Teoretičeskaâ i prikladnaâ nauka

Theoretical & Applied Science

Teoretičeskaâ i prikladnaâ nauka

Theoretical & Applied Science

06 (98)

2021

ISSN 2308-4944

9 772308 494218

International Scientific Journal

Theoretical & Applied Science

International Scientific Journal

Theoretical & Applied Science

Impact Factor ICV = 6.630

Impact Factor ISI   = 0.829
based on International Citation Report (ICR)

The percentage of rejected articles:

43% Accepted   57% Rejected

06

9 772308 494218

Fayzullo Xaitovich Kholmuratov
Termez State University
Teacher, Faculty of Foreign philology, Uzbekistan
Fayzullo47@gmail.ru

Barno Mamatovna Sattarova
Termez State University
Teacher, Faculty of Foreign philology, Uzbekistan
sattarovabarno47@gmail.ru

DIFFERENT ACTIVITIES TO IMPROVE STUDENTS` SPEAKING SKILLS

Abstract: In this article, we tried to explain some activities to improve speaking skill during classes. Problems also mentioned and we gave some possible solutions to each problem.
Key words: Speaking skills, students, activities, knowledge, foreign language, motivation.
Language: English
Citation: Kholmuratov, F. X., & Sattarova, B. M. (2021). Different activities to improve students` speaking skills. ISJ Theoretical & Applied Science, 06 (98), 701-704.
Soi: http://s-o-i.org/1.1/TAS-06-98-95   Doi: crossref https://dx.doi.org/10.15863/TAS.2021.06.98.95
Scopus ASCC: 3304.

Introduction

Learning English requires four different skills, which every learner should practice. They are reading, writing, listening and speaking. Each skill has its own role while practicing English. Let me explain, what is reading for? Reading foreign literary books make your outlook more international and broad. In addition, being able to understand different notes in a foreign language can make you feel confident in abroad. Then what is writing for? You should be able to explain your opinions in both written and oral form. Listening is one of the most important skills in English. The reason is that while communicating in English firstly, you should understand your partner's words and then according to it you can response. Your knowledge of English is marked according to your speaking skill mostly.

Of all the four skills (listening, speaking, reading and writing), speaking seems intuitively the most important: people who know a language are referred to a 'speakers' of that language, as if speaking included all other kinds of knowing, and many if not most foreign language learners are primarily interested in learning to speak [1, p 120].

One of the main problems of the education is the reduction of motivation, that is why the topic of preservation, and especially the increase of students' motivation, is extremely relevant.

An important task for the teacher is the formation and development of a competence approach, that is, the teacher should not only be able to present the study material to students, but also motivate them to perceive and assimilate this material. That is why one of the most important elements in the structure of the lesson is the motivational element. Don't forget that all people are different and you should not expect the same reaction from all students. There are four main divisions of people, such as melancholic, phlegmatic, choleric and sanguine. All these types have their advantages and disadvantages. While the choleric and sanguine people will loudly say something and pull their hands for an answer, melancholic and phlegmatic people will sit quietly and wait their turn.

Therefore, first of all, it is important to pass a course of general psychology to all teachers! This will help not only to understand and correctly evaluate the students, but will also allow you to focus on lessons

better, creating a healthy and pleasant atmosphere in the lesson. Thus, motivating different students to interact and acquire knowledge. In order to generate motivation, it is necessary to use a wide variety of forms, methods, through which students will be involved in active work during the lesson. Among the elements of the lesson that attracted the most interest to students, one can note unusual forms of presentation of the material, the emotionality of the teacher's speech, the situation of the dispute and discussion, analysis of everyday life situations, games, competitions, quizzes, use of audio and video materials.

Analysis of Subject Matters

However, the most important component is, of course, the emotional mood. Creating a positive emotional attitude to the lesson and creating a success situation is an important task of the introductory part of the lesson. The teacher needs to direct all his experience to find a creative approach to solving the problem of creating the correct, and therefore the positive and psychological attitude of the students. A positive attitude is the inner faith «I will, I can!».

The key phrases in this mood are: «I can! I will do it! «Psychologists say that the positive attitude works in the range of 3-10 minutes after the» preparation «, accordingly, it is necessary to include positive settings for work several times in a standard 45-minute lesson.

Children learn the world through emotions, through emotional memory, which means that emotions play one of the most important roles in the formation of personality. At the lesson, it is the teacher who is the source of emotions for students. It is very important that these emotions are exceptionally positive. Only positive emotions stimulate the cognitive activity of students, their desire to participate in the course of the lesson, actively get involved in the work and interact with the teacher and classmates. Emotions create and can change students' attitudes not only to the teacher and the academic subject but also to their own forces, which means that the productivity of the student's learning activity depends on the positive attitude. The desire to learn, the desire to participate in the lesson, the emergence of bright thoughts and fresh ideas is possible only with positive students and a friendly teacher. Unfortunately, quite often there is a situation when it is a question of complete incompatibility and misunderstanding between students and the teacher.

The reason is the reluctance or inability of the teacher to understand, feel and anticipate the emotional state of the wards. Therefore there is a complete reluctance to study the subject, respectively, there is the problem of poor performance and non-attendance. It is widely reported in the pedagogical literature about the professional image and culture of the teacher. It is sensitivity to the emotional mood of students and speaks of the high culture and professionalism of the teacher.

What can be considered as a positive «signs», «signals» with which the teacher gives an orientation to a positive attitude? It's a smile at the time of greeting, a friendly question, not a shout, but a quiet remark. An additional emotional attitude for students creates the appearance and manners of the teacher - a calm, clear speech, smooth gestures, a pleasant timbre of the voice.

Not everyone gets a nice voice by nature, but at the present time, there is a sufficient amount of exercises from leading specialists, with which you can correct the timbre of your voice. The teacher can influence the emotional background of his students in many ways. First, it causes irritation, sadness and despondency. Secondly, the state of joy and anticipation. And the third is to

leave them in a state of indifference. Needless to say, which method is the most productive for further interaction? The beginning of each lesson is an energetic charge when the teacher exchanges energy with his students. If the students have received negative energy from the very beginning of the lesson, one can safely say that the teacher will not achieve the goals of the lesson he sets himself.

Research Methodology

It may seem that once a «spoiled» lesson will not affect the learning process, however, after receiving such an experience, the student may «not allow» to train himself further because he either does not trust the teacher or is afraid of him. Mistrust and fear have nothing to do with respect, but actively and willingly children learn only from those who are respected. It's no secret that children and adolescents are more likely to relate to the subject, the better and respectful they are to the teacher. The teacher, in turn, should do everything in his power to do this, forget about personal problems, discomforts and bad mood. Undoubtedly, this is not easy, but it's not a coincidence that working with people is considered the most difficult. To maintain the correct line of conduct in the lesson is the highest pedagogical ―pilotage‖ and the professional duty of each teacher.

It should not be thought that the maintenance of a positive attitude involves self-indulgence and excessive softness. The positive background of the lesson does not exclude benevolent exactingness and unobtrusive, but obligatory control on the part of the teacher. As for the methods of work and certain activities that contribute to the creation of a positive attitude, it is necessary to especially note the use of the latest technologies in the classroom. This is an interactive whiteboard that allows students to offer a wide range of exercises and tasks, audio and video, thanks to which, the lesson becomes brighter, more

dynamic, more interesting; this is a table game that gives rise to an atmosphere of competition and strengthens the team spirit. An excellent result is provided by various projects, during which students learn to feel as a member of the team, take responsibility for choosing a solution, share responsibility and analyze the results of their activities.

Before the teacher of English, there are special tasks and rules.

First, it is impossible to develop the interest of students in studying the language and culture of another country without love and respect for their own country, and accordingly, it is necessary to instill in students the right civil and patriotic feelings.

Secondly, at present, thanks to the worldwide computer network, we are armed with a huge arsenal of various teaching materials in English, so teachers are constantly looking for new ways of actively introducing it into the educational process, which means constantly developing professionally.

The fulfillment of the above tasks and conditions gives the opportunity to form and develop the necessary motivation for cognitive activity. It should be noted that to form and develop means - to create a positive background in which the student himself would like to develop activities for cognition and interaction.

During English classes teacher can organize a wide range of activities to improve students' speaking skills. However, when they play speaking activities there are some rules they should follow:

• **Learners should talk instead of teacher.**

As we know during speaking or discussion activity teacher is authority in class and most time is taken up by teacher's speech and pauses. Instead of this, students should speak as much as possible.

• **Involving the whole class.**

It is a usual situation that in speaking activities only a few talkative participants take part. Consequently, not all students are involved and the rest of the class remained without participation. To prevent this kind of problem, teacher should make all students speak during the lesson.

• **Motivating students to overcome psychological barriers.**

We set up psychological barriers to learning: We fear that we will be unable to perform, that we will be limited in our ability to learn, that we will fail. Teachers help students eliminate the feeling that they cannot be successful or the negative association they may have toward studying, and, thus to help them overcome the barriers to learning`[2, p 73].

• **Organizing activity in an acceptable level.**

Learners should explain themselves in a comprehensible way to each other. Teacher should control the participation of students. The following activities can help teachers to improve their students' speaking:

Describing pictures

Each group has a picture, which all its members can see. They have two minutes to say as many sentences as they can that describe it; a 'secretary` marks a tick on a piece of paper representing each sentence. At the end of the two minutes, groups report how many ticks they have. They then repeat the exercise with the second picture, trying to get more ticks than the first time [1, p125].

Finding differences.

Students sit in pairs and each member of the pair has different pictures. They try to explain their pictures and find differences without showing the pictures each other. The activity help students work in groups and improve their speaking.

Characteristics in common. Students sit in pairs, preferably they choose a partner they do not know. They try to discover characteristics in common. It should not be obvious or visible like ` We both have black eyes` or ` We both study in the same class`. At the end of the lesson, they share their discovering. Solving the problem. Students work in groups and they are allotted different problematic situations to solve. They have a few minutes to discuss. Each member of the group participate during discussion. `This is particularly suitable for people who are themselves adolescents or involved with adolescent education and is intended for fairly advanced learners. It usually works well, producing a high level of participation and motivation; as with many simulation tasks, participants tend to become personally involved: they begin to see the characters as real people, and to relate to the problem as an emotional issue as well as an intellectual and moral one.

Analysis and results

All the feedback stage, the resulting letters can be read aloud: this often produces further discussion` [1, p 128].

There are also some activities to help students practice speaking. They are:

• *Telling stories;*
• *Telling jokes;*
• *Giving feedback;*
• *Describing someone or something;*
• *Giving a short lecture or talk;*
• *Retelling the plot of the film, video or book;*
• *Arguing for something or against something.*

Role -play activity also contributes to development of speaking skill. Especially, for beginners role-play is the most efficient way to practice every day English without hesitation. Moreover, learning by heart a dialogue increases students' ready-made combinations. Unfortunately, students may face up to some problems while

Clarivate Analytics indexed

speaking activity. The most common problems are the followings:

• Thinking in mother tongue.

Unlike other skills, speaking requires to be ready without thinking. Only a few minutes are available. However, after the topic is given students think about it in their mother tongue. Then they try to translate it and correct its grammar, word order and when it is fully translated, they can speak. However, by this time a long time may pass. They should learn to think in English. They should practice it so much that it will come naturally afterwards.

• Inhibition.

Learners are often inhibited about trying to say things in English in the audience: they are worried about making mistakes and are fearful of criticism; consequently, they will be shy and prefer not speaking.

• Nothing to say.

Learners often complain that they do not have any idea about what to say even in their mother tongue. They are lack of information. It prevent students to speak.

In order to solve these problems teacher should:

• Use group works.

Because,in-group work students feel more independent and can open psychological barriers.

• Teach students to think in English. In order to do this teacher should create an English atmosphere in the class.

• Provide students with more information. Before speaking students had better have reading activity. According to the information in the text, they can continue speaking activity.

To sum up, using this article, teachers can make their lessons more interesting and full of activities. This attracts students' attention and help to become the lesson more efficient. One of his speeches Henry Ford said: ` Whether you think you can, or if you think you cannot – you are right`. Remember all depends on you. The creation of a comfortable emotional and psychological environment in the team is a necessary condition for an interesting atmosphere in the lesson, which in turn leads to increased motivation and, ultimately, to an increase in the effectiveness of the teacher and pupils.

