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## Section 1. Archeology

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### THE MEDIEVAL CITIES OF SHIRVAN IN THE WORLD TRADE SYSTEM

**Abstract.** The article considers the trade relations of the medieval cities and towns of Shirvan, which are confirmed by numerous artifacts – ceramics, glassware, decoration items found in cultural layers during archaeological excavations. Archaeological investigations confirm the integration of trade relations of medieval Azerbaijan in the Great Silk Road system and development in the context of world culture. “Strabo’s Road” beginning from China and India through Central Asia reached the Caspian Sea and passed through the territory of Azerbaijan.

**Keywords:** Azerbaijan, Shirvan, the Middle Ages, trade relations, towns.

#### Introduction

The medieval cities of Azerbaijan make up a many-sided structure with a high level of development of urban culture. The enlargement of settlements, the transformation of towns into metropolitan centers, in many respects determined their role in trade. Systematic archaeological investigations in Azerbaijan supplemented the information of written sources on the development of cultural ties of medieval towns [11, P. 355]. The development factor of medieval urban culture is expressed in the accumulation of rich factual material – ceramics, glassware, and decoration items found from cultural layers [3, P. 121–122; 5, P. 5; 2, P. 32–35]. Coin treasures and coins found in the territory of medieval towns also confirm the development of international trade relations of Azerbaijan towns [2, P. 72–77].

The development of trade relations through the Silk Road was the beginning of a new information era and made intercultural contacts regular and more fre-

quent, which significantly changed the idea about the world. Archaeological artifacts confirm the integration of trade relations of medieval Azerbaijan in the Great Silk Road system and development in the context of world culture. The “Strabo’s Road” passed through Azerbaijan – beginning from China and India through Central Asia reached the Caspian Sea. In the towns and villages along the Great Silk Road through which the caravans passed, there were caravanserais (coaching inns) and there were *hujras* in them (“rest rooms”). Caravanserais were the place of wholesale buying and sale. Caravanserais were located on the road from the Mount Besh Barmag in Baku – Derbent, Sangachal, Miajik and Khilmilli, as well as on the Shamakhy-Baku road [4, P. 385; 9, P. 82].

The Silk Road stimulated the need for Azerbaijani goods; so, in the 15th century the Bokhara caravanserai was built in Baku [7, P. 177]. In medieval towns, craftsmen were developing new types of crafts: the production of metal ware adopted from

the East and glassware from the West [17, P. 17]. The civilizations of the East and West, drawing closer together through the Great Silk Road, were enriched, developing national traditions in interaction with the cultures of other peoples, which strengthened not only the information space, but also the development trends of international relations. This road played an enormous role in the rapprochement of the two continents, in the mutual cultural enrichment of many European and Asian peoples [17, P. 17]. The routes of world trade united a network of roads along which trade and economic ties between the countries of the East and West were carried out in the Middle Ages, covering almost the entire Eurasian continent, including the territory of Russia [6, P. 122; 10, P. 109–110].

The medieval towns of Shirvan were also linked by trade caravan routes, which are described in the sources and confirmed by archaeological artifacts – scale pans, metal and stone weights, set of weights and civil structures [1, P. 142; 4, P. 384; 14, P. 20]. The development of local trade is confirmed by samples of items from the Shabran ceramic school, moulds of stamped vessels, a complex of products with marks and names of masters found in Baku [1, P. 107; 13, P. 198]. Angobed vessels richly decorated with colored painting were brought to Baku from Gabala, Ganja, and Beylagan [7, P. 114]. Coins of the local mint of Derbent in single items are found in Shirvan, and coins of the Shirvanshahs are found in Beylagan [15, P. 114].

Archaeological investigations have confirmed that in the medieval period, from many countries art ceramics, especially faience and celadon were brought to Azerbaijan. Collections of celadon dishes confirm the presence of trade and cultural ties of the medieval towns of Shamakhy, Shabran and Baku with India, China and Iran [4, P. 140; 13, P. 72; 3, P. 405; 14, P. 19]. A special feature of these products is the presence of a greenish tint of glaze – “*martabani*” and the predominance of plant motifs – “Chinese porcelain”. Researchers suggest that in the 12<sup>th</sup>–13<sup>th</sup> centuries,

Chinese dishes were brought to Azerbaijan through Central Asia and Iran [1, P. 179; 13, P. 174]. The findings of Chinese dishes in Baku are of particular interest. Among them, a Chinese porcelain plate with the image of a dragon with a meandering tail filled the whole space; the image was made of cobalt and a chandelier vessel depicting a man dressed in a brocade dressing gown relatively stands out among products with a traditional floral ornament [16, P. 25,27; 7, P. 116]. Unlike Baku, China-made products found in Shamakhy and Shabran are endowed with floral ornaments. There are also images of flying birds. The economic and cultural ties of Shamakhy with the Central Asian towns in the 12th century are confirmed by synchronous vessels with stamped ornaments. A characteristic feature is the identity of images with products from Merv [12, P. 72].

Running of international trade routes from south to north had greatly increased the role of the medieval towns of Shirvan and Arran in world trade. The cities of Shirvan – Baku, Shamakhy and Derbent were located on the international trade routes. The main road ran through Mughan on the right bank of the Kura River to Tiflis and from there to the Black Sea and Byzantium [4, P. 84–385; 13, P. 204]. One of the medieval towns of Azerbaijan – Barda, was the largest trade center in the world on the Great Silk Road, and up to the 10th century was one of the largest centers of craft art in the Middle East and the Transcaucasian region [3, P. 136,138]. In the 14<sup>th</sup>–17<sup>th</sup> centuries, the role of the Azerbaijan towns located on international routes had increased even more. This was due to the development of the Volga-Caspian trade route, developed by Russian and English merchants [3, P. 404]. Archaeological artifacts confirm the extensive ties of the Azerbaijan cities – Shamakhy, Baku, Derbent, Ganja, Nakhchivan, Ardabil, Tabriz, Maraga in world international transit trade, countries of the East and the West [3, P. 138–139]. World trade connected Azerbaijan with India and China, via the southern land arterial highroad through Central Asia to Iran, the southern

regions of Azerbaijan and along the northern road, along the coasts of the Caspian Sea, by the Derbent passage to the Khazar country and further [3, P. 138; 6, P. 120; 8, P. 162–163; 11, P. 355; 12, P. 71; 27, 19].

Until the end of the medieval era all the main routes of the caravan roads of Azerbaijan remained almost unchanged. The most common among others was the Barda-Barsanj-Shamakhy-Shirvan-Shabran-Derbent route connecting the central regions of Azerbaijan with the north [4, P. 384; 13, P. 206]. Written sources do not contain information about the existence of a route running along the Caspian coast. It should be noted that archaeological investigations examined the Caspian coastal medieval sites – “Galacha” in Imishli district (near the village of Sarkhanly), “Girkh-Chiraq” (at the intersection of the Baku-Lankaran and Salyan-Shirvan highways), “Kursangy” (on the 100<sup>th</sup> kilometer of Baku-Lankaran highway) and settlements near Garadagh. The sites are rich in glazed pottery of the 9th-13th centuries, which testifies to the existence of coastal caravan roads [4, P. 384; 6, P. 119–122]. Shamakhy, as the center of the Shirvanshah state, was connected by trade roads with most towns of Azerbaijan, especially with the city of Baku. Researchers suggest that the road from Shamakhy ran along the bank of Pirsaat River and branching through Sangachal towards Baku and further to the south of Azerbaijan [10, P. 108]. The remains of a caravanserai on the Pirsaat River on the Shamakhy-Salyan road have been preserved [12, P. 71; 4, P. 386].

Trade relations of the medieval town of Gabala with low-lying areas passed through the canyon along the Turyanchai River (Savalan pass) and Ghoychai (Alvan pass) or “Elchi-yolu” (“Messengers’ road), which ran in the districts of Gabala and Agdash (Aresh) [3, P. 137; 6, P. 119–122].

Baku was connected to the main trade routes through local caravan roads running along the sea-shore and further to the lower reaches of the Kura River; the other road ran from Baku to the northwest through Gobustan to Shamakhy (the so-called

“Shirvan Yolu”), and the third road branching from the second to the northwest, towards the northern part of the peninsula and connected further to the main trade high road leading to Derbent [4, P. 384; 6, P. 119–122; 10, P. 109; 14, P. 17].

In the 9th-13th centuries, Derbent was one of the most important trading centers in the Near East, as it was the largest port on the Caspian Sea [15, P. 108]. Archaeological artifacts – imported dishes, glass bowls, bottles, vessels for incense, monochrome and polychrome glass bracelets (twisted and smooth) and rings, decoration items made of paste, metal and bone, finger-rings, pendants and beads made of precious stones, faience and porcelain items found in the cultural layers of Derbent serve as excellent evidence of the city’s trade relations [15, P. 112]. Ceramics and glass discovered from the cultural layers of the city, completely analogous to products from Oren-Qala, Shamakhy, Gabala, testify to the relations of Derbent with other cities and towns of Azerbaijan [15, P. 114].

Numismatic material contributes to the illumination of some aspects of socio-economic and political life, and characterizes the intensity of trade relations of Azerbaijan [3, P. 141, 407]. The discovered coin treasures contain coins of the local mint and other countries. Gold and copper coins minted on behalf of the Byzantine emperors of the 12th-13th centuries were found in Baku [7, P. 113–115]. The discovered coin treasures contain samples not only of local coinage, but also of other countries that were part of the caliphate [1, P. 172–175; 14, P. 20].

Free movement, the emergence of cultural and economic zones contributed to the integration of intercultural relations.

The cultural ties of the medieval cities and towns of Azerbaijan in the world trade system determine the process of interaction between the development of urban culture and the legacy of medieval civilization, the heyday of which was directly connected with the intensification of contacts along the Great Silk Road [11, P. 354]. World culture includes many

local cultures, the development of the communicative processes, which took place in various forms and tendencies. Through international trade, there occurred a process of regulating contacts between

states; as a result, many nations got the opportunity of self-realization and mutual enrichment, developing their individual traditions in interaction with other cultures.

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## Section 2. Biotechnology sciences

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### SYNTHETIC WALLASTONITE – AS AN INNOVATIVE MATERIAL PROCESSED FROM INDUSTRIAL WASTE

**Abstract.** This article discusses current environmental problems associated with the interaction of a phosphorus plant with the environment, with the distribution of soluble phosphorus compounds, the formation of a significant amount of waste and harmful emissions.

**Keywords:** ecology, wollastonite, synthetic, phosphorus production waste, asbestos.

#### Introduction

Modern industry lays the material foundation for human life. Most of the basic human needs can be met through goods and services provided by industry. The environmental impact of industry depends on the nature of its territorial localization, the consumption of raw materials, materials and energy, the possibility of waste disposal and the degree of completion of energy production cycles. As a result of the production activities of enterprises of the Republic of Kazakhstan in the production of phosphorus and phosphorus-containing substances, industrial waste in the amount of over 60 million tons was accumulated in the dumps of enterprises, of which more than 7 million tons of electrothermophosphorus slag were accumulated over the years.

This work is aimed at processing industrial waste with the organization of the production of innovative material – synthetic wollastonite, which provides for the solution of environmental problems.

Wollastonite is a natural calcium silicate with the molecular formula  $\text{CaSiO}_3$ . The color of wollastonite is white with a grayish or brownish tint. The mineral is chemically pure, contains a small amount of impurities in the form of oxides of manganese, iron and titanium. Wollastonite is not soluble in water and organic solvents, but reacts with hydrochloric acid. The mineral was named after the English chemist William Wollaston (1766–1828). Wollastonite did not receive wide industrial distribution until the 50s of the XX century, when, during the post-war building boom, it began to be used for the production of paints, primers,

putties and ceramics [1]. Wollastonite is formed by contact and deep regional limestone metamorphism. Most often found at the contact of limestone with igneous rocks, where it forms significant accumulations. Wollastonite belongs to calcium silicates, due to a definitely ordered crystal lattice, it has a number of valuable properties, the main of which is increased reinforcing ability. A significant advantage is the absence of harmful effects on the human body. So, its small additives (5–20%) increase the strength of various materials by two orders of magnitude, reduce the technological time and heat treatment temperature, increase the heat resistance, chemical resistance and wear resistance of products, improve electrical insulating and dielectric characteristics [2–5].

It is expected that synthetic wollastonite produced by the proposed technology, due to phase uniformity and a certain microstructure, will allow improving the quality parameters of the final product (cement, plastic, rubber, ceramics, glass, radio-insulating materials, electrical products, paint and varnish products, etc.) and will open new opportunities in innovative materials science.

In countries that do not have personal reserves of natural wollastonite, or in countries where existing reserves are not developed on an industrial scale, the requirements for this filler are met by the production of synthetic wollastonite. This significantly intensified the search for new technological solutions, including in Kazakhstan, in particular the use of cheap raw materials in the synthesis of wollastonite and lowering the firing temperature. The characteristics of synthetic wollastonite are almost the same as those of natural wollastonite. The target product can be supplied in the form of granules (diameter 5–25 mm).

### Objects and research methods

The objects of study are phosphorus slag, waste from the phosphorus industry resulting from the electrothermal production of yellow phosphorus.

This paper presents a highly efficient technology for the production of synthetic wollastonite by solid-phase synthesis and determines the optimal produc-

tion parameters. To achieve this goal, a number of experimental studies were carried out aimed at increasing the brightness of the resulting wollastonite product. As a result of the studies, corrective changes were made in the technology for producing synthetic wollastonite, in particular in the technology for producing wollastonite, which includes heat treatment of a mixture from a CaO-containing component – electrothermal slags of phosphorus production, as a SiO<sub>2</sub>-containing component, quartz sand in the presence of a bleaching component, into the composition of the bleaching component zinc oxide is additionally added, that is, in technology, as a bleaching component, instead of sodium sulfate, used a mixture of zinc oxide and sodium sulfate in the ZnO/SiO<sub>2</sub> ratio. Zinc oxide is used to neutralize the staining effect of iron oxides and sulfates.

### Results and its discussion

The technology for producing synthetic wollastonite involves the use of the following materials and chemicals: electrothermophosphoric slag; siliceous additive (silica sand); zinc oxide (ZnO) and sodium sulfate, Na<sub>2</sub>SO<sub>4</sub>, both in laboratory and in pilot (enlarged) conditions.

1) Granulated electrothermophosphoric slag is a calcium silicate waste from the sublimation of phosphorus during the electrothermal processing of Karatau phosphorites (Novo-Dzhambul phosphoric plant – Taraz city). Currently, replenishment of long-term reserves of electrothermophosphoric slag at the existing NDPP is 700 thousand tons / year, and about 3.8 million tons of slag are in the dumps of Shpos “Phosphorus”.

Granular electrothermal slags of phosphorus production of water cooling have the following chemical composition, mass. %: CaO = 47.98–48, 21; SiO<sub>2</sub> = 40–41.36; Al<sub>2</sub>O<sub>3</sub> = 1.22–2.88; MgO = 3.66–4.31; Fe<sub>2</sub>O<sub>3</sub> = 0.14–0.30; SO<sub>3</sub> = 0.4–0.97; P<sub>2</sub>O<sub>5</sub> = 1.25–1.5; F = 2.02–2.8; C = 1–2. The granule size is from 0.14 to 5 mm.

The color is light gray. Mohs hardness is 3.5–4. Abrupt cooling of the slag melt during water granulation mainly determines its glassy structure. The



vitreous phase content is 90% crystalline 10%. The crystalline phase is represented by the high-temperature form of wollastonite – pseudo-wollastonite  $\alpha$  –  $\text{CaSiO}_3$  and melilite  $\text{Ca}(\text{Al}, \text{MgSi})\text{Si}_2\text{O}_7$ , or, more precisely, the ackermanite variety of the latter.

The possibilities of using slags for the electrothermal production of phosphorus in the production of building materials are quite wide. The presence of impurities of phosphorus and fluorine compounds, a higher content of silica and less alumina determine some features of the use of this type of waste. Most phosphoric slag is used in the cement industry. Phosphorus slag meets the requirements for active mineral additives of artificial origin. The relatively low  $\text{Al}_2\text{O}_3$  content leads to lower hydraulic activity of phosphorus slag compared to blast furnace.

Under normal temperature conditions, the slag of electrothermophosphorus production does not have astringent properties, and its strength under steaming conditions is also insignificant. However, phosphorus slag is well activated by alkaline pathogens, and therefore they are used in the production of slag alkaline binders.

2) Quartz sand is a natural mineral  $\text{SiO}_2$  (silicon dioxide). The mineral contains almost no impurities, only about 0.5% can be foreign inclusions. Chemically inert, does not emit soluble compounds. Quartz sand does not form toxic compounds in the air and in wastewater. The chemical composition of quartz sand (in wt.%):  $\text{SiO}_2$ –94.2;  $\text{CaO}$  – 1.6  $\text{Al}_2\text{O}_3$ –0.34;  $\text{MgO}$  – 0.4;  $\text{Fe}_2\text{O}_3$ –0.3;  $\text{Na}_2\text{O}$ –0.9. Granulometric composition: content in% of grains with a size of 1–0.05 mm = 94.3; the content in% of grains of more than 1  $\mu\text{m}$  and less than 0.05 = 5.7. Unrefined quartz sand is controlled by sifting through a sieve of 81 holes /  $\text{cm}^2$ , there should be no residue on the sieve, humidity is not more than 5%. By the degree of exposure to the body, quartz sand refers to substances of the 3 hazard class according to GOST 12.1.007–76, fire and explosion safety.

Quartz sand dust has fibrogenic properties and is capable of exerting a local irritant effect on the mucous membranes of the eyes and respiratory tract.

Quartz sand is used as a corrective component of the chemical composition of slag.

3) Bleaching additive – zinc oxide (zinc oxide)  $\text{ZnO}$  – a colorless crystalline powder, insoluble in water, yellowing when heated and sublimated at 1800 °C. It is soluble in acids, alkalis, in a solution of ammonia and ammonium chloride. Zinc oxide refers to substances of the 2<sup>nd</sup> hazard class according to GOST 12.1.007–76. The maximum permissible concentration of zinc oxide in the air of the working area is 0.5 mg/m.

In the production of glass crystalline materials and glaze, it is used to neutralize the staining effect of iron oxides and as an initiator of crystallization of the wollastonite phase, due to the proximity of the parameters of the  $\text{ZnS}$  and  $\beta$  –  $\text{CaO} \cdot \text{SiO}_2$  crystal lattices. Zinc oxide is toxic. The ingestion of soluble zinc salts in the body leads to digestive upset, irritation of the mucous membranes.

4) The bleaching additive is sodium sulfate,  $\text{Na}_2\text{SO}_4$  is the sodium salt of sulfuric acid. Sodium sulfate of the Aralsulfate plant of the Kyzylorda region. GOST 1363–65 Technical sodium sulfate. The composition of technical sodium sulfate, mass.%:  $\text{Na}_2\text{SO}_4$ –97;  $\text{CaO}$ –0.3;  $\text{SiO}_2$ –0,1;  $\text{Al}_2\text{O}_3$ –0.2;  $\text{MgO}$ –0.2;  $\text{Fe}_2\text{O}_3$ –0,01. Composition of natural sodium sulfate, mass.%:  $\text{Na}_2\text{SO}_4$ –86;  $\text{CaSO}_4$ –7;  $\text{NaCl}$ –4;  $\text{MgSO}_4$ –3. GOST 6318–68 Natural sodium sulfate.

5) Water for granulation of slag mixtures: GOST 2874–82 Drinking water; GOST 23732–79 Water for concrete and mortar.

The initial data were the following constant components: the composition of the mixture of the proposed technology for the production of synthetic wollastonite, including:

- granulated electrothermophosphorus slag (calcium containing component) – 80–90%;
- quartz sand – 10–20%;
- bleaching additive (zinc oxide or sodium sulfate) – 5–10%.

The technological scheme of the pilot production of synthetic wollastonite is shown in (Figure 1). The stages of the technology are described below.

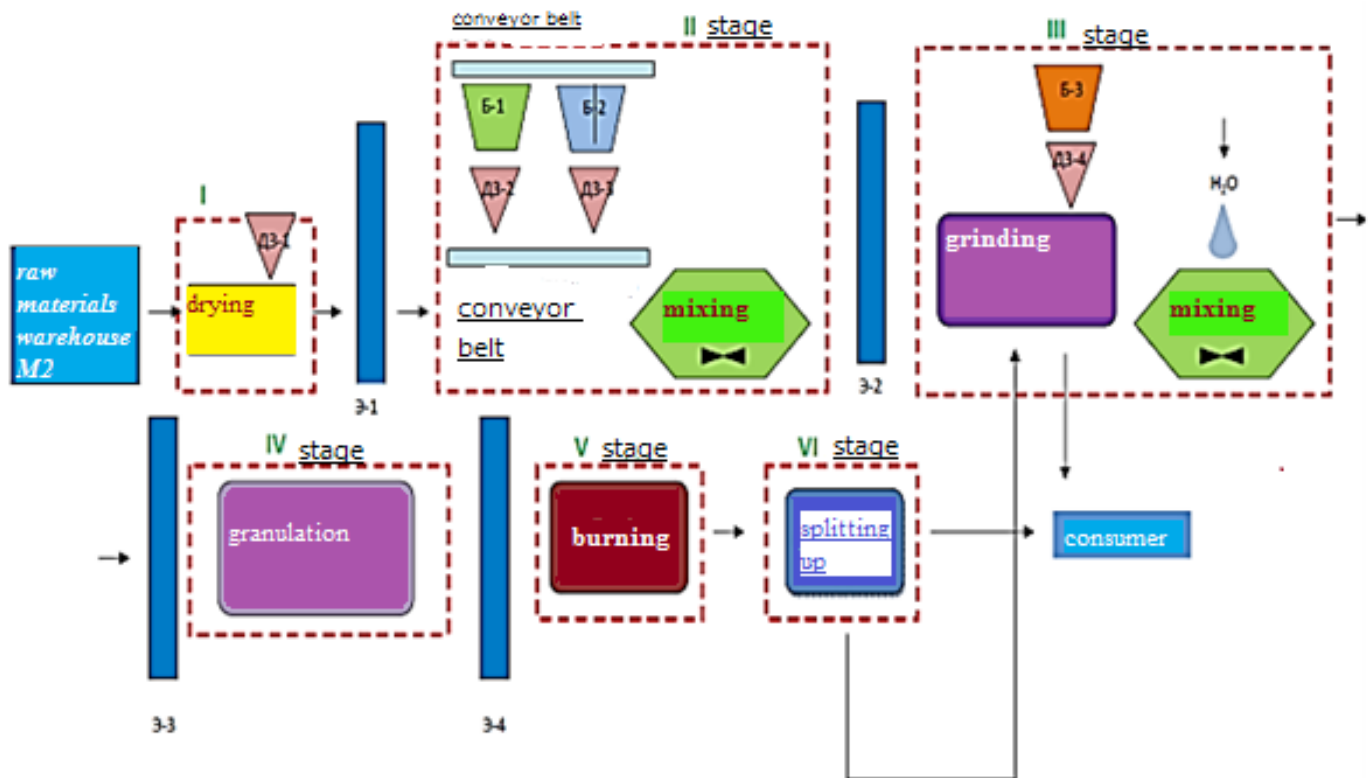


Figure 1. Technological scheme of the pilot production of synthetic wollastonite

From the warehouse, raw materials (slag, sand and raw granules) are fed to the dryer to rotate into a tubular tube. Drying temperature 200–300 °C.

