thousand tons: 62,5 thousand tons were given by households and 21,6 thousand tons - by agricultural enterprises. In other words, the main volume of Kazakhstani apples is grown by small farms. There are more than 31,6 thousand hectares of land under apple orchards in Kazakhstan. Kazakhstan began to grow more apples for several global reasons. Firstly, demand is growing, secondly, imports still make up a significant part of this industry, and thirdly, the state has begun to support domestic producers by subsidizing loan rates and returning part of production costs. On average, the state in one way or another helps gardeners to compensate for about 15% of production infrastructure costs. Favorable soil and climatic conditions of the south-east of Kazakhstan make it possible to obtain high-quality apple fruits. According to the state program «Agribusiness 2020», the laying and cultivation of intensive orchards is included in the list of priority investment areas for the allocation of investment subsidies. Horticulture today is in search of the most effective solutions, so the industry is massively switching to intensive orchards, which begin to produce apples already in the first or second year after planting.

In the Almaty region of Kazakhstan, the area of intensive apple orchards has reached 2222 hectares, in 2022 the figure is planned to be increased to 2600 hectares. At the same time, the region expects to receive 18,9 thousand tons of crops in 2020, and more than 31 thousand tons in 2022. As noted in the regional department of agriculture, today the area of orchards in the region is 996,1 hectares, of which 402,8 hectares are pome fruits, 431,2 are stone fruits, 161 hectares are berries, 1 ha are nuts and 0.08 ha are grape. As for the famous Aport apple variety, in 2012-2018,

214 economic entities of the region that planted apple trees of this variety on 728,8 hectares received 670,4 million tenge of subsidies from the local budget. Thanks to this, the area of orchards with "Aport" has reached 2000 hectares. The number of seedlings is 416 thousand pieces. Varieties such as Fuji, Golden Delicious, Gala, Granny Smith, Starkrimson, Idared, Golden Superb and others are grown in intensive apple orchards. Joint work and exchange of experience on the use of modern apple technologies, planting material is carried out with specialists from Italy, Germany, Serbia, Poland, Holland, and Turkey.

According to the Committee on Statistics, in 2018 Kazakhstan imported almost 121 thousand tons of apples worth \$56,2 million, mainly from China and Poland. At the same time, the export of apples in 2018 more than doubled compared to the previous year, but remained at an insignificant level - only 4 thousand tons for \$1,3 million. Thus, the approximate capacity of the "apple" market in Kazakhstan is in general about 450 thousand tons and can potentially be estimated at 81 billion tenge. The natural conditions of the growing season in the south and southeast of Kazakhstan make it possible to grow crops of high quality fruits, both for fresh consumption and for processing. But, at the same time, the sharp continentality of the climate in the autumn-winter period often leads to freezing of plants, and at the end of spring (during flowering) as a result of return frosts, to the death of flowers and, ultimately, to the loss of a significant part of the crop, which is very strongly affects the economy of small farms specialized in fruit growing.

The industrial horticulture of Kazakhstan needs a radical increase in its profitability and competitiveness both in the domestic and in the world fruit market. Domestic and world experience shows that the solution of this problem in modern conditions is possible only through the creation of early-growing, highly productive and consistently fruitful orchards. Despite significant imports of fruit products, the population's need for it is not fully satisfied. The most important factor in achieving lost food security is import substitution, that is, partial or complete replacement of apple imports with domestic ones. For import substitution of fruits in the agricultural market, it is necessary to increase the gross harvest of fruits, which can be solved by using new technologies, the transition of this business to sustainable development. Intensive horticulture provides a high yield of products per unit area of plantations, a quick return on investment, an active variety change, which determines a favorable ecological and, in particular, phytopathogenic situation of the territory and an increase in the quality of fruit products. The main condition for the successful development of Kazakhstan fruit growing is the scientifically based placement of commercial plantations in natural areas, taking into account all socio-economic issues (material and technical capabilities, labor resources, storage and processing enterprises, sales markets, etc.), and scientifically based zoning territories for different breeds and varieties. Modern industrial horticulture requires considerable investment, besides, horticulture, like the agricultural business, has its own share of risk, and this primarily concerns weather conditions, a sudden drought, hurricane or severe frost can destroy the crop and the plantations themselves. But with the use of modern technologies, the percentage of risk can be reduced, the same drip irrigation will avoid the loss of seedlings and crops from sudden drought, and overhead irrigation will reduce losses from sudden spring frosts. Another very important point of the apple business is the payback period of investments, here the technology of growing an apple orchard plays an important role.