References:

1. (1991). *A course in language teaching, Practice and theory, Penny Ur, Cambridge University Press The Edinburgh Building*, Cambridge CB2 8RU, UK.
2. (n.d.). *Diane Larsen-Freeman 2000. Techniques and principles in language teaching`. Second Edition. Oxford University Press. Great Clarendon Street.*
3. (n.d.). *Personality Traits & Personality Types: What is Personality?* Retrieved from livescience.com
4. (n.d.). *Creating a Welcoming Classroom Environment,* Retrieved from readingrockets.org.
5. Breen, J., & Candlin, D. (1980). The Essentials of a Communicative Curriculum in Language Teaching. *Applied Linguistics*, 1, 2, p.90.
6. Harmer, J. (1991). *The practice of English language teaching,* Longman, New York.
7. Richards, J.C., & Renandya, W.A. (2002). Methodology in Language Teaching. (p.225). Cambridge University Press.
8. Lewis, M. (1993). *The lexical approach, Language Teaching Publication,* England, (pp.111-112).
9. McCarthy, M. (1988). *Vocabulary, Oxford University Press*, (p.16). Oxford.
10. Thornbury, S. (2002). *How to Teach Vocabulary Paperback.* 18 Feb, 2002, Longman; 1 edition., (p.97).
11. (n.d.). Retrieved from http://www.ziyouz.com
12. (n.d.). Retrieved from www.phrases.org.uk

Diana Nikolaevna Dyunova
Civil Defence Academy EMERCOM of Russia
Candidate of Engineering Sciences,
Senior Lecturer, Khimky, Russia
dunova_dn@mail.ru

STUDY OF THE RELIABILITY OF TECHNOLOGICAL SCHEMES FOR THE CLASSIFICATION OF THE FLAG IN THE PRODUCTION OF ZINC

Abstract: *The results of the study of the reliability of the technological scheme of the process of classification of the flack in the production of zinc using the reliability flowchart are presented. An analysis of the influence of the failures of each of the elements on the occurrence of failures of the technological scheme as a whole is carried out. Based on the function of the performance of the scheme, an assessment of the true value of the probability of trouble-free operation of the system as a whole is made.*

Key words: *zinc production, technological scheme, reliability indicator, probability of trouble free operation, classification of the flack.*

Language: *Russian*

ИССЛЕДОВАНИЕ НАДЕЖНОСТИ ТЕХНОЛОГИЧЕСКИХ СХЕМ КЛАССИФИКАЦИИ ОГАРКА В ПРОИЗВОДСТВЕ ЦИНКА

Аннотация: *Представлены результаты исследования надежности технологической схемы процесса классификации огарка в производстве цинка с помощью блок-схемы надежности. Проведен анализ влияния отказов каждого из элементов на возникновение отказов технологической схемы в целом. На основе функции работоспособности схемы выполнена оценка истинного значения вероятности безотказной работы системы в целом.*

Ключевые слова: *производство цинка, технологическая схема, показатель надежности, вероятность безотказной работы, классификация огарка.*

Введение

Обжиг концентратов – один из основных процессов цинкового производства, который в значительной мере определяет технико-экономические показатели последующих переделов [1, с. 217]. Основным сырьем для производства цинка служат сульфидные цинксодержащие концентраты, руды, а также граншлаки свинцового производства, вторсырье производства кадмия. Цель функционирования обжигового передела - перевод в оксиды максимального количества сульфидов металлов, получением обожженного продукта с большой реакционной поверхностью, ограничением в получаемом огарке содержания феррита и силиката цинка. Для выделения крупной песковой фракции огарка и предотвращения попадания ее в аппаратуру последующего выщелачивательного передела, а также для повышения извлечения цинка обожженный полупродукт обжигового передела подвергают классификации. Широкое распространение на цинкэлектролитных предприятиях получила гидравлическая классификация [2, с. 89].

Пульпа из огарка и верхнего слива кислых сгустителей, имеющая соотношение Т:Ж =

$1\!:\!10 \div 15$, направляется по желобу по желобам в механические агитаторы, из которых ее непрерывно насосами откачивают в конусные классификаторы. Слив нейтральных конусов самотеком по желобу поступает в нейтральную ветвь выщелачивательного цеха.

Нижний продукт конусов – пески, автоматически поступает в контрольный конусный классификатор, из которого пески с $Т\!:\!Ж = 1\!:\!2$ направляется на выщелачивание в два последовательно соединенных пачука. Выщелачивание песков производят отработанным электролитом. Верхний продукт контрольного конуса поступает самотеком на смыв огарка. Пульпу с конечной кислотностью от 30 до 40 г/л направляют в кислый конус. Слив кислого конуса подается в окислительный пачук выщелачивательного цеха. Пески кислых конусов направляются на дополнительное выщелачивание в агитатор с механическим перемешиванием. Из агитатора песковая пульпа подается в фильтровально-сушильное отделение выщелачивательного цеха на спиральные классификаторы. Пески из классификатора направляются в сушильный барабан на сушку с цинковыми кеками. Раствор направляется в кислый пачук выщелачивательного цеха.

Аппаратурно-технологическая схема процесса классификации – многоаппаратный производственный комплекс, надежность которого во многом зависит от состояния оборудования. Структура технологической схемы классификации огарка включает последовательное и параллельное соединение элементов. Надежность такой системы определяется ее способностью в течении определенного времени непрерывно сохранять работоспособность, адаптироваться к обнаружению отказов и устранению причин, вызвавших эти отказы [3, с. 14]. С течением времени в процессе функционирования в аппаратах происходят различного рода изменения:

физические, химические, механические, технологические [4, с. 41]. Накопление изменений часто приводит к отказам технологического оборудования, что связано со снижением мощности агрегатов, возникновению простоев оборудования и его аварийных остановов. Вследствие этого задача обеспечения надежности и безопасности функционирования отдельных компонентов технологической схемы и технологической системы в целом продолжает оставаться актуальной. Одним из критериев надежности технологической схемы является вероятность безотказной работы.

Эффективным методом ее исследования является применение расчетно-логической схемы надежности и алгебры случайных событий [5, с. 582]. При этом полагается, что отказы элементов – простые случайные события, отказы технологической системы в целом – сложные случайные события, а структура технологической схемы исследуемого объекта не тождественна структуре блок-схемы его надежности [6, с. 43]. Информация о показателях надежности отдельных элементов схемы дает возможность определять показатели надежности технологической системы в целом [7, с. 58].

Полученная блок-схема надежности технологической схемы процесса классификации огарка в производстве цинка представлена на рис. 1.

При построении блок-схемы надежности принимались допущения [8, с. 183]: отказы элементов технологической схемы являются внезапными; отказы элементов технологической схемы – независимыми; каждой операции алгебры случайных событий соответствует вероятностная функция.
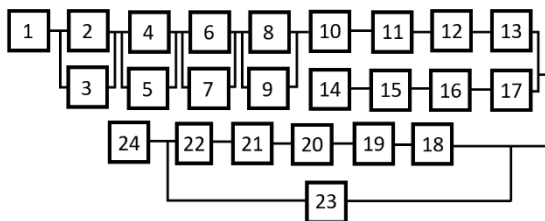
Рисунок 1 - Блок-схема надежности технологической схемы процесса классификации огарка.

В состав технологической схемы входят следующие единицы оборудования: 1 – огарковый желоб; 2, 4, 6, 8, 23 – механический агитатор; 3, 5, 7, 9, 24, 25 – насос с электроприводом; 10-17, 21, 22 – конусный классификатор; 18 – сборник отработанного электролита; 19, 20 – пачук. Значения параметров потока отказов для оборудования процесса классификации приведены в таблице 1.

Таблица 1. Показатели надежности элементов процесса классификации огарка

Название оборудования	Параметр потока отказов, ч$^{-1}$	Параметр потока отказов, ч$^{-1}$
	min	max
Огарковый желоб	$0{,}1 \cdot 10^{-5}$	$0{,}5 \cdot 10^{-5}$
Механический агитатор	$7{,}0 \cdot 10^{-5}$	$8{,}0 \cdot 10^{-5}$
Насос с электроприводом	$25 \cdot 10^{-5}$	$28 \cdot 10^{-5}$
Конусный классификатор	$6{,}5 \cdot 10^{-5}$	$7{,}5 \cdot 10^{-5}$
Сборник электролита	$1{,}0 \cdot 10^{-5}$	$2{,}1 \cdot 10^{-5}$
Пачук	$5{,}0 \cdot 10^{-5}$	$6{,}0 \cdot 10^{-5}$

На основе алгебры случайных событий получено выражение для сложного случайного события, отображаемое логической функцией работоспособности технологической системы процесса очистки, описываемой соотношением (1):

$$A_c = A_1 \cap [A_2 \cup A_3] \cap [A_4 \cup A_5] \cap [A_6 \cup A_7] \cap [A_8 \cup A_9] \cap [A_{10} \cap A_{11} \cap \ldots \cap A_{17}] \cap [A_{18} \cup A_{19} \cup A_{20} \cup A_{21} \cup A_{22} \cup A_{23}] \cap A_{24}, \quad (1)$$

где A_j – работоспособность j-го элемента технологической схемы.

С учетом соотношений [9, с.78], показанных в виде (2):

$$\cup_j a_j = \neg\{\cap(\neg a_j)\} \rightarrow \prod_i p_i \text{ и } \cap_j a_j = \neg\{\cup(\neg a_j)\} \rightarrow \{1 - \prod_i(1 - p_i)\} \quad (2)$$

выражение для определения вероятности безотказной работы исследуемой технологической схемы характеризуется соотношением (3):

$$P_c(A_c) = p_1[1 - (1 - p_2)(1 - p_3)][1 - (1 - p_4)(1 - p_5)][1 - (1 - p_6)(1 - p_7)][1 - (1 - p_8)(1 - p_9)][1 - (1 - p_{10}p_{11}p_{12}p_{13}) - (1 - p_{14}p_{15}p_{16}p_{17})][1 - (1 - p_{18}p_{19}p_{20}p_{21})(1 - p_{23})]p_{24}. \quad (3)$$

Результаты расчета по формуле (3) показаны на рис. 2. Изменение вероятности безотказной работы рассчитано для совокупности максимальных и минимальных значений потоков отказов технологического оборудования.

Верхняя и нижняя кривые определяют область возможных значений показателя надежности исследуемой системы [10, с. 263]. Поэтому справедливо:

$$P_{c_{min}}(t) < P_c(t) < P_{c_{max}}(t), \quad (4)$$

где $P_c(t)$ – истинное значение вероятности безотказной работы системы.
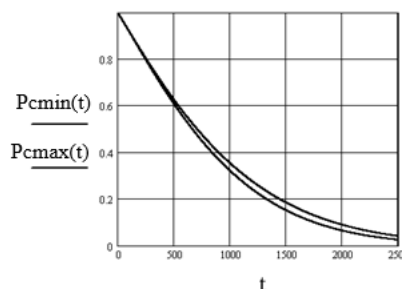
Рисунок 2 – Зона возможных значений показателя надежности системы.

Заключение

Оценки критерия надежности исследуемой технологической схемы, получаемые при использовании данного подхода, являются несколько заниженными, в основном, по причине принятых допущений. Вместе с тем рассмотренный подход позволяет истинное значение вероятности безотказной работы технологической системы и применять его при модернизации объекта и повышения надежности его функционирования.

References:

1. Rutkovskij, A. L., & Dyunova, D. N. (2013). *Issledovanie processa obzhiga cinkovyh koncentratov v kipyashchem sloe metodom matematicheskogo modelirovaniya* [GIAB], no. 3, pp. 217-221.
2. Snurgikov, A. P. (1984). *Gidrometallurgiya cinka.* (p.384). Moscow: publ. Metallurgy.
3. Polovko, A. M., & Gurov, S. V. (2006). *Osnovy teorii nadezhnosti*. (p.560). Sankt-Peterburg: publ. "BHV-Peterburg".
4. Afanas'ev, V.G., Zelencov, V. A., & Mironov, A. N. (1992). *Metody analiza nadezhnosti i kritichnosti otkazov slozhnyh sistem*. (p.100). Moscow: publ. Ministerstvo oborony.
5. Stepanyanc, V. S., Kafarov, V. V., & Meshalkin, V. (1979). *Nadezhnost' neftepererabatyvayushchih i neftekhimicheskih proizvodstv*. (pp.3-34). Moscow: publ. CNIITEnefteim.
6. Dyunova, D. N., & Dyunova, Y. I. (2021). *Ob ocenivanii pokazatelej nadezhnosti tekhnologicheskih sistem* [Kruglyj stol so vserossijskim i mezhdunarodnym uchastiem] (15-16 maya 2021) pp. 42-44.
7. Dyunova, D. N., & Skryabin, O.O. (2021). *Ob ocenivanii nadezhnosti tekhnicheskih sredstv na osnove opytnyh dannyh.* Sbornik nauchnyh statej po itogam mezhdunarodnoj konferencii «Prioritetnye napravleniya innovacionnoj deyatel'nosti v promyshlennosti» 30-31 yanvarya 2021 g. (pp.56-59). Kazan': publ. Kovert.
8. Golinkevich, T. A. (1977). *Prikladnaya teoriya nadezhnosti*. (p.159). Moscow: publ. Energia.
9. Ventcel', E. S. (1969). *Teoriya veroyatnostej*. (p.576). Moscow: publ.Nauka.
10. Druzhinin, G.V. (1977). *Nadezhnost' avtomatizirovannyh sistem*. (p.536). publ. Energia.

Kudratbek Shavkat ogli Makhmudov
Chirchik State Pedagogical Institute
Head of the Interfaculty Department of Foreign Languages,
Uzbekistan
k.maxmudov@cspi.uz

USING WRITING SPEECH IN THE PROCESS OF TEACHING ENGLISH GRAMMAR

Abstract: *In this globalization era, people purposes to reach knowledge in every sphere of life .For this goal a language is a key and the first step of learning foreign language begins to learn language grammar. The paper aims to identify the possibility of using written speech in teaching English grammar. The author turns to the research of functional linguistics. As well as it focuses on by analyzing some context-dependent grammatical structures of English written speech and utilizing authentic text materials in teaching such grammatical constructions.*

Key words: *teaching grammar at the sentence level, context, communicative competencies, grammatical structures, written speech.*

Language: *English*

Citation: Makhmudov, K. S. (2021). Using writing speech in the process of teaching English grammar. *ISJ Theoretical & Applied Science, 06 (98),* 709-712.