After drying, the raw materials arrive at the dosing section, including a chain elevator for lifting the dried components (slag or sand) and feeding the conveyor belt for loading into the hopper: the dried slag hopper, the dried sand hopper and the bleaching additive hopper. The hoppers are equipped with weighing batchers for feeding the weighed components to the prefabricated conveyor belt (above the hoppers) or to the moving weight trolley (under the hoppers).

From the collection conveyor, the weighed components enter a vortex component mixer (mixing for 10–15 minutes). Component mixer volume per 100–200 kg.

Grinding a mixture of components. The mixed mixture of components with a bucket belt elevator (or belt inclined conveyor) is fed into the hopper of the grinding unit, which is used as an elliptical mill. Milling fineness – up to a particle size of 3–20 microns.

Preparation (molding) of raw granules (granulation). The ground raw mix from an elliptical mill is sent to the raw material bunker, from where it is fed with a batcher (auger) for wet granulation to the molding granulator. Granules (pellets) are dried under natural conditions (25–40 °C) for 2 days to set the required strength or dried in a furnace of a tubular rotating component storage room.

Firing of raw granules for wollastonite. After drying, the raw granules are fed for firing (1050 °C) in a rotary kiln Ø1.5 m, L = 20 m.

Products after firing at 1050 °C (45–60 min.) Are rather strong sintered granules (hardness on the Mohs scale of 5–7, with a diameter of 7–10 mm of wollastonite composition and can be sold to a consumer who has a grinding mill for grinding to the required composition or fineness of grinding.

The grinding of fired granules of wollastonite is carried out in the same elliptical mill. This requires preliminary crushing of the granular product of firing on a hammer mill to particles up to 3–5 mm in size.

The firing product is sent to the finished goods warehouse in bags both in the form of fired granules of wollastonite composition, and in ground form (up to the fineness of grinding required by the customer) for delivery to consumers.

Ecological aspects of the technology for producing synthetic wollastonite based on silicate waste – electrothermophosphoric slag and corrective additives were studied and considered based on an environmental impact assessment. Environmental impact assessment of the existing enterprise is carried out in accordance with Art. 36 by the Environmental Code of the Republic of Kazakhstan No. 212 dated January 27, 2007 (as amended on April 25, 2016) [6].

Calculation of surface concentrations for the existing situation is performed on the ERA 2.0 software package (Novosibirsk).

According to the significance and completeness of the environmental impact assessment according to Art. 40 of the Environmental Code of the Republic of Kazakhstan, production falls into 4 hazard categories. Sanitary and hazard class according to SanPiN No. 237 from March 20, 2015 – V, SPZ – 50 m. Analysis of the results of calculations for the existing situation shows that at the border of the SPZ

the maximum concentration for all substances does not exceed 1 maximum concentration limit.

### Conclusion

The paper considers the mechanisms of formation of natural and synthetic wollastonite. Electrothermophosphoric slag, which is a waste of the phosphorus industry, which undergoes special processing, is used as a feedstock for its production. A highly efficient technology for the production of synthetic wollastonite by solid-phase synthesis has been developed and optimal technological conditions have been determined: the initial components are granulated slag NDPP, quartz sand;  $\text{Na}_2\text{SO}_4$  and (or) ZnO bleaching additives – technical: firing temperature – 1050 °C, holding time at the final temperature – 20–60 minutes. The environmental aspects were studied – by the significance and completeness of the environmental impact assessment in accordance with Art. 40 of the Environmental Code of the Republic of Kazakhstan, production falls into 4 hazard categories. Sanitary and hazard class according to San PiN No. 237 from March 20, 2015 – V, SPZ – 50 m. Analysis of the results of calculations for the existing situation shows that at the border of the SPZ the maximum concentration for all substances does not exceed 1 MPC.

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## Section 3. Medicine

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### DIAGNOSIS OF PSYCHOLOGICAL CONDITION OF PATIENTS WITH ONCOLOGICAL DISEASES

**Abstract.** In our work we investigate the change in the psychological condition of patients with cancer. Very often the mental sphere is ignored in treatment, and most specialists consider changes in the psyche to be characteristic symptoms of the disease. Our study is devoted to the topic of diagnostic research of psychological condition of patients with oncological diseases. The aim of the study is to determine the psychological condition of patients with cancer, in order to determine the effectiveness of a multidisciplinary approach in treatment. Analysis of the results of the study showed that more than 70% of patients with cancer need psychological correction and assistance.

**Keywords:** patient personality, psychosocial aspects of the disease, anxiety, depression, psychological condition, oncology.

#### Introduction

In modern medicine, the concept of the inner picture of disease (VKB), described by R. A. Luria (1977) as a set of patient experiences and feelings in connection with disease and treatment, is quite widespread. In the structure of VCS there are several levels: pain, emotional, intellectual and will. The VCS is an integral part of the concept of quality of life, which is a characteristic that includes all the experience of life with its values, events, goals, attitude to health and disease. In the process of forming the quality of life, the importance of psychosocial interaction is great, as there is a proven fact of adverse impact of anxiety and depressive disorders on the

course of many diseases "[2]. In turn, we believe that these values have psychosocial relationships: persons with low socio-economic status have been found to have a lower level of subjective control, optimism, benevolence, self-respect and higher rates of morbidity and mortality than those in the middle class.

In our research work, we are aimed at studying the psychological condition of people with cancer. One of the tasks facing science is to solve the problem of cancer treatment, find its causes and manage to cure sick people from it. Natural science methods, revealing certain factors contributing to the development of cancer, remain in front of the closed door in the main questions: "Why do some people get

sick and others living in the same physical conditions do not?." The role of the psychological factor of disease development, as well as cure, is not supported, if not denied at all, by practitioners working with oncological patients.

Meanwhile, some researchers V.V. Nikolayev, A.S. Thostov, V.I. Gerasimenko, D.V. Evissskaya, Y.M. Khoroshkova, A. Schmale & G. Marrow, considering the personal features of a human cancer patient, his internal picture of the disease, point to a special role of a psychological factor in the development and course of cancer. But the question of the specific role of the psyche in the development of cancer remains open. Relevant is the study of the personality of a person with cancer, his position in the system of relations with the world, with other people, with himself [3; 4; 5; 6; 7].

The purpose of our research is to study the psychological condition of patients with cancer.

#### Research problems:

1. To characterize theoretical bases of psychology of personality features of patients with oncological diseases.

2. Identify psychological features of the personality of patients with oncological diseases by drawing tests.

3. To develop techniques of relaxation and imaging for formation of positive settings of activation of protective mechanisms of organism.

The research was carried out from September 2019 to April 2020. 50 people took part.

In accordance with the objectives and objectives of the study, 3 phases of the experiment are planned and implemented.

Stage 1 – figuring.

Diagnosis of psychological characteristics of the personality of patients with oncological diseases was carried out using projective techniques.

2 stage – forming.

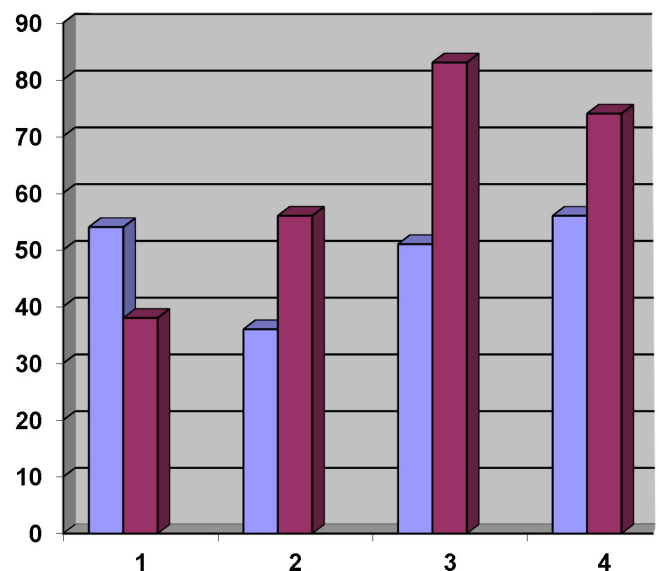
Formulation and execution of relaxation techniques that help reduce stress caused both by the disease itself and by fear.

Stage 3 – control.

Rediagnosis of psychological features of the personality of patients with oncological diseases by projective tests.

Projective methods are aimed at diagnosing personality features, sometimes its creative potentials. This method is widely used by domestic psychologists in psycho-pedagogical research. In our case, patients are simply distracted from medical procedures, and also perform part of the measures to remove patients with cancer from the psychological crisis.

Thanks to simple at first glance drawings we fix attitude, world view, representation, self-esteem at a certain point in time. Which for us is key in tracking the dynamics of attitude and world view to follow how the personal characteristics of the patient change. Usually we ask patients to write such a drawing every three months, and after writing literally 3–5 proposals for each drawing. By comparing the symbols depicted during the first encounters with those drawn later, we can judge how our patients' attitudes to illness evolve, how their perceptions change. In our study 50 medical histories showing how over time I can visualize and individual patients.



Drawing 1. Ratio of patients with different anxiety levels

Thus, in our view, at the initial stage of the implementation of measures to recover from the psycho-

logical crisis, it is important to lead the patient to an adequate perception of the disease itself and the treatment procedure, as well as confidence in the medical personnel.

Within the framework of the building concept we have developed for decades, the attitude towards disease is based on certain mechanisms of self-destruction or avoidance of the problem, that is, something more important than “life” that is, “death” does not allow us to solve the problems. Also, the determination of the attitude towards the disease on the one hand by the event of the disease itself, and on the other hand, by the peculiarities of the personality of the sick person and, in turn, affects the whole system of relations, and therefore, the personality of the patient. The attitude towards patients’ disease in our study was characterized by such components as the subjective assessment of patients of the situation of their disease and changes in connection with the disease, as well as the test measurement of the mental health index, the type of response to the disease, the Y- structure, the locus of control, the perception of the temporal perspective of cognitive, emotional and motivational components of the personality [1]. Analysis of the study data showed that the expressed anxiety about the cancer diagnosis is retrospectively recognized by most of the study participants. Participants of the study note a decrease in the level of intensity of experiences over time, do not consider the fact of the disease to be a unique phenomenon. Specific

experiences related to the disruption of body functions are at the forefront. Each person affects both his or her health and his or her illness. We affect our health not only directly through physical exercise and certain nutrition, but also through our perceptions of feeling, attitude to life. The response of the human body to treatment depends on our faith in the effectiveness of treatment and trust and doctors.

Measures aimed at reducing the psychological crisis in patients with cancer help to distract from life. Of course, in the first days we try to inform the patient as much as possible about the positive outcome of the disease. We also program consciousness for the coming weeks and months that now the main attention needs to be paid to getting better – without it you will be, there is nothing to solve the problems that brought you here. But, as health begins to return to you, we will try to refocus psychotherapy on the spectrum of life problems. The thought, visual representation of a positive result is the basic principle of self-fulfilling prediction. It helps patients achieve the desired result in many areas, as well as in positive results in future life.

Thus, paying tribute to the traditional methods of treatment in our study, we focus on removing the patient from the psychological crisis, and then by imaging we inspire the most positive result. Also during psychological counselling we try to restore gaps of past life, which we discuss during training “before and after...”

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## SUMMARY: MARKERS OF INFLAMMATION AND METABOLIC CHANGES IN PROLONGED NEONATAL HYPERBILIRUBINEMIA

### Abstract

**Aim of the research:** using markers of inflammatory in order to identify the reason of prolonged hyperbilirubinemia.

**Materials and methods:** 100 newborns were surveyed with prolonged neonatal hyperbilirubinemia (PNH). Out of them group with PNH, anamnesis without any features, with PNH in prenatal infection in anamnesis, with PNH, against the background of Hypocisical Eshemic Enciphopatii (HEE), and newborns of mothers with hypotheriosis. Methods of research-clinic anamnestic, laboratory-biochemical with usage of markers of inflammatory: level of procalcitonin (PNH) in the plasm immunochromatographical of test-system "Brahams Diagnostica" and "C" reactive protein (CRP) in the plasm as "sharp phase".

**Results:** The level of bilirubin upto 170 mkmol//l in 63% among newborns with PNH against a background of endocrinopathy, from 170 to 250 mkmol/l when prenatal infection was discovered. From the indicators of inflammatory activity when prenatal infection was discovered combination of leukocytosis with increased HEE and CRP. PNH against a background of endocrinopathy mainly predominates with increasing CRP.

Distinction of the reaction of markers of inflammation depending on against a background, namely increasing HEE just if there is features of prenatal infection possible to use for pathogenetic scientifically grounded launching antibiotic therapy lacking bacteriolytic confirmation of infection.

**Keywords:** Newborns, prolonged neonatal hyperbilirubinemia, procalcitonin, markers of inflammatory activity.

### Introduction

Currently, it should be considered proven that the very concept of "state of health" cannot be considered without taking into account the peculiarities of adaptation of the organism to environmental conditions [1; 3; 4; 5; 6; 7]. In addition to the global restructuring of hemodynamics, metabolism changes significantly, the process of anaerobic glycolysis and oxidative phosphorylation are paired, their own systems of thermoregulation, digestion and regulation of ionic homeostasis are turned on [2; 8].

Adaptation disorders in the early neonatal period have a great impact on the child and its subsequent development. In this period, it is sometimes very difficult to conduct a differential diagnosis between normal adaptive changes in the body of a newborn baby and the onset of a pathological process, which in the future can have disastrous consequences.

One of the most frequent metabolic disorders in the neonatal period is an increase in serum bilirubin concentration, accompanied by jaundice [1; 7; 8]. In recent years, there has been a tendency to increase the frequency of prolonged hyperbili-



rubinemia, the duration of which exceeds 4 weeks [1; 4; 6; 7].

The aim of this study was to determine the correlation between metabolic status and markers of inflammatory activity in prolonged neonatal hyperbilirubinemia.

### Materials and research methods

Under observation were 300 newborns with prolonged neonatal hyperbilirubinemia. All newborns with prolonged neonatal hyperbilirubinemia were admitted for treatment and examination to the neonatal pathology department of the Samarkand Regional Multidisciplinary Children's Medical Center from home and consultative clinics.

In all cases, hyperbilirubinemia lasted more than 30 days. Newborns with prolonged neonatal hyperbilirubinemia were divided into the following groups:

Newborns with prolonged neonatal hyperbilirubinemia were divided into the following groups: newborns with prolonged neonatal hyperbilirubinemia 78 (29.77%) without a history of burden, and the second group of newborns with a burdened history of them 97 (37%) of the history of newborns infected in utero, but not bacteriologically confirmed, 67(25.6%) of newborns with hypoxic ischemic encephalopathy and risk of infection and 20(7.63) of newborns born to mothers with endocrinopathies (hypothyroidism).

In all observed groups, newborns were born from women at high risk (history: perinatal losses, severe preeclampsia, habitual miscarriage, premature placental abruption).

An analysis of obstetric history and women's health indicated an extremely high level of obstetric and somatic pathology.

65% of the observed women were first pregnant, with a burdened obstetric history: 24% had spontaneous miscarriages, 16.4% had regressive pregnancies, and 5.5% had stillbirths. In the group of newborns with prolonged neonatal hyperbilirubinemia without a burdened history, natural childbirth was 20 (60%), cesarean section was 12 (40%). In the group of newborns with a burdened history, natu-

ral childbirth was 138 (63%), cesarean section 92 (37%). Birth weight in newborns with prolonged neonatal hyperbilirubinemia without a burdened history was  $3099 \pm 534$  grams, in newborns with prolonged neonatal hyperbilirubinemia with a burdened history was  $3010 \pm 694$  grams.

In the group of observed newborns with prolonged neonatal hyperbilirubinemia without a burdened history, boys accounted for 19(59%) and girls 13(41%). In the group of observed newborns with prolonged neonatal hyperbilirubinemia with a burdened history, boys were 120(52%) and girls 110(48%). The gestational age of newborns with prolonged neonatal hyperbilirubinemia without a burdened history was  $38.9 \pm 1.6$  weeks, and a newborns with prolonged neonatal hyperbilirubinemia with burdened a history of  $38.5 \pm 2.2$  weeks.

By conventional methods, the following examinations or tests were performed in each infant to exclude known causes of prolonged neonatal jaundice: hematocrit, hemoglobin, erythrocyte and leukocyte counts, peripheral blood morphology, Coombs test, and blood grouping; serum cephalin cholesterol flocculation, thymol turbidity, glutamic oxaloacetic and glutamic pyruvic transaminase activities, and estimations of the concentration of albumin and globulin; serologic examinations for syphilis; and blood cultures.

Common biochemical tests were used: blood bilirubin and its fractions, transaminases, total protein, albumin, and electrolyte content. Applied apparatus Mindray BA -88A, China 2016. The analysis of protein "acute phase"- C reactiva protein. Calculation of the leukocyte intoxication index and the immunological reactivity index using a modified formula of N.P Shabalov et all. Determination of the level of procalcitonin (PCT-Q) in the blood serum by the immunochromatographic method using test systems manufactured by Brahms Diagnostica(Germany).

The informed consent of the parents was obtained for the examination of the newborns.

### Results and their discussion

In the newborns examined, prolonged hyperbilirubinemia was the main indicator for hospitalization. The data obtained showed that in newborns with prolonged neonatal hyperbilirubinemia, visual changes in the skin were characteristic, in the form of prolonged jaundice, which was what most parents addressed.

Visually, the subictericity of the skin and mucous membranes in newborns with prolonged neonatal hyperbilirubinemia more often appeared on the 3–4<sup>th</sup> day, life: 36.1% on the third day, 42.5% on the fourth. In 9.9% of newborns, jaundice appeared on the second day of life, in 10.3% on the fifth, and 1.2% on the sixth day of life.

With prolonged neonatal hyperbilirubinemia, subictericity of the skin and mucous membranes had a heavy character of the appearance of jaundice. Taking into account the severity of hyperbilirubinemia according to the modified Cramer scale, we tentatively distributed the levels of hyperbilirubinemia depending on the concentration of serum bilirubin in the blood serum (table 1). In all examined groups

of newborns, there was no increase in the activity of serum aminotransferases.

Children with prolonged level 1 hyperbilirubinemia in 96.9% had a mild icteric shade of their face and chest already on the 14–16<sup>th</sup> day of life, in newborns with prolonged neonatal hyperbilirubinemia of the 2<sup>nd</sup> and 3<sup>rd</sup> levels, this indicator was observed only by 20–23 days.

On the twenty-third day, a decrease in jaundice of the skin to 1 degree was not observed in newborns of the second group, a later disappearance of jaundice was noted: only by 25–30 days of life in 11,6% of children from second group the level of ictericity decreased to 1 degree, and the disappearance off jaundice in 58.5% of cases occurred by the end of 4–5 weeks of life, in 20.1%-only by the moth.

As you can see, the number of newborns with level 2 hyperbilirubinemia in all examined groups is higher compared to the number of children with bilirubin level less than 170  $\mu\text{mol/l}$ .

The number of children with level 3 hyperbilirubinemia is significantly less than with level 1 hyperbilirubinemia. In general, up to 257  $\mu\text{mol/l}$  hyperbilirubinemia was observed in 50.5% of newborns.

Table 1. – Distribution of newborns with prolonged neonatal hyperbilirubinemia depending on the level of hyperbilirubinemia

Background	Bilirubin		
	Up to 170 $\mu\text{mol/l}$ 1 <sup>st</sup> level	170–257- $\mu\text{mol/l}$ 2 <sup>nd</sup> level	>258 $\mu\text{mol/l}$ 3 <sup>rd</sup> level
Prolonged neonatal hyperbilirubinemia with out a history of features	12.9%	70.9%	16%
Prolonged neonatal hyperbilirubinemia on the background of HIE and the risk of infection	31.8%	50%	18%
Prolonged neonatal hyperbilirubinemia on the background of endocrinopathy	63%	18,5%	18,5%

In our observations, in newborns with prolonged hyperbilirubinemia during intrauterine infection and hypoxic ischemic encephalopathy during infection, central nervous system depression syndrome was observed, manifested in the form of lethargic sucking, decreased motor activity, muscle hypoten-

sion, hyporeflexia, and exhaustion of physiological reflexes. It was found in 68% of newborns. Central nervous system hyper-excitability syndrome – in 9.1% and 10%, respectively.

The results of clinical trials showed that initially, expressed violations of the metabolic parameters of

venous blood were determined in patients (hyperbilirubinemia more than 170–257  $\mu\text{mol/l}$ , hypoalbuminemia, glucose less than 1.9 units, hyperkalemia 45 mmol/l).

Due to the fact that infectious pathology was one of the common causes of prolonged neonatal hyperbilirubinemia for differential diagnosis of etiology, PCT-Q and markers of inflammation were studied in all newborns.

The studied indicators as a percentage reflected the dynamics of the pathological process. In particular, with prolonged neonatal hyperbilirubinemia

with a burdened background, the proteins of the “acute phase”, namely C-reactive protein, were increased in 27,8% with PCT-Q to 27.7%/

Moreover, the leukocyte intoxication index was increased in 14,7% of patients, and the immunological reactivity index was reduced by 14,7%. When examined prolonged neonatal hyperbilirubinemia with a burdened background, it was found that the average C-reactive protein, PCT-Q and leukocyte intoxication index, immunological reactivity index changed accordingly to the clinic (table 2).