Kazakhstan exports very few apples compared to how much it imports, but there is serious progress and potential in export growth. Thus, the current state of horticulture in Kazakhstan, so far, lags behind in its development from many foreign countries. Accordingly, our republic needs the intensification of horticulture. It is necessary to have a network of specialized nurseries for growing healthy planting material, which must meet the basic requirements and quality standards. To pay more attention to the concentration of horticulture in specialized enterprises, to speed up the uprooting of old unproductive plantations and to increase the establishment of intensive orchards on dwarf and semi-dwarf rootstocks. To provide the farms with specialized gardening equipment, modern fruit storage facilities and to strengthen state support for the establishment and maintenance of perennial plantings. The increase in the gross production of fruits, berries and grapes should be carried out not

only by expanding the planting area, but also by intensifying the industry based on the correct variety policy, scientifically based distribution of breeds and varieties, modern technologies, financial and technical support for the industry.

References:

1. State program for the development of the agro-industrial complex of the Republic of Kazakhstan for 2017 - 2021. Approved July 12, 2018 No. 423. <https://primeminister.kz/ru> November 05, 2019.
2. Dzhangaliev A.D., Salova T.M., Turekhanova R.M. Wild fruit plants of Kazakhstan. - Almaty, 2001.
3. Ulyanova K. S., Ulyanova A. P. Apples - garden, honey, crumbly // Young scientist. - 2019. - No. 6. - p. 59
4. Gudkovsky V.A. Modern apple orchards with a high planting density in Western Europe // Horticulture and viticulture. - 1999. - No. 5-6. - S. 19-22.
5. Doroshenko T.N. Fruit growing with the basics of ecology. - Krasnodar, 2002. - 274 p.
6. Krasova N.G., Galasheva A.M. Economic efficiency of cultivation of new varieties of apple trees grown on low-growing intercalated rootstocks / Inf. leaflet No. 53-001-76. - Eagle: TSNTI, 2006. - 3 p.

DEPENDENCE OF WINTER WHEAT GRAIN YIELD ON THE METHOD OF TILLAGE AND CULTIVATION TECHNOLOGY IN THE CONDITIONS OF SOUTHERN KAZAKHSTAN

Sagadat Turebayeva

*PhD student, Kazakh National Agrarian Research University,
Republic of Kazakhstan, Almaty*

Aigul Zhapparova

*Professor,
Kazakh National Agrarian Research University
Republic of Kazakhstan, Almaty*

Z. Bimurza

*Master student,
Kazakh National Agrarian Research University,
Republic of Kazakhstan, Almaty*

A. Balgabaev

*Candidate of agricultural sciences, professor,
Kazakh National Agrarian Research University,
Republic of Kazakhstan, Almaty*

A. Salykova

*Candidate of agricultural sciences, professor,
Kazakh National Agrarian Research University,
Republic of Kazakhstan, Almaty*

Abstract. The article presents the results of scientific research for 2019-2020 in the bogharic conditions of South Kazakhstan. It was found that the highest yield of winter wheat grain (37.7 q/ha) on average over two years of research was formed on the treatment with simultaneous application of phosphorus fertilizers at the rate of P₄₅ kg/ha with direct sowing and feeding with nitrogen fertilizer at the rate of N₇₀ kg /ha in early spring periods in the tillering phase of winter wheat, that is, the grain yield increased 2.9 times in comparison with the background without fertilizers. Optimization of the phosphate regime of winter wheat with the nitrogen fertilizers during the period of their greatest need in the tillering phase will balance nutrition. During the laying of productive organs in the phase of booting, stalking and formation of winter wheat grain, the reserves of productive moisture were good and fully satisfied the need of winter wheat for moisture during the indicated growing periods of plants, as a result, a consistently high yield of winter wheat grain was formed for rainfed conditions in the south of Kazakhstan.

Keywords: direct sowing, mineral fertilizers, micronutrients, growth stimulant, moisture reserves, weeds, herbicide

Introduction. In the south of Kazakhstan, the main limiting factor of agricultural crops is soil moisture, since during the growing season there is an insufficient amount of atmospheric precipitation, and the moisture reserve in the soil due to autumn-winter precipitation does not satisfy the water demand of crops.