Soi: http://s-o-i.org/1.1/TAS-06-98-97   *Doi*: crossref https://dx.doi.org/10.15863/TAS.2021.06.98.97
Scopus ASCC: 1203.

Introduction

Most English educationalists are of the opinion that grammar should be studied as a phenomenon exclusively at the level of sentences. This approach can be considered both as not quite legitimate, and as having some negative consequences for the methodology of teaching grammar. In addition, the attitude to the grammar of the "sentence level" does not fit in any way with the concept of communicative competencies, which includes at least four interacting competencies: socio-linguistic, linguistic, speech and strategic [1].

Literature Review and Methodology of Research

Since communicative competence is the basis of the communicative approach in teaching, it is quite obvious that we go beyond the "sentence level" in our attitude to grammar and understand the relationship between morphological and syntactic types of language competence and various sociolinguistic and pragmatic aspects of speech competence. In this paper, an attempt is made to describe the nature of this connection by studying the speech functions of some grammatical structures in written English, namely demonstrative pronouns, two different types of modern models, turns with the grammatical filler "there" and amplifying constructions with "it". Teachers of English as a foreign language are not alone in their desire to limit the study of grammar to the level of sentences. Studies of morphology and syntax in modern linguistics are carried out mainly at the level of sentences. In addition, many formal linguists prefer to consider grammar as an autonomous and context-free system [2]. In contrast from them, functional linguists object to this approach and argue that in fact a very small number of" grammatical rules " are completely devoid of context [3]. They even compiled a list of rules of English grammar that are not burdened with context:

- Agreement between the subject and the verb;

- Agreement between the determinant and the noun;

- Using the gerund after prepositions;

- Reflexive pronominalization at the level of the subordinate clause.

Unlike this small list of matching rules, the vast majority of grammatical rules depend on certain

conditions related to the meaning context, situation, and/or speech context. Such grammar rules are certainly filled with context. By the way, not only English, but all languages have such pragmatic rules that depend on the context [4].

So, what, in our opinion, are some context-dependent grammatical structures in English written speech?

First of all, I would like to focus on demonstrative pronouns. How are English demonstrative pronouns presented in textbooks for English language learners? Basically, the presentation is based on the concept of "near – far", singular and plural forms, and the opposition of pronominal and forms used as adjectives. Therefore, students are offered suggestions for training something like this:

This is a textbook. Read this textbook.

That's a window. Close that window.

These are pens. Take these pens.

Those are doors. Open those doors.

Most often, the work with demonstrative pronouns ends here, which can be regretted, because the norms of using demonstrative pronouns are different for written and oral speech. In an informative letter, for example, the use of this / these assumes that the reader has access to the link object; its use signals that this topic will be continued or that the topic seems important and significant to the author. On the other hand, using that/those also assumes the reader access to the referenced object, but it can signal the end of a topic/discussion (that's that!), strict objectivity, the appeal to the past time, etc. Are the results of the study of demonstrative pronouns and adjectives in writing by American linguist Nishimura, who compared the texts of the book reviews and short essays and found that the use of demonstrative pronouns in book reviews is much more limited compared to essays [5]. Almost all demonstrative pronouns in the reviews had the form this/these (and very few cases of using that/those). In addition, most demonstrative pronouns were used as adjectives and simply referred to the bibliographic data of the reviewed book. As for short essays, demonstrative pronouns are used in them somewhat according to a different model. They referred not only to co-referent nominal groups, but also to whole subordinate clauses and groups of subordinate clauses. And although the forms of this / these accounted for most of the cases of use, a much greater variety of functions is noticed in the essays and a large number of cases of using that/those.

Modern forms in most of the methodological literature are taught and trained one form at a time at the sentence level:

Steve goes to school every day (simple present).

Steve went to school yesterday (simple past).

However, teachers often complain that even after repeated training exercises in these and all other types of modern forms, their students still they are equally unable to cope with their correct application in a sequence of interrelated sentences. They unreasonably jump from one kind of modern form to another when they write. And this is not surprising. The functions of many types of modern forms at the level of speech can be completely different from what students were taught about these forms at the level of sentences. For example, students are taught that the English tense is ideally suitable for the past tense preceding some period defined in the past, and without this reference it is devoid of any meaning: By eleven o'clock last night, Jane had already gone to bed. Even before graduating from university, Mary published a book. However, there are many examples similar to the previous one, where the past is completely optional, since the presence of the word before in the sentence itself guarantees that exactly the same meaning can be expressed using the simple past tense:

Before graduating from university, Mary published a book. But this statement will not be true if we change before to when. In this case, the meaning of the sentences will change depending on whether we use a simple past or a perfect past:

After graduating from university, Mary published a book. After graduating from university, Mary published a book. Much unexpected use of the past perfect tense in it can be found in written English speech. Although not very often, but the authors use this time to describe the purpose of their narrative: Students sat in the stands of the Poly Pavilion, watching the teachers enter in their caps and robes. Dignitaries continued to arrive, while the orchestra played a festive melody for the audience. Under the cheers the president entered the crowd and took the place assigned to him on the podium. The celebration of the 75th anniversary of the University of California at Los Angeles has begun. In this story, the narrative is conducted in the past simple time, but the climax is expressed through the past perfect time. In the last sentence of the text, the action of the verb is not preceding, it simply sums up everything that has been described above, and it can be considered a culmination.

Sentences with the grammatical term "there"

In the practice of teaching English, the oral use of sentences with "there" - the subject-is taught in relation to a pronounced physical context, all at the level of the sentence, while the speech function is either given very little attention, or it is not considered at all:

There is a ruler on the desk.

There are two pens on the table.

Results and Discussion

Analyzing the text database of written and spoken English, Lloyd-Jones found that such a locative use of the turnover was only about ten percent of all cases of use [6]. So what are the main functions of this turnover in written speech? E. Aler, for example, has data that in written English, out of 100

Clarivate Analytics *indexed*

cases with a filler "there is " only one at the sentence level, and all the others had a speech function [7]. In its text database, the main speech function of the turnover there was the introduction of the main topic with its subsequent development, as, for example, in such a text from a textbook on road construction machines: There are different types of shovels depending on the shape of the shovel and the direction of digging. We distinguish between front and rear shovels, bulldozers, as well as draglines, scrapers, etc. For example, a shovel becomes a bulldozer if its bucket is replaced by a blade. In accordance with the principle of operation and the nature of the working process, all shovels can be both intermittent and continuous [8]. Scientist Aler discovered another model of the use of turnover, which, unlike the above-mentioned deductive, is inductive, i.e. first come the details and features, and a generalization with a turnover is concludes the topic, as in the following excerpt from a textbook on economics:

The establishment of a single product price on the international market is illustrated in Fig. 36-2. In the left half of the figure, we see the supply and demand of the product in question in the United States; on the right are the UK demand and supply schedules for the same commodity. With no foreign trade of the good, the US equilibrium price would be OP, with the quantity OM exchanged; and in the UK, eguilibrium price would be OP" and quantity OM'. But with trade – and with neither costs of transportation nor tariffs nor other restrictions on trade – then the US and the UK become a consolidated market. In this larger single market, there is an equilibrium price at which total (US plus UK) quantity demanded is equal to total quantity supplied [9].

Scientist E. Aler highlighted another turnover function with there – the enumeration function, when very specific things are listed, which are often marked by a turnover with the filler there. A similar example is found in the same textbook on economics:

It is illustrated that a case of complete factor-price equalization consistent with our assumptions. These assumptions include:

1. There are only two productive factors, labor and capital, each of which is "homogeneous" throughout the world.

2. A given commodity has a single production function.

3. There are only two commodities, both produced with constant returns to scale.

"it" reinforcement structures.

In English grammar textbooks, such sentences are presented very rarely, and if they are presented, then the exercises are usually at the level of sentences and are purely mechanical in nature:

The girl can play the piano.
-It is the girl who can play the piano.
-It is the piano that the girl can play.

The most advanced textbooks provide minimal context and highlight more the juxtaposition function, most often inherent in amplifying constructions with "it":

A: Are you concerned about the money?
B: No, it's the people that I'm concerned about.

But nothing is said about how this construction is used in written speech, in which it is used most often. When a word is highlighted using an it construction at the very beginning of a paragraph of the text, the author sends a signal that this word will be the main topic in the paragraph: It is because of high speed of loading and unloading and the efficiency of transportation that the container has been introduced in many countries. Today, the Inter container partners include the railway administrations of European countries in Western and Eastern Europe in order to develop an international transport network with refrigerated containers. In recent years the speed of both passenger and freight traffic has been considerably increased [10]. When this construction is used in the last sentence of the last paragraph of the written text, then, as a rule, the author sums up the above, makes some conclusions or conclusions, for example:

The arrangement and operation of freight trains have little in common with those of passenger trains. As to the passenger trains working the most important factors are constant. There are no constant factors in freight train operation. Cars are loaded at thousands of different points for thousands of different destinations. They can reach their destinations only in the form of trains with other cars which share part of their journey. Marshalling yards are the means by which cars are assembled into trains. It is here that freight cars are formed into trains [11].

Conclusion

In conclusion, I would like to note that we do not at all urge to abandon the introduction of grammatical rules and training exercises with the help of individual sentences when teaching English grammar. It is probably necessary to take into account the level of language proficiency of our students. We believe that for a more advanced level of proficiency, there is a need to teach them such grammatical rules that will contribute to a better understanding of English written speech when reading texts and writing, because a clear idea of it is very important when and for what a particular design can be used. I would like English grammar textbooks to contain such authentic teaching materials.

References:

1. Canale, M. (1983). "*From communicative competence to communicative language pedagogy"*, in Richards, J. & Schmidt R. (eds.). Language and communication, Longman, London (in English).
2. Chomsky, N. (1965). *Aspects of the theory of syntax*, MIT Press, Cambridge, MA (in English).
3. Givon, T. (1983). "*Topic continuity in discourse: An introduction"*, in Givon, T. (ed.). Topic continuity in discourse: A quantitative cross-language study, John Benjamins, Amsterdam, pp. 1–14 (in English).
4. Levinson, S. (1983). *Pragmatics,* Cambridge University Press, Cambridge (in English).
5. Nishimura, C. (1995). *Demonstratives in academic written discourse.* Unpublished M.A. thesis in Teaching English as a Second Language, University of California, Los Angeles (in English).
6. Lloyd-Jones, M. (1987). *A contextual analysis of non-referential there in American English usage*. Unpublished M.A. thesis in teaching English as a second language, University of California, Los Angeles (in English).
7. Ahlers, E. A. (1991). *A discourse analysis of non-referential there in academic writing.* Unpublished M.A. thesis in teaching English as a second language, University of California, Los Angeles (in English).
8. (2006). *Railway Construction and Road-Building Machines and Equipment*: a Textbook, Moscow, p. 24 (in English).
9. Alchain, A. & Allen, W. (1972). *University economics*. Third edition, Wadsworth, Boston.
10. (2007). *Railway Cars: a Textbook*, Moscow, p. 28 (in English).
11. (2007). *Railway Operation: a Textbook*, (p.14). Moscow (in English).

Clarivate Analytics **indexed**

Nargiza Xalbayevna Babadjanova
Chirchik State Pedagogical Institute
Teacher, Tashkent region
nargizababadjanova2020@gmail.com

MYTH AND SOCIAL REALITY: SOCIAL AND COMMUNICATIVE THE PARADIGM OF INTERPRETATION

Abstract: *This paper purposes to present the complex of ideas related to the social and communicative interpretation of the interaction of social reality by analyzing ideas of scholars and focus on myth as a universal phenomenon of human existence and culture.*
Key words: *myth; social reality; communication; interpretation.*
Language: *English*
Citation: Babadjanova, N. X. (2021). Myth and social reality: social and communicative the paradigm of interpretation. *ISJ Theoretical & Applied Science, 06 (98),* 713-717.
Soi: http://s-o-i.org/1.1/TAS-06-98-98   *Doi*: crossref https://dx.doi.org/10.15863/TAS.2021.06.98.98
Scopus ASCC: 1200.

Introduction

In the research practices of traditional and modern humanities, the myth has proven itself as a concept that has the property of eluding definitions, remaining, in the words of D. Campbell, a mysterious "hero with a thousand faces". Since the ancient era, fundamental ideas and the most important problems from all areas of human existence have been met and intertwined in discussions about the myth. In our opinion, a huge array of research material about the myth as a universal phenomenon of human existence and culture can be presented in in the form of three interpretive paradigms (ontological-existential, cultural-semiotic, social-communicative). In each paradigm, various formal and substantive aspects of the myth are identified, their corresponding functional characteristics, as well as the specifics of changes in the myth under the influence of both internal and external factors.