Table 2. – Indicators of markers of inflammation and metabolic status in PNH

Background	Bilirubin			C reactive protein	PCT-Q	leukocyte intoxication index	immunological reactivity index
	Up to 170 $\mu\text{mol/l}$	170–257 $\mu\text{mol/l}$	>258 $\mu\text{mol/l}$	(in N0.2–6mg/l)	(in N0.01–2ng/ml)	>3.5	<2.5
Prolonged neonatal hyperbilirubinemia	12.9%	70.9%	16%	27.8%	24.7%	14.7%	14.7%
Prolonged neonatal hyperbilirubinemia against the background of intrauterine infection	38.8%	52.7%	8%	40%	49%	38%	38%
Prolonged neonatal hyperbilirubinemia on the background of HIE and the risk of the infection	31.8%	50%	18%	51.7%	47.8%	12.5%	0
Prolonged neonatal hyperbilirubinemia on the background of endocrinopathy	63%	18.5%	18.5%	79.1%	25%	0	0

The observed increase in C – reactive protein at normal PCT-Q values indicates the onset of non-infectious (adaptiva) genesis inflammation [5; 6; 7; 8]. Of the 100 newborns with prolonged neonatal hyperbilirubinemia examined, procalcitonin was increased, above 0,5ng/ml only in 3 patients from groups 2 and 3. In other newborns PCT-Q is not increased. This does not coincide with the literature

[3; 5; 6; 8; 9] on the high sensitivity of PCT-Q in the presence of inflammatory activity, while the level of C-reactive protein is increased and leukocytosis is observed.

#### Findings

Upon admission to the hospital in infants with prolonged neonatal hyperbilirubinemia, the progression of metabolic disorders, hyperbilirubinemia was

determined. In a comparative analysis of the metabolic status and markers of inflammation in prolonged neonatal hyperbilirubinemia in patients with hyperbilirubinemia of 170 and more than 258 $\mu$ mol/l, gross violations of the metabolic parameters of venous blood are determined: hypoglycemia, hypocalcemia, hypophosphatemia, hypoalbuminemia.

Metabolic disorders and positive markers of acute phase proteins are alarming and require therapeutic measures. Since the synthesis of albu-

min – protein decreases in parallel with an increase in C-reactive protein [6; 7]. At the same time, hypoalbuminemia does not develop within 3 weeks of inflammation, since the albumin circulation period is about 3 weeks. Hypoalbuminemia is a later test of inflammation and therefore we have observed hyperbilirubinemia for a longer time. With prolonged neonatal hyperbilirubinemia due to infection a high C-reactive protein and leukocytosis are more reliable as markers of inflammation than procalcitonin.

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## Section 4. Pedagogy

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### SPIRITUAL AND MORAL VALUES IN FOLK PEDAGOGY OF KAZAKHS

#### Abstract

This article considers the issues of spiritual and moral education in Kazakhfolk pedagogy.

**The aim of the article:** is to consider the morality, about the national identity of upbringing, about the necessary conditions of human life.

**Method of research:** is a culture of interethnic communication, understanding people of features on the whole, the realization of interaction and cultural transfer of heritage from generation to generation.

**Research results:** the method of this analysis the social and moral values of progressive ideas, traditions of the people through labor, traditions of the people through labor, creative activity for the younger generation.

**Scientific newness:** the formation of the moral qualities of national culture based on folk methods.

**Practical importance:** based on consolidation of the generation continuity on the humanistic traditions of the people, on the basis of folk pedagogy. The younger generation should protect and develop all the good things in the traditions not only to parents but to all of humanity.

**Keyword:** Moral values, upbringing, culture, traditions, folk pedagogy, continuity, generation.

Modern humanity is a huge variety of different historically formed communities-Nations, nationalities, ethnic groups. Each nation and nation is distinguished by the unity of language and culture, has its own characteristics in the way of life, in education and upbringing. Today, morality is a necessary condition of human life and is one of the most pressing problems.

In our country and around the world, changes are taking place in the political and economic system. In an environment of rapid changes, the problems associated with overcoming negative and crisis phenomena in the legal, cultural, spiritual, moral and other areas of human activity become particularly relevant. Material-production, economic activity of a person is the main condition of his life. In this regard,

it is very important for all of humanity to develop a sense of universal responsibility. This sense of responsibility is developed in the younger generation only through spiritual and moral education.

National identity of education is manifested in each nation as its own distinctive, original (culture, language, customs and traditions). We also see this peculiarity in people's behavior, ability to talk and discuss any problems, build relationships and establish cooperation. In essence, it is a culture of inter-ethnic communication, where recognition, understanding, and acceptance of the peculiarities of each person and nation as a whole are realized in interaction, in the information and communication spheres of human activity and the transfer of experience and cultural heritage from generation to generation.

The spiritual wealth of the people is closely connected with folk pedagogy. The social and moral values of previous generations, progressive traditions of the people are transmitted to the younger generation through work, creative activity, and familiarization of young people with their history and works of folk art. Folk festivals, rituals, epics, legends, fairy tales, Proverbs and sayings, which embody folk wisdom, are especially rich in moral and ethical edifications, instructions in many ways reflect the invaluable pedagogical experience aimed at familiarizing the riches of national and through them-and world culture, familiarizing with national values, following the moral laws of life.

People have long believed that sincerity, kindness, and hard work are the best qualities that can manifest in a person. Popular wisdom promoted the traits that the people praised, and condemned everything that was rejected as bad. Respect for people of different nationalities, kindness, honesty, sincerity, loyalty, and love always win in the fight against evil and dishonor [1].

Moral education can be carried out on the basis of folk methods that contribute to the formation of such moral qualities as empathy, empathy, responsiveness, benevolent and national relationships. Ac-

ording to folk pedagogy, moral education includes learning the basics of their national culture, their native language, their national traditions, customs and rituals, which determine. On the basis of this, young people get their first experience of moral behavior. Thus, the first acquaintance with the national order contributes to moral education.

Ethnopedagogics studies the laws and features of folk and ethnic education. We have the opportunity to demonstrate the culture of our people, know their distinctive features, traditions, customs, folk crafts, and are proud of this originality. This is something unique, and therefore especially valuable. Culture is a sphere of human activity that has always United people and allowed them to better understand each other [2].

Folk pedagogy has historically developed in ancient times. It has existed for as long as the people themselves have existed. The main factors of folk pedagogy and folk education are nature, play, word, deed, communication, tradition, life, art, and religion.

Nature is one of the most important factors of folk pedagogy it is not only the habitat, but also the native side, the homeland. For the most part, man has always felt and understood nature, cherished it, deified its powers, and admired its creations and phenomena.

Love for the native land, native culture, native speech begins with a small-with love for your family. Gradually expanding, this love turns into love for the native country, for its history, past and present, for all mankind [3].

The succession of older and younger people is based on tradition. Than diverse traditions, the spiritually richer people, nothing unites people like a tradition.

The purpose of education is to strengthen the continuity of generations for the age-old humanistic traditions of the people, ultimately-the awareness of belonging to their roots. Popular wisdom says: "The child must be brought up while he is in the cradle, and the calf on a leash."

The results of education at an early age make themselves felt in the following years. Traditions

play a special role in the educational process. The family is a vital component in the upbringing of a child. That is, in the family, children learn bad or, on the contrary, respectful behavior. The family is the main means of moral education.

Folk pedagogy, like all other manifestations of spiritual culture, is subject to mutual influence and mutual enrichment. In folk pedagogy, motherhood and fatherhood are considered as the highest value. In the concept of femininity, such qualities as kindness, sensitivity, loyalty, cheerfulness and education of a good mother, affectionate, caring are especially noted.

*A mother's caress never ends.*

*Mothers are the main architects of humanity*

Particular importance was attached to the role of the father of the family in strengthening the family and raising children. The father is obliged to protect the honor of the family and family.

*A child raised by his father casts bullets,*

*Raised by his mother, fur coats are cut [4].*

People's teachers in many families are grandparents, elderly people. No other love can compare with

the love of parents for children. By loving and understanding your people, your family, a person will love and understand other families and other peoples more. If a person is attuned to the perception of other people's cultures, this will lead to an awareness of the value of their own culture. We need to direct the attention of young people to the most beautiful and beautiful phenomena of life. We must remember that every step on the path to humanity is conquered as the highest peak. The peak is high because it rises above hills, hills and ridges of mountains, a sign of greatness is composed of many ordinary positive qualities [5].

None of the great people neglected the best folk traditions. And I would like to note that young people should protect and develop all the good things in our traditions. Kazakh traditions foster respect not only for parents, but also for all mankind.

The moral foundations of modern society are one of the most pressing problems of today. It is necessary to often refer to the history of the Kazakh people, to its enduring legal and moral values.

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## TEACHER ACTIONS IN PROFESSIONAL DIRECTION OF SECONDARY SCHOOL CHILDREN (according to the educational cluster)

**Abstract.** This article analyzes the advantages of the cluster approach to improving the quality of education, the world experience of educational guidance, the problems and shortcomings of educational guidance in secondary schools in Uzbekistan, the importance of target cooperation between parents and teachers.

**Keywords:** integration, innovation, innovative cluster of pedagogical education, social partnership, “innovative coach”, career indicators.

At a time when market relations in Uzbekistan are developing, high demands are placed on the process and quality of training. As the development of each sector of society depends on qualified specialists who can fully meet modern requirements, it is important to find a solution to this problem on the basis of an innovative cluster of pedagogical education, which is being tested in the experience of Uzbekistan.

On October 24, 2017, the Cabinet of Ministers of the Republic of Uzbekistan adopted Resolution No. 868 “On measures to establish specialized educational and production complexes for secondary school pupils of 10–11 grades of general secondary education.” However, it should be noted that there are serious shortcomings in the general education system in guidance. While an important stage in the training of qualified personnel is career guidance, the cooperation of teachers and parents is important in this regard. The concept of “cluster”, which has been used in the world for almost a quarter of a century, has been used only as a method. The issue of introducing the cluster into education as an integrated system awaits research and studies. The practical significance of a cluster is to increase the competitiveness and high efficiency of the economies of countries, industries and enterprises. A cluster is defined as an independent system with its

own characteristics, consisting of several similar elements [1, 152].

In pedagogy, the cluster represents the following concepts: Cooperation of employers and educational institutions with the help of educational and production complexes.

School cluster: “For each cluster, the base school has pedagogical partners (accompanying schools), social partners (higher education institutions, libraries, media).

Job cluster: is a cultural-educational system that combines interconnected educational, cultural, scientific, social, technological and production organizations [2, 106]. If we look at the experience of developed countries in training specialists, the economy in Japan is largely related to the integration of education, science and industry. Universities in Japan train staff in almost all specialties in the world. The process of integration with industry in Japanese universities is carried out on the one hand by conducting joint research with production and applying their results in the educational process, on the other hand through the development of technopolises in close contact with the university and industry. Technopolis is a specialized scientific production association that establishes links with production through



scientific research, on the other hand, through the training of specialists directly. Such associations establish links with the education of university students and college students through the training of specialists directly in continuing industrial practice [3, 121]. Mixed education, i.e., on-the-job training, is widespread abroad. A significant part of the management training program is built on a certain principle, that is, the periods of short-term courses are alternated with the stages of work in enterprises. That is, he applies not only theoretical knowledge but also practical knowledge.

Education in Bulgaria starts at the age of 6. In the first stage, extensive general training is provided, interest in labor is formed. The duration of the second and third stages is 2 years (11<sup>th</sup> and 12<sup>th</sup> grades). At the same time, students learn the basics of the profession in a broad polytechnic direction, gradually acquiring certain specialties. Upon completion of the stage, students are issued special documents: after the first stage, a certificate of completion of the student's professional orientation is issued; upon completion of the second stage, a certificate of general education preparation is issued.

In Italy, education is provided in two types of educational institutions: two- and three-year vocational schools and secondary technical schools, as well as five-year technical institutes that train administrative staff. Graduates of the institute have access to universities.

The British education system, as in other countries, reflects the economic situation. Since 1980, a national vocational qualification project has been developed and approved in Britain.

The project includes five levels: Level 1 – the ability to perform the same work; Level 2 – higher component than the profession: the employee performs more complex tasks; Level 3-high component: the employee performs more complex tasks; Level 4 – high component in the performance of complex and structured work; 5-level-top category specialist.

Students in their chosen major can study for one to five years. Education is based on three technologies: instruction (low level), teacher-led education (intermediate level), independent learning (high level) [4, 114–120]. The experience of foreign countries shows that training is mainly focused on job training. The preparation is carried out in close connection with the production and the result is positive.

When we look at the foreign experience, a legitimate question arises? So, how is the work on job guidance organized in Uzbekistan?

According to statistics, every year more than half a million graduates in Uzbekistan need employment assistance. There is also a disproportion of labor supply and demand [5, 166]. It follows that we need to develop measures to direct our youth to the profession.

Students' interests become unstable. The book you read, the movie you watch, and even the daily grade you receive will cause a change in the student.

As a student gets older, the form of the coach's methods of working with them also changes. The coach's knowledge and upbringing is his ideological conviction and spiritual maturity, the key to the success. Especially in high school students, many questions arise about personal social life. These questions should receive reasonable answers from the home teacher. Student learning is an integral part of the educational process. The level of social development of school students is very dynamic, so the process of leading this development should ensure that teachers achieve the most appropriate results in this work, and encourage students to actively develop themselves. There is a need for new methods of cooperation between cluster entities in preparing the child for independent living and career guidance.

Criteria for career orientation technology: Subjectivity; Value orientation; Systematic; Freedom of choice. These criteria complement and complement each other [6, 320].

Every aspect of coach-student communication needs to be taken into account in career guidance. It is not enough to choose a profession. It is necessary

to turn a passive state into an active one, that is, to put it into practice.

Therefore, when choosing a particular profession, each student should take into account their real capabilities. As we mentioned above, the cooperation of cluster entities in this regard gives good results. One of the main tasks of parents is to prepare our youth for socially useful work from an early age so that they have the opportunity to choose the right profession. In choosing a profession, in most cases, our young people and their parents pay more attention to its material aspects than to their interests and abilities. But if a person engages in a profession that he or she does not like or has no ability to do, there will be no development in his or her career. Some of our young people in our country, regardless of their professional interests, work in any way, or in any direction, as if "... I want to study in higher education."

What measures should we take to overcome this problem?

Of course, one side of the problem is the family, and the other side is that the school does not provide enough information about career indicators, our young people do not know their abilities and can not make accurate assessments. Tashkent State Pedagogical Institute, Department of Social Sciences on

the basis of the project "Innovative Coach" studied students of 8A -, 8-B grades as an object of research in school laboratories. The analysis of the essay on "My interests", "My lofty dreams" revealed that students do not have enough information about the current professional indicators in Uzbekistan. Because 90% of our students have chosen the professions of teacher, military, lawyer, doctor. Our students do not have information about the current career indicators in Uzbekistan. Very often, our young people confuse interests with inclination. Determining ability in children is a complex issue. One should not be in a hurry to conclude whether any student has a talent or not. The great Russian writer Gogol was once considered by primary school teachers to be incompetent in Russian. The famous physicist Newton was expelled from school because his teachers had no ability to read. There is not enough information on career choice in school.

Many young people make mistakes in choosing a career because they do not receive the necessary advice in a timely manner. Establishing targeted partnerships between general education teachers and education cluster subjects can help solve the problem in determining the life paths that suit the personal and social interests of our students.

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## Section 5. Political science

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### AGGRESSION AND GENOCIDE AS A KIND OF ARMED VIOLENCE: TERMINOLOGICAL ANALYSIS

**Abstract.** The article analyzes the definitions of the concepts “aggression” and “genocide” as types of armed violence presented in Ukrainian and world political science. The definitions of these concepts reflected in international regulatory documents are considered separately.

**Keywords:** aggression, genocide, armed violence, international legal documents, war.

The current precarious world situation, the emergence of new types and methods of armed violence in international relations have created an increased interest among scientists to the said issue. In the conditions of wide possibilities of covert execution, it is especially important to formulate precise definitions of “aggression” and “genocide”. At the end of the XX century – throughout the XXI century there was a whole series of political events, which are drastically differently defined both in the scientific and expert environment, and among political leaders. The same armed conflicts of this period are described as both internal and external political conflicts. In our opinion, the aforementioned issue can be resolved by terminological analysis of different types of armed violence, including aggression and genocide.

Two such types of external armed violence, which provide unilateral use, are aggression and genocide. The term “aggression” has a long history and was first interpreted as “movement towards a

goal”. However, as early as at the beginning of our era, the Latin language began to denote this word as “attack” [5, P. 82]. Currently, dictionaries of different countries roughly interpret this term in the same way. The Oxford English Dictionary defines the considered phenomenon as “Feelings of anger or antipathy resulting in hostile or violent behavior; readiness to attack or confront; the action of attacking without provocation” [12, P. 166]. In the French dictionary it is “an attack using force” [10, P. 309]. In the German dictionary of words of foreign origin, aggression is understood as “an armed attack of the country on one or more other countries” [11, P. 1001].

A detailed analysis of the interpretation of the term aggression in modern American dictionaries is presented in a joint article by A. Karavanov and I. Ustinov. In particular, the article notes that aggression in these publications is generally understood as “unprovoked attack; invasion; habitual aggressive

action or application; primary instinct usually associated with emotional moods” [5, p. 82–83].

In our opinion, the analysis of these authors of the application of the term “aggression” in Eastern countries is quite valuable. A. Karavanov and I. Ustinov note that: “In Chinese, the word “aggression” ... has about 8 connotations ... depending on the scope of application and correlates with such notions and phrases as “severing economic relations”, “confiscation of bureaucratic capital and transfer of land to peasants”, “carrying out actions in all directions”, “turn around”, “total war”, “invade, occupy, encroach on foreign territory”, “criminal attack, violation, counterfeiting”, “unprovoked attack”” [5, P. 83].

Clarification of the fundamental nature of the phenomenon of aggression requires, in our opinion, an analysis of the interpretation of this phenomenon in various scientific areas. In particular, for psychologists it is: firstly, “motivated destructive behavior that contradicts the norms and rules of coexistence of people in society, is harmful to the objects of attack (animate and inanimate), brings physical harm to people or causes them psychological discomfort (negative experiences, a state of tension, fear, depression, etc.)” [4, P. 27]; secondly, “individual or collective behavior or action aimed at causing physical or mental harm or even at the destruction of another person or group” [2, P. 5].

Conflictologists define aggression as “a form of behavior of the participants in a conflict characterized by hostility” [3, P. 4]. In a more detailed conflictological interpretation, aggression is “a purposeful destructive individual or collective behavior that causes harm to the objects of attack (animate and inanimate), causing physical or psychological harm or damage to another person or group of people. Social forms of aggression: terror, genocide, racial, religious, ideological clashes, etc.” [1, P. 3].

Sociology defines this phenomenon as follows: “Aggression (lat. *Agressio* – assault) – behavior aimed at causing physical or moral harm to another

person in order to gain benefit or for self-defense. Aggression in a mild form corresponds to a social norm; severe forms of aggression are morally condemned and/or considered illegal. Pathological form of aggression, destructiveness – attraction to damage and destruction, is contrary to social norms and has no rational justification” (S.A. Kuprienko, Dictionary of Sociology (A-BATYAR) <https://kuprienko.info/kupriyenko-sa-slovnik-sotsiologiyi-a-batyar/>). Yu. Kachanova notes the following in her article “Aggressiveness and aggression as sociological categories”: “Aggression in society is violence ... aggression is any form of behavior which is aimed at causing harm to another living being who does not want such treatment” [6, P. 53].

In criminology, aggression is defined as “a form of behavior (specific action) that implements any intention or urge towards the victim (motivated action) and is associated with this intention (inducement) by a certain semantic attitude, objectively aimed at causing harm (damage) to their life or health” [9, P. 93].

Based on the logic of our study, we consider the most productive use of a term that appears in public international law. Therefore, according to the Article 1 of United Nations General Assembly Resolution 3314 (XXIX) of December 14, 1974 aggression is considered a crime and is defined as “is the use of armed force by a State against the sovereignty, territorial integrity or political independence of another State, or in any other manner inconsistent with the Charter of the United Nations”. Article 3 of this resolution defines that aggression, regardless of the fact of declaring war, is the following acts:

- the invasion or attack by the armed forces of a State of the territory of another State, or any military occupation, however temporary, resulting from such invasion or attack, or any annexation by the use of force of the territory of another State or part thereof;
- bombardment by the armed forces of a State against the territory of another State or the

- use of any weapons by a State against the territory of another State;
- the blockade of the ports or coasts of a State by the armed forces of another State;
- an attack by the armed forces of a State on the land, sea or air forces, or marine and air fleets of another State;
- the use of armed forces of one State which are within the territory of another State with the agreement of the receiving State, in contravention of the conditions provided for in the agreement or any extension of their presence in such territory beyond the termination of the agreement;
- The action of a State in allowing its territory, which it has placed at the disposal of another State, to be used by that other State for perpetrating an act of aggression against a third State;
- The sending by or on behalf of a State of armed bands, groups, irregulars or mercenaries, which carry out acts of armed force against another State of such gravity as to amount to the acts listed above, or its substantial involvement therein [7].

This type of external armed violence, which is also recognized as a crime under public internation-

al law, is genocide. Under the Rome Statute of the International Criminal Court of 1998, genocide is an extreme form of discrimination committed with intent to destroy, in whole or in part, a national, ethnical, racial or religious group, as such: killing members of the group; causing serious bodily or mental harm to members of the group; deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part; imposing measures intended to prevent births within the group; and forcibly transferring children of the group to another group.

Therefore, in view of the above, genocide should be understood as a type of unilateral external armed violence which is recognized as an international crime and which aims at the total or partial destruction of a national, ethnic, racial or religious group. In turn, aggression is understood as a type of unprovoked external armed violence that is independent of the fact that a war has been declared and is characterized by the unilateral use of force by a State against the sovereignty, territorial integrity or political independence of another State. It should be added that aggression may be used indirectly, but this does not change the nature of the phenomenon and does not remove responsibility for its use in political practice.

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## Section 6. Psychology

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### **PEER VICTIMIZATION, SOCIAL MALADJUSTMENT AND PSYCHOLOGICAL DISTRESS AMONG NIGERIAN ADOLESCENTS**

**Abstract.** This study explored the links between Peer Victimization (PV), Psychological Distress (PD) and Social Maladjustment (SM) among Nigerian adolescents. A Multistage sampling technique was utilized to select 400 participants (*Mean age* = 14.95) from four secondary schools in Osun State Southwestern Nigeria. Multidimensional Peer Victimization Scale (MPVS), Social Maladjustment Scale (SMS) and General Health Questionnaire (GHQ-12) were used for data collection. Prevalence of peer victimization, Psychological distress and social maladjustment is 46.5%; 47.7% and 44.0% respectively. Significant positive correlation exists between Verbal Victimization (VV), Social Manipulation (SoM), Multidimensional Peer Victimization (MPVS) and Social Maladjustment (SM). Significant positive correlation also exists between VV and Psychological Distress. MPVS subscales jointly predicted Psychological Distress and Social Maladjustment Scale (SMS).