"The reserve of soil moisture for obtaining a high yield - as noted by K.A. Timiryazev [1] under our climatic conditions, with our frequent droughts, should be the subject of our concerns, perhaps even more significant than the supply of nutrients". At the same time, soil moisture during the growing season plays a certain role for the formation of productive elements of plant productivity.

It is known that one of the main limiting factors regulating the productivity of grain crops is the presence of plant nutrition in the soil. The cultivation of intensive varieties of cereals is characterized by increased requirements for the conditions of mineral nutrition and only with a full and balanced supply of nutrients is it able to form a high yield.

Agriculture of the Turkestan region (South Kazakhstan) is traditionally dominated by medium and small farms. The basis of agricultural production is irrigated agriculture. The bulk of the land has been privatized - it is owned mainly by agricultural enterprises and individual farms, several agricultural cooperatives, joint-stock companies, limited liability partnership, as well as a number of state-owned enterprises. Water scarcity remains one of the most important problems for irrigated agriculture in South Kazakhstan oblast. This area, with its low groundwater levels and saline soils, requires water-saving technologies and efficient irrigation systems to grow a variety of crops. Currently, cereals such as winter wheat and winter barley are continuously cultivated. In most cases, irrigation of fields under wheat and barley is carried out by flooding, which as a result causes the death of a significant part of the crop due to the high mineralization of groundwater and the formation of a crust on the soil. No-till is an effective alternative to reduce the effects of salinity.

An important reserve for increasing the efficiency of the technology of cultivation of agricultural crops is the optimization of conditions for plant nutrition. Many works are devoted to the use of fertilizers and the search for ways of their effectiveness. However, in the south of Kazakhstan, the problem of resource-saving technology for the cultivation of winter wheat with no tillage, that is, direct sowing is one of the many priority areas and is only being developed. The issues of mineral nutrition of winter wheat with direct sowing in rainfed conditions of the south of Kazakhstan are not touched upon, a more detailed study and justification of the use of fertilizers, micronutrient fertilizers, a growth stimulator and the identification of the most optimal norms, the timing of their introduction in dry farming is an urgent direction of agricultural science. In the context of the use of soil-protective and resource-saving agriculture, the consumption of fossil fuels for agricultural production is significantly reduced and the burning of plant residues is completely eliminated, which also contributes to a decrease in greenhouse gas emissions. In addition, with no tillage, depending on the agricultural technique, the soil may emit less nitrous oxide (Izaurrealde et al., 2001) [2]. Improving the physical and chemical properties of soil is an important task of both conventional agriculture and soil-protective and resource-saving agriculture, however, improving the biological properties is especially significant in the conditions of soil-protective and resource-saving agriculture, since the soil biological environment is highly degraded depending on the type and degree of soil cultivation, and soil-protective and conservation agriculture provides better conditions for improving biological health and soil functioning. For example, improving the biological potential of the soil under conditions of soil-protective and resource-saving agriculture affects the release of nutrients as a result of the decomposition of plant and animal debris and the subsequent increase in populations of beetles, other insects, worms, fungi and bacteria involved in the processes of decomposition and formation of humus. Therefore, the development of methods for the use of fertilization for direct sowing of winter wheat under dry farming conditions with the choice of the most rational norms of mineral fertilizers, micronutrient fertilizers and growth stimulants with testing of new generation systemic herbicides are of particular interest for science and have important practical significance in the production of winter wheat grain.

The purpose of this research was to study the norms and timing of the introduction of mineral, micronutrient fertilizers and plant growth stimulants and their use in different phases of growth, plant development, taking into account the biological needs of wheat and the peculiarities of the soil and climatic conditions of the south of Kazakhstan.

Material and research methods

Laboratory and field experiments were carried out at the stationary site of the Department of Agriculture and Crop Production of the South-West Research Institute of Animal Husbandry and Crop Production. Objects of research: zoned winter wheat variety Steklovodniy 24. Research, analyzes and accounting on winter wheat crops to study different terms, rates of application of mineral fertilizers, micronutrient fertilizers and plant growth stimulants with "no till" soil cultivation in the conditions of rainfed agriculture in the south of Kazakhstan. The soil cover of the study area

is represented by ordinary sierozem, developed on a thick thickness of loess-like loam and sandy loam. The texture of the upper horizon refers to medium loam. The humus content in the topsoil (0-30 cm) is 1.29%, mobile phosphorus - 11.4 mg / ha, nitrate nitrogen - 19.2 mg / kg, exchangeable potassium - 268.1 mg / kg.