Discussion

If the features of the socio-communicative interpretative model of the myth is considered in more detail it states various paradigms. The socio-communicative paradigm of myth interpretation originates in the development of socio-philosophical thought of the XIX-early XX century (K. Marx, G. Spencer, E. Durkheim, etc.). During this period,

society is interpreted as a sum of connections or a mutually condition system of relations arising from the joint life of people, reproduced and transformed by their activities. The main theses that predetermined the specifics of the mythological interpretation in the social perspective were the thesis about the dominance of social existence over cultural and individual, about the recognition of the principle of sociality as the highest principle in the development of human existence, about the need to express social reality in a system of special categories. In this perspective, E. Durkheim assessed social existence and myth as its manifestation. Social existence, in its interpretation, is more complex and stable than the existence of an individual, it is the existence of an objective collective life, the main element of which is stable transpersonal connections and relationships. It is in the plane of social life that we should look for the universal foundations of religiosity, morality, and spirituality. Myth, according to E. Durkheim, is historically the first form of understanding and experiencing social reality interpreting it in consciousness. Myth as a form contains the results of the process of primary classification and logical categorization of the world. The content of the myth is collective representations that reflect the mental life of the primitive collective, generalize the experience of the genus, reproduce the most general and stable social relations, the everyday

life and social experience of the community. The specificity of the mythological content lies in the mixing of images, the identities of the living and the inanimate, people and animals, object and subject, are "a continuous stream of representations that plunge into each other" [1. P. 9]. The functional analysis of the myth allows us to see new facets of its participation in the formation of connections and relations between social structures and between people. Thus, B. Malinovsky is a staunch supporter of a new methodology in the study of primitive tribal societies – "field ethnography"; he believes that the researcher-anthropologist "should leave your comfortable chaise longue on the veranda of the mission house" [2. p. 143] and conduct observations and analysis of the life of a primitive collective not from the outside, but from the inside. The myth, according to B. Malinovsky, can be understood only in a certain social context, it is not limited to only astronomical or meteorological phenomena that have become objects of socialization and ritual worship. The essence of the myth is determined based on the functional needs of primitive society: it " expresses, strengthens and codifies faith; it justifies and implements moral principles; it confirms the effectiveness of the rite and it contains practical rules that guide a person" [2. p. 99]. Myth is closely connected with magic, which is a means of introducing to the mythological world, the world of sacred reality, which preserves a complex of spiritual, religious, cultural and ethno-social values and traditions of the collective. Determine the factors that caused the occurrence of L. Levi-Bruhl sought to reveal the "mechanisms of mental activity of the so-called primitive people" in the archaic era. Primitive thinking appears in his concept as a special process of logical perception of the world, controlled by its own by law (participation), therefore, indifferent to contradictions and creating an internally consistent, subject-an object-unified world. Primitive collective representations are poorly differentiated, emotional, volitional and cognitive elements are not yet separated in them, the logical is closely intertwined with the world of feelings and emotions, the cognitive side of primitive consciousness is almost completely suppressed by the emotional-affective, the ability to interpret is absent. For L. levy-Bruhl myths is a relatively late product of primitive society, which appears when direct participation has disappeared, becoming obsolete and need a new special mechanism that would make up for the lack of direct participation, embedded in ways of perceiving the world and provide a sense of ownership with social group, with the last of his kind, with the totem, and social groups – with the surrounding social and natural environment [3. P. 353-357].

L. Levi-Bruhl's attention to the operations of mental activity that generate mythological it is an important step in determining the qualitative specificity of mythological thinking, but the myth in its concept remains an obsolete "sacred history of lower-type societies" [3. p.356].

The twentieth century not only sets new parameters for the reflection of social space, but also the mantises communication as a priority object of research in various fields of social and humanitarian knowledge (psychology, sociology, political science, anthropology, Cybernetics, philosophy, cultural studies, pedagogy, linguistics, etc.). In many social-political concepts modern society is presented as a system of communication, social action as communicative action, human – like communicative personality, speech event as a communicative act, and knowledge as a communicative rationality. Such a communicative turn in the study of social reality makes its own changes in the formation of the interpretative paradigm of the myth. Considering the interaction of myth and ideology in social life, many researchers come to the conclusion that myths are an integral part of the ideology of the political system of society, aimed at manipulating the mass mythological consciousness. Thus, myth is interpreted as an objectified form of regulating the life of society, as a means of mass communication, and ideology is understood as the final stage of the development of myth, "a means of influencing the present" [4. P. 56–57], whose functions include the socialization of the normative patterns and rituals established by the myth and the ordering of the total explosion of irrational and rebellious enthusiasm of the masses provoked by the myth. The most important role in the formation of the socio-communicative interpretative paradigm of the myth structuralism played a role (K. Levi-Strauss, R. Barth, Y. Kristeva, Ts. Todorov, U. Eco, etc.), whose representatives they sought to identify invariant mental structures hidden from consciousness, but determining the entire complex of human reactions to the external world. The object of the structuralisms' research was sign systems with certain similar features (common expressive means and symbol systems, the uniformity of the transmitted information, a stable set of norms and rules, orientation to certain communicative situations, etc.). In search of universal models of the generation of cultural texts, they used structural-semiotic methods for the analysis of the communicative and the symbolic nature of the myth, the mechanisms of ideological myths, the functioning of myths in everyday social life, in art and mass culture, in mass communication media, etc.

For example, K. Levi-Strauss believes that consciousness exists only at the intersection of many unconscious structures of the human spirit, each of which corresponds to a certain level of social reality. Therefore, analyzing the structural organization of primitive tribes, K. Levi-Strauss strives to identify universal models of human behavior and thinking. K. Levi-Strauss connects the emergence of social life with the development of exchange and

Clarivate Analytics indexed

communication, which are subject to certain rules and are impossible without sign systems that represent social facts simultaneously as things and as relationships. Such sign systems (totemic representations, kinship, marriage, table manners, etc.) are semiotic modeling systems and are subject to the same synchronous study structural methods, as well as natural languages. The structural approach allowed K. Levi-Strauss to describe the effective operation of the logical mechanisms of primitive thinking and to carry out a consistent analysis of the myth as the most characteristic phenomenon of primitive culture, leading to invariant structures lying in the human subconscious. According to K. Levi-Strauss, the universal foundations of being realize themselves through myths and in mythological forms. K. Levi-Strauss considers myth a phenomenon of language and applies to it the methods of information theory and structural linguistics. The myth in the interpretation of K. Levi-Strauss there is a " verbal creation that occupies in the sphere of this is a place comparable to the place of a crystal in the world of physical matter" [5. p. 164]. For primitive thinking, a myth that operates with binary oppositions ("raw–boiled", "right-left", etc.) is primarily a logical tool for resolving contradictions in the field of unconscious logical operations. This understanding of the myth leads to an emphasis on paradigmatic at the expense of narrative syntagmatic, on mythological systems to a greater extent than on individual plots. K. Levi-Strauss presents the principle of the myth as follows: in the process of encountering a new socio-cultural experience, a person's readiness to build oppositions is actualized, and it is possible to overcome the field of emerging tension through progressive mediation or mythological mediation. In the system of binary oppositions, the myth becomes a "condensed expression of necessary relations", a "bundle of relations" that reflect a complete invariant structure-a prototype [6. p. 140]. Working with oppositions, identifying emerging contradictions and the conditions for their "removal", K. Levi-Strauss sees in them only the logical structure, leaving the myth in the sphere of subjective mentality, in the sphere of cognitive. And although this is typical for non-classical attitudes, the version of the "work" of the myth with a contradiction proposed by K. Levi-Strauss is more consistent with the mythological paradigm of post-non-classical. Following K. Levi-Strauss, a number of domestic researchers (M. B. and S. V. Turovsky, A. S. Akhiezer, N. S. Autonomova and others) also address the problem the correlation of myth and contradiction as a statement of equivalence between the subjective and objective elements of a single socio-cultural system, between the personality and the sociality of the individual, between creative redundancy and social determinism. A. S. Akhiezer notes that the most important function of myth is the elimination of contradiction, integration. In this regard, he studies inversion as a specific mechanism of mythological thinking that allows to resolve contradictions arising in the subject-object space. In contrast to mediation, there is no need for inversion logic to overcome difficulties in eliminating contradictions: it is characterized by "instantaneous wrapping of the phenomenon with one or the other pole". Assessing the role of inversion in the context of myth, the author claims that as a result of inversion, mythological consciousness deprives the subject of the opportunity to reflect on a specific situation [7. Vol 3.pp. 116-117,193]. N. S. Avtonomova draws attention to the contradiction as an essential characteristic of the myth itself. Although the myth in its interpretation is reduced to a form of consciousness, it seems important that N. S. Avtonomova tries to reveal the ambivalence of the myth, to trace the socio-cultural conditions for the actualization of its normative and creative components, rational and intuitive principles. But, noting the internal contradiction between the "moments of norm and creativity" in the myth, the author believes that it exists only "at the stage of primitive mythological consciousness", later being fixed in science, morality and aesthetics [8. pp. 40, 45-48]. The greatest contribution to the study of the communicative nature of the myth in the social space was made by R. Barth. Developing the structural and semiotic concept of myth, R. Barth introduces myth into the institutional space of joint social existence as a formal component, as an element of communication, as one of the ways of signification, a kind of cultural mediator. The essence of the myth, according to R. Barth, is not determined by what it tells about, or by its material carrier. "A myth cannot be a thing, a concept or an idea... myth is a form" [9. P. 72]. The myth acts as a tool for semantic modeling of the surrounding world and at the same time as a way of self-identification of the subject. It is created based on some sequence of characters that exists before. The fundamental indifference of the myth to the content side allows any form (signified) become a myth: the denotation sign is endowed with a certain connotative shade of meaning, as a result of such an "eternal game of hide-and-seek between meaning and form" a new meaning is born – a myth [9. P. 83]. In this context, R. Barth's attention is transferred from semantic fullness of the myth to the mechanisms of sense. Barthes finds meaning in the myth both meaning and form that defines the signified as the concept, and the resulting element as value as "a continuously rotating turnstile, alternating sense of meaning and its form, language object and metalanguage, clean signification and clean imagery" [9. P. 88]. The concept is always "something concrete", "it is both historical and intentional, it is the motivating reason that brings the myth to life... it is always connected with this or that situation. Through the concept, a new eventfulness is introduced into the world" [9. P. 83]. The signifier in

the myth is ambiguous: at the same time it is both a meaning and a form, filled and at the same time empty. What in the original system is a sign saturated with meanings, in the myth becomes a signifier, i.e. an empty form. As R. Barth notes, " ... in the mythical concept there is only a vague knowledge formed from indeterminately loosen associations ...a formless, misty-shaky clot, united and connected only by virtue of its function." And further: "... the concept is given to us globally, as a kind of nebula, in which knowledge is more or less loosely condensed" [10. pp. 244, 257]. The myth, according to R. Barth's definition, holds meaning in its power: "For the form, meaning is like an improvised stock of history, it is rich and subdued, it can be either brought closer or removed... the form constantly needs it as a shelter." The myth serves a dual function, it means something and inspire, make you act, the goal of the myth is to convey clear and logical concept and intention: "the Myth is the word in which the intention... is much more important than the literal meaning... and at the same while the intention here like solidifies, cleaned, built for eternity, is absent due to the literal meaning..." [10. pp. 243, 249]. The mechanism of influence of the myth is based on the ability of symbols to provoke emotionally colored associations that push to certain actions. R. Barth emphasizes that the intention of the myth lies in its signified, in the mythical concept. But this intention can be realized only thanks to the symbol, i.e. the unity of the mythical signified and the signifier. One signified in a myth can have a huge number of signifiers, which is why the myth is variable (and this is a property of both archaic and modern myth).

R. Barth refers the myth to a deformed, distorted reality, taking it out of the brackets of such concepts as true–false. The meaning of myth-making is the transformation of signs into empty forms, the content of which is emasculated by deforming the original, rational meanings and is implicitly replaced by other, emotionally saturated suggestive meanings. "The myth does not hide anything and does not advertise anything, it only deforms; the myth is neither a lie nor a sincere confession, it is a distortion" [9. p. 95]. Distorting the assumed natural in relation to there are signs to it, the myth simultaneously strives for its own "naturalization". "A myth is a semi logical system that claims to turn into a system of facts" [9. p.101]. The myth is characterized by the desire to look not like a "product of culture "(i.e., a product of" artificial reality"), but a" phenomenon of nature", so it parasitizes on ideologically neutral signs of natural language. Modern myths are generated by a single type of thinking, they manifest common structural principles, but they do not add up to a single system. The myth is formed not as a narrative, but as a discourse, it is discrete, "it is nothing more than a phraseology, a set of phrases, stereotypes, the myth as such disappears, but there remains an even more

insidious mythical" [10. P. 15]. A myth is a form in which meanings and meanings are represented, accepted by consciousness "on faith", not subject to reflection and therefore easily amenable to both production and assimilation. The probability of implanting an image of reality into the fabric of consciousness as a "natural" image for the bearer of mythological consciousness arises in a mutual communicative space. As a communicative system, the myth in the Barth interpretation is possible only in the absence of subject-object structuring, and reflection is fatal for the myth, which inevitably leads to its analytical destruction. A characteristic feature of the modern socio-communicative interpretation of the myth is the actualization of interest in the world of everyday life as a joint existence. The area of everyday life, or everyday life, has the status of" supreme reality "[11. p.383] and is located on the border with other finite areas of meaning (theoretical thinking, art, religion, dream, fantasy, game). The semantic zones of the reality of everyday life are connected and integrated into a single semantic field thanks to the language and its ability to go beyond the "here-and-now". Thus, everyday reality becomes inter subjective, its meanings are shared by other people within the boundaries of society, are realized as common.