**Keywords:** Peer victimization, psychological distress, social maladjustments, adolescents.

## Introduction

Peer Victimization (PV) among children and young adults of school age has been reported to be on the increase and is identified as an important problem in school [1], and presents in many forms such as physical, verbal, relational, and cyber [1; 2; 3]. The prevalence rates of PV however vary across countries [4; 5]. Peer victimization is one potentially modifiable risk factor linked to the development of psychological disorders. Peer victimization is a broad label encompassing multiple aspects of intentional harm doing including physical (e.g., hitting), verbal (e.g., name calling), and relational means (e.g., rejection, ostracism). Research suggests that peer victimization is pervasive across schools, cultures, and countries, with an estimated 10–30% of children reporting experiences of being bullied [6; 7; 8].

Research has reported associations between peer victimization and internalizing problems such as depression and anxiety and other related psychopathological symptoms. For instance Hamilton, Connolly, Liu, Stange, Abramson and Alloy [9] found that hopelessness mediated the link between peer victimization and depression but only among adolescents with low future orientation. Also, victimized adolescents reported higher rejection sensitivity, greater loneliness and more depressive symptoms and had increased social anxiety risk [9]. Self-blame was studied by Chen and Graham [10] as well as by Perren, Ettekal and Ladd [11] and they reported that victimized adolescents often blamed themselves for what had happened, which contributed to their greater risk for maladjustment. Empirical researchers showed that self-harm, depressive symptoms, negative affect and alexithymia were positively associated with peer victimization [12; 13]. Victimized adolescents were also found to be angrier [14], lonelier and less likely to comply with school norms and had greater risk for violent behavior towards schoolmates [15] and less well able to regulate their emotions, which placed them at greater risk for aggressive behavior [16]. Explaining reasons why vic-

timized adolescents report greater risk of externalizing problems, Perren et. al. [11] reported that they were more likely to attribute the victimization event to hostile intentions in their peers, while You and Bellmore [17] found that victimized adolescents experienced more conflict in their friendships. Victimized adolescents might overeat, [18] or skip meals [19] and report having body dissatisfaction (especially among girls) [20]. Studies reveal that sleep problems [21], lower levels of self-esteem and self-efficacy [22; 23], and reduced classmate support [2] were found to explain why victimized adolescents have poorer academic achievement.

There is scanty literature of Nigerian studies on peer victimization and psychosocial health status of adolescents. This present study therefore investigated the patterns of peer victimization, social maladjustment and psychological distress; observe the relationship between peer victimization, and psychosocial health and examined the predictive influence of peer victimization on psychological distress and perceived social maladjustment among secondary school adolescents Osun state, southwestern Nigeria.

## Hypotheses

1. Factors of Multidimensional Peer Victimization Scale (MPVS) will significantly correlate with perceived social maladjustment and psychological distress.
2. The factors of MPVS will jointly and significantly predict levels of Psychological Distress (PD) and social maladjustment among the participants.

## Materials and Methods

### Participants

A cross sectional survey design utilizing an ex-post factor design was employed in the study. Multi-stage sampling technique was adopted in this study. Random sampling technique was used to select Ife metropolis from Osun East senatorial district southwestern Nigeria. Four Secondary Schools (two privately owned and two state owned) were purposively selected from the metropolis. Finally, 100 respondents were randomly selected from each of the four schools.



## Measures

Three instruments were adapted and used as tools for data collection.

The Multidimensional Peer-Victimization Scale (MPVS) was developed and validated by Mynard and Joseph [24]. The scale is a 16-item self-report instrument consists of items intended to find out the extent to which students were victimized by their peers. The instrument has four domains of peer victimization, namely Physical Victimization (PV), Social Manipulation (SoM), Verbal Victimization (VV), and Attack on Property (AP). The items were reported to possess satisfactory internal reliability with Cronbach's Alpha values of 0.85, 0.75, 0.77 and 0.73 for physical victimization, verbal victimization, social manipulation and attack on property subscales respectively [24].

Social Maladjustment Scale (SMS) was developed by Wiggins [25] and was adapted for this study. This 27-item inventory was designed to measure inadequate interaction, shyness, and a tendency to be reserved or reticent. It has an acceptable reliability coefficient Cronbach Alpha of .83. SMS has been used for a Nigerian study [26].

General Health Questionnaire (GHQ-12) is a 12 item instrument by Goldberg and Williams [27] used to identify psychological distress. It has five response categories of 1 "Better than usual", to Worse than usual". Overall high scores consistently indicate high level of psychological distress. GHQ-12 has a reliability coefficient Cronbach's Alpha value of 0.73. GHQ-12 has been used by many Nigerian investigators [28; 29].

## Results

### Demographic Characteristics of Participants.

A total of 170 representing (42.5%) of the respondent were male while 230 representing (57.5%) were female. This indicate that majority of the respondent were females. Majority of the respondents were 9–15 years representing (66%) followed by 16–20 years representing (34%). This indicates that majority of the respondent are of 9–15 years. Distribution according to school type show that 200 adolescents (50%) each were drawn from public and private secondary schools. Furthermore, 199 students (29.8%) were from junior school while 281 (70.3%) were from the senior schools.

Table 1. – Patterns of Multidimensional Peer Victimization (MPV), Psychological Distress (PD), and Social Maladjustment (SM)

	Variables	Patterns (%)			
		Mild	Moderate	Severe	
MPV	Physical Victimization	52.0	36.8	11.2	
	Verbal victimisation	64.8	27.2	8.0	
	Social manipulation	56.8	30.5	12.7	
	Attack on property	54.8	31.0	14.2	
	Composite MPV	56.0	27.0	17.0	
Levels of Psychological Distress (PD)		53.5	32.0	14.5	
Levels of Social Maladjustment (SM)	Patterns (%)				
		Low	Mild	Moderate	Severe
		17.3	27.5	19.9	27.8

Table 1 summarizes the patterns of MPV, Psychological distress and Social Maladjustment (SM). Patterns of dimensions and total of Multidimensional Peer Victimization (MPV) shows a 36.8% and 11.2% prevalence of moderate and severe

Physical Victimization (PV) respectively. Attack on Property (AP) was next in ranking with 31.0% (moderate) and 14.2% (severe) prevalence. Next is Social Manipulation (SoM) which returning 30.5% (moderate) and 12.7% (severe) prevalence

respectively. Table 1 further reports a 27.2% prevalence of moderate and 8% the severe level of verbal victimization and a 27.0% prevalence of moderate multidimensional peer victimization with 17% at the severe MPV level among the participants. Table 1 further shows a 53.5% prevalence of mild psychological distress, with 32% and 14.5% at the

moderate and severe levels respectively among the adolescents.

Finally, Pattern of Social Maladjustment shows that 17.3% of the adolescents were at very low level, (i.e. well adjusted) 27.5% at the mild social maladjustment level, 19.9% at the moderately level while only 27.8% were at the severe level.

### Test of Hypotheses

Table 2. – Correlation matrix of PV, Social Maladjustment and Psychological Distress

N=400							
Variables	PV	VV	SoM	AP	MPVS	SM	PD
Physical Victimization	1						
Verbal Victimization	0.421**	1					
Social Manipulation	0.407**	0.365**	1				
Attack on Property	0.321**	0.221**	0.500**	1			
Total MPVS	0.735**	0.607**	0.679**	0.554**	1		
Social Maladjustment	0.086	0.159**	0.155**	0.006	0.190**	1	
Psychological Distress	0.051	0.150**	0.082	-0.048	0.082	-0.030	1

Table 2 shows the summary of Pearson Moment correlation analysis of the factors of multidimensional peer victimization scales, social maladjustment and psychological distress among adolescents. Significant positive correlation exists between VV

and social maladjustment ( $r = .159, p = .000$ ); social manipulation and social maladjustment ( $r = .155, p = .000$ ); MPVS and social maladjustment ( $r = .190, p = .000$ ), as well as between VV and Psychological Distress ( $r = .150, p = .000$ ).

Table 3. – Regression analysis of degree of influence of MPVS on Psychological Distress and Social Maladjustment (SM)

N = 400						
Variables	Psychological Distress (PD)			Social Maladjustment (SM)		
	$\beta$	T	Sig.	$\beta$	t	Sig.
Constant		29.67	0.000		37.91	0.000
Physical Victimization	-0.01	-0.18	0.859	0.00	0.02	0.985
Verbal Victimization	0.15	2.63	0.009	0.12	2.20	0.029
Social Manipulation	0.10	1.55	0.122	0.16	2.64	0.009
Attack on Property	-0.13	-2.17	0.031	-0.10	-1.79	0.075
R <sup>2</sup>		0.035			0.044	
F -ratio		3.62			4.54	
P		0.006			0.001	

Multiple regression analysis was carried out to determine the degree to which the factors of MPVS jointly and significantly predicted the severity of Psychological Distress (PD) and Social Maladjustment

(SM) among the participants. The summary in Table 3 suggests that the factors of MPVS jointly predict the severity of PD ( $R^2 = 0.035, p = 0.006$ ). It is observed that 3.5% variance of PD is jointly explained by the fac-

tors of peer victimization. AP ( $\beta = -0.125$ ,  $p = 0.031$ ) and VV ( $\beta = -0.147$ ,  $p = 0.009$ ) were significant independent predictors of PD among the adolescents.

The summary in Table 3 also reveals that the factors of MPVS jointly predict severity of SM ( $R^2 = 0.044$ ,  $p = 0.001$ ). It is observed that 4.4% variance of SM is jointly explained by the factors of PV, VV ( $\beta = 0.12$ ,  $p = 0.029$ ) and Social Manipulation ( $\beta = 0.16$ ,  $p = 0.009$ ) were significant independent predictors of SM among the adolescents.

### Discussions

The findings of this present study show a high prevalence of peer victimization, psychological distress, and social maladjustment among secondary school adolescents in Nigeria. Peer victimization is a common experience among school children [30; 31; 32]. According to Salmivalli and Peets [33], large numbers of children are victimized by their peers. In a related study on some Nigerian secondary school students sample Popoola [34] revealed that 70.6 percent of his study sample reported high level of peer victimization while 27% and 2.1% reported moderate and low levels of peer victimization respectively. Research studies also show a high rate of peer victimization globally [5; 31; 32].

The findings of this study affirm the significant positive correlation between peer victimization, social maladjustment and psychological distress. Peer relationships and social functioning are not only important in the secondary school years, as adolescents begin to develop self-concept and identity in relation to others, but social adjustment is also closely linked to development of psychopathologies [35]. This research finding is consistent with those of a meta-analysis of the consequences of bullying and victimization for psychosomatic health [36]. Relationship was observed between experiencing victimization and having higher poor psychosocial health in a study conducted in 28 countries in Europe and North America [37] and Norway [6].

Consistent with the growing number of longitudinal studies suggesting a relationship between peer victimization and psychological distress [38, 39]; we

found that MPVS jointly predict psychological distress among the adolescents. In a longitudinal study by Stapinski, et.al [39] it was found that frequent victimization is a risk factor for complex presentations involving diagnostic comorbidity. Frequently victimized adolescents were three times more likely than non-victimized adolescents to be diagnosed with multiple anxiety disorders or comorbid anxiety and depression in early adulthood [39]. Peer victimization is mediated by distress [40], psychological adjustment [41], daily emotions [42], self-blame [41], and negative self-evaluation [43]. Evidence from cross-sectional data supports the mediating role of coping self-efficacy, [44] and threat appraisal [45] in the relationship between peer victimization and anxiety disorders.

It is also observed in this study that MPVS jointly predict social maladjustment among adolescents. This finding supports previous empirical research conclusions. For instance, studies return that victimization relates to various forms of psychosocial maladjustment [46; 47]. Victims of bullying are often too frightened to go to school, suffer from low self-esteem, and are more likely to be anxious or depressed [48; 49]. Victimized children tend to be isolated and generally have a low social standing in the classroom [50].

### Conclusions and recommendations

Sequel to the findings of this study there is an urgent need of school based psychological intervention programmes. This will in the first place help the victimized adolescents to overcome the effect of the psychological distresses resulting from peer victimization. Also behavior therapies on anger management and psycho-education on pro-social behavior would help identified perpetrators of victimization to embrace socially acceptable behavior.

Contingency management can also be used to reward desirable behavior systematically and extinguish or punish bullying behavior. Social skills training that teach new ways of behaving that are both desirable and rewarding can also be adopted to eradicate or seriously minimize peer victimization among secondary school adolescents.

**Ethical Considerations**

It was conducted based on Helsinki Declaration.

**Competing Interests**

Authors have declared that no competing interests exist.

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## Section 7. Sociology

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### THE ROLE OF THE FAMILY SOCIAL INSTITUTE IN THE DEVELOPMENT OF SOCIETY

**Abstract.** This article describes the priority of state policy in strengthening society and the family in Uzbekistan, the ideas of the President of the Republic of Uzbekistan aimed at raising a healthy generation, respect for our national traditions. Also, analysis and recommendations on the socio-psychological basis of preparing children for marriage in the educational process by teaching children from an early age knowledge of family ethics and psychology, the role of family and society in the lives of young people building their spiritual life and future.

**Keywords:** Society, family, modernization, healthy generation, national traditions, education, family ethics, psychology, strong society, Action strategy, spiritual and moral education, psychological and pedagogical theories, strong family, social welfare.

**Introduction.** The family as a social phenomenon is a great invention of mankind. There is no doubt that the unique prestige of the family is a reality of great social significance. The family is the basic unit and social pillar of society. The happiness and well-being of every family is ultimately a condition for the stability, prosperity and well-being of society. Also, the family is a great policy not only of one country, but of all mankind. Needless to say, it is public policy. After all, the survival and continuity of humanity comes from the family. In this regard, it is important that the political, social, economic, educational, biological and physiological problems of the family, which is the foundation of a healthy and strong society in Uzbekistan, are on the agenda of the state in accordance with modern requirements.

**Legal basis of the Family Social Institute in Uzbekistan.** One of the priorities of the Decree of the President of the Republic of Uzbekistan dated February 2, 2018 PF-5325 “On measures to radically improve the activities in the field of support of women and strengthening the family” is to promote the economic and legal framework of strengthening the family to carry out their work. In Uzbekistan, the tasks of the state are to strengthen the family, to ensure that family members can exercise their rights without hindrance, as well as to protect these rights. It is worth noting that the state has created a legal basis for the protection of the family, as well as attention to the system of economic support.

The state has created a legal basis for the recognition of family stability as social stability. A vivid example of this is the adoption of the Constitution



of the Republic of Uzbekistan on December 8, 1992 and the Law of the Republic of Uzbekistan on April 30, 1998 by the Oliy Majlis approving the Family Code of the Republic of Uzbekistan. These two documents fully reflect the importance that our state attaches to family problems.

Chapter XIV of the Constitution of the Republic of Uzbekistan is dedicated to the family. Article 63 states that “The family is the fundamental group unit of society and is entitled to protection by society and the State”. There is an inextricable link between the social system established by the Constitution and the family. It is noteworthy that our basic law takes into account our national and human values.

The development of the family in Uzbekistan is considered at the global level in the framework of the United Nations Sustainable Development Goals, as well as in the Action Strategy for the five priority areas of development of the Republic of Uzbekistan for 2017–2021.

There are, of course, reasons why so much emphasis is placed on strengthening families in our society. Because it is in this environment that the original human qualities such as return to ourselves, respect for our national traditions, respect for the elderly and care for the young, humanity, honesty, nobility, kindness are formed. That is, we consider the family, which is our unique national value, as the main foundation in building our own spiritual life and future. As Abdurauf Fitrat said, “Where the family relationship is based on strong discipline and order, the country and the nation will be just as strong and orderly.”

There is no nation or people today that has not focused on developing the family and respecting its values in its own future. It should be noted that a healthy spiritual environment in the family, the creation of a spirit of mutual respect among family members, the preservation of our high moral and spiritual values, the inculcation of a healthy lifestyle in the minds of our youth are the most pressing tasks today.

Particular attention is paid to the formation of children’s spirituality in the family from an early age.

Psychological and pedagogical theories, according to scientific conclusions, the psyche of children in early childhood (from 1 to 3 years) develops very rapidly, this development is intensified during the period of preparation of children for school (from 3 to 6 years).

In the family, parents are responsible for the spiritual and moral upbringing and development of their children, which is one of the duties of a parent to his children. In our country, there are legal norms that require parents to educate their children. Article 73 of the Family Code of the Republic of Uzbekistan is devoted to “Rights and obligations of parents in the education of children”, in which parents have the right and obligation to bring up their children; the obligation of parents to take care of the health, physical, mental, spiritual and moral development of their children; the superiority of parents over all other persons in the upbringing of their children; parents are required to ensure that their children receive the necessary level of education as provided by law.

**The role of the family as a social institution in the development of society.** From ancient times, our people have paid great attention to the education of children in the family. Consequently, it is an indisputable fact that the independence and stability of the state and society are directly related to this issue. That is why the upbringing of children and youth, especially the formation of high spiritual and moral factors in them, is one of the most important and priority tasks of society in all times and places.

It is no coincidence that our great enlightened ancestor Abdullah Avloni said: “To bring up a child well is to keep the body clean, to correct the profession from an early age, to teach good manners, to protect and nurture from bad manners.” The spiritual and moral upbringing of children is formed, first of all, in the family.

It is known that in the East, the family and society, in which the relationship of parents with children acquires a unique socio-psychological appearance. For example, in South Korean President Lee

Myung-bak's book, "Miracles Don't Happen," he says, "A family where parents and children don't talk is unhappy. Parents who do not listen to their children are also unhappy. Children who are abused by their parents are also unhappy. But the conversation isn't heartfelt, it's just that the family, which is held to talk, is also happy will not happen. Communication takes place only when the child is a child and the parent is a parent, and there is respect and trust between them" [3].

In this regard, the President of the Republic of Uzbekistan Shavkat Mirziyoyev said, "Take care of your own home!" "Take care of your child yourself!" I think it's time to add that," he said [2]. Because the upbringing of children is a complex process, the roots of which go back to the family, neighborhood, society. Upbringing is not only a personal affair of a parent, but also a social duty. Through the educational process, there are such noble intentions as the future successor to be selfless for the country, to be a loyal citizen, to seek peace in the country, to preserve independence. The development of society is achieved only through the perfection of children. Hence, the upbringing of harmoniously developed children has always been one of the urgent tasks of every age. As noted by President Shavkat Mirziyoyev, "A child is a deposit in the hands of parents," say our great scholars. Today's life proves in every way that our children, their destiny and future are really very safe. If we don't give our child the right upbringing, every day, every minute is his If we are not aware of their behavior and mood, if we do not teach them science, if we do not find a decent job, we will lose this deposit" [2].

We all understand that a strong family and a happy life, the mutual socio-psychological stability in it, depends primarily on the young people who are getting married, their intelligence, spiritual qualities, a deep understanding of their duties and responsibilities to the family and society.

In each country, the institution of family and marriage is formed under the influence of religion, customs, culture, morals, traditions [4, 464–466].

Ensuring family stability by creating a healthy psychological environment in the family, studying the role and impact of interpersonal relationships in a healthy psychological environment in the family, monitoring and analyzing the level of evaluation of interpersonal relationships in the family by family members.

In the family system, the duration and stability of the family are assessed through careful consideration. When expressing an opinion about the family and making decisions, more attention is paid to external and social opinions due to the fact that an individual's opinion about his family is subjective [5, 361–371]. Therefore, it is important to study the reflection of economic, social and cultural changes in our country in family relations, which are the basis of the national spirit of the people.

Any family in society performs the following three main functions from a socio-psychological point of view:

1. The social function of the family.
2. The economic function of the family.
3. The educational function of the family.

*The social function of the family.* Since the family is a part of society, it must participate in socially useful work and perform its economic function on the basis of the money earned in return for this work. If family members (husband, wife, and adult children) do not participate in useful work in society, but only for their own benefit and engage in activities that are harmful to others, such as theft, robbery, extortion, etc, such a family will surely fail.

*The economic function of the family.* Husband and wife, adult children, and at least one member of the family are involved in the production of material and spiritual goods for the society and earn their living through honest work spend their money on marriage. This includes housekeeping, cooking, laundry, sewing, tidying up rooms and courtyards, looking after the yard and gardens as well as pets and poultry, purchasing household utensils and household items, entertaining guests, and organizing family ceremonies. and perform all similar farm work.

*The educational function of the family.* While this is also an important task, it is secondary because the educational task (because it is spiritual) relies on some material basis (i.e., income). This task is to see the child and bring him up. Correct social and economic responsibilities.

Failure to do so may result in divorce for families with one or more children. A child is a miracle that binds father and mother together, instilling in the family the love of the couple for each other. This will require raising this child. It is necessary to bring up a healthy, energetic, well-educated, cultured, well-rounded person with high spiritual qualities, in accordance with the existing social system.

It is known that our people have always considered the family sacred and treated family relations with respect. Therefore, the primary link in any relationship with the lifestyle of our people is the family and the family environment.

As the First President of Uzbekistan Islam Karimov noted in his book “High spirituality is an invincible force”, “In order not to make mistakes in the issue of family upbringing, first of all, It would be worthwhile to build on the basis of mutual respect, morality and human relations” [1].

Another important issue is to create a healthy spiritual environment in our families, in particular, to ensure that the relationship between spouses, parents and children, mother-in-law and daughter-in-law, neighbors in the spirit of mutual respect and kindness – is the key to peace and harmony in our country. It should also be noted that it is the most important condition for further strengthening.

**Conclusion.** Taking into account the above, in order to strengthen the family in our country and to develop a healthy child and ensure the welfare of society, it is expedient to solve the following tasks in each family:

- Encourage parents to demonstrate good human relations, including exemplary behavior, in front of their children;

- Strengthening the example of parents in ensuring the stability of young families;
- Deciding on the harmony between moral education in the family and school and community education;
- occurring at different ages of their children to parents through ‘Parent Universities’ in the neighborhoods;
- organization of special conversations and discussions on psychological features and meetings with qualified specialists;
- to keep in mind that the family is a social necessity of society and to always keep in mind that its strength is the strength of society and the state, and to strengthen family relationships;
- To prepare our children for marriage in the educational process by teaching them knowledge of family ethics and psychology from an early age, to teach them the philosophical, moral, socio-psychological foundations of the child;
- To inculcate in the minds of young people the moral and psychological concepts of exemplary life on the basis of the analysis of the essence of social concepts such as chastity, customs, traditions, national consciousness and national language in family life.