According to the degree of supply with nutrients, the experimental plots of rainfed agriculture are characterized by a low supply of nitrogen, phosphorus and medium supply of potassium. The reaction of the soil solution in the arable layer is slightly alkaline (pH - 7.47).

Field experiments on the use of fertilizers for direct sowing of winter wheat were laid down according to the following scheme:

1. Control - without fertilizers;
2. P₃₀ kg/ha in active substances was applied when sowing winter wheat simultaneously to a depth of 10 cm;
3. P₄₅ kg/ha was applied when sowing winter wheat at a depth of 10 cm;
4. P₃₀ kg/ha when sowing winter wheat at the same time N₅₀ kg/ha in the tillering phase in early spring periods;
5. P₃₀ kg /ha when sowing winter wheat at the same time, N₇₀ kg/ha in the tillering phase in early spring periods;
6. P₄₅ kg /ha when sowing winter wheat at the same time, N₅₀ kg/ha in the tillering phase in early spring periods;
7. P₄₅ kg/ha when sowing winter wheat at the same time, N₇₅ kg/ha in the tillering phase in early spring periods;
8. Seed treatment and growth stimulator "Vympel" 0.5 l/t + micronutrient fertilizer "Oracle" seeds 1.0 l/t + dressing agent, autumn treatment in the tillering phase of winter wheat "Vympel" 0.5 l / ha + "Oracle" »Multicomplex 2.0 l/ha, at a similar rate of consumption with the indicated preparations, crops were treated twice in the tillering phase of winter wheat in early spring periods and in the flag leaf phase.

Research results. In the conditions of the south of Kazakhstan, resource-saving technologies for the cultivation of winter wheat with direct sowing were studied under the guidance of Professor D. Sydyk and his followers, experiments were carried out since 2006. Over these years, the highest yield of winter wheat on dry land of 43.8 c / ha was formed with direct sowing with a SZS-2.1 seeder against the background of mineral fertilizers P₃₀N₅₀ kg / ha and with the use of the Target systemic herbicide at a rate of 1.0 l /ha . It was found that direct sowing of winter wheat over the years of research ensured a decrease in direct costs by 28-44% of fuel and lubricants by -36.5-38.6%, the cost price by 24.3-26.3% with an increase in conditionally net income by 16.7-31.5% [3, 4, 5.6]. The lack of moisture in the soil has been and remains one of the most pressing problems, therefore, it becomes obvious that under the current circumstances, the improvement of the crop sector should be achieved, first of all, on the basis of the use of moisture, soil, energy, resource and nature-saving technologies. It is this system of conservation agriculture that is today the key lever for the survival of farmers engaged in crop production. Conserving farming technologies also include minimal and zero-tillage [7].

The research results showed that the application of phosphorus fertilizers at the rate of P₃₀ and P₄₅ kg/ha accelerated grain ripening by 5-6 days compared to the option without fertilizers, and the use of phosphorus and nitrogen fertilizers at the rate of P₄₅ N₇₀ kg/ha in active ingredients extended the length of the vegetation the period of winter wheat up to 257 days or the maturation of winter wheat grain came 4 days later compared to the option without fertilization (253 days) and 9 days later compared to the background of phosphorus fertilization P₄₅ kg/ha (248 days). Consequently, the use of phosphorus fertilizers accelerated the ripening of grain, and phosphorus-nitrogen fertilizers contributed to the lengthening of the growing season of winter wheat plants with the formation of consistently high grain yields in comparison with other variants of the experiment. When using plant growth stimulants "Vympel" with micronutrient fertilizer "Oracle" of the multicomplex from sowing to grain ripening, the length of the growing season was 247 days, that is, these preparations accelerated the processes of grain ripening by 6 days in comparison with the treatment without fertilizers.

Table 1.