Result

Everyday reality reduces any non-everyday meanings to the needs of life and creates themes the most optimal environment for their penetration into consciousness in a mythologized form. It is in the sphere of mass everyday consciousness, according to researchers, that the functions of systematization of knowledge or achieving ideological integrity are transferred to it in response to internal tension within the most diverse social structures, which provokes a "mass eruption of myths" [12. P.7]. The socio-cultural problems of the myth in connection with the analysis of the sphere of everyday life are addressed G. S. Knabe, K. Bogdanov, V. I. Samokhvalova, N. S. Avtonomova, G. G. Kirilenko, etc. According to G. S. Knabe, the myth regulates everyday existence in a variety of epochs, but it becomes especially popular in the twentieth century, due to the emergence of such a phenomenon as mass culture. Pushing "high" culture to the periphery, mass culture includes marginal phenomena and events in the world of everyday life, distorting traditional value orientations and habitual ways of communication between people. So, the modern "grassroots" culture changes my status: it is no longer perceived as cultural opposition, as a form of plebeian protest of the masses against the "high" culture, and acts as an official culture, as its transformed form [13. P. 21]. G. S. Knabe, underscoring the desire everyday reality to reduce any meanings to the vital needs of social practice, which leads to the appearance in popular culture conditions

for the functioning of mythological consciousness on the border between the world of everyday life and in other areas of social reality.

Find items mythologizing and determining the specifics of myth-making in connection with the analysis of the sphere of everyday life and the modern mass ordinary consciousness and ideology, identification of mechanisms of translation the myth, the analysis of the functions of myths in contemporary social situation, especially Russian is P. S. Gurevich, T. I. Kovaleva, T. M. Oneway, G. V. Osipov, M. D. Cherkashin, A. G., Vaganov, E. A. Isakov, M. P. Volkov, etc.

Conclusion

Thus, we note a number of specific characteristics of the myth in the deployment of the socio-communicative paradigm of its interpretation:

- the inclusion of a myth in social processes is determined by its ability to codify and socializing traditions, norms and rules of life in society, to reproduce and consolidate the most stable social relations and ties;

- within the framework of the structural approach, the myth appears in the most formalized form not only as an element of communication, as a tool for semantic modeling of the surrounding social world, but also as a universal category that has the most important methodological status in the representation of all spheres and systems of relations of social reality;

- the zone of increased activity of myth in the social space is the area of everyday life, in which the mechanism of living myth generation constantly functions;

- modern social myths are formed as a result of conscious reflexive goal-setting and are a means of manipulating mass consciousness and a specific component of political and ideological practice;

- the analysis of the myth from the standpoint of a social and communicative approach allows us to study the nature of its penetration into all spheres of society's life activity, as well as to rethink in this regard the communicative nature of the social reality itself, its structures and processes.

References:

1. Durkheim, E., & Moss, M. (1996). *On some primitive forms of classification*. Moss M. Society. Exchange. Personality: Works on social anthropology. (p.308). Moscow: Oriental Literature of the Russian Academy of Sciences.
2. Malinovsky, B. (1998). *Myth in primitive psychology. Magic, science and religion*. (p.304). Moscow: Refl-buk.
3. Levi-Brul, L. (1994). *Primitive thinking. Supernatural in primitive thinking*. (p.608). Moscow: Pedagogika-Press.
4. Sorel, J. (1907). *Reflections on violence*. (p.163). Moscow: Benefit.
5. Levi-Strauss, K. (1970). The structure of myths. *Questions of philosophy*, No. 7, pp. 152-164.
6. Levi-Strauss, K. (1994). *Primitive thinking*. (p.384). Moscow: Republic.
7. Akhiezer, A. S. (1991). Russia. *Criticism of historical experience:* In 3 volumes. Moscow: Philosophical Society, vol. 3, p. 471.
8. Avtonomova, N. S. (1990). *Myth: chaos and logos. Deluded mind? The diversity of extra-scientific knowledge.* (pp.30-57). Moscow: Politizdat.
9. Bart, R. (1994). *Myth today*. Selected works: Semiotics. Poetics. (p.616). Moscow: Progress; Univers.
10. Bart, R. (2000). *Mythology*. (p.320). Moscow: Publishing house named after him. Sabashnikov.
11. Schutz, A. (1988). The structure of everyday thinking. *Sociological research*, No. 2, pp. 129-137.
12. Girardet, R. (1996). Political myths and mythologies. *Abstract journal. Social and Humanitarian sciences: Foreign lit*. Ser. 4. State and Law, No. 1, pp. 3-8.
13. Knabe, G. S. (1993). *The duality of culture. Materials for lectures on the general theory of culture and the culture of ancient Rome*. (p.527). Moscow: Indrik.

QR – Issue   QR – Article

Mushtariy Mamurova
Fergana State University
Teacher,
Fergana, Uzbekistan

MAHMOUD GHAZNAVI AS A HISTORICAL PERSON AND A LITERARY IMAGE

Abstract: The article deals with artistic features, writer's style, history, historical personality and textual image, nationality, customs and values, all of which are based on Maqsud Qoriyev's novels Mahmud Ghaznavi and Ibn Sino.
Key words: Maqsud Qoriyev, Mahmud Ghaznavi, Ibn Sino, art, style, character, history, personality and image, novel.
Language: English
Citation: Mamurova, M. (2021). Mahmoud Ghaznavi as a historical person and a literary image. ISJ Theoretical & Applied Science, 06 (98), 718-721.
Soi: http://s-o-i.org/1.1/TAS-06-98-99   Doi: crossref https://dx.doi.org/10.15863/TAS.2021.06.98.99
Scopus ASCC: 1200.

Introduction

There are many works about Mahmud Ghaznavi in various genres in Uzbek literature. One such writer, Maqsud Qoriyev, in his novel "Mahmud Ghaznavi" and "Ibn Sino", managed to illuminate the life of the historical figure Mahmud Ghaznavi.

The main part

In Maqsud Qoriyev's novel which was named "Ibn Sino", the image of Mahmud Ghaznavi appears on page 133. He is given a lot of information about Ibn Sina and Bukhara, where he lived, the doctor's love, family members.

Mahmud Ghaznavi is described as stronger than city of Ghazni, the river Hilmund and the rulers of all Asia. "Yes, it is the intelligence and power of Sultan Mahmud, who turned the Ghazna into a Ghazna and introduced it to the world as a powerful state. The crown and the throne did not glorified him, but he glorified the kingdom and introduced it to the world. In order to strengthen the government, he carried out important reforms in the affairs of state with entrepreneurship. He formed a regular army of one hundred thousand cavalry and infantry. Several hundred fighting elephants were in his army. There are also stone-throwing spears to destroy the walls of the castle and fortress. He paid special attention to teaching his troops military knowledge and martial arts. Every warrior had to know how to shoot an arrow, use a sword, a spear, use a club : how to fight on horse, on foot, how to shoot an archer, in general, more than thirty military skills.

Sultan Mahmud was an entrepreneur, scientist and art lover, as well as determined to build a great state. He gathered famous masters, sculptors and beauticians from all over the world and built a number of buildings and palaces. One of such constructions was the Palace Ghazni.

Sultan Mahmud listens to the merchants of his country and helps them as much as he can. At the same time, he worked tirelessly for the prosperity of his country and did justice. For example, in the play he listens to the pain of a merchant from Balkh, and his son Masud takes the merchant's property and says that he has not given it for three months. Then the king wrote a letter and told his son to go to the judge and return the money to the merchant, and he would agree to the judge's decision. Every decree issued by Sultan Mahmud has equal rights for all, and whoever disobeys it will be severely punished.

Sultan Mahmud is described as a loving father, a just king, a loyal son. When the Ghazni palace is finished, there will be a banquet in honor of his father Nosiruddav and Sabuktegin. Many people are invited to the banquet. Sultan Mahmud, who loved his father

so much, wanted to lift his spirits, serve him and receive blessings, and he achieved this.

Nosiruddavla Sabuktegin tells his children about justice, gives them examples from his own life. When his children remember their father's past, when they tell their story, they realize that they have done something wrong or wrong with their father. In a conversation after the banquet, Sultan Mahmud wondered where he had made a mistake. "O part of my heart, I have a word or two to tell you, and at the banquet I remembered my bankrupt days. Thank God, we have reached this level. After all, I was a helpless, poor slave. Who I was and who I became. I mean, anyone with a state can build such a beautiful garden that you have built, but if you build such a garden, no one will be able to build such a garden, no fruit like its fruits. "Wherever you find it," he said, looking at his son meaningfully.

Nosiruddavla Sabuktegin was a slave of a Turkish arisrocrat. He went through a lot of hardships from the beginning. In the world, man therefore decides everything on the basis of justice, and in the affairs of the state he does not judge a matter until it is true. He demanded the same of his children. Nosiruddavla Sabuktegin's worker who leading elephants eats the ripe dates of the farmer. When Nosiruddavla Sabuktegin heard the farmer's complaint, he hung the him on the palm tree. He does this so that he can be an example to everyone and not look down on someone else's property. The children of such a just king must be just and righteous.

Nosiruddavla Sabuktegin said to his children: "Justice is the basis of the power of the kingdom. Loving motherland is a matter of faith. " That is why Sultan Mahmud listened to his father's advice. He always got help from his father's advice before starting a business, thinking about what he would do if he had a father in my place.

Mahmoud Ghaznavi was born in Ghazni. He was brought up by a wise father, who saw a lot, but for some reason during the life of his father Nosiruddav and Sabuktegin, Mahmud was the eldest son, but his youngest son Ismail was the heir to the throne. appointed valiahd. Some of Mahmud's misdeeds, especially his harshness, his extreme cruelty during the war, and sometimes his stubbornness, caused the wise father to resent him, albeit a little. not surprising. Moreover, at the time of his father's death, Mahmoud was engaged in another war effort.

Nosiruddavla and Sabuktegin thought correctly and fairly. Mahmud was not made the heir to the throne, but after the death of his father, he invaded Ghazna with a large army and seized power. After that, he began to expand and strengthen the Treasury. He gathers his trusted people in the palace and around him. He consults with palace officials before embarking on a mission. He gets advice from everyone, but he doesn't stop knowing. He listens to the people around him without hesitation, asking them questions. Gets the information he needs.

Sultan Mahmud read a lot of books, and he also had his own people who read books and told their stories. In addition to Turkic, he was fluent in Persian, Arabic and Pahlavi languages, loved poetry and melody, and practiced ghazal. While drinking and having fun, he enjoyed reciting Rudaki's ghazals and rubai. But other times, when they talk about Rodaki, he is upset. The reason why such a great poet and scholar did not write anything about him always made him think and get upset.

Nosiruddavla Sabuktegin's son Mahmud Ghaznavi was told a lot about the need to gather great scholars, poets and fuzalas in the palace. Sultan Mahmud therefore sent a courier to Khorezm and ordered to bring the great scholars Beruni, Ibn Sina and a number of poets there.

Sultan Mahmud taught Firdavsi's "Shohnoma" to the palace mullah. He says that he has written a history of East and has suffered a lot. He paid Firdavsi and sent him away. Maybe it's an artistic story in this work. Through this story, the negative character of Mahmoud Ghaznavi, his true face, is revealed. I would like to emphasize that Mahmud Ghaznavi does not give a positive opinion to Firdavsi's "Shohnoma", which has been living for centuries, but the reason is that he heard the work without reading it.

Ibn Sina, who refused to go from Khorezm to Ghazna, together with his teacher Christian, Beruni and the minister helped them, gave them a guide and headed for Bukhara. The torment of the road, the hard days they go through, and their teacher dies in the desert. Ibn Sina's letter to Beruni fell into the hands of Mahmud Ghaznavi.

Sultan Mahmud hastily began to read the letter:

"To my dear Abu Rayhan al-Beruni! I declare with all due respect that, by the grace of Allah, I entered the place safely. But unfortunately, I have not yet decided on an important place. God forbid that we should suffer the hardships of the road. The Christian also died in the steppes and deserts with so much suffering ... "

The signature ... Ibn Sina's own, who would have thought that his letter, which ended yesterday, would eventually fall into the hands of Sultan Mahmud. At first the Sultan ignored the letter and began to read it carelessly, but, strangely enough, he saw the handwriting and felt as if he had been enchanted. Although it was not a poem, the magic prose said, "This is Ibn Sina's wonderful pleasure."

The problem becomes much clearer when we interpret each artistic image, which embodies the historical truth, as an expression of the writer's aesthetic experiences. Because the writer, after analyzing his impressions of life on the basis of his artistic perception and emotions, translates them into the image of the heroes in accordance with the artistic

plan of his thinking. It is at this point that the role of artistic texture becomes clear.

In creating the image of Mahmud Ghaznavi and Ibn Sino, Maqsud Qoriyev incorporated the image of historical truth. Because in order to make the image of the king more vivid, he presented a number of fabricated images and an artistic story of historical truth.

Another thing came to Mahmud Ghaznavi's mind, for he had brought many nations, countries, emirs and kings to his knees with his power, established a powerful government, and recognized him as the sharp sword of Islam. The emirs bowed before the kings of Manman, and Ibn Sina did not obey. Whether Ibn Sina likes him or disobeys him, such questions bother Mahmoud Ghaznavi. Now, if he has a doctor with him, he is ready to surprise him. However, after reading Ibn Sina's letter to Beruni, he became convinced that there was no such logic that was strong, meaningful, humble, and humble.