The family is the cradle of values that ensure the eternity of life and the continuity of generations, a unique place of upbringing for future generations. Everyone finds happiness in this world only and only in his family, how each person enters life as a person depends, first of all, on the product of his upbringing and upbringing. After all, building a family on the basis of the harmony of our national values and modern views is the conclusion of yesterday, the choice of our people, who live with confidence in the present and the future, the happiness of living based on strong spiritual roots. After all, a healthy family environment is a solid foundation for a prosperous, peaceful life.

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## Section 8. Agricultural sciences

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### CHANGES OF THE MOBILE FORMS OF PHOSPHORUS IN SANDS UNDER INFLUENCE OF FERTILIZERS

**Abstract.** Form of connection, area, degree mobility and availability has importance. For cotton plant but not the absolute size the content of phosphorus.

**Keywords:** fixing, colloids, electro-kinetic, microorganisms accessible mineral fertilizer, erosion, mobile, total forms, concentration, soil solution, lignin, dung.

#### Introduction

In field conditions the experiences on revealing dynamics (changes) of growth of the mobile forms of phosphorus on a background of mineral fertilizers, 40 T/ of the dung 60 T/ of the lignin in un planned sand are carried out (spent) during cultivation of a cotton plant. The purpose and technique of researches [1].

The phosphoric fertilizers which have been brought in to soil of Central Ferghana, are exposed to significant transformations, therefore vary their assimilability and solubility It occurs as a result of various chemical, physical, physic-chemical and mi-

crobiological processes proceeding in soil applying of the various forms of fertilizers [2].

The fixing of phosphorus in soil occurs basically calcium and magnesium, to the less degree by aluminum and iron. Besides, phosphorus is fixed by microorganisms using it during vital activity, the microorganisms transform mineral phosphorus to in organic, inaccessible to plants. After dicing off of microorganisms the organic phosphorus again passes in to mineral form. The total contents of phosphorus in soil cannot serve as a decisive criterion of soil fertility. For an estimation, it (him) not absolute sizes of the contents phosphorus matter, and form of

connections, in which he is, degree of their mobility and availability for xiionna THHica [3].

For normal growth and development, it is important not only contents of nutritious elements in general, but also character of sea-seasonal dynamics (changes) of these elements in soil, necessity for nutritious substances in the various periods of life of plants is cipferent. Dynamics (changes) soil phosphorus can depend on a number (line) of the factors, including concentration of electrolyte in a soil solution. The quantity of phosphorus can be defined (determined) by character of a surface soil colloids and by their electro-kinetic peculiarities, which can change not only for a long time, but also for the short period, especially in summer, when in soil vital activity of microorganisms is most intensive, the physics-chemical processes and chemical reactions caused by change of water and thermal modes of ground are quickly made. Water soluble forms of phosphoric fertilizers during applying them in to soil are strongly absorbed by soil. The fixing phosphates depend on a type of soil, temperature both and its degree of humidifying and forms of phosphoric fertilizers! Applying phosphoric and phosphorus-containable fertilizers considerably increases the contents of assimilable phosphorus in soil, thus sharply improves a phosphoric feed (meal) of plants [4]. The regular application of mineral fertilizers raises the contents of the total and mobile forms of nutritious elements in irrigating soil and increases their solubility. The strong influence on the contents of phosphorus in soil renders (with) erosion. The losses of phosphorus owing to erosion, as a rule, are proportional to losses of soil in account on unit of the area [5]. The losses of phosphorus are especially significant at erosion fine – dispersion able mineral and organic-mineral particles and organic substance, which structure contains basic weight of connections of the given element. By researches is established that the general(common) contains of phosphorus changes on a soil structure in a smaller measure, than hummus and nitrogen. Therefore, as against organic substance and soil nitrogen, the

difference in the contents of the general(common) and mobile forms of phosphorus in connection with of soil a degree erodiness cover in arable layer in all soil is more thickly less expressed [6]. The small contents mobile phosphates in erodible soil results in the well –known fact about high efficiency of the raised(increased) doses of phosphorus fertilizers on the majority washed off and Bbmyrax soil differences of all basic types and subtypes irrigating soil. Phosphorus is the scarcest nutritious element in irrigating conditions of plants and consequently agrochemical control is especially important of applying of phosphoric fertilizers in a combination to others and the study of receptions differential application of phosphoric fertilizers in view of security of soil deserves the most serious attention. The establishment of dynamics (changes) mobile phosphates in planned hilly –barkhan sand depending on norms of fertilizers has the large practical meaning(importance) for correct and their most effective use. This researches in conditions of sand of Central Fergana hornet bun carried out before.

*Results of researches:* Experience on study of dynamics(changes) of the mobile forms of phosphorus has bun investigated by us in conditions of field experience in territory of Ahunbabaev region of the Fergana area under the circuit, where at cultivation of cotton plant on planned barkhan sand of Central Fergana the raised(increased) norms of mineral fertilizers and dung, lignin are used. The experiences were spent carried from 1999 to 2003yy. In three times repetition according to field techniques and vegetal experiences, which are published in a public and press. The results of the analysis of mechanical structure and sand of Central Fergana where were carried experience up to a beginning of a field experience are given in the table 1, from which it is visible, that the sand are poor by nutritious elements. Humus almost is absent nitrogen, phosphorus and potassium contains in insignificant quantities (amounts). It is necessary to note that according to the content water-soluble salts concern

to KaTeropHKaunsalted and midsoles, category where dense rest 0,388–0,482% contain. From given it is visible that applying under cotton-plant Kr /ra at 0–50. Agrochemical researches on study of seasonal dynamics (changes) of mobile phosphates in sand show that in conditions planned hilly-barkhan sand with increase of norm used nitric, potassium, phosphoric fertilizers the contents of mobile phosphorus at 0–30 sm a layer of sand raises. In spring, when cotton-plant had 2–4 present sheets, after applying phosphoric fertilizers in norms 105, 140, 175kg/ra, contents of mobile phosphorus in sand on depth 0–50 sm tab.2. Has increased with 1,4–2,3 up to 10,3–12,5 Mr/kg, in variant 4 and 5 where are brought in addition in according 40 T /ra dung, 60T / ra lignin in the quantity(amount) of the mobile forms of phosphorus grows up to 11,8–15,1 Mr / kg of sand. The same law in change of the contents mobile phosphates in sand is marked by us in phases

burdening, flowering and in the end vegetation of the cotton plant per all years of researches. The contents of mobile phosphorus in sand depending on norms of the applying fertilizers under cotton plants (average for 1999–2003y).

*Conclusions:* In the whole greatest quantity(amount) of mobile phosphorus in sand is fixed in variants with entering on a background of mineral fertilizer, where are applied 40T/ ra dung and 60T/ ra lignin. By the end of cotton vegetation, the contents it(him) is sharply reduced, that is explained carrying odit of phosphorus to plants cotton by the temperature factor and decrease(reduction) of biological activity of microorganisms. Proceeding from above stated it is possible to recommend by the farmer, which rises of a cotton plant on the planned sand entering, N200–250, P205 140–175, K20100–125 in combination with 40 T/ra dung or 60T/ra lignin.

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## Section 9. Philology and linguistics

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### GENERAL-LINGUISTIC ASSESSMENT OF THE FERDINAND DE SAUSSURE'S CONCEPTION IN THE GEORGIAN LINGUISTICS

**Abstract.** In the previous article there is presented the general-linguistic assessment of the Ferdinand de Saussure's conception in the Georgian Linguistics. The opinions of the famous Georgian linguists: Arnold Chikobava, Konstantine Chrelashvili, Mikheil Kurdiani, Tamaz Gamkrelidze and others are noteworthy. The research also concerns one of the actual and important questions for linguistic -studying Ferdinand de Saussure's personal letters with linguistic point of view.

**Keywords:** Ferdinand de Saussure, linguistics, sign, conception, speech, problems, system, Georgian.

#### I. Introduction

Ferdinand de Saussure's linguistic conception effected especially on development of different directions of XX century's linguistic thinking. He is justly considered as one of the founders of the contemporary linguistic, who effected on the following development of linguistic greatly. Ferdinand de Saussure's linguistic opinions are paid special attention in modern Georgian linguistic. It is interesting the noteworthy opinions and scientific works expressed by famous Georgian linguistics. In particular, it is mentioned: Arnold Chikobava's, "General Linguistics" (1983); Konstantine Chrelashvili's "History of Linguistic Doctrines" (1990); Tinatin Sharashenidze's "Language and Speech Relationship" (1974), Mikheil Kurdiani's "Theory of Linguistic mark" (2008), Tamaz Gamkrelidze's, Zaza Kiknadze's, Inga shaduri's, Nana Shengelaia's "Theoretical Linguistics Course" (2003) and etc. While working on

the paper, we used Ferdinand de Saussure's "Course in General Linguistics" for analysis, which was translated into Georgian by Tsisana Bibileishvili and published under the editorship of Bakar Giginishvili in 2002. In order to evaluate Ferdinand de Saussure's general linguistic concept, it is important to study the linguistic aspects of his personal letters. For this purpose, we used the Ferdinand de Saussure's records from the epistolary inheritance collected and published by Johannes Feier, a professor at the Zurich Technical High School in Switzerland, for analysis: texts, letters and documents, translated into Georgian by Venera Kavtashvili, Nino Popiashvili and Shorena Shamanadze (2010).

#### II. Method of research

During working on a scientific paper, we used a historical-comparative and descriptive method. For the purposes of the study, diachronic and synchronic analyses were used: dividing chronologically the re-



search question and evaluating it in relation to the present for to get the final result.

### III. Main part

Ferdinand de Saussure's entire linguistic concept is given in his work "Course in General Linguistics". This work was preceded by his brilliant "Research about the Original System of Indo-European Language Vowels", which immediately attracted the attention of researchers. At that time, Saussure was 21 years old and its author was recognized as a prominent Indo-Europeanist. Indeed, in the mentioned work there was used a completely new method of analysis at that time. This work is important in that point, that it contains the main postulate of his theory: Language should be considered as a system where everything is interconnected and conditioned by each other. On the basis of such an approach to analytical language facts, Saussure managed not only the brilliant description of the vocal system, but also the reconstruction of vowels, which had some effect on the sound composition of the Indo-European root, and then disappeared [1, 158]. The proclamation of language as a system was a very important event in the history of linguistic thinking. The basis of his concept is three linguistic concepts: speaking ability (langue), language (langue) and speech (parole) [2, 14].

According to the Arnold Chikobava's opinion, the key points of Saussure's concept are created by the following issues in terms of essence of language: 1. Distinguish between the concepts of language and speech; 2. Determining the essence of linguistic sign; 3. A peculiar understanding of the relationship of synchronic and diachronic linguistics. [3, 91]. What is the language by Ferdinand de Saussure's meaning? Language is a system of signs in which there is an acoustic connection between concept and image. Language with its nature does not have less specific character than speech, and this greatly contributes to its research. Language is a system of signs expressing concept. Therefore it can be compared to the written language, the deaf-mute alphabet, symbolic rituals, etiquette formulas,

military signals, and so on. But language is the most important of these systems [2, 26, 27].

That the variability of the acoustic image is an accountable phenomenon, is well illustrated by the example of the Iberian-Caucasian languages, where except so-called main cases also existed locative (prepositional) cases (even without regard to dative principle in the main cases), where the sound image undergoes significant transformations [5, 224]. Arnold Chikobava analyzes critically Ferdinand de Saussure's concept. What is valuable in Saussure's concept? Most important, in this regard, is the outline of the social nature of language and the characterization of linguistic sign, as towards any signified and not any speaking individual, as well as the characterization of language as a system of signs [3, 98]. From the point of view of Ferdinand de Saussure, the synchronic aspect is more important than the diachronic one, because from the point of view of the speaking mass only this is the real and the only reality [2, 44]. The diachronic aspect is related to historical grammar. Historical research has made science about language. Therefore, it is possible to point out one fact – both aspects are important for the scientific study of language: synchronic and diachronic.

From Ferdinand de Saussure's concept, it is important to introduce the concept of value into theoretical linguistics. The relation of linguistic signs to other signs of the system and the relation of its signifier to the signified jointly determine the value of this sign. The sign itself may be immutable, but it will have a different value if other signs of the system are changed, with which it creates certain relationships. According to one of the founders of modern linguistics Ferdinand de Saussure, value is a feature of a sign – to be that, what distinguishes it from another sign. Even the signs of the same events and objects in different language systems always have different values [4, 31].

According to Ferdinand de Saussure, the signified is a concept, while the signifier is a sound image or word. Their unity represents a linguistic sign. According to Mikheil Kurdiani's opinion, "signified is

meaning or semantics, and signifier is a morpheme, and their unity represents a linguistic sign” [5, 225]. The ability of sign to name and reflect a referent is called a nomination function i.e. a sign exists and functions on the basis of the interrelationship and mutual conditioning of nomination and communication functions” [6, 18]. According to Arnold Chikobava’s assessment, speech is always a communicative action and its discussion is necessary only from the position of the communicative act. The history of mankind does not know any case that any language had merely an expressive function, that it did not have a communicative function for a defined linguistic collective [3, 99].

Clearly, speech is going in a particular situation, and it is directed at a particular situation, which, therefore, implies an act of communication, and which is also obviously social in nature. “And this means that speech is no less social than language, because the speaker is forced to speak in a way that is understandable for the listener, that is, as it is accepted in the linguistic collective. Therefore, this controversy is irrelevant” [7; 6]. It should also be noted that T. Sharashenidze does not agree with Saussure’s opinion that only language is a system (of signs). “In his view, speech is also systemic natured, because, language is the weapon and the product of speech, and at the same time speech is realization, performance, then it is unclear how speech can be devoid of systematic character, while language represents a system” [7; 6].

According to Ferdinand de Saussure’s opinion, a science that studies the system of signs in the entrails of social life is permissible. It should be part of social psychology, and therefore part of general psychology. We call it “semasiology.” It introduces us to what signs are and what law governs them. Linguistics is only part of this general science. The laws discovered by semasiology will be useful in linguistics [2, 27]. We think that there should be separated semasiology as a field of linguistics and as a psychology.

The study of the linguistic aspects of Ferdinand de Saussure’s personal letters is also relevant and important

in terms of relation to the present. It is interesting to establish the linguistic characteristics and means used by the author for to achieve the influence of the addressee. Ferdinand de Saussure’s personal letters present special moments of his scientific career. The addressees of the personal letters are his friends, acquaintances and the people with whom he was involved in scientific activities: Adolphe Pictet, Louis Howe, Antoine Meyer, Albert Ridinger, Leopold Gutierrez, Henri Odier, Alper Cooney, Charles Ball G. Pascol etc.

The norms of linguistic etiquette of Ferdinand de Saussure’s personal letters in terms of pragmatics are interesting: the rules of communicational relation, the use of language in the situation considering the context, shared knowledge with addressees, intonation, gesture; There is shown the chronological connection of personal letters with Ferdinand de Saussure’s biography, linguistic theories, manuscripts, published works and lectures. It is also noteworthy to be discussed the main problems of linguistics of personal letters in a semasiological context. In the abovementioned letter he writes Adolphe Pictet: “I am just only a disciple and I would not have dared to share my ideas with you, for a man I just know a little, if I had not been convinced that the system, I have been working on for a year, I did not consider it as an unquestionable fact” [8, 356]. We understand from this letter that Ferdinand de Saussure is working on the theory of Indo-European languages. It is true that the letters of Ferdinand de Saussure do not give an exhaustive picture of the author’s work, but it, as a documentary material, is one of the biographical sources. In Ferdinand de Saussure’s personal letters there are revealed his views related to the research issues.

#### IV. Conclusion

Thus, the assessment of Ferdinand de Saussure’s concept in Kartvelian linguistics has great importance for the perfect perception of the work of the great linguist. The problems posed here and searching the ways to solve them are still relevant for theoretical linguistics today in terms of cultural communication and globalization in relation to the present.

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## LEXICAL AND SEMANTIC GENDER FEATURES OF THE TEXT

**Abstract.** This article is devoted to the study of gender identity in different types of texts. The following conclusions are made through in advertisement texts, which is a topical view of modern discourse, and the analysis of gender differences in the media: considering any person in the gender point of view seems to hinder a woman's success in public life: researchers are more interested in women who has achieved more or less success, because they are doing what men have been doing so far. The notion of "gender" is not the same as sex, it is more related to a social role rather than a physiological belonging to a particular biological sex. In addition, biological sex partly determines the lexical and linguistic features of human speech. Researchers are interested in gender issues as a component solving linguistic problems – such questions are extremely actual, for instance, how men's and women's languages differ, how their perceptual processes and the specificities in speech formation should be. A person's achievements in public life are not determined by social gender or biological sex: a person creates something he or she can realize or that is important both in politics and society as they consider.

**Keywords:** gender, sex, speech, advertisement, discourse.

### **Intruduction**

It is interesting to analyze the texts in advertisements messages, because advertising always contains different gender stereotypes, which in turn creates the basis for the image of men and women in most recipients. Often a student's self-esteem and acceptance by those around him depend on these images and stereotypes, as well as on his or her choice of profession, which in turn shapes his or her position in society. Gender roles are defined through gender stereotypes that change our lives and choices. Over time, these stereotypes will become unique standards for us to follow throughout our lives. Based on the foregoing, this research is important to study the impact of grammatical and lexical components of advertising text on its communicative effectiveness.

High-quality advertising generally enhances the competitiveness of each print and holds a strong position. Advertising in the modern press has great potential, and it immediately grabs the attention of the

reader. In many ways, the influence of the publisher on readers and the media's reputation depends on the nature and design of gender-oriented advertising. In other words, advertising acts as an organic element of media messages.

Advertising translation is of great interest. Advertising translation is focused on a particular gender and is characterized by language means, its form and clear communicative orientation. While translating such texts, the translator solves specific language problems caused by differences in semantic structure, the peculiarities of using two languages in communication, and the sociological adaptation of media text.

It is important to note that there is no single strategy to translate advertisements, but precise or word-for-word translation is rarely used, because its image rather than the form of its text plays an important role in advertising [4, P. 97].

Marketers in magazine advertisements use changed expressions to attract readers' attention; they

add a “living element”; they avoid directly using sharp expressions or pictures in the journal; they claim that advertisements are interesting because of having successful findings, “black” humor and fun effect.

Advertisements in the Men’s Health and the Women’s Health magazines discuss key topics that reflect the image of successful men and women. These include: style, career, health, calendar of interesting events, sports, healthy eating, relationships, psychology, having a rest, adventure, technology, transportation.

In these publications the informational materials which cover all aspects of modern men’s and women’s lives, which claim to form their students’ lifestyles, and which are insignificant in terms of students’ value orientations are all explained. In such publications, social problems are hardly described, and students form their own standard stereotypes that are far from the usual value system. According to these magazines, a person ceases to be with himself, becomes part of the public, or becomes ill with a “collective mood”.

Examples that reflect key gender stereotypes have been selected in the study of advertisement texts in men’s and women’s health magazines. Each advertisement text is individual and has specific linguistic features, and by means of this their gender fields can be identified. For example, the semantic field of “femininity” for advertising targeted at women’s auditory is unique, which in turn comprises the following thematic groups: beauty, femininity, youth, vulnerability. This type of advertisement is also typical of a dialogue with readers, which includes questioning. In these texts, quality is given a wide range of lexical units: virgin, beautiful, attractive, delicate.

The specific semantic field of “masculinity” in advertisements for men forms the following thematic groups: power, endurance, superiority, aggression, activeness, leadership, success. The sentences or phrases in the advertisements for men are accurately made up, words such as logic, factual proof, technical vocabulary, and the words reflecting masculine

stereotypes (victory, superiority, danger, nobility, etc.) are common. As for the grammatical side, we see the many uses of imperative forms, the frequent use of verbs and technical terms, well-formulated and reasonably concise sentences, and of course the emphasis on the ideology of prestige and authority.

Trends in the development of modern technologies, their integration into human life, in many ways, stimulate the media to improve. The beginning of the Guttenberg era in the 15<sup>th</sup> century is a well-known example. The printing house enabled journalists of that time to adapt to future readers and to create new directions in the profession (such as women’s thematic journals).

Over time, with the advent of new technologies, people have begun to apply it not only in everyday life but also in business. And while selfish goals have led humanity to constancy in the 21<sup>st</sup> century, experienced companies have begun to use psychological manipulations to attract new student audiences. Often, these manipulations are used secretly, especially in men’s and women’s journals, and are viewed as stereotypes which are typical of everyone, such as global socio-cultural phenomena that define the vector of thinking of men and women.

An experiment has been conducted, and according to it we could have determined linguistic styles influencing by gender, and we could have concluded that each socio-cultural gender reproduces data based on their own genders, and the lexical and grammatical structure of the journalist’s text is gender-related.

As one part of this experience, methods such as news storytelling and highlighting keywords have been implemented.

It is noteworthy that in order to get more objective results, respondents were asked to exchange gender texts mutually (men to women, women to men). Thus, the mechanism of thinking at the gender level became clear.

Differences in gender ideology were paid attention even by ancient scholars. As people began to socialize, men and women began to separate into two

camps, and it caused pluralism of thoughts. These ideas are expressed directly through the language and are called femininity and masculinity.

Thanks to the feminist movement that engages English-speaking countries, the concept of “gender and language” has emerged. The researchers such as M. Key, R. Lakoff and S. Tremel-Pletts concluded that the male language is the language of explanation and the female language is the language of self-justification. As Lakoff points out, “the woman who is engaged in debates is perceived as a sex or any other object, but is never regarded as a serious individual with an individualistic perspective” [1, P. 68].

Nevertheless, in the 1970s, general rules were developed regarding the specific features of women’s communication behavior. This was considered to be a deviation from the norm, that is, the norm of men. This attitude is reflected not only in the writings of the famous linguists, but also in the minds of the people. For example, folklore articles (Woman has a language, that’s what. Woman’s voice, her hair: thin and long). From the folk-linguistic ideas about female speech, sociologist Tatiana Dejina made such conclusions in her article on “Some features of the communication behavior of men and women”:

- Women talk a lot;
- Women like to ask questions;
- Women like to ask questions repeatedly;
- Women are prone to superfluous things in evaluating and addressing;
- Women often overuse unnecessary words;
- Women often don’t finish their talk;
- Women use less offensive words than men do;
- Women are courtesy; they prefer to use indirect questions rather than commanding and direct questioning;
- Women interrupt less than men do. [1, P. 68].

Men suffer from a disease called “mental deafness.” The fact is that because of the interesting conversation, they are careless to the environment and cannot understand it.