**Yield of winter wheat grain, depending on the norms of fertilization with direct sowing
on bogharic lands in the south of Kazakhstan**

Treatments	Grain yield, q/ha		Average grain yield, q / ha	Deviation from control, q/ha
	2019	2020		
1. Control	12.4	13.2	12.8	-
2. P ₃₀	17.6	17.5	17.6	+4.8
3. P ₄₅	20.1	19.1	19.6	+6.8
4. P ₃₀ N ₅₀	31.9	31.7	31.8	+19.0
5. P ₃₀ N ₇₀	34.8	34.3	34.6	+21.8
6. P ₄₅ N ₅₀	35.8	35.4	35.6	+22.8
7. P ₄₅ N ₇₀	38.5	36.8	37.7	+24.9
8. Microfertilizers+growth stimulant	24.0	27.7	25.9	+13.1

When treating seeds with a growth stimulator "Vympel" at a rate of 0.5 l / t and micronutrient fertilizer "Oracle" at a rate of 1.0 l / t seeds with simultaneous dressing of grain "Dividend Extreme 115", this amount of a stimulant at a rate of 0.5 l / t with a working fluid consumption of 10 l / t before sowing, autumn leaf cultivation of winter wheat crops in the tillering phase with the Vympel growth stimulator - 2.0 l / ha, as well as early spring cultivation of crops in the tillering phase and in the flag leaf phase at the above rates the consumption of the growth stimulator and micronutrient fertilizers, the grain yield of winter wheat on average for two years amounted to 25.9 c / ha, or increased by 2.0 times in comparison with the unfertilized control treatment.

The use of growth stimulants and micronutrient fertilizers turned out to be an advantageous agro-technological method for direct sowing of winter wheat with a significant reduction in direct costs of growing winter wheat crops.

With the improvement of nutritional conditions, the mass of 1000 grains increased and their largest value, 37.5-37.2 g, was obtained against the background of mineral fertilizers P₄₅ N₇₀ kg / ha, significantly exceeding the indicators of the control variant (30.6-30.3 g), over the years of the experiments when using a growth stimulator and microfertilizers, the mass of 1000 grains was 35.1-34.6 g, significantly exceeding the background without fertilizers (control).

Against the background of phosphorus fertilizers P₃₀ kg / ha with the introduction of nitrogen fertilizers at the rate of N₅₀ and N₇₀ contributed to an increase in grain yield by 19.0-21.8 c / ha compared to the control, forming a consistently high grain yield per hectare at the level of 31.8 and 34.6 centners / ha, that is, the use of phosphorus-nitrogen fertilizers, the nutritional regime is balanced with the satisfaction of their needs for the named elements of winter wheat during the entire growing season, and thus formed a high grain yield.

References:

1. Timiryazev K.A. Fighting plants against drought. Selected works Vol. 2. -1948, -123p.
2. Izaurrealde R.C., Williams J.R., McGill W.B., Rosenberg N.J., Simulating Soil Carbon Dynamics, Erosion, and Tillage with EPIC // Presented at the First National Conference on Carbon Sequestration sponsored by the U.S. Department of Energy, National Energy Technology Laboratory, May 14-17, 2001, Washington, DC. http://www.netl.doe.gov/publications/proceedings/01/carbon_seq/5c2.pdf.
3. Sydyk D.A., Karabalaeva A.D., Sydykov M.A. The productivity of winter wheat with resource-saving cultivation technology. W: Agroinform-Astana, 2007-№11 from 23-25.
4. Sydykov M.A. Economic evaluation of the efficiency of winter wheat cultivation. Agricultural science for agricultural production in Kazakhstan, Siberia and Mongolia \\\ Mater. XII-th international scientific-practical conference - Almaty, Bastau, 2009.-T.I.- C 232-234.

5. Sydykov MA, Sydyk DA Direct sowing of winter wheat on rainfed lands of southern Kazakhstan "Global climate change and biodiversity" Materials. II-International Congress, Almaty 2015- C. 177-182.
6. Sydykov M.A., Tastanbekova G.R., Sydyk D.A., Duisenova M.U. Formation of productive elements of winter wheat with direct sowing, depending on the nutritional background on rainfed gray soils of southern Kazakhstan \ Collection of scientific works "Agrarian science-agricultural production in the south-western region of Kazakhstan." Shymkent 2017. Volume II - P. 211-217.
7. Kenenbaev S.B, Bastaubaeva Sh.O. Priority areas in the field of crop production and agriculture in connection with climate change. Collection.nauch.tr: "Agriculture and selection of agricultural plants at the present stage" \ International scientific and practical conference. dedicated to the 60th anniversary of the SPC of grain farming named after A.I.Baraev. Astana-Shortandy Volume I.-2016 - P. 41-45.