On one page of the novel, Mahmud Ghaznavi's two views on Ibn Sina are revealed. One is portrayed as a man, a just king who loves art, and the other is portrayed as a proud king who wanted to subdue everyone and was ready to be executed despite his great medicine. This is the skill of the writer, who depicts the king on the basis of both history and art.

The inclusion of the legend of "Divine Blessing" in the plot of the work also allowed to reveal the historical realities of the time, "the fate of historical figures, the drama of the time, the multifaceted contradictions of the time in a new, effective way, artistic development."

"The Sultan did not read the wise observations in the letter, but began from the right place:

"As you know, I do not like criticism, I do not want to kneel before the rulers. Although I am a poor person, I do not allow my dignity to be trampled on. The world is full of tyrants and oppressors. Emirs, kings and sultans fought for the throne and dried the pillows of many people, who needs it, it happened in Bukhara, in the days of the massacre I lost my dearest person ...

I did not go to the Treasury, but opposed the opinion of Sultan Mahmud. What in the world is better than flying like a free bird! "

Mahmud Ghaznavi is influenced by Ibn Sina's letter. As mentioned above, the letter sheds light on two different characters of Mahmud Ghaznavi. Through the details of this letter, the conflict between Mahmud Ghaznavi and Ibn Sina begins. However, this conflict remains in the feelings of Sultan Mahmud Ghaznavi, that is, the conflict manifests itself as a conflict.

In Maqsud Qoriyev's novel "Ibn Sino" Mahmud Ghaznavi and Ibn Sino do not meet each other.

Because even if he sends a picture of Ibn Sina to every city, no one will be able to find him. Ibn Sina do not want to go to the king and be a prisoner.

Maqsud Qoriyev, on the other hand, does not meet the king and the doctor in the novel "Ibn Sina", on the contrary, in the language of Ibn Sina the kings are described.

The cold news that Sultan Mahmud Ghaznavi had passed away spread like wildfire. Having conquered and subjugated many lands, he amassed incomparable wealth, and now he has nothing, he has moved to Allah with open arms.

It was as if the sultan decided to spend the last years of his life in more peace and luxury. State affairs and military campaigns are now in the hands of their sons. Especially his eldest son Sultan Masud was in charge of this work. In the city of Ghaznadek, in the paradise-like garden of the great, he spends time with ghazal-singing and poetry evenings with his close people, famous scholars of the time, poets and poetesses, and sometimes during such sweet conversations. He used to recite his poems and get the opinion of the assembly.

As a devout Muslim, the sultan never prayed five times a day, then went to mosques and madrassas, hunted the hearts of the people, and gave alms to the poor and the needy. It was as if he wanted to ask forgiveness from the great Creator for his unjust sins. At such good moments, he would remember the days of his youth and sometimes fall silent.

Sultan Mahmud, as the founder of the kingdom, faithfully fulfilled his duty of piety: whether it was easy to build a powerful state, there were massacres, justice, bloodshed, injustice and mercy.

Now everything is left behind, both power and might! After all, the state, the kingdom, the crown and the throne are not eternal! May God deprive you of all opportunities one after another when you are old, when your strength is gone: your eyes are dim, your ears are deaf, you are forgetful, your back is weak, your legs are tired.

Maqsud Qoriyev portrayed the image of Sultan Mahmud Ghaznavi as a positive image, as a king who loved and appreciated art and gathered around him. However, in the novel, it was a dream for Sultan Mahmud Ghaznavi to meet Ibn Sina and bring him to his palace.

Conclusion

So, Maqsud Qoriyev in his novel "Ibn Sino" created the image of the king on the basis of historical truth with artistic colors. The reader of the novel will have only a positive opinion about Sultan Mahmud Ghaznavi.

References:

1. Mirziyoyev, Sh.M. (2016). *Erkin va farovon, democratik O'zbekiston davlatini birgalikda barpo etamiz*. - Tashkent: " O'zbekiston" NMIU.
2. Karimov, I.A. (2008). *Yuksak ma'naviyat - yengilmas kuch*. - Tashkent: "Ma'naviyat".
3. Qoriyev, M. (1995). *Ibn Sino*. Tashkent: Sharq.
4. Qoriyev, M. (2000). *Tanlangan asarlar. Ibn Sino*. II jild - Tashkent: "Sharq".
5. Alimov, P. (1993). *Tarix, shaxs, badia*. Toshkent: O'zbekiston.
6. (1993). *Abu Ali Ibn Sino. Tib qonunlari*. - Tashkent: Abdulla Qodiriy nomidagi Xalq merosi nashriyoti.
7. (1980). *Abu Ali ibn Sino. Salomon va Ibsol*. - Tashkent: Gafur Gulom nomidagi Adabiyot va sanat nashriyoti.
8. Zokirov, M. T., & Zokirova, S. M. (2020). Contrastic Analysis At The Phonetic Level. *Academic Leadership* (Online Journal), 21(05), 163-169.
9. Zokirov, M. T., & Zokirova, S. M. (2020). About Lexical-semantic Interference in the Speech of Tajiks, Living in Fergana Region of the Republic of Uzbekistan. *International Journal of Pharmaceutical Research*, T. 12, №. 3.
10. Zokirov, M. T., & Dadabayeva, S. S. (2020). About the role of languages contacts in the development of languages. *Theoretical & Applied Science*, №. 4, pp.687-691.
11. Zokirov, M. T. (2021). About the interrelationships of linguistics and psychology. *ISJ Theoretical & Applied Science*, 04 (96), 422-425.
12. Zokirov, M. T. (2021). Mastery of using taboos and euphemisms by Abdullah Qadiri. *ISJ Theoretical & Applied Science*, 05 (97), 112-115.

Mushtariy Mamurova
Fergana State University
Teacher,
Fergana, Uzbekistan

Adolatxon Ruzimatova
Fergana State University
Student,
Fergana, Uzbekistan

MAKSUD QORIYEV'S CHARACTER CREATION SKILLS

Abstract: Maqsud Qoriyev has a place in Uzbek literature with his novels that embody historical truth and artistic fabric. Proof of this can be seen in his historical novels such as Ibn Sina, Spitamen, and Mahmud Ghaznavi.
Key words: Maqsud Qoriyev, Mahmud Ghaznavi, Ibn Sino, Spitamen, art, style, character, history, historical novel, personality and image, novel.
Language: English
Citation: Mamurova, M., & Ruzimatova, A. (2021). Maksud Qoriyev's character creation skills. *ISJ Theoretical & Applied Science, 06 (98),* 722-725.
Soi: http://s-o-i.org/1.1/TAS-06-98-100   *Doi*: crossref https://dx.doi.org/10.15863/TAS.2021.06.98.100
Scopus ASCC: 1208.

Introduction

Maksud Qoriyev is known in Uzbek literature for his historical novels such as "Ibn Sino", "Spitamen", "Mahmud Ghaznavi". His novels, which combine historical truth and artistic fiction , captivate the reader with the smoothness and appealing of their language. When you read the novel "Ibn Sina", it seems that the play depicts a doctor in love. While reading the novel , you will know historical figures, fabricated images, historical truth and artistic events. The events in the work, the period, the time are embodied in human eye.

The main part

This novel of the author describes the life of Ibn Sina. There are portraits of great scholars such as Ibn Sina, Mahmud Ghaznavi, Beruni. This historical work differs from Odil Yakubov's novel "AncientWorld". He described the image of Mahmud Ghaznavi on the basis of historical facts. Unlike Odil Yakubov, Maqsud Qoriyev portrayed Mahmud Ghaznavi as a positive image. Ibn Sina, on the other hand, was more artistic. In the novel, the writer's unique style is reflected in the characterization of historical figures.

Psychological signs are clearly visible in the portrait. The talented artist deeply illuminates the heart of the hero through his portrait. It is difficult to find a considerable work without a portrait. But each writer decides portrait issue on his own. Some artists start the work with a portrait, while others create a portrait through the actions of the protagonist. Another group of writers portrays portrait and movement in parallel. This means that there is no clear indication of when and how to depict a portrait. But there must be unity between the portrait and the direction of the character, the portrait must serve to illuminate the heart of the hero.

When L. Tolstoy was working on a certain image, he first tried to find the "key" to the character. For this purpose, he studied a lot of information about the life and character of the hero. He drew a portrait of the hero , drawing all his attention to the "dialectic of the heart." For Leo Tolstoy, the portrait served as a mirror to the heart: the rebellion in the heart, the changes are expressed in the portrait. Alexei Tolstoy was also a supporter of inner character. According to him, the portrait is based on the character's morals, actions, struggles. The talented artist believed in the meaning of the words portrait and followed it in his

Clarivate
Analytics indexed

work. If the essence of the hero is correctly defined, his portrait can be drawn by the student's fantasy .

Apparently, both L.Tolstoy and A. Tolstoy were favor to portraiture with inner light. The deeper the writer knows his protagonist, the more images and portraits are given in his work. Giving a portrait in motion determines the naturalness of the character. In addition, the action animates the portrait, leaves an indelible mark on the heart of the reader.

There is a work of art, there is a character, an image. In a short story there is a clear point of the character, in a few verses the character's mood and attitude are embodied. The ancient Greek philosopher Aristotle said in "Poetics" that a character "should have a purpose, a specific, true consistency," and in particular that "there must be nothing illogical in events as in the character." Aristotle writes so precisely and concisely about the nature of the character, its change, the choice of events, that the reader thinks: "The character must have a clear, consistent formula." After Aristotle, thousands of literary critics studied character and image.

Various artistic means are used to create the character. Memory is a person's antique wealth, experience, level of spiritual development known only to himself. As people get older, as experience and knowledge increase ,the memory also becomes stronger. The creator will definitely use the virtual world, which is likely to become a reality as soon as possib

In artistic literature the character is an image that is perfected in all respects, the various features of which are clearly visible. An artistic character is a person who combines the most important general features of a certain period and environment with the individual features of an individual. As the status of the individual changes in society, the level of individuality in the artistic character increases, and the human character is realized not only as a set of stable features given to it by nature, but also as a product of time and environment, and thus being closer to phase of realism the role and importance of artistic character has also increased. "Realism in literature has created ample opportunities for a comprehensive and deep artistic understanding of the artistic nature of life." While creating characters in these stories, E.Azamov was able to combine the traditions of Uzbek prose with the creative study of the most advanced aspects of the storytelling of world literature. Professor Kazakboy Yuldash writes about the peculiarities of Uzbek prose of the XX century: "Renewals in fiction ... were reflected in the works of writers who did not change the style of image. They began to prioritize the depiction of the emotions and mental anguish of people involved in important events in ancient history or today. In their works, man is portrayed not as an appendix to historical events, but as a unique and unique destiny who is the executor of those events. Publishers such as Erkin Azam, Normurad Norkobil,

Shoyim Botayev, Asad Dilmurod, Abbos Said are steadily following the artistic path they have opened and have achieved a number of positive results in expressing the spirit of the heroes.

There is a work of art, there is a character, an image, a character. In a short story there is a clear point of the character, in a few lines of the poem there is a mood and attitude of the character. The ancient Greek philosopher Aristotle said in his work Poetics that a character "must have a purpose, be unique, real, consistent," and that "there must be nothing illogical in events, as in the case of characters." 'kidlagan. Aristotle writes so clearly and concisely about the nature of the character, its change, the choice of events, that the reader has the idea that "character must have a clear, consistent formula." After Aristotle, thousands of literary critics studied character and image. Whichever scientist put the problem right, took it seriously, knew that there was a formula of character, tried to explain it convincingly.

Character is a universal problem of fiction. The word "character" is accepted by most philosophers, philosophers and literary critics of the country. They tried to illustrate it with the example of their national literature and art.

The problem of character in Uzbek literature has existed since ancient times. It is expressed in words such as image, image, symbol, and later image, character. The term "character" has been widely used in Uzbek literature since the 1950s. V.Belinskiy, N.Dobrolyubov, N.Chernishevskiy, D.Pisarev, G.Plexanov, M.Xrapchenko, G.Pospelov, A.Metchenko, A.Ovcharenko, L. Novichenko, V.Sherbina, V.Jirmunskiy, L. Matyokub Kushjanov, who diligently studied the works of literary critics such as Timofeev and Ya. Elsberg, made significant research on the literary character. Over the past 50 years, Uzbek literary critics have relied on research on character and image, mainly on the research of academician Kushjanov.

The character in the work of art "holds the reins" and the researcher quickly understands the essence of problems such as plot composition, language. Understanding the problem of character simplifies the biographical, ontological, functional approach, ways and methods of interpretation, analysis. Matyokub Kushjanov is sensitive to the connection between character and images, the role of both in the work.

Philosophy, aesthetics, and literature have always considered the knowledge of man, the illumination of character, to be the main problem. Much has been written about human nature in Eastern Muslim philosophy and philosophy. The fact that man is born with his own food, destiny and nature has been proved in both religious and secular works. The theory of mysticism has proved that man grows and changes and matures. In the classical literature of the East there are many words such as fitrat, nihod, tinat, which are used in the sense of human identity, uniqueness.

Human grows, changes, is formed, becomes spiritually rich. But man does not change completely, does not acquire a second "I", does not lose his identity, that is, a set of social relations takes place at the heart of human nature. To be more precise, there is a nature in which a person changes, adapts, changes, changes. This means that a unique, stable core absorbs social relations. Literary character is a combination of core and social relations. It is well known to Muslims that their destiny is eternal and that no one and nothing can change the writing on their foreheads. Only the prayers of many can affect the writing on the forehead, according to the hadiths. Society, the social environment, changes and renews a person. Lazy people who are not involved in social life and do not try to overcome the difficulties of life are called maytulhay (living dead). There are many images of lazy people in fiction who do not use their minds and withdraw from social movements.