Consequently, women exhibit great psychological flexibility and easily “change” their roles in communication movements, they live in the open world, they are sensitive to everything that happens around women. Women keep their thoughts within themselves, even when their social roles are less likely to engage in such behaviors.

Men and women react differently to the text. Despite approximately a single cultural background, depending on gender, a person focuses on different elements and themes.

It is worth noting that hyperbolization and expressiveness have already become the usual stylistic feature of female speech (approximately roughly, it was very interesting and wonderful), which is especially evident in evaluating values.

One of the first works in studying the written texts of “men and women” belongs to Kryuchkova. While analyzing fiction, the author notes that women excessively use pronouns and particles in their texts, and men often use nouns in the texts. A. A. Weylert states that verbs and conjunctions in the women’s dictionary are frequently repeated, while in men’s adjectives, adverbs, and abstract nouns are found more frequently [3, P. 46].

In the works of E. A. Zemskaya and others (1993), female is generalized in a view of an associative field (nature, animals, everyday life) and characterized by its ‘humanity’, while men associate themselves with sports, hunting, occupations and the military” [3, 42]. The author also emphasizes the superior feature of evaluation – rational in men and emotional in women.

Therefore, based on the above considerations and evidence, we can conclude that the existing “female” texts have certain stylistic and emotional-psychological characteristics. These are:

- Existence of introductory words, attributes, adverbial modifiers that express different levels of assumption, ambiguity and presumption (which, in my opinion, probably);

- Use of neutral expressions and words (he spoke rudely instead of he insulted; he wasn't conscious instead of drunk);
- Use of stylistically high-priced, literary words;
- The tendency of hiding the real name of the real hero, replacing it with evaluative expressions (stupid, malicious, fraudulent);
- Use of zoonyms (sheep); nouns and passive verbs prevail (they poured with gin; they take in their carts daily);
- Women efficiently use adverb+adverb constructions (very cruelly; very well), syntax expressing double negation, various punctuation marks, and all means of enhancing the emotional color of speech;
- Unlike men, women tend to increase positive exaggeration;
- Use of qualitative adjectives;
- Use of reduced suffixes;
- In general, women's speech behavior is more human [1, P. 68].

In contrast to the above-mentioned, men's text begins to form until their adolescence period in boys. Its distinguishing features are:

- Much use of abstract nouns (friendship);
- Use of relative adjectives (wooden);
- Using prison and army slangs (depending on the text);
- Use of expressions showing confidence (without doubt);
- Reasonable attitude to feelings;
- The identity of lexical methods in their expressions;
- Use of words that are not as emotional as possible;
- Use of formal and emotionally formed expressions for family and friends;
- Men often use clichés in newspapers and journalistics;
- Use of obscene language;
- Punctuation marks do not correspond to the emotional intensity of speech;

- Male texts are generally shorter than female texts;
- Often they use terms in order to be sure; The impact of professional factors on speech is strong;
- Interrupting speech on purpose [1, P; 66].

Female texts include:

- Numerous introductory words, identifiers, cases, expressing various degrees of insecurity, uncertainty and assumption
- Neutral phrases and words
- Using literary words
- The tendency to change the real name of the character with the word evaluation
- Zoonyms
- Insults that of nouns and verbs in passive voice
- Adverb + adverb constructs, syntax representing double negation
- High emotional coloring of speech
- Strengthening positive mark
- Using qualitative adjectives
- Reducing suffixes [2, 18].

The main features that men use theoretically in writing texts are revealed; Its distinguishing features are:

- Multiple use of abstract nouns;
- Use of relative adjectives;
- Use of prison and army slangs;
- Use definitive introductory words;
- Reasonable attitude to feelings;
- The identity of lexical methods in their expressions;
- Use of words that are not as emotional as possible;
- Use of formal and emotionally formed expressions for family and friends;
- Use newspapers and journalistic clichés;
- Use of obscene language;
- Punctuation marks do not correspond to the emotional intensity of speech;
- Male texts are generally shorter than female texts;

- Often they use terms in order to be sure; The impact of professional factors on speech is strong;
- Intentional interruptions [2, 23].

“In the 1970s, women’s style of speech was seen as weakness, submissiveness, lack of self-awareness, and rejected as defective” [1, P. 69]. Accordingly, women were in some ways imitating men’s speech while their main feminine speech did not need changes. Over time, the former critical attitude of the community has been alleviated, which has allowed the female language to occupy a certain place. But the female brain, captivated by men’s patriarchal speech, is now able to reproduce both styles seamlessly. In addition, women will be able to easily understand a wide variety of texts because they are courteous and compassionate and sensitive.

Parents address to various schemes to communicate with their children, they talk to boys about numbers, colors, and to girls about emotions, beauty. In schools, in physical education classes, children do exercises and play games that match their gender (which gradually forms their world perception around them). Moreover, although the biological characteristics that determine a person’s gender do not identify any gender, society tries to awaken it from birth.

Some factors, such as the fact that a child since his childhood has been in a gender-specific group, help to control one’s mental abilities according to socio-cultural requirements. Besides, it is important to remember that biologically men and women are not significantly different from the human point of view.

Of course, one should not be careless about sexual features – estrogen (female hormone) promotes rapid brain development. When a teenage girl completes her identity as an individual, male adolescents are at the peak of this process, and this separates both sexes as male and female, as socio-cultural gender.

At the end of adolescence, people acquire certain communication skills, social behavior, and especially thinking, which helps to form the lexical-grammatical basis of speech and life in general. This is obviously

seen in modern fitness clubs, with the increasing number of women’s sports clubs, in gender publications, in gendered sports teams, and in feminizing professions.

Our observations allow us to arrive at the following conclusions:

In terms of lexical, grammatical, and stylistic content, there are no significant differences in “male” and “female” ads. All types of advertising use potential customer-oriented imperatives, descriptions of the use of this product in modern verbs, as well as elliptical constructions and adjectives in the superlative degree are used a lot. Similarly, the use of metaphors and other means of expressions are typical of both ads.

Nevertheless, there is another serious difference between male related advertisements and female related advertisements. In the first, the visual range is much more important than the second, and the product’s image is often the main acting means, and its words are assistant. In advertisements for women, by contrast, there may not be a visual diapazon (or it can be minimized), but the appeal for advertisements is directed to a potential consumer-focused text. This text can be a description of the product, its various features, the history of the brand, and so on. In men’s magazines, such advertisements are used only to attract attention to elite alcohol, as a feature of the lifestyle of celebrities, and, accordingly, to use the stories of celebrities. These differences confirm the stereotype that “a woman loves with her ears, and a man loves with her eyes”: for women, more attention should be paid to words, for men – more images in advertising.

Moreover, “advertisements with status” should be distinguished from the ones with “non-status”. Typically, an advertisement for an elite product placed at the head of the magazine usually contains large pictures and minimal words. For cheaper products placed at the end of the magazine, more words and fewer pictures are included in the advertisement.

In terms of lexical, grammatical, and stylistic content, “male” and “female” messages as journalistic messages do not differ significantly. All types of speeches use imperative-oriented impulses, and present tense



verbs describing the current situation, as well as elliptical constructions and superlative adjectives are used in them. Also, the use of metaphors and other expression means are typical of both messages.

Gender characteristics of speech in the media influence the mass audience in terms of the sex of the speaker and the sex of the listener. Thus, gender becomes a binary tool that allows for consideration both in terms of impact and in terms of cognition.

Gender research was initially inspired by feminism, women's equality, and their freedom from many restrictions and prohibitions. However, looking at any major politician in terms of gender seems to hinder a woman's success in public life.

The notion of "gender" is not the same as sex, it is more related to a social role rather than a physiological belonging to a particular biological sex. In addition, biological sex partly determines the lexical and linguistic features of human speech. Researchers are interested in gender issues as a component solving linguistic problems – such questions are extremely actual, for instance, how men's and women's languages differ, how their perceptual processes and the specificities in speech formation should be. A person's achievements in public life are not determined by social gender or biological sex: a person creates something he or she can realize or that is important both in politics and society as they consider.

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## EXAMPLES AND ANALYSIS OF METAPHORS IN RAY BRADBURY'S 'FAHRENHEIT 451'

**Abstract.** The article is a study of metaphor as a means of conveying a hidden author's message, establishing a connection between the selected images and the content. The author analyzes the use of metaphors in Ray Bradbury's 'Fahrenheit 451' on specific examples, establishes the existing pattern and organizes the systematization according to the content direction. It is noted that the focus of the metaphors is often not nouns but verbs. This can be distinguished as a characteristic feature of the author's idiosyncrasy.

**Keywords:** metaphor, concept, image, design, epithet, comparison.

**The relevance of the problem under the research.** Metaphor is a popular literary tool that allows the author to discover the depth of his own message and to explain the complexity and multilayered images created by him to the reader. The proportioning of the metaphors in the text and the expediency of their use are important. The metaphorical application is one of the possibilities to create a clearer idea of the future, as it is usually associated with semantic shifts, which leads to an additional expressive richness of the text as a whole. This is the background of the relevance of the chosen topic. The reader's perception of the work of art depends on the metaphors. Ray Bradbury is one of the literary figures for whom metaphor plays an important instrumental role. Its use is justified and relevant in the novel 'Fahrenheit 451'. The uniqueness of the content of a novel full of meaningful metaphors arouses the interest of literary critics and philologists.

**Analysis of recent research and publications.** Researchers such as S. Berezhnyy, Ya. Zasurskiy, O. Leonov, G. Prashkevich, V. Skurlatov and others have conducted the study of the writing of Ray Bradbury. Scientists have expressed many appropriate opinions about the specifics of ideological

content, the poetics of the works of the writer. The novel 'Fahrenheit 451' attracted the particular attention of the researchers. G. Brandis, Yu. Kagarlitskiy, E. Kovtun, N. Paltsev, L. Sych, V. Skurlatov, B. Storokah and others have devoted their studies to the conceptual analysis of the content and formal features of this work.

**The purpose of the study** is to analyze the use of metaphors in Ray Bradbury's novel 'Fahrenheit 451', giving specific examples.

**Presenting main material.** In connection with the putting forward the anthropocentric scientific paradigm, the concepts of the inner world of man are the focus of modern linguistics [2]. According to comparative linguistics, for all Indo-European languages, as well as for a number of others, a characteristic means of linguistic representation of the human inner world is a metaphor [4]. Avoiding too broad understanding of the metaphor in which it refers to any use of words in a figurative sense [3, P. 296], we nevertheless refer to metaphor, that is, to metaphorical epithet and metaphorical comparison. Studies of metaphors of the inner world in works of fiction reveal the peculiarities of individual-author's understanding of national concepts of this field.

The metaphor, on the one hand, interprets a thing through other things, that is, facilitates the separation, reflection of one meaning over another, and on the other hand, it actualizes the meaning of the thing itself. Therefore, in the metaphor, there is separation, and against the background of this separation, there is an artistic perception of the world through the meaning of things, through the meaning of the aesthetic sensations caused by a thing, and through the meaning of another thing. This is how the thing itself is actualized. In this sense, metaphor is at the same time an artistic verbal trope and a way of perception and understanding things. This is the ontology of the metaphorical space of a work of art [6, P. 2].

The metaphor is divided into traditional and creative (individual). Ray Bradbury uses an individual metaphor, based on the unexpected comparison of two things that, at first glance, do not show any similarity traits. The metaphorical nature of the novel is explained by the possibility to create a brighter idea of the future.

The work with samples of fiction, a special analysis of which will help to evaluate their artistic value, expressiveness at not an intuitive level, but based on conscious perception of expressive means of language, is particularly important for researchers.

Ray Bradbury's novel – utopia 'Fahrenheit 451' [6] describes the life of a totalitarian society that has come under the influence of mass culture. Books that make one think about the meaning of life and are capable of helping one escape from this artificial world are forbidden and have to be burnt. This is what so-called 'firemen' do. One of them is the main character of the novel – Guy Montag.

Despite the fact that the line of spiritual reincarnation and becoming a hero is the basis of the work, the author does not pay attention to the characteristic details of the appearance of Montag. However, the image of the hero is fully revealed in the team of firefighters, who are very similar to him. The impeccably woven metaphorical image of the firefighter instantly captivates the reader with the first pages of

the novel – "*It was a pleasure to burn. It was a pleasure to see things eaten, to see things blackened and changed. With the brass nozzle in his fists, with this great python spitting its venomous kerosene upon the world, the blood pounded in his head, and his hands were the hands of some amazing conductor playing all the symphonies of blazing and burning to bring down the tatters and charcoal ruins of history*" [6, P. 6].

It is not accidentally, that the author compares his hero with the bandmaster. He is the central figure of the story, and the opportunity to change the course of life is in his hands, but Montag plays his symphony with a huge python, throws kerosene at the wreckage of story in the form of books. Burning books, he with his throbbing head, like all firefighters of his time, enjoys the process of absorption of them by the fire.

As it seems from the first pages of the novel, at first he does not think about the correctness of what is happening around and his own actions. He is encouraged to this by his acquaintance with an unusual girl, Clarisse McClellan; then the attempted suicide of his wife, the self-immolation of a woman whose library was destroyed by 'firefighters', and communication with a former professor of English, a secret book collector, Faber, complete the case started by Clarisse.

Trying to understand what makes Clarisse so different from the people around him, Montag resorts to the metaphor: "... *how many people did you know that refracted your own light to you? People were more often – he searched for a simile, found one in his work – torches, blazing away until they whiffed out. How rarely did other people's faces take of you and throw back to you your own expression, your own innermost trembling thought?*" [6, P. 35].

Clarisse's extraordinary capacity for empathy is what sets her apart from other citizens, because most of them are indifferent. In a society where thoughtful people who are not prone to hours of primitive fun are considered abnormal, Clarisse is forced to visit a psychiatrist. She tells Montag about her communication with him: "*I'm a regular onion! I keep him busy peeling away the layers*" [6, P. 44]. The metaphor of 'multilayer'

speaks of the various personality traits that are hidden under one another and are suddenly revealed.

Montag's external well-being is only a mask: "*He wore his happiness like a mask and the girl had run off across the lawn with the mask and there was no way of going to knock on her door and ask for it back*" [6, P. 36]. Montag's inner speech contains a metaphor related to the wish of change in the soul of his wife: "*If only they could have taken her mind along to the dry-cleaner's and emptied the pockets and steamed and cleansed it and re-blocked it and brought it back in the morning*" [6, P. 39].

The novel is full of symbols. Fire is the strongest symbol of the novel. Fire in the hands of a firefighter, which means destruction (unlike the usual conception of firefighters extinguishing a fire, preserving rather than destroying) is fatal. It destroys books, the last pillars of creative thought, because paintings in museums have long been replaced by interactive and abstract.

In the words of Beatty, the firefighter, the author compares the book's blazing pages to a swarm of black butterflies. However, in this situation, butterflies do not flutter, but die, having lost their freedom, which can be compared to deprivation of freedom of speech through the destruction of books.

The contradiction of Montag's condition when he is ready to read the forbidden poems to his wife and her guests is conveyed by two antonymic metaphors: "*The room was blazing hot, he was all fire, he was all coldness*" [6, P. 107]. The tension of the listeners is fire as well, but they are also 'explosive': "... *the women who were burning with tension. Any moment they might hiss a long sputtering hiss and explode*" [6, P. 104].

The term 'book' gets its broader sense in the next paragraph: "*This book has pores. It has features. This book can go under the microscope. You'd find life under the glass, streaming past in infinite profusion. The more pores, the more truthfully recorded details of life per square inch you can get on a sheet of paper, the more "literary" you are*" [6, P. 83]. In this passage, the book is almost a living being with its inherent properties –

it breathes, it has a face, it has different sides of life. Thanks to these definitions, which are in fact the definitions of the lexical unit 'book', its terminologization is taking place. Here the meaning of the term 'book' is somewhat (though not very clearly) different from its meaning in the previous example.

Thus, both terminology units 'fire' and 'book' have very common meanings, or even several different, but related, meanings. They have a large information load. This fact does not completely congruent with the conventional thought that the term should only be monosemantic.

The author's attitude to the terms 'fire' and 'book' is significant. Here are some examples "*With his brass nozzle in his fists, with this great python spitting its venomous kerosene upon the world*" [6, P. 3]. There are two metaphorical comparisons in external and functional terms in the sentence: fire – poisonous kerosene and fire hose – a huge python. Moreover, here is another example of the writer's attitude to the book – "*A book lit, almost obediently like a white pigeon, in his hands, wings fluttering*" [6, P. 37].

In both examples, the author uses a metaphorical comparison of objects, that is, in these cases the terminologization of the meanings of common words occurs by metaphorizing based on formal and functional features [2]. Here words acquire a certain degree of terminologization, having received certain emotional-expressive definitions.

The motive of fire is also closely related to the candle symbol, which also cannot be interpreted monosemantically. Firstly, the candle, as a natural light source, is contrasted with the artificial light of electric lights of advertisements and television walls. Secondly, the flame of the candle is associated in the mind of the hero with the fire of love, even his strange girlfriend Clarisse, Montag associates with the candle. Finally, the candle flame symbolizes the hero's faith and loyalty to his principles.

Bradbury uses the metaphors *all fire, all coldness* in order to show the contradiction of the state of the hero, who feels like thrown into the heat, then into

the cold. The response of the listeners is immediate – “*The women who were burning with tension. Any moment they might hiss a long sputtering hiss and explode*” [6, P. 104]. Women are burning from tension so much that they literally become explosive. At the same time, speaking of the prospect of his communication with Faber, Montag likens himself to fire, and wise Faber – to water: “*He would be Montag-plus-Faber, fire plus water*” [6, P. 110].

In general, mental processes in the novel are often associated with flames, combustion, burning. Even the perception of the poetic line is described in the following way: “*In all the rush and fervour, Montag had only an instant to read a line, but it blazed in his mind for the next minute as if stamped there with fiery steel*” [6, P. 57].

During the study, the concepts underlying the metaphors used by the author were identified. Thus, among the language metaphors we see one of the most important concepts – ‘People – things’, which involves the perception of human through the lens of artificial objects: “*The girl? She was a time bomb*”. We can find the same concept in a number of artistic metaphors: “*Well, after all, this is the age of the disposable tissue. Blow your nose on a person, wad them, flush them away, reach for another, blow, wad, flush. Everyone using everyone else’s coattails*” [6]. Similar logic is also observed in the concept ‘People – natural objects’ (people are perceived through objects of the environment). For example, a language metaphor “*He felt his smile slide away, melt, fold over*” [6]. Same concept is observed in a number of artistic metaphors: “*We are living in a time when flowers are trying to live on flowers, instead of growing on good rain and black loam*” [6].

Along with these important concepts, we should also mention the concept ‘Movement – life’. This concept is quite often manifested as ‘No movement – death’. For example, a language metaphor “*Why waste your final hours racing about your cage denying you’re a squirrel?*” [6] in this text shows the inevitability of death, if not moving forward. Here we see the author’s metaphor “*Look where they got you, in slime up to your lip!*” [6].

‘Technique in the Novel’ is a technique designed to destroy books. This technique is described as a bloodthirsty animal: “*It was a special pleasure to see things eaten, to see things blackened and changed*” [6, P. 1]. In this case, the fire from Montag’s flamethrower destroying books symbolizes the destruction not of the book itself, but as stated earlier, of the product of human creativity.

Associating technique with a beast of prey also demonstrates its danger to humans: “*With the brass nozzle in his fists, with this great python spitting its venomous kerosene upon the world, the blood pounded in his head, and his hands were the hands of some amazing conductor playing all the symphonies of blazing and burning to bring down the tatters and charcoal ruins of history*” [6, P. 1].

The metaphorical association of a large fire hose with a python creates an association with the banefulness of the equipment. When Montag finds his wife trying to commit suicide, he imagines the idea of technique as an attachment to something untrue: “*His wife stretched on the bed, uncovered and cold, like a body displayed on the lid of a tomb, her eyes fixed to the ceiling by invisible threads of steel, immovable*” [6, P. 5].

Life in an anti – utopian city, where technique has prevailed, is the most clearly characterized by a fragment that describes the feelings of Montag returning home from the city: “*It was like a great bee come home from some field where the honey is full of poison wildness, of insanity and nightmare, its body crammed with that over-rich nectar and now it was sleeping the evil out of itself*” [6, P. 11]. Montag, in this text snippet, is compared to a bee, a small creature that works for the benefit of society, and a city full of technique, outdoor advertising, screens that people have stopped paying attention to – all this is honey, and therefore all of this is what people live on in the city. However, this honey turns out to be poisonous and full of horrors, and therefore, in this case, an association of ‘technique – fear’ is created.

In order to understand the peculiarities of R. Bradbury’s understanding of the binary

opposition ‘Human – technique’, it is also necessary to trace cases of their direct interaction, for example: “One of them slid down into your stomach like a black cobra down an echoing well looking for all the old water and the old time gathered there. It drank up the green matter that flowed to the top in a slow boil” [6, P. 6]. Here again, the metaphor ‘technique – a beast of prey’ is used, which means that the technique penetrates into a person as if a cobra crawls on a tree.

Thus, a person in such a system begins to take a passive place, and the leading and active role during this time is given to technique: “The woman on the bed was no more than a hard stratum of marble they had reached” [6, P. 6]. Eventually, a person stiffens and ceases to be a human.

The metaphorical representation of the binary opposition ‘human – technique’ in R. Bradbury’s novel ‘Fahrenheit 451’ is traced to what associations each of the members of the represented binary opposition creates in the author’s mind. The very idea of the novel, its plot is pervaded with this opposition, because the novel describes a society that destroyed feelings by favoring logical thinking and technical support.

In Bradbury’s vision, human is a living, active, thinking being, filled with feelings and desires. This is what attracts the attention of the main character to a young girl Clarisse, who is completely different from the others: “He glanced back at the wall. How like a mirror, too, her face. Impossible; for how many people did you know that refracted your own light to you?” [6, P. 4].

By contrast, with technique, people are inherently irrational. Their feelings and desires create contradictions, forcing them to experience certain emotional states, such as: “The room was blazing hot, he was all fire, he was all coldness; they sat in the middle of an empty desert with three chairs and him standing, swaying, and him waiting for Mrs. Phelps to stop straightening her dress hem and Mrs. Bowles to take her fingers away from her hair” [6, P. 47].

Another key characteristic of human in R. Bradbury’s novel is its curiosity: “One time, when he was a

child, in a power-failure, his mother had found and lit a last candle and there had been a brief hour of rediscovery, of such illumination that space lost its vast dimensions and drew comfortably around them, and they, mother and son, alone, transformed, hoping that the power might not come on again too soon< ... >” [6, P. 3].