RUBRIC**«TECHNICAL SCIENCES»****THE USE OF BLOCKCHAIN TECHNOLOGY IN INTERNATIONAL TRADE*****Botagoz Baizhokina****Master student,
International Information Technology University,
Kazakhstan, Almaty****Mariyam Abdualiyeva****Master student,
International Information Technology University,
Kazakhstan, Almaty****Akmaral Kuatbayeva****Scientific director, assoc. professor,
International Information Technology University,
Kazakhstan, Almaty*

Abstract. In this article, we consider the development of the use of blockchain technology in international trade, one of the areas of digitalization of the economy, analyze the characteristics of the blockchain technology and the possibility of its application in companies, depending on the specific aspects of the business activity of each company. They emphasize that blockchain technologies are especially effective in preventing fraudulent transactions in the execution of a contract, in particular, for fixing the country of origin, controlling the movement of each part during its processing in different countries, in export deliveries of goods, in determining the conditions of consumption. of goods sold and prevention of errors in payment for purchased goods. Significant efforts of companies in financing start-ups in the conduct of research and development of new blockchain technologies are also noted.

Keywords: e-commerce, blockchain, commercial contract execution.

I. Essence and possibilities of blockchain

One of the most important areas of application of the achievements of scientific research and development is the digitalization of the economy, that is, the widespread use of digital technologies in industrial and social life. The basis of the process of digitization of the economy is formed by such technologies as the widespread introduction of robots, automated workplaces, additive manufacturing technologies, and blockchain technology [1]. The essence of the latter is to use the technology of distributed information storage on several (sometimes thousands) computers, resulting in the sharing and synchronization of digital data, the geographical distribution of equivalent copies in different locations around the world, and the absence of a central administrator. In other words, a “blockchain” (block chain) is a distributed database in which data storage devices are not connected to a common server. This database stores an ever-growing list of ordered records called blocks. Each block contains a timestamp and a link to the previous block [2]. The technology under consideration allows you to record and store information in a network that is both decentralized (data is stored on several servers) and distributed (these nodes are interconnected and interact with each other). Such networks can be either private or public [3].

II. Directions of use of blockchain

1. Countering fraud in relation to the quality and place of manufacture of the supplied goods in international trade. Transactions in international trade are made on the basis that the delivered goods have the quality and country of origin fixed in the contract. Buyers do not have a reliable way to verify the authenticity of supplier claims. This increases dependence on the need to conclude and execute long-term and large contracts with established players and creates natural barriers to entry of new and smaller suppliers into the market, which in turn damages real competition. Since transactions are shared and verified on a peer-to-peer basis, the computer system can function in a single company involved in the transaction or in trusted intermediaries, and information once added to the blockchain is time-stamped and cannot be easily changed. Thus, blockchain technology makes it possible to create a common reliable registry, to which all participants can access and check the information contained in the registry at any time, but which cannot be controlled by any party. As a result, blockchain technology has come to be referred to in the economic literature as a “trust machine.”[4]

2. An important point is the efficiency of using blockchain technologies to ensure the safety of goods. Globally, theft of cargo in international trade costs road and rail carriers between \$23 billion and \$60 billion a year.[5] Blockchain technology can help prevent and almost completely eliminate some forms of cargo theft. One of the most common forms of theft is when the attackers determine the scheduled pickup time of the goods from the shipper earlier than the scheduled time (for example, 2 hours), look through the documents and bring their vehicle. The attacker's driver connects to a loaded trailer, takes out the cargo, and only a few hours later the real carrier arrives. By then, the cargo is gone.

The use of blockchain technology to control the movement of goods makes it much more difficult for an attacker to carry out such a robbery, thanks to the ability to connect to a ledger in which information related to goods has been registered in advance and cannot be hacked. In addition, we note that in order to guarantee the export of goods by a real forwarder, and not by an intruder, it is technically possible to provide a confirmed digital copy of shipping documents and a photo of a real driver at the port.