Every perfect character is an ore of a work of art. Due to the mature characters, the work receives a certificate of eternal life. The essence of the character is determined by identity, uniqueness, immortal, indelible, indelible, unbreakable "Writing" of destiny. Mind, will, aspiration can reflect destiny, allow to see clearly. The core of the character and the various human, social relations can end in reconciliation, struggle, conflict, tragedy, serious noise, abnormal ending.

In the novel "Ibn Sino" Maqsud Qoriyev tried to shed light on the character of Sultan Mahmud Ghaznavi. It should be noted that Odil Yakubov skillfully portrayed the character of the sultan in the novel "Old World". Maqsud Qoriyev portrayed Mahmud Ghaznavi as a positive king.

"When Mahmud heard of his father's death, he rushed to the treasury. He knew that his brother Ishmael was empty and could not be king. Disagreements and disagreements intensified in the kingdom, and his brother could not withstand the attacks of the governors of the provinces. His reign lasted only seven months. Taking advantage of this, Mahmud invaded Ghazna with a large army and seized power. Thus, he became the ruler of the Treasury, and then began to expand and strengthen his kingdom.

The Caliph of Baghdad also recognized Mahmud, a businessman who had skillfully calmed the revolt in Ghazni, and ordered a sermon to be delivered in his name. After that, Mahmud's prestige increased and he became firmly in power.

Mahmoud Ghaznavi needed the support of the Caliph of Baghdad more than anyone else. It is necessary to deal with the caliph on the basis of mastery and depth. He sent expensive gifts and overpaid taxes. The recitation of the khutbah in the name of the caliph in the mosques made a good impression on the ruler of Baghdad. After that, Mahmoud Ghaznavi began to realize his goals and plans.

It is clear from the passage that Mahmud Ghaznavi is a businessman who knows with whom, where and how to make a deal. That is why his fame spread all over the world.

In the play, Sultan Mahmud does not raise Ghaznavi to the level of a writer, but raises him to the level of a character. He does not rebel against his father or his brothers for the throne, for wealth. Works wisely. One of the reasons why he rose to the level of a character in the novel is the image of Ibn Sina. The respect and esteem of such scholars as Ibn Sina and Beruni also determines this.

He wants to be with Ibn Sina as a king, but he does not bring him by force. Recognizes the talent and ability of the doctor.

Conclusion

In conclusion, Maqsud Qoriyev does not create a portrait of Sultan Mahmud Ghaznavi in the novel "Ibn Sino", but creates his appearance through his feelings and characters. It is also important to pay attention to the historical truth.

References:

1. Qoriyev, M. (1995). *Ibn Sino*. Toshkent: Sharq.
2. Alimov, P. (1993). *Tarix, shaxs, badia*. Toshkent: Oʻzbekiston.
3. (1957). *Russkiye pisateli o literaturnom trude*. Tom 4, L..
4. Buronov, D., et al. (2010). *Adabiyotshunoslik lugʻati*. Toshkent: "Akademnashr".
5. (2006). *Qozoqboy Yoʻldosh. Yoniq soʻz*. Toshkent: "Yangi asr avlodi".
6. Rasulov, A. (2007). *Badiiylik - bezavol yangilik*. Toshkent: Sharq.
7. Zokirov, M. T., & Zokirova, S. M. (2020). Contrastive Analysis At The Phonetic Level. *Academic Leadership (Online Journal)*, 21(05), 163-169.
8. Zokirov, M. T., & Zokirova, S. M. (2020). About Lexical-semantic Interference in the Speech of Tajiks, Living in Fergana Region of the Republic

of Uzbekistan. *International Journal of Pharmaceutical Research*, T. 12, №. 3.

9. Zokirov, M. T., & Dadabayeva, S. S. (2020). About the role of languages contacts in the development of languages. *Theoretical & Applied Science*, №. 4, 687-691.

10. Zokirov, M. T. (2021). About the interrelationships of linguistics and psychology.

ISJ Theoretical & Applied Science, 04 (96), 422-425.

11. Zokirov, M. T. (2021). Mastery of using taboos and euphemisms by Abdullah Qadiri. *ISJ Theoretical & Applied Science*, 05 (97), 112-115.

Mushtariy Mamurova
Fergana State University,
Teacher,
Fergana, Uzbekistan

Adolatxon Ruzimatova
Fergana State University,
Student,
Fergana, Uzbekistan

IMPLEMENTATION OF MODERN INNOVATIVE AND PEDAGOGICAL TECHNOLOGIES IN THE TEACHING AND UPBRINGING OF STUDENTS OF THE ELEMENTARY SCHOOL

Abstract: This article examines the use of modern innovative and pedagogical technologies in teaching and upbringing of primary school students.
Key words: innovation, pedagogy, technology, training, education, educational information.
Language: English
Citation: Mamurova, M., & Ruzimatova, A. (2021). Implementation of modern innovative and pedagogical technologies in the teaching and upbringing of students of the elementary school. ISJ Theoretical & Applied Science, 06 (98), 726-728.
Soi: http://s-o-i.org/1.1/TAS-06-98-101   Doi: crossref https://dx.doi.org/10.15863/TAS.2021.06.98.101
Scopus ASCC: 3304.

Introduction

Regardless of the type of educational institution, teachers use new technical and pedagogical opportunities and tools that make it possible to implement any teaching technologies and new content of the educational process.

The teaching process always has its own technology, characteristic of the methods and means that the teacher uses when organizing and conducting classes. Teaching technology, on the one hand, is perceived as a set of methods and means of processing, presentation, measurement and presentation of educational information, and on the other hand, it is the science of how the teacher influences students and interacts with them in the learning process using the necessary technical or informational means ...

The main part

Learning technology is a way of implementing the learning content provided for by curricula, representing a system of forms, methods and teaching aids that ensure the most effective achievement of the set goals.

Thus, teaching technology is what characterizes the educational process and is a guide for achieving the set learning goals.

The chosen technology, in any case, should be based on trust in the teacher's pedagogical professionalism; on the observance of the physiological and hygienic standards of the work of students; guaranteed educational preparation of students at any stage of the educational process and preservation of the comfort of the student and teacher.

With the mastery of the technology of constructing the educational process, a new pedagogical thinking of the teacher begins: clarity, structure, clarity of the methodological language, the emergence of a well-founded norm in the methodology.

The technology represents the formation of a methodological vision of the educational process for the academic year. This is where the use of technology begins.

The development of the school is carried out through innovation. Innovation is understood as activities for the development, search, development and use of innovations, implementation of innovations.

From all the variety of innovative directions in modern didactics, today we will talk about pedagogical technologies used in our primary school.

In a modern elementary school, the personality of the child and his activities come first. Therefore, among the priority technologies we have identified:

- Person-centered approach;
- Activity approach;
- Health-saving technologies;
- Game technologies;
- Test technologies, etc.

The personality-oriented approach ensures the activity of each student on the basis of a multi-level approach to the content, methods, forms of organization of educational and cognitive activities, to the level of cognitive independence, the transfer of teacher-student relations to equal cooperation.

New living conditions put forward their own requirements for the formation of young people. They must be not only knowledgeable and skillful, but thinking, proactive and independent. New technologies do not discard the presentation of information to students, but simply change the role of information. It is necessary not only for memorization and assimilation, but also for students to use it as a condition or environment for creating their own creative product. Everyone knows that a person develops only in the process of his own activity. The activity approach is based on the student's personal inclusion in the process, when the components of the activity are directed and controlled by him.

Game technologies make it possible to more actively involve students in the educational process, since for stage 1 students, the main form of activity remains game activity. Gaming technologies help to solve issues of motivation, student development, as well as issues of health preservation and socialization. The development of a harmonious, prosperous personality is not possible without preserving physical, mental and social health.

The preservation of the health of schoolchildren begins with the organization of the entire educational process.

The problem of preventing students' fatigue comes to the fore. However, the biological significance of fatigue is twofold. On the one hand, it is a protective reaction of the body against excessive exhaustion, and on the other hand, it stimulates the subsequent growth of working capacity. Therefore, the hygienic correct organization of educational activities should be aimed at distancing the appearance of fatigue and protecting the student's body from its negative influence. To prevent fatigue from destroying health, it is important to take into account the daily performance cycles of children. The most dramatic changes in the functional state of the central nervous system occur after the fourth hour of training. It is at this time that you should not load students with complex and voluminous educational work.

A certain dynamics of the functional state of the organism of schoolchildren is traced throughout the week. The optimum performance in most cases falls on Tuesday, and on Wednesday some decline is recorded, and on Thursday there is a significant increase in the speed and accuracy of work. On Friday, there is another decline in working capacity. Based on this, special attention should be paid to the schedule of lessons. It is advisable to divide all subjects into four degrees of difficulty. Hours of high working capacity (we devoted 2-3 lessons to classes in subjects of the first degree of difficulty, which require great mental stress from students. Control works are carried out at the same hours. The most important for the prevention of fatigue are classes in work, physical culture, music, especially when they are held on 3 - 4 lessons In this case, the last lesson, representing the second or third degree of difficulty, takes place with a relatively high efficiency.

Not only an incorrectly drawn up timetable, but also an excessive teaching load leads to overwork of students. Therefore, we believe that the content of one lesson should not be fully absorbed by the next lesson. In order for the student to realize, fully perceive and assimilate the educational material, a sufficiently long time is needed, and this time is different for each child.

Preservation of health certainly depends on the volume and complexity of the homework. The teacher must balance the scope and complexity with the student's capabilities.

The child must constantly feel happy and innovative technologies will help us with this.

Conclusion

As a result of the analysis of modern pedagogical technologies, the necessity of their application is shown to increase the effectiveness of teaching and upbringing of primary schoolchildren.

It has been established that the use of innovative pedagogical technologies allows the most complete implementation of the tasks of modern education - the creation of a set of conditions for the development of students, which ensures in the future their readiness to live and successfully act in the world of humanitarian values.

The system of work developed by the author with the use of some innovative pedagogical technologies has been tested and can be used in the educational process.

References:

1. Mirziyoev, Sh.M. (2017). *We will resolutely continue our path of national development and raise it to a new level*. Volume 1. (p.570). Tashkent: Uzbekistan.

2. (2008). *State programs for the development of preschool children*. - Tashkent.

3. (2010). *"Bolajon" base program*. - Tashkent.

4. Zokirov, M. T., & Zokirova, S. M. (2020). Contrastic Analysis At The Phonetic Level. *Academic Leadership* (Online Journal), 21(05), 163-169.

5. Zokirov, M. T., & Zokirova, S. M. (2020). About Lexical-semantic Interference in the Speech of Tajiks, Living in Fergana Region of the Republic of Uzbekistan. *International Journal of Pharmaceutical Research*, Т. 12, №. 3.

6. Zokirov, M. T., & Dadabayeva, S. S. (2020). About the role of languages contacts in the development of languages. *Theoretical & Applied Science*, №. 4, 687-691.

7. Mukhtoraliyevna, Z. S. (2017). Linguistic Lacunar Units and Lacunas. ANGLISTICUM. *Journal of the Association-Institute for English Language and American Studies*, 6(2), 12-19.

8. Zokirov, M. T. (2021). About the interrelationships of linguistics and psychology. *Theoretical & Applied Science*, №. 4, 422-425.

9. Zokirova, S. M., & Axmedova, D. O. (2021). Working with borrowings given in dictionaries of primary school textbooks. *ISJ Theoretical & Applied Science*, 03 (95), 275-278.

10. Zokirov, M. T. (2021). About the interrelationships of linguistics and psychology. *ISJ Theoretical & Applied Science*, 04 (96), 422-425.

11. Zokirov, M. T. (2021). Mastery of using taboos and euphemisms by Abdullah Qadiri. *ISJ Theoretical & Applied Science*, 05 (97), 112-115.

Clarivate Analytics **indexed**

Jamshid Sharafetdinovich Tukhtabaev
Tashkent State University of Economics
PhD., Associate Professor, Department of Economic security
Uzbekistan
jamshidtukhtabaev@gmail.com

Makhdomi Homayoun
Termez State University
Master's degree student,
Uzbekistan

Magomed Abduaxat og'li Saidov
Tashkent State University of Economics
Master's degree student,
Uzbekistan

THE SYSTEM OF ECONOMIC CONTRACTUAL RELATIONS WITH ENTERPRISES ENGAGED IN THE CULTIVATION OF OILSEEDS AND THE PRODUCTION OF VEGETABLE OIL

Abstract: *This article analyzes the activities of large industrial enterprises that affect the economic security of the regions. The analysis analyzes the production volumes, product composition, product types over the years. The potential of industrial enterprises in ensuring the economic security of the region and the work to be done were also analyzed.*
Key words: *economic security, food security, oilseeds, vegetable oil, cotton, sunflower, regional economy.*
Language: *English*
Citation: *Tukhtabaev, J. S., Homayoun, M., & Saidov, M. A. (2021). The system of economic contractual relations with enterprises engaged in the cultivation of oilseeds and the production of vegetable oil. ISJ Theoretical & Applied Science, 06 (98),* 729-739.
Soi: http://s-o-i.org/1.1/TAS-06-98-102   *Doi*: crossref https://dx.doi.org/10.15863/TAS.2021.06.98.102
Scopus ASCC: 2000.