Products of creativity, including books, are inextricably linked to human: “A fountain of books sprang down upon Montag as he climbed shuddering up the sheer stair-well” [6, P. 17]. The book itself, as a manifestation of the creative nature of human is given almost the properties of a living being in the novel, it is one of the characters of the work. Therefore, book – related metaphors are often associated with dynamic phenomena of nature, like water moving in a fountain.

The image of the centrifuge, which rejects the ‘unnecessary thoughts’, characterizes the consciousness of human from the ‘entertainment society’ in general: “Whirl man’s mind around about so fast under the pumping hands of publishers, exploiters, broadcasters, that the centrifuge flings off all unnecessary, time-wasting thought!” [6, P. 72]. Finally, for the last time, the metaphor of the centrifuge appears in Faber’s speech: “Patience, Montag. [...] Our civilization is flinging itself to pieces. Stand back from the centrifuge” [6, P. 97].

How precisely and in detail the writer is able to image – a human, a grain of sand, worthless in this mad rhythm of life, thrown out of the rock and whirling in a centrifuge, falling into a waterfall of emptiness. It should be said that this example is a cascade of metaphors that is quite common in Bradbury’s works (*man whirled in a centrifuge; waterfall that fell into emptiness*). The impact of deafening music on the mind of the character is also likened to the actions of household appliances. “... you had the impression that someone had turned on a washing – machine or sucked you up in a gigantic vacuum. You drowned in music and pure cacophony” [6, P. 63].

Consciousness is likened to a rock that is hammered and makes dust: “Montag sat like a carved white stone. The echo of the final hammer on his skull

died slowly away into the black cavern where Faber waited for the echoes to subside. And then... the startled dust had settled down about Montag's mind..." [6, P. 114].

Finally, consciousness can shake as if from natural disasters: "The earthquake was still shaking and falling and shivering inside him..." [6, P. 121].

Author metaphors that combine several concepts at same time or do not have any that can be clearly distinguished, have also been identified. "He thought of the visit from the two zinc-oxide-faced men with the cigarettes in their straight-lined mouths and the electronic-eyed snake winding down into the layer upon layer of night and stone and stagnant spring water" [6]. In this example, we can clearly distinguish the concept of 'Human – system', and then we see the description of the human body through natural phenomena and objects (*night, stone, stagnant spring water*).

**Conclusions.** So, considering Ray Bradbury's most popular work, 'Fahrenheit 451,' in the context of using metaphor to expand the content of the novel and actualize the main problems, we found out that the writer focuses not on consciousness as a whole, but on what is happening in the process. This defines the characteristic feature of the author's idiosyncrasy – focusing metaphors not on nouns but verbs. Metaphorical expressions are important not only in terms of imagery, but also as indicators of the conceptual system of human. Based on these expressions, we can not only discover the logic behind the construction of metaphors, but also trace how a person comprehends the information coming from the outside world, through which value and general cultural systems of objects of reality and people themselves are perceived by us.

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## THE IMAGE OF A TRAVELLER IN AHMAD DONISH'S STORY

**Abstract.** The article deals with the research of genre features and ideological content of one of the autobiographical stories from chapter nine of “Rare stories” (“Navodir ul voqoe”) written by an enlightener writer Ahmad Mahdum Donish in Central Asia. With a view of to affect the reader effectively and emotionally, the writer expressed his advanced, illuminative look and thoughts via the image of the traveler referring to a favourite genre of the enlightening literature, so as to describe journeys (safarnoma).

**Keywords:** the book of journey (safarnoma), genre, plot, image of a traveller, idea content, advanced illuminative thoughts.

### Intruduction

Ahmad Mahdum Donish (1826–1897) is the first writer, illuminator who is considered to have revived an ancient genre of the famous Tajik literature safarname (journeys) in the period of enlightenment renaissance and introduced lots of innovations and changes in it. In his twovolumed philosophical literary book “Rare stories” (“Navodir ul voqoe”) (1875–1882) in VI–XIX centuries he described his overseas journeys, reflected the impressions from didactic life of far and close countries. Ahmad Donish's books of journeys contributed to the revival, development and perfection of this genre in illuminated and modern Tajik literature. In these books Ahmad Donish focuses on the life standard of inhabited advanced European countries, their high rate of developed culture which are from the view of traveler and foreigner from Bukhara arrived from retarded and feudal place seemed to be indescribably amazing.

The story which is the object of our research refers to the book of genre about autobiographical journeys (safarname) and it is called “The story of Alexanders's vortex and foreigners' songs”, is taken up in the ninth chapter of “Rare stories”. By volume, on theme and plot this story is short.

In his article “Literary prose of Ahmad Donish”, R. Khadzade attributes the story to philosophical literary genre, considering the philosophical content, literary descriptions, heroes' characters, writer's creative purpose, considering the coverage of the most important social and philosophical issues [3, 61].

Literary critic M. Adashev, considering this article about the genres of stories, uttered his point of view and disagreed with R. Khadzade's opinion, he points out that this kind of genre in stories is literary autobiographic [1, 88].

Indeed, events and occasions told in the story are referred to the adventures of a hero which were chosen by the writer. Hence, these events happen while the hero of the story is travelling. So, the Iranian's adventures happened during “the trips to the seacoast, in the region of Calcutta and the territory of India”. Therefore, in our view the genre of stories which is the object of disputes we would rather name them adventure or autobiographic. As the events, doubtless, happening during travelling and road adventures are reflected in the genre of book about journeys (safarname). In this book of journey, Ahmad Donish describes the specific Iranian, in other words, the image created by the writer was taken from life events.



As a result, the picture from a real life, character and perfect real man's quality and character arise before the eyes of the reader. It is obvious that from the very beginning of a story the writer chose the style of realistic description. Ahmad Donish himself underlines that he did not go far from a realistic base of life so as to tell about the Iranian adventure. The cruise adventures of a scholar person "came from Adjamand Iran", who chose to live in India appear to be life events told to the writer "by one of familiar people came back from journey to Moslimkhadj (khadj is a pilgrimage of Moslem people to holy city Mecca, to the sepulcher of the prophet Mohammed -Z.Yu.)".

As a philosopher, Ahmad Donish discloses his attitude to the issue of fate predestination, he does not deny it that it is a divine power, considers that a man ought to endeavor necessary aspiration for attaining the occupation, in order to live a worthy lifestyle, striving for enriching essential material values and accomplishment of the world. Therefore, an illuminator writer considers it is important to enrich essential material values and wealth, equally along with physical human power, to attain necessary knowledge, obtain science and skill, or acquire some kind of trade. Donish's philosophical thought of this kind is found in literary description of a scholar Iranian journeys in cruise adventures.

In literary description Donish described that the work and behavior of heroes, their amazing aspiration towards the development of human's living conditions, wellbeing of human society are not sweet fairy dreams. They are the events turned into reality which depend on science and knowledge, erudition, art and power, opportunity of each ordinary person. Though the writer expressed the notion of science and knowledge as they give the power and wisdom came in useful on rescuing Iranian and his friends from fairy vortex of Alexander, but the whole atmosphere, conditions, picture of nature, events and adventures submitted to the writer's creative aim and all descriptions are realistic and vital. The source of this style of Akhmad Donish's realistic description is an illuminating real-

ism, modern in the Tajik illuminating literature and secured substantially for a long time.

Donish's hero got education in Europe, studied the Europeans' lifestyle, was experienced in social and common life, settings of metropolises, such cities as France, Britain (London), Russia (Petersburg). Moreover, he is acquainted with the life of Greece and North America (Donish names it The New World, that is the New life – Z. Yu). According to Iranian, he departed from Khorasan to Paris in his young age to study and do business, learn the foreign languages, namely German. There he lived one or two years, having been freed from "the work of stall and market", he used to go to study "the terms of the foreign language, trade's norms and acquire the skills of communication. Apparently, from Donish's story we can see that his hero is a thinker person with the outstanding consciousness. Having understood that the main condition to withdraw his country from economic and political backwardness in the modern setting and keep its peacefully progressive life is science and knowledge. He speculates that it is compulsory for each person to obtain secular sciences, learning the languages of the world, especially, acquire the sciences of the trade and communication. From the words of Iranian, the author underlines that "as both in trading and communication with those people in overseas, lack of knowing the language causes the misfortune and hardship" [2, 193]. After acquiring the language and getting appropriate knowledge on trade and communication with people the hero endeavors to develop the trade and learn something new, he goes to London, meets and converse with high-ranking officials of society and aristocrats. Consequently, he becomes an honorable man in the trade environment. His work in the trade and communication made progress; he became rich as he had been dreaming about for a long time.

By means of this story the author introduces his native reader with megapolises of Europe, their influence, lifestyle and activities of the people of those areas, brings to quite useful information about high

culture and the degree of science development and the progress of trade, people's relations. In the modern time, the illuminator writer admits the sciences and enlightenment as one of the main factors of life wellbeing, prosper of the country and constantly refers to this theme, campaign for the reader to study the world languages, improve the knowledge, familiarizes with advanced and developing life of other countries, use scientific and technical progress of the developed countries of the world. Doubtless, these issues contributed to the human's spiritual and intellectual impulses, perception the plot of social and economic hardships, political events of the epoch. Solely realizing this, it could be way out across the areas of backwardness of Bukhara emirate, to visit and see foreign country, observe high culture and developed science, scientific and technic achievements of civilized countries. For the sake of impressive impact and emotional expression of his creative aim, the writer uttered and relied on a widespread genre in illuminated literature the book of journeys (safarname) through Iranian's sea journey and the image of sailors, the captain of ship his illuminating thoughts and advanced views.

By expressing about obtained knowledge and acquired the world languages Ahmad Donish pointed out as the sample of a role model of the Iranian's achievement in material well-being and improvement of his life. He desired to provoke the stark consciousness of his people into motion, gain their interest in happy life, make their wish to study the languages, sciences, improve knowledge, strive to enlightening and by these contribute to the progress of society.

Iranian tells that once with several famous merchants and manufacturers they decided to go on a sea journey so as to purchase goods and fabric from London to Calcutta (India). Before disembarking to the coast, they have been sailing at sea for tenor fifteen days, sometimes for a month, visiting and travelling the coast of the cities in the territories of France and India. They had been making the bargain, resting for two or three days, and again setting out to the voyage. Once a strong head-wind rose and

their ship was washed to the place where according to the captain words "never a ship before was able to sail as far as and passed by". The captain of ship "was a blind foreigner, but very expert in marine cases", informed people that a head-wind will cause them to eternal and bottomless vortex. Having heard the captain's words passengers and people shouted loudly. They asked him to tell about it more in detail "where the ship was sailing to, how their destiny would end up and what their rescue would be?". The captain answered so "our route list, it is said that on our way there is a vortex. It will start draw in itself ships in distance of one-month voyage". According to the captain, it was the very vortex only Alexander was able to over whelm (Alexander Macedonian – Yu.Z.), hardly could anyone reach and those who reached never back alive. Alexander himself managed to survive there with the help of preliminarily envisaged measures by wise men and enough given number of various equipment and tools. After that this vortex was called "Alexander's vortex". So, travelers' ship approached the described vortex. Passengers became scared and horrified, they cried out, groaned and sobbed, "they had been praying God day and night caring of his men, solving all their hardships and were praying to gift them a rescue [2, 196]. The captain of ship without fuss cold-bloodedly and peacefully pacified the passengers. A "wise and sober-minded" seaman summoned people for tolerance and self-control, cited examples from interesting stories about overwhelming the destiny and about people, who faced terrified misfortune. Hence, for those who had found life-saving, he said pacifying "it is possible, our god's mercy will save us from this trouble drawing in people from bloody vortex and will drag out us up save and sound" [2, 197].

Thus, hour by hour the ship speed was increasing and passengers were drawing into towards that boiling, whirling vortex. Then they witnessed at sea how "the vortex similar to a big pool in size was pulling everything in depth catching on its way and swallowing them". As the ship of our heroes was immensely

big and heavy the vortex could not draw it in. But the ship “was spinning round like a compass”, at time sit was stuck in the gullet and again blustery wave sand strong storm pushed it out, then it again went on spinning. After a couple of days still the condition of travelers was unchanged, a strong wind arose and pushed out it to the foot of mountain, where the mountain formed from countless numbers of ships, some of them were broken, some of them turned into flinders. From the passengers out of eighteen men, only six was survived and twelve of them did not for two or three days” and then goes away. The captain started to seek the way out to the rescue, he ordered his apparent ice sand blacksmith to make a chain and prepare nails with rings on the top, so that they must be sharp and can be penetrated into any place. The captain knew the time of coming time of the animal from the astronomer who had found out of heavenly bodies. When the animal appeared, the captain ordered his apparent ices to join the chain tightly with nails, sitting on the boat to approach the animal nearer and fasten the chain securely on it. Three days passed and the animal started to move away and their ship was pulled by it, and each of his jerk roughly was equal to three days’ journey. As the ship was gone away far from the vortex and reached the sea midst, they released the animal from chain and steered the ship themselves. By this way the Iranian and his shipmates survived from death.

Through his story Ahmad Donish clarifies that the help for travelers was given not by them pray sent to God, but their mind, knowledge, skill, power and human intellect. Their human perfection, erudition and above-mentioned qualities joined together brought to the mighty power. Moreover, horror and misfortune, which had been lasting for many centuries causing the death of a great number of seamen and ship wreckages, had been overwhelmed by these travelers.

Ahmad Donish expands it in detail that the unified friendship, people togetherness, their mind and wisdom with scholar sand able work men which emerges great, mighty power urge to undergo any

hard ship and obstacles. In our view the creative purpose of the author in this story is the praise science, knowledge, wisdom and human intellect. The reason of receding from the disasters and misfortune are not the mighty divine power but the ordinary people if they are knowledgeable and acquire some kind of trade and skill. In this story, smith, a doctor with their knowledge and scientific approach, art and their skill fought against horrified misfortune. Consequently, they saved themselves from death.

Describing the event, the writer points out if the power is directed by human wisdom, intellect, knowledge and science and man’s opportunities, nature will be submitted, its misfortune sand disasters will be no more any frightening. From the captain words, the writer retells: “One cannot with stand against the destiny by crying out and groaning” [2, 196]. When the captain fearlessly faces a horrified misfortune sent by the fate and defeated it, we ought to understand this action as confrontation against “a predestination of destiny” as a mocking parable towards those who keep nation hopeless and in spiritual dormancy, suppress its faith into their own power and opportunity, and the man turns into a weak and powerless creature. At this point, Donish pays a special attention to the issue of a strength firmness will of a man and its possibility struggling for life, if it is not submitted to the destiny. By these literary means, the writer endeavors to free the nation from ignorance and not to be summoned by predestination of destiny.

Fight against them is fortune emerged on people’s way appeared not to be in vain. Having been rescued from a horrified vortex the passengers of the ship reached the “isles of pearls” which were full of overwhelming wealth possessing “ruby, garnet, emerald, chrysolite, lazurite and diamond”, but because of this obstacle like the Alexander’s vortex, no one was able to find the way there. The travelers who faced the death several days ago and defeated it, each of them became rich and achieved endless wealth. This is the answer to that question given to the Iranian by one of the writer’s acquaintance at the

beginning of the story how he managed to achieve his reaches: “How did you gather the reaches, for eagerness and hard work one is not able to gather such amount” [2, 192]. This question was asked not just listening to the adventures of the story but for this rich man’s life experience to be the sample for others.

Thus, the adventures expressed by this writer in this story became an appropriate means for propagating of illuminating ideas and aims that sciences and knowledge, power and opportunities of a man can create the conditions for improvement nation’s life and peace. In summary, Donish in his book of journeys as an illuminator brings the issue of mean-

ings into focus, such as sciences and knowledge, generosity and benevolence, skill and trade. If the Iranian had not been educated in Europe, had not traveled all over the world, and the captain had not had life experience and knowledge, it would have been hard to be rescued from such an abyss death. Thus, the illuminator writer by means of this story in the book of genre about adventures endeavors showing the light to the nation for the way to study sciences and improving knowledge. If a person improves his knowledge like the Iranian he will be reach and live happily, and by this way he will contribute to the development of his country.

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## Section 10. Philosophy

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### THE FEATURES OF APPEARING FAMILY IN MODERN SOCIETY

**Abstract.** In this article are given the importance, role, types of the family in modern society. Its development from ancient times till present is widely described in this article.

**Keywords:** family, relation, patriarchal family, child- centered family, married family, stability, independence, family members, non- traditional family.

#### Intruduction

The family in the modern world takes new forms and is significantly modified in comparison with the traditional forms of family relations that were adopted during previous generations. The family structure is being transformed, the nature of relationships between its members is changing, and the system of family relations is being rebuilt.

The family as a collective, as a small group, has been of interest to philosophers since ancient times. And if we say that the family is a small model of society, then the development of the family is very important on the scale of the state. The creative activity of ancient Greek philosophers played a huge role in the formation of philosophy as a science, in which great importance was attached to the family as an object of socio-philosophical understanding. These include Socrates, Plato, and Aristotle. The state, on the basis that it makes laws, subordinates the individual and the family, but the importance and necessity of the family was not diminished. The Patriarchal theory found its continuation in the middle ages and in the age of Enlightenment, which was reflected in the work of such thinkers as M. Montaigne, J.-J. Rousseau, I. Kant, G. Hegel, L. Feuerbach and many others.

V.A. Borisov, A. I. Antonov, L. E. Darsky are supporters of the concept of “family crisis” and point to the following arguments as confirmation: “substitution of social norms of childbearing (denial of large families), reducing the importance of the family as a necessary form of human social existence and breaking its moral foundations, deforming family production and moving it to secondary means of social economy, etc. In General, the arguments of the” crisis paradigm “of the family are the loss or replacement by public institutions of the main social tasks of the family” [2, P. 345]. Another concept of “family modernization” is held by A. G. Vishnevsky and his associates. Under modernization, they understand “the macro-process of transition from a “traditional society” to a modern society – a modern society in which a modern person increasingly focuses on himself, becomes a person who is unable to sacrifice in the name of any social communities, put common (group) interests above private ones” [2, P. 346]. People have more opportunities to improve themselves professionally, both men and women have become economically independent, and there is no need to create a family, which until recently served as a financial support. “The family is a system of social relations in which almost

all processes occurring in society are focused. Like society, the family has experienced many changes throughout its history. The process of changes taking place in the family and with the family takes place in the conditions and under the influence of a transforming society” [3, P. 64–73].

In the process of studying the family and family relations, scientists try to determine the main types of families. Today, there are three main types: the Patriarchal family; the “child-centered” family; and the married family.

Also, families are classified “in terms of structure, they are: nuclear (consisting of one married couple and its children); multi-generational (including three or more generations living together); full (it includes both spouses with native or adopted children) and incomplete (one of the parents is absent as a result of divorce or at birth by a single mother)” [5, p. 96–100] “in terms of the distribution of power and responsibilities, authoritarian families are distinguished (strict subordination to the head of the family) and egalitarian (equal participation of spouses in decision-making, voluntary distribution of responsibilities)” [5, p. 96–100].

Historically, the Patriarchal traditional family was initially presented as a model of a happy family: parents lived for the future of their children, and children in turn had to respect their parents and be helpers. For them, there was only one authority – the authority of the parents. It should be noted that traditional families also differed in number, most often they were large families. But the old Patriarchal family disappeared after the second world war against the background of a significant spread of a new model – the model of a small family [6, p. 189–192].

Also significant changes in the traditional family include the fact that women have become more free both at home and at work. Due to the achievements of technological progress, living conditions improved, which freed her from many responsibilities at home, she began to get a career in the chosen profession. Against this background, she felt her independence from men

and became more confident. “A significant part of the changes occurring in the family in recent years is associated with female emancipation, which has engulfed most industrial countries” [7, p. 150–159].

“In a child-centered family, the main task of parents is to ensure the happiness of the child. The family exists only for the child. The impact is usually from the bottom to up (from the child to the parents). As a result, the child develops a high self-esteem, a sense of self-importance, but the likelihood of conflict with the social environment outside the family increases”. Another type of family is married. The goal of a married family is “mutual trust, acceptance and autonomy of members. Educational impact – “horizontal”, a dialogue of equals: parents and child. In family life, mutual interests are always taken into account, and the older the child, the more his interests are taken into account. However, these children may lack the skill to comply with social requirements. They do not adapt well in an environment built on the “vertical principle” (i.e., almost all social institutions)”. “In a married family, the main thing is the emotional interaction of the spouses. In such families, the economy is also maintained, children are brought up, but the emotional field between the spouses comes first” [8, p. 110–138]. However, it should be noted that voluntary marriage, that is, without the intervention of parents to make their own partner choices, and changing social status of women contributed to the formation of the conjugal family type.

It should be emphasized that married families are a type of alternative families. “The concept of non-traditional families or alternative forms of marital relations was introduced by Virginia Satyr, a well-known researcher of family relations” [5, p. 96–100]. According to the author, “alternative forms of family are characterized by: loneliness, unregistered cohabitation; consciously childless marriage; divorce, repeated marital and family relations; equality of men and women in relationships; extramarital sex, exchange of partners, intimate friendship; homosexuality; group marriage, residential communities and collective families” [8].

In the framework of the Strategy five priority directions of development of the Republic of Uzbekistan to 2017–2021 and the “Concept of strengthening the family institution in the Republic of Uzbekistan” measures aimed at improving the institutional and legal framework for the strengthening and development of the family, promoting the demographic development and improving family welfare, strengthening the educational capacity of families, the preservation in society of traditional family values, improving spiritual and moral atmosphere in families and the creation of an effective system for providing effective methodical, advisory and practical assistance to families. Uzbekistan attaches great importance to the preservation of national traditions and customs, especially those related to family creation. According to the survey, every third resident of the country is a supporter of the traditional approach to family formation. However, the survey revealed that dating with the help of marriage agencies is gaining popularity among the population. Every fifth young person believes that they provide real help in creating a family, contribute to the fact that young people find a decent couple. The stability of marriage and family relations, according to citizens, depends on the level of preparation of young people for family life: 79.9% are convinced of the need to prepare young people for marriage, fatherhood or motherhood. According to citizens, the preparation of young men and women for family life should be carried out not only in families, but also in educational institutions (schools, lyceums, colleges, universities), in the framework of classes where the younger generation should form an attitude to the institution of marriage, ideas about the marriage contract, the rights and obligations of spouses, family planning, household management and budget, ways to prevent conflicts and a culture of communication in the family based on national and universal values.