3. Another tool for transforming global trade is the digitalization of financial services, which makes it possible to reduce the cost of moving funds between transaction entities operating in different countries. There are three areas of blockchain application that can significantly improve the process of cross-border financial transactions [6]. The first is the cryptocurrency payment system, which is very popular in developing countries (BitPesa in Kenya, Bitso in Mexico, OkCoin in China, OkLink, Coinsensure in India, Remit.ug in Uganda). The second direction involves the use of blockchain to provide users with services for cheap, and sometimes even commission-free transfer of fiat money [7]. The third allows financial institutions to make payments without resorting to the use of the still rather slow institutions of the traditional financial system. As a result of the use of blockchain technology, it becomes possible to implement the transfer of money under a transaction in a short time. For example, if using the SWIFT system, the process of a cross-border transfer can take from 3 to 5 business days, then the Ripple platform, based on blockchain technology, allows it to be completed in 3–6 seconds. Major players in the financial business do not stand aside from new technologies and experiment with the creation of appropriate services based on the blockchain. Suffice it to say that Visa, MasterCard and J.P. are actively involved in the implementation and development of such products. Morgan, who consider blockchain as a powerful source of cost reduction. Thus, according to some data, by 2022, thanks to the blockchain, financial institutions will be able to save up to 15-20 billion dollars annually [8].

III. Possible ways to solving the problems of the use of blockchain technology at the international level

The growth in demand for new technologies is spurred on by increased market competition: those companies that start using revolutionary technologies earlier benefit more than others from them. This is also true of the emerging technology called blockchain. As a powerful tool of trust, blockchain allows parties to exchange data and services or make payments with a high level of trust.

This provides users with tangible benefits, according to new IBM research. Over the course of history, scientific and technological advances have dramatically increased the level of self-confidence through the emergence of such innovations as paper money, the banking system, the printing press, electronic payment systems, the Internet and secure e-commerce. Each of these advances stimulated economic activity, creating systems that instilled the confidence that parties needed to work together. As a result, blockchain technology has been adopted by industrial and commercial firms, academia and governments in many countries around the world [9]. Blockchain applications extend far beyond the digital realm of industry and commerce and can impact every aspect of the real economy.

The use of blockchain technology will be able to change international trade if favorable conditions are created for the active development of this technology, follows from the report of the World Trade Organization (WTO). “Blockchain can make international trade smarter, but smart trade requires smart standardization, which is only possible through collaboration. If we manage to create an ecosystem that promotes more active development of the blockchain, international trade can change radically within 10-15 years,” the organization’s report emphasizes [10].

References:

1. Gusarova O.V. Blockchains in the Military Contracting System: Opportunities and Challenges // Moscow Economic Journal. 2019. No10. pp. 26-27.
2. Not only cryptocurrencies: How the world is experimenting with blockchain. – URL: <https://coinspot.io/technology/ne-tolko-kriptovalyuty-kak-mir-eksperimentiruet-s-blokchejnom/>
3. Chepkova T. What is distributed ledger technology // <https://beincrypto.ru/learn/chto-takoe-tehnologiya-raspredeleennogo-reestra/>
4. Baburina O.N., Kondratiev S.I. Sea ports of the world and Russia: dynamics of cargo turnover and development prospects Transport business in Russia. 2016, No6, p. 141.;
5. Blockverify, using blockchain technology to detect counterfeit goods, provides a higher level of transparency in the process of purchasing and supplying products. Each product is marked with the Blockverify label, which helps in verifying the origin of the product throughout the supply chain. // <https://8d9.ru/10-ritejl-vendorov-ispolzuyushhix-blokchejn>
6. Ganne E. (2018) Can Blockchain revolutionize international trade // https://www.wto.org/english/res_e/publications_e/blockchainrev18_e.htm
7. Fiat (from Latin fiat - decree, indication, “so be it”), symbolic, paper, credit, unsecured currency, the nominal value of which is established and guaranteed by the state, regardless of the cost of the material used for its manufacture.
8. Maltseva V.A., Maltsev A.A. Blockchain and the Future of International Trade (Review of the report “Can Blockchain Revolutionize World Trade?” // Bulletin of International Organizations. 2019. Vol. 14. No 4. P. 195.
9. Blockchain as a synonym for trust // <http://cognitive.rbc.ru/blockchain>
10. Blockchain will change international trade, it is necessary to create conditions for its development – WTO // https://1prime.ru/state_regulation/20181127/829483191.html

RUBRIC

«PHILOLOGY»

THE IMPORTANCE OF TECHNOLOGY IN LANGUAGE LEARNING

Barno Khabibullaeva

*Student of Karakalpak State University,
Uzbekistan, Nukus*

Abstract. In the process of language learning, we can estimate technology as the profitable way. This paper focuses on that technology has good effect and wide opportunities. It can motivate students to utilize technology in language learning process.

Keywords: cooperation, technology, technology integration

Language is one of the considerable elements that has an important influence on international communication activities. There are a lot of ways and tools for learning languages. Students use different parts of English language skills such as listening, speaking, reading and writing for improvement of their language proficiency. In other words, integrated skills are the most efficient way in this process. They help language learner to develop universally. These skills have been providing language learning and improving in the recent years.

I would like to stress that technology also has some kind of good effect in language learning. Just as technology plays a major key role in business relations, entertainment, music, movies, and almost every aspect of our everyday lives, it plays an equally significant role in education. Technology makes ease learning process. It provides learner with limitless opportunities. There are many forms of technology. The most used ones are computers and instruments. Learners' cooperation can be increased through the use of technology. Cooperation is one of the important tools for learning strategy. Using computer-based language activities improve cooperative learning in learners. Learners cooperatively work together to create tasks and learn from each other through reading their peers' work (Keser, Huseyin, & Ozdamli, 2011).

Furthermore, Internet materials motivate learners to learn more. Learners can learn meaningfully when technology is used in the process of learning through using computer and internet. Tomlinson (2009) emphasized that computer-based activities provide learners rapid information and appropriate materials. When learners learn with technology, it assists them in developing their higher order thinking skills. It can be concluded that the true combination of multimedia and learning methodology is very important to attract learners' attention towards English language learning.

As for me, modern technology is a source of knowledge and ideas. One kind of technology is Internet. Internet promotes a great deal of information. You get new, existing, and historical information from online magazines, journals, publications. There are multiples disciplines and courses you can take online. Moreover, internet improves social skills. Social media plays a huge role in the education sector. In addition to improving people's communication skills, it tends to foster togetherness, group work, and team-ship, some of the most adorable qualities in education. Nonetheless, the internet also doesn't come with unappearing traits when it comes to education.

There will be laziness and neglectfulness in students. Also, it will make lack of idea and creativity and diminish imagination.

Despite internet saves our time and help to find what we need rapidly. When I am in difficult situation to know something complicated, I take my mobile phone and search what I am in trouble with. Then internet can find anything I need for my study.

As well as I use technology in order to keep in touch with my key-pals. I have many English spoken friends in social networks. We can teach and learn from each other while chatting. So, technology and internet are significant tools in my life.

According to Gilanki (2017), technology assists learners in adjusting their own learning process and they can have access to a lot of information that their teachers are not able to provide. It's true, we search for some extra information besides our teachers give us in order to show our best in learning and it will be very useful for us. Dockstader (2008) defined technology integration as the use of technology to improve the educational environment. It supports the classroom teaching through creating opportunities for learners to complete assignments on the computer rather than the normal pencil and paper.

Also, as in every sphere, technology is useful in classroom activities. It can let the students learn more and more and can broaden their outlook. Moreover taking advantage of technology, it will save our time.

Dawson, Cavanaugh, and Ritzhaupt (2008) and Pourhosein Gilakjani (2014) maintained that using technology can create a learning atmosphere centered around the learner rather than the teacher that in turn creates positive changes. They emphasized that by using computer technology, language class becomes an active place full of meaningful tasks where the learners are responsible for their learning.

As mentioned above, internet is a source of creative ideas. So the study process can be creative and successful.

Through the technology we can learn language from online courses, another place may have some difficulties, and the distance learning helps them. This is another usage of technology, but it has perceptible influence in language learning.

To sum up, process of learning language should make interest in learner and be easy to catch up. This was one very useful way for language learners to encourage them learn more and more. It's just one tool in language learning, but very effective and profitable way. You can get very fruitful result learning language through the technology.

References:

1. İŞMAN, A. (2012). Technology and technique: An educational perspective.
2. Pourhossein Gilakjani, A. (2014). A detailed analysis over some important issues towards using computer technology into the EFL classrooms.
3. Susikaran R. S. A. (2013). The use of multimedia in English language teaching. Journal of Technology for ELT
4. Dockstader J. (2008). Teachers of the 21st century know the what, why, and how of technology integration

ДЛЯ ЗАМЕТОК

Электронный научный журнал

СТУДЕНЧЕСКИЙ ФОРУМ

№ 8 (187)
Февраль 2022 г.

Часть 2

В авторской редакции

Свидетельство о регистрации СМИ: ЭЛ № ФС 77 – 66232 от 01.07.2016

Издательство «МЦНО»
123098, г. Москва, ул. Маршала Василевского, дом 5, корпус 1, к. 74

E-mail: studjournal@nauchforum.ru

16+