The study revealed that the ideal family in the view of Uzbek people is associated primarily with mutual understanding, love, support and respect between fam-

ily members. An important component of a stable family life, according to citizens, is financial well-being and material prosperity. According to the results of the study, the country is undergoing a process of democratization of family relations. The monitoring revealed an increasing trend in the number of families whose relationships are based on the norms of equality of husband and wife in the family. In general, the monitoring of public opinion showed that the family remains the main value in life of Uzbek citizens, the moral basis of society, the hearth of spirituality, the Keeper of national traditions and customs and most important social institution providing a good education to the generation and transfer of social experience.

Characteristically, the education of the moral qualities of the children in the family will be effective if: a) the education of children in the family is based on the traditions of the people; b) this process uses the personal example of parents to respect for family traditions; c) the activity of children on the formation of moral qualities is carried out systematically and consistently; d) provide the relationship education and self-education of moral qualities of children in the family; d) respect the continuity and interaction of family, school and social education; e) developed the contents, methods and techniques of education contribute to the enrichment of personality [1].

Thus, analyzing the role of the family in society, we can say that it is both the result and, perhaps, even more so, the creator of civilization, as well as the most important source of social and economic development of society. The family produces the main social wealth—the person. No nation, no civilized society has ever been without a family. In this regard, the state coordinates the moral and cultural potential of the family, society and school for the purposeful socialization of the younger generation and its active participation in family and social life; introducing the younger generation to universal values and cultural ideals by introducing it to the national culture.

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## Section 11. Economics and management

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### INNOVATIVE FINANCIAL INSTRUMENTS TO ENSURE THE ADVANCEMENT OF SME IN GEORGIA

**Abstract.** The widest spread and most efficient mechanism to increase financing availability for small-to-medium size businesses is to enhance the ecosystem of financial innovations. The mechanism will trigger the advancement of crediting, thus providing a positive impact on economic growth indicators. The desk study presented in the paper proves 1. The significance of financing issues for the development of small and medium-sized firms, and 2. The efforts of only a minority of financing institutions to offer novelty to businesses. Moreover, we should not overlook the fact that, considering the expansion of international economic investment in an atmosphere of fierce competition, the enlargement of promoted financial technologies will be impossible without adequate governmental policy. Among other critical concerns, the policy should reflect and focus on the development of academic programs in business education, particularly in poor regions, contributing to the mitigation of population drain together with an increase in regional revenues.

**Keywords:** small-to-medium size businesses, ecosystem of new financial technologies, state financing projects, need for education.

**Urgency:** The business sector in general, and small-to-medium size business, in particular, play an important role in the development of economy, while at the same time fostering sustainable and inclusive growth. Likewise, it considerably contributes to creating jobs and producing employment. Throughout the entire EU, over 99% of enterprises bear the small-to-

medium size business status, with 67% of total employed and 57.5% of overall value added. The statistics point to the significance of small and medium sized firms in the prosperity of business [1].

The research focuses on the determination of the role of financial innovations to promote SMEs in the country; outlines the mechanisms supporting

SME development; defines the role and significance of financial innovations, and highlights the practical implications and recommendations based on existing challenges.

**Research Method:** The paper rests on the SME enhancement situational analysis. The results rise from the so-called Desk Study method related to the information gained through the procession of the secondary data.

**Foreign experience of promoting the ecosystem of financial innovations:** Fintech supports new methods of finance that provide for faster and more efficient investment. Its market is comprised of crediting, trade, electronic and online commerce within the sphere of finance. This trend has the potential to replace traditional processes of finance. Inculcation of financial innovations is a serious task to perform for any country from the perspective of economic enhancement. Currently, most of the world attempts to introduce maximally contemporary methods where each legal subject (disregarding legal or physical entity) would be able to conduct financial operations in progressively shorter time frames. Fintech companies provide financial services through computer programs and technologies. As a result, a consumer is able to simply and easily plan, run, and control their own finances. It ensures timely and convenient service for consumers, reduces costs, and improves existing

business models and services. Online services offer customers a variety of financial products, creating more independence for them. Additionally, with the assistance of technology, financial organizations possess more detailed databases about their consumers. Respectively, clients are offered the most appropriate product or service. Fintech activity includes:

- Operations management in financial services;
- Payments, International transactions, crypto currency, blockchain;
- Credits and deposits, Peer-to-Peer (P2P) loans;
- Issues related to investments, financial markets, and commerce and risk management.

Successful start-up companies like: Robinhood, Acorns, Plaid, Coinbase, Affirm, Behavox, SoFi, Betterment, Bitfury, Circle, Zenefits, Bolt, Mint, etc. are worth being mentioned here. According to TechCrunch, the market capitalization of the market value of the 10 leading American Fintech firms increased by 50% in 2018 and the trend is projected to continue. It is noteworthy to mention the merger of Fiserv and First Data, the value of which amounted to 22 billion USD. The merger will boost the implementation tempo in technology finances. The same tendencies are seen worldwide according to research conducted by one of the auditory companies of Big 4 [2].

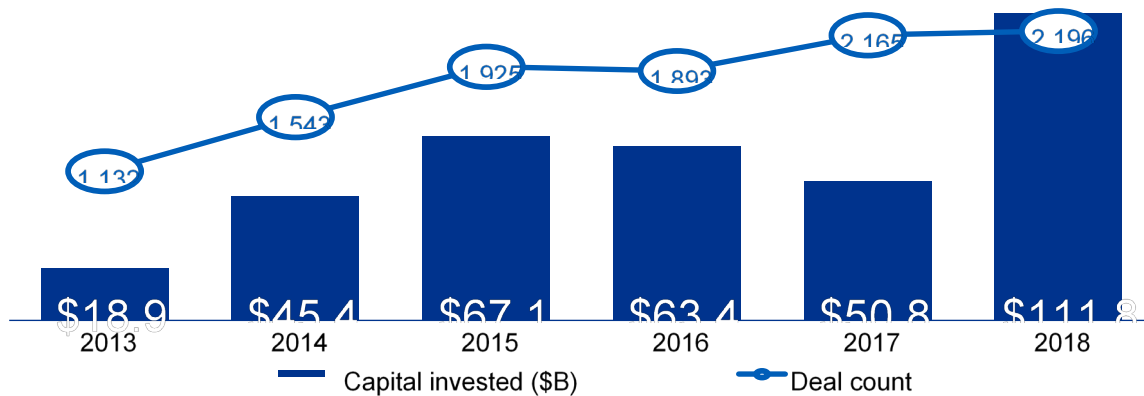


Diagram 1. Global Investment in Fintech

The **PricewaterhouseCoopers** LLP (PwC) report says “in the nearest 3–5 years, 50% of the world

finance sector company representatives plan to purchase technological start-ups.” At the same time, 8

out of 10 banks intend to create strategic partnerships with p2p redirection services, money transfer digital platforms, and firms able to potentially reform the finance sector. PwC carried out research of 1300 participants who were leaders of large finance establishments. The outcome reveals that 88% of those surveyed fear novices who devise money transfer, payment and personal finance administration services. The greatest threat in the banking sphere comes from Fintech start-ups operating in the field of crediting [3].

Therefore, we can plainly see the crucial role of financial innovation in the economic and social progress of countries, as well as being the main source of economic growth. Financial innovation creates an opportunity for developing countries to avoid trailing the advanced world and improves quality of life through the course of sustainable development [4].

**Analysis of general and new financial technologies of SME in Georgia:** We would like to review

the current reality in the area of general financing of SME in Georgia and of financing through new financial technologies among those. In order to accomplish this task, we reviewed the annual action plans of 2016–2020 SME strategy development in Georgia and on its implementation, in addition to research conducted by international organizations, including governmental and private entities with expertise on the subject matter.

Small and medium businesses are the essential sectors for the economic growth of Georgia. Based on the National Service of Georgian Statistics data, in the second quarter of 2019, 52.3% of the total turnover fell on large business, while 20.5% and 27.2% are distributed across medium and small businesses. We have a slight difference in case of the production total output where large business accounts for 40.1%, medium accounts for 25.8%, and small business represents only 34.1% (See the diagram 2. Total Output of SME).

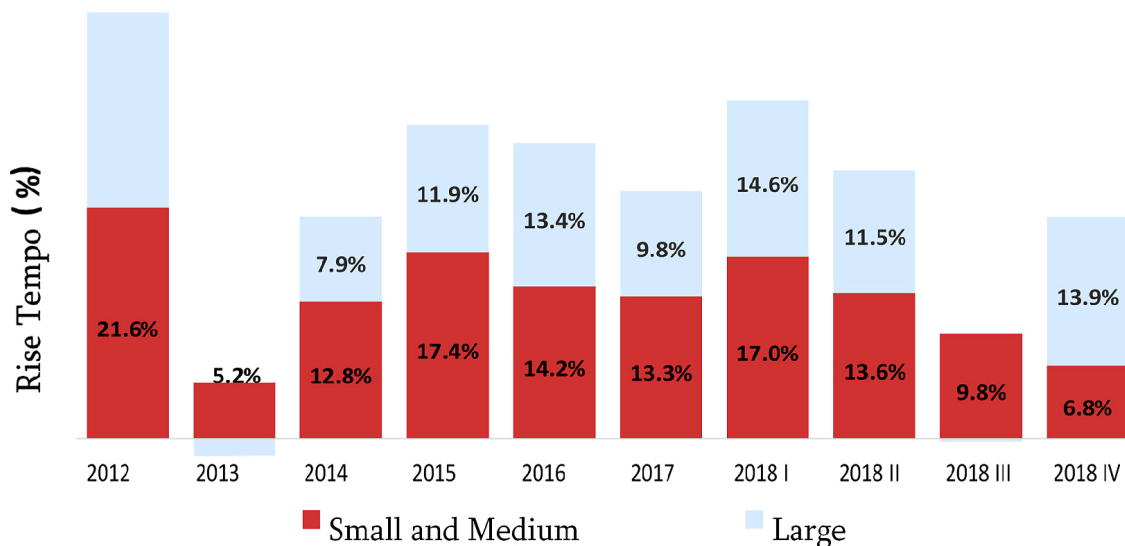


Diagram 2. Total Output of SME [5]

The European Bank of Reconstruction and Development (EBRD), in the strategy prepared for Georgia, considers it as a country having a low culture of innovation. The document states the low level of innovations, research, and development point to Georgia's small and medium entrepreneurs investing little in research and enhancement, which hinders

the generation of innovation, resulting in less favorable outcomes.

The Innovation Global Index of 2018 displays business development opportunity as a particular weakness (point 25.7, position 91), pointing to a lack employee awareness, lack of connections essential for innovation, and a low knowledge base.

Relative indicators to note here are: financial system (position –25), bank stability (position –12), and venture capital availability (position 19). The lowest estimates fixed by Georgia according to the index are professional training quality (position 131)

and credit deficit (position 119). The same reality is conveyed according to innovation and advancement, where Georgia holds a position of 112 (118 in innovations, 99 in innovation potential, and 70 in technological readiness) out of 137 countries [6].

Table 1. – Position of Georgia based on the 2018 Global Competitiveness Report [7]

Index Estimates Criteria	Position		Variable
	2017–2018	2018	
Financial System (2018)/Financial Market Growth(2017–2018)	63	88	(25)
Bank Stability	64	76	(12)
Venture Capital	80	99	(19)

*A note: the article mainly focuses only on the significance data for the study*

Prominent international researchers combine the SME problems into four blocks: administrative, finance availability, market availability, and knowledge availability. Half of those surveyed state the third problem, market availability, as the main challenge; 40% consider finance availability as the essential obstruction, while only 10% think knowledge availability is a substantial barrier. However, in the case of subsequent polling, the number of respondents stating knowledge availability to be the main challenge doubled [8]. Another grand-scale study with 236 participant companies (26% large businesses and 36% small firms) proved finance availability to be the major problem. 16% of large businesses and 27% of small firms consider low demand as the basic challenge. The survey also mentions limited access to bank finance (especially large mortgages); other sources of financing and antiquated cultural attitudes [9].

Even though SME enhancement is one of the economic policy priorities of the Georgian government, the business sector, and 90% of small companies in particular, are financed by the owners, since again, finance availability is one of the most acute issues [10]. Additionally, the following complications are exposed while exploring SME strengths and weaknesses: low competitiveness, low productivity, limited access on finance/long-term investment resources, low level of

innovation, inadequate research and development, insufficient cooperation of the private sector with research and development institutions, and high expenditure of new technologies/basic means [11].

375 surveyed entrepreneurs, within the framework of the SME support project of the Frydrych Ebert Fund in Georgia, named substantial disturbing factors such as high interest rate on credit (77% of the surveyed), bank provision of loans on the basis of only mortgage and business idea assessment (78.3%), high costs of mortgage (42.2%), bureaucracy, a lengthy credit approval process (41.9%), and breach of loan contract terms from the bank (72%) [12].

As we have already mentioned above, the advancement of SME has been a declared state priority since 2016. Based on the data 2015–2018, in the framework of the agency “Produce in Georgia”, 5,313 projects were supported with the total investment of about 50 million GEL. Moreover, nearly 23 million GEL was provided as co-financing with 8,412 beneficiaries. The project is being implemented in all the regions of Georgia, except Tbilisi [13].

Economic growth and development are the stated priorities of the Georgian government, but whether each such project reaches it, or how, has always been a matter of conflict (See Chart 2. Governmental Projects of Financing SME) [14].

Chart 2. Governmental Projects of Financing SME

<b>Program</b>	<b>Annual Budget</b>
Lax Agro-credit	47.000.000
Agricultural Insurance	7.000.000
Plant the Future	7.000.000
Tea Plantation Rehabilitation Program	400.000
Co-Financing Program for Savings and Processing Enterprises	9.865.000
Agro-Production Support Program	2.700.000
Start-Up Georgia	2.000.000
Produce in Georgia	14.800.000
MSB Grants	7.000.000
Highland Micro-Grants for Mountain Development	8.000.000
Sum	105.765.000

Additionally, there is recent doubt about budget funded programs supporting SME functioning having met only a minimal portion of existing needs. The programs were mainly focused on the export growth of the leading sectors (wine business, tourism) [15]. International organizations add to the list of conditions which hinder SME advancement as follows: uncertainty due to frequent amendments in the tax legislation with rapid implementation, information dissemination restrictions, transitional provisions, and vague articles in legislation [16; p. 4–6].

Currently, seven commercial banks functioning in Georgia possess Internet-acquiring license of international payment systems and successfully serve the spheres of trade and service (state spheres as well). Their electronic systems work through the world recognized Verified by Visa™ and MasterCard Secure Code™ technologies [17]. In order to support SME development, the Bank of Georgia introduced an entirely new instrument – the business-banker service. For the purpose of advocating tourism growth, the bank elaborated a special package, i.e. providing finance for 15-year terms in order to enhance hotel business. Finances are also assigned within the framework of the state program “Host in Georgia.” The future hotel revenues will be considered as a loan payment source; only existing and future real and movable property of the project to be financed will be considered to guarantee the loan.

The Bank of Georgia carried out the investment of a total of 153 million USD. It implemented several projects to foster the development of small and medium business in rural regions. 71% of the hotels financed by the bank are located in regions promoting economy and tourism. Last year, with the advocacy of the Bank of Georgia, 4,622 people were provided jobs at hotels, 23% of those participated in the projects financed by the bank. In 2018, the number of rooms in the accommodation facilities increased by 6,701; 32% from hotels financed by the Bank of Georgia [18].

In 2018 the Bank of Georgia presented a new program of promoting open banking called BOG Fintech and a website: [www.fintech.ge](http://www.fintech.ge). Open banking is a joint initiative of the world’s leading banks and other participants of the finance sector aimed at increasing the involvement of new technology companies, referred to as “Fintech Startups”, with the goal of increasing service choices to the customer. The Website [www.fintech.ge](http://www.fintech.ge) represents 19 Fintech companies.

Moreover, the research outcome conveys that only one Fintech company currently performs crediting – Quick Cash of SME. The company is an innovative high-technology platform of cloud banking and SME creditworthiness assessment. It ensures the provision of desired sums through several simple steps. After registration, the business is immediately estimated by automated data processing and the sum is assigned as

soon as the credit line has been approved. If it takes other financial institutions two or more weeks to assess business, the platform enables it in 5 minutes. Also, there is no need to collect papers and go through other bureaucratic procedures [19].

A significant source of finance in many countries is Credit Unions, the amount of which significantly declined in Georgia in recent years. By the end of 2018, only 2 out of 8 credit unions continued to function on the Georgian market. The total amount of their transactions equaled 2.4 million GEL. Out of eight licensed credit unions, five voluntarily ceased their activities (based on their own written statements). In the case of the sixth, the Credit Union License cancellation and the beginning of liquidation was attributed to the supervisory activities of the National Bank of Georgia.

All this was brought about by changes in legislation. According to the amendments enforced on December 23, 2017, in the Law of Georgia on “Credit Unions of Non-bank Depository Institutions”, unification of physical entities in the administrative unit of the same community by a common feature, was defined as one of the principles of Credit Union activity. The limit of the number of Credit Union members was stated to be less than 200. The main goal of the amendments was to unify members in the Credit Union according to their real common objectives and needs, as opposed to simply attracting deposits from the Credit Union members [16; P. 150].

The emergence of foreign private equity in start-ups is vitally important for the further advancement of the financial innovation ecosystem in Georgia.

Silicon Valley Tbilisi and Israeli Techub in Georgia, the official partners for Global Startup Foundation, create significant access to investment for Georgian start-ups. Eligible candidates will pitch an innovative idea and business development strategy in front of the Israeli angel group investors. This is a considerable novelty in the Georgian finance system to support the financial technology ecosystem in the country.

**Conclusion and recommendations:** The inculcation of financial innovations is a significant task for any country to facilitate growth and progress. Currently, the whole world is striving to implement contemporary methods where any representative of small and medium business will be able to perform financial operations in a maximally short time period. Each country is unique from the perspective of its own traditional financial activities since, as a rule, all this stems from the development level of the country and consumer interests. The study conveyed that only a small portion of Georgian financial companies attempt to offer novelty to SME representatives. The research also claims that if Georgia introduces different platforms assisting businesses in better functioning, they will inevitably be used efficiently.

SME support should be more focused on academic programs enhancing business education, especially in poor regions, thus fostering the growth of revenues and hindering population drain. Moreover, we should sufficiently consider the fact that in the conditions of fierce competition on the expansion of economic investment, meaningful inculcation of financial technologies will never be adequately possible without governmental policy.

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# Contents

<b>Section 1. Archeology</b> .....	<b>3</b>
<i>Jafarova Elmira</i> THE MEDIEVAL CITIES OF SHIRVAN IN THE WORLD TRADE SYSTEM .....	3
<b>Section 2. Biotechnology sciences</b> .....	<b>7</b>
<i>Dzhakupova Inkar Borisovna, Bozhbanov Alikhan Zhaksybekovich, Shynybekova Sholpan Sakanovna</i> SYNTHETIC WALLASTONITE – AS AN INNOVATIVE MATERIAL PROCESSED FROM INDUSTRIAL WASTE .....	7
<b>Section 3. Medicine</b> .....	<b>12</b>
<i>Badashkeev Mikhail Valeryevich, Dalzhinov Vyacheslav Makarovich</i> DIAGNOSIS OF PSYCHOLOGICAL CONDITION OF PATIENTS WITH ONCOLOGICAL DISEASES .....	12
<i>Boboeva Nigora Tukhtamishvna</i> SUMMERY: MARKERS OF INFLAMMATION AND METABOLIC CHANGES IN PROLONGED NEONATAL HYPERBILIRUBINEMIA .....	16
<b>Section 4. Pedagogy</b> .....	<b>21</b>
<i>Asankulova Botagoz Sarsenaliyevna, Ainakulova J. E., Moldabaeva A. A.</i> SPIRITUAL AND MORAL VALUES IN FOLK PEDAGOGY OF KAZAKHS .....	21
TEACHER ACTIONS IN PROFESSIONAL DIRECTION OF SECONDARY SCHOOL CHILDREN (according to the educational cluster) .....	24
<b>Section 5. Political science</b> .....	<b>27</b>
<i>Bader Anton Vasilievich</i> AGGRESSION AND GENOCIDE AS A KIND OF ARMED VIOLENCE: TERMINOLOGICAL ANALYSIS .....	27
<b>Section 6. Psychology</b> .....	<b>31</b>
<i>Koshanova Nilufar Mahsudovna</i> TEACHER ACTIONS IN PROFESSIONAL DIRECTION OF SECONDARY SCHOOL CHILDREN (according to the educational cluster) .....	24
<i>Bede Chinonye Akpunne, Daniel Oluwasanmi Kumuyi, Joshua Oludare Ogunsemi, Solomon Ojo</i> PEER VICTIMIZATION, SOCIAL MALADJUSTMENT AND PSYCHOLOGICAL DISTRESS AMONG NIGERIAN ADOLESCENTS .....	31
<b>Section 7. Sociology</b> .....	<b>40</b>
<i>Razzakova Nargis Yuldashevna</i> THE ROLE OF THE FAMILY SOCIAL INSTITUTE IN THE DEVELOPMENT OF SOCIETY .....	40
<b>Section 8. Agricultural sciences</b> .....	<b>45</b>
<i>Zokirova Sanoat, Akbarov Rakhmatillo, Nafisa Kadirova</i> CHANGES OF THE MOBILE FORMS OF PHOSPHORUS IN SANDS UNDER INFLUENCE OF FERTILIZERS .....	45



<b>Section 9. Philology and linguistics.</b> .....	<b>48</b>
<i>Koberidze Mariam</i>	
GENERAL-LINGUISTIC ASSESSMENT OF THE FERDINAND DE SAUSSURE'S CONCEPTION IN THE GEORGIAN LINGUISTICS.....	48
<i>Mirzaahmedova Yulduzkhon Anvarovna</i>	
LEXICAL AND SEMANTIC GENDER FEATURES OF THE TEXT .....	52
<i>Staryna Daria</i>	
EXAMPLES AND ANALYSIS OF METAPHORS IN RAY BRADBURY'S 'FAHRENHEIT 451' .....	58
<i>Yunuszoda Zulfiya Yunusovna</i>	
THE IMAGE OF A TRAVELLER IN AHMAD DONISH'S STORY .....	64
<b>Section 10. Philosophy</b> .....	<b>69</b>
<i>Abdullayev Akmal Nasriddinovich</i>	
THE FEATURES OF APPEARING FAMILY IN MODERN SOCIETY .....	69
<b>Section 11. Economics and management.</b> .....	<b>73</b>
<i>Gamsakhurdia Tamar, Kadagidze Lamara</i>	
INNOVATIVE FINANCIAL INSTRUMENTS TO ENSURE THE ADVANCEMENT OF SME IN GEORGIA.....	73