Introduction

In Kashkadarya region, the enterprises of JSC "Kasan Oil Extraction" and JSC "Karshi Oil Extraction" are engaged in the processing of oilseeds. The main activities of these two large industrial enterprises are industrial processing of oilseeds, production of meal, bark, all kinds of vegetable and bean oils, packaging and sale of purified and deodorized vegetable oils in environmentally friendly containers.

In 2019, JSC "Kosan Oil Extract" re-produced 98.552 tons of cotton seeds (100.4% compared to 2015), 56 tons of corn (91.8%), 10 tons of sunflower (30.6%), 336 tons of soyabeans, (+37.3 times), and produced 16544 tons of pure cottonseed oil (106.9%), 10 tons of gasoline-free mascarpone oil (101.5%), 61 tons of unsaturated soybean oil (+30.5 times) 2.3 tons of sunflower oil (38.3%), 16544 tons (106.9%) of dyed cottonseed oil, 10.0 tons (101.5%) fake molasses oil, 61.0 tons (+30.5 times) soybean oil, 2.6 tons (37.1%) unsaturated sunflower oil, 40952.0 tons (107.2%) cottonseed oil 43 tons (89.6%) of molasses oil, 259 tons (+37.0 times) of soybean flour, 7 tons (28.0%) of sunflower flour, 28408 tons (105.2%) of shellfish, 660 tons (99.5%) of cotton soap, 1 ton (100.0%) of molasses, 6 tons (+ 6 times) of soy soap, as well as 7697 tons of packaged butter (94.2%), 7726 tons of castor oil (94.5 percent) (Table 1a-1b).

Clarivate Analytics *indexed*

Table 1a. Changes in production figures at JSC "Kasan Oil Extraction", tons[6]

Name of indicators	JSC "Kasan oil extraction"					
	2015	2016	2017	2018	2019	2019 relative to 2016. %
Cotton seed processing	98152	95152	98548	90287	98552	100.4
Mashar seed			41	69	56	91.8
Sunflower seeds			50	7	10	30.6
Soyabeans			7	0	336	+37.3 м
Unbleached cottonseed oil	15479	12479	17959	18474	16544	106.9
Unscented mascara oil			7	13	10	101.5
Unscented soybean oil			1	0	61	+30.5 м
Unscented sunflower oil			15	1.5	2.6	37.1
Stained cottonseed oil	13563	10563	15739	16418	14619	107.8
Blubber also is a cover that holds in heat			6	11	9	100.0
Stained soyabean oil			1	0	54	+54.3 м
Stained sunflower oil			13.5	1	2.3	38.3
Cotton meal	38187	35187	44038	44343	40952	107.2
Mashar meal			32	57.3	43	89.6
Soaybean meal			5	0	259	+37.0 м
Sunflower seeds			33	5	7	28.0
Husk	26998	23998	31416	30981	28408	105.2
Cotton soapstogi	1668	1668	1932	1761	1660	99.5
Masxar soapstogi			1.9	1	1	100.0
Soya soapstogi			0	0	6	+6 м
Sunflower soapstogi			1.3	0.2	0	0.0
Packaged butter is all	8173	8173	8101	8918	7697	94.2
Blubber also is a cover that holds in heat.	8173		7711	9951	7726	94,5

Table 1b. Changes in production figures at JSC "Karshi Oil Extraction", tons[6]

Name of indicators	JSC "Karshi oil extraction"					
	2015	2016	2017	2018	2019	2019 compared to 2016,%
Cotton seed processing	60553	61553	78247	69798	78337	129.4
Mashar seed	1099	1080	0	0	930	84.6
Sunflower seeds	30.27	28.27	0	2	0	0.0
Soyabeans	4.0	2.0	0	0	97	+24.2 м
Unbleached cottonseed oil	12571	12371	10451	14682	12781	113.5
Unscented mascara oil	209	190	190	0	168.4	80.6
Unscented soybean oil	0.71	0.51	0	0	17.5	+24.6 м
Unscented sunflower oil	8.11	8.09	0	0.61	0	0.0
Stained cottonseed oil	11185	11085	9251	13060	11294	100.9
Blubber also is a cover that holds in heat	186.0	185.0	0	0	148.5	79.8
Stained soyabean oil	0.63	0.53	0	0	317.39	+31.7 м
Stained sunflower oil	7.3	5.3	0.82	0.55	0	0.0
Cotton meal	30057	29057	31150	35587	31763	105.7

Mashar meal	830.4	810.4	758	0	710	85.5
Soaybean meal	76.17	56.17	76.6	0	74	97.2
Sunflower seeds	0	0	0	1	0	0.0
Husk	21639	21839	22400	24187	21692	100.2
Cotton soapstogi	1186.3	1196.3	1227.1	1387	1283	108.2
Masxar soapstogi	19.96	20.96	17.86	0	17.0	85.2
Soya soapstogi	6.8	2.8	17.108	0	20	+2.9 м
Sunflower soapstogi	0.7	0.4	0	0	0	0.0
Packaged butter is all	5785	5685	6471.5	6563	6811	117.7
Blubber also is a cover that holds in heat.	6031	6028	6620	6491	6813	113.0

Analyzing the activities of JSC "Karshi Oil Extract", in 2019 the company produced 78.337 tons of cotton seeds (129.4% compared to 2016), 930 tons of mascarpone (84.6%), 97 tons of soyabeans (+24.2), 12.781 tons of unsaturated cottonseed oil (113.5%), 168.4 tons of unsaturated shea butter (80.6%), 17.5 tons of unsaturated soyabean oil (+24.6 times), 11294 tons (100.9%) dyed cottonseed oil, 148.5 tons (79.8%) dyed molasses oil, 317.4 tons (+31.7 times) soybean oil, 31763 tons (105.7%) of cotton seeds, 710 tons (85.5%) of soy flour, 74 tons (97.2%) of food, 21 692 tons (100.2%) of husk, 1283 tons (108), 2 percent) cotton soap, 17.0 tons (85), 2 percent) fake soap, 20 tons (+2.6 times) soy soap, as well as 6811 tons of packaged oil (117.7 percent), 6813 tons of stain oil (113.0 percent).

In 2019, due to the non-delivery of sunflower seeds to JSC "Karshi Oil-Extraction", semi-finished and finished products made from this raw material were not produced. If we compare the change in the total production of finished products at these two enterprises, the volume of all types of packaged oils and all dyed petroleum products in JSC "Karshi Oil Extract" in 2016-2019 increased by 17.7% and 13.0%, respectively. At Kosan Oil Extraction JSC, by contrast, the figure fell to 5.8% and 5.5%, respectively.

If we pay attention to the financial performance of enterprises, production efficiency at Kosan Oil Extract JSC is relatively high. In particular, the company in 2019 received a net profit of 198.5% more than in 2016 (57953.5 million soms), the total value of products sold amounted to 94532.7 million soms, which is compared to the same period last year 112.0 percent more. In 2016-2019, the growth rates of net sales and total sales prices in the Karshi Oil Production company were 119.6% and 212.6%, respectively (Table 2a-2b).

Table 2a. Analysis of financial activity in JSC "Kasan oil-extraction"[6]

Name of indicators	Unit of measurement	JSC " Kasan oil extraction"					
		2015	**2016**	**2017**	**2018**	**2019**	**2019 compared to 2015,%**
Net income from sales of goods (goods, works and services)	mln. sum	58835.6	90522.5	92522.5	95575.8	116 789.1	198.5
Cost of goods sold (goods. works and services)	mln. sum	48454.4	58295.7	69629.9	84420.3	94532.7	195.1
Current expenses	mln. sum	1513.8	7209.5	8510.7	11560.4	11191.1	739.3
The benefits of the main activity	mln. sum	211.2	123.1	144.1	230.4	343.4	162.6

Table 2b. Analysis of financial activity in JSC "Karshi oil-extraction"[6]

Name of indicators	Unit of measurement	JSC "Karshi oil extraction"					
		2015	2016	2017	2018	2019	2019 compared to 2015.%
Net income from sales of goods (goods, works and services)	mln. sum	63706.5	65742.5	70812.9	71387.8	76 192.1	119.6
Cost of goods sold (goods, works and services)	mln. sum	30920. 6	45271.2	56947.3	60487.6	65734.8	212.6
Current expenses	mln. sum	4838.7	5264.1	6611.3	7221.4	7515.6	155.3
The benefits of the main activity	mln. sum	213.3	3456.2	6741.5	3434.6	3078.7	144.2

During the analyzed period, the costs of Kosan Oil and Extraction increased by 95.1%, and at Karshi Oil and Extract - by 112.6%. As a result, the net profit of JSC "Kosan Oil-Extract" increased by about 62.6% (from 211.2 million soms to 343.4 million soms), and in 2019, JSC "Karshi Oil-Extract" revenue was 44.2%. previous 2015 degree.

Analyzing the production capacity and losses of enterprises, the rate of capacity utilization in JSC "Kasan Oil-Extract" in 2019 was 57.6%, while in JSC "Karshi Oil-Extract" this figure was 55.7% (Table 3a-3b). Although this figure has improved slightly compared to the previous 2015, it indicates that the level of production at both enterprises is still low. If we analyze the production of black oil, soap and irreversible losses in the process of processing cotton seeds, these figures are almost the same in both enterprises. Also, meal, husk, refined oil output and natural losses are almost equal.

Table 3a. The level of utilization of production capacity in JSC "Kasan oil-extraction" and JSC "Karshi oil-extraction"[6]

Name of indicators	Unit of measurement	JSC "Kasan oil extraction"					
		2015	2016	2017	2018	2019	2019 compared to 2015,%
Use of enterprise capacity	%	52.6	58.7	60.3	62.1	57.6	109.5
The release of black oil	%	20.2	18.6	17.9	18.7	18.3	90.6
Meal	%	50.5	44.8	43.7	45.0	45.0	89.1
Husk	%	33.3	31.7	30.2	31.4	31.4	94.3
Natural losses	%	4.1	4.8	3.9	4.8	5.2	126.8
Elegant oil output	%	88.7	87.8	86.4	88.9	88.3	99.5
Soapstock output	%	9.7	9.6	8.7	9.5	10.0	103.1
Irreversible losses	%	1.6	1.6	1.3	1.6	1.6	100.0

The analysis also shows that during the period 2016-2019, the output of black oil, shellac and refined oil decreased in both enterprises. This is directly related to the labor resources available in these enterprises and their utilization rate.

Table 3b. The level of utilization of production capacity in JSC "Karshi oil-extraction"[6]

Name of indicators	Unit of measurement	JSC "Karshi oil-extraction"					
		2015	2016	2017	2018	2019	2019 compared to 2015,%
Use of enterprise capacity	%	55.4	42.5	44.6	57.9	55.7	100.5
The release of black oil	%	18.6	17.3	18.5	18.6	18.3	98.4
Meal	%	44.5	42.1	45.1	44.8	45.5	102.2
Husk	%	32.0	30.1	31.4	31.7	31.1	97.2
Natural losses	%	4.8	3.8	4.8	5.0	5.1	106.3
Elegant oil output	%	88.9	87.1	88.5	88.8	88.4	99.4
Soapstock output	%	9.4	7.2	9.9	9.9	10.0	106.4
Irreversible losses	%	1.6	1.5	1.6	1.6	1.6	100.0

In particular, as of 2019, JSC "Kasan Oil Extraction" employed an average of 625 employees. During this period, 121 workers were laid off. At that time, staff dissatisfaction was 19.3%. The total salary of employees amounted to 8983.3 million soms, with an average monthly salary of 1197.7 thousand soms per employee. At Karshi Oil Extraction JSC, 41 out of 574 employees lost their jobs, which means that the staff dissatisfaction was 7.1%. The monthly salary per employee amounted to 816.6 thousand soms (Table 4).

Table 4. Indicators of labor efficiency in JSC "Karshi oil-extraction" and "Kasan oil-extraction"[6]

Name of indicators	Unit of measurement	JSC "Kasan oil extraction"				JSC "Karshi oil extraction"			
		2017	2018	2019	2019 compared to 2017, (+; -)	2017	2018	2019	2019 compared to 2017, (+; -)
The average number of total processors	people	1265	480	625	-0,5	543	558	574	+1.1
Dismissed	people	37	41	121	+3.3	32	37	41	+1.3
Staff dissatisfaction	%	0.9	0.8	19.3	+21.4	5.9	5.4	7.1	+1.2

Total wages of workers	mln.sum	6957.3	7584.6	8983.3	+1.3	2317.8	3546.2	4956.9	+2.1
The average monthly wage per worker	thousand soums	788.8	654.2	1197.7	+1.5	355.7	590	816.6	+2.3

If we compare these figures with 2017, the total number of employees in JSC "Kasan Oil-Extraction" decreased by almost 50%, the number of layoffs increased by 3.3 times. At the same time, the income of workers increased, i.e. during this period their monthly salary increased by 1.5 times. In JSC "Karshi Oil Extraction", on the contrary, the number of employees increased by 1.1 times, the number of vacancies increased by 1.3 times. Workers' income increased 2.3 times.

In general, Kashkadarya region has a great potential for planting oilseeds and processing of raw materials. However, the analysis showed that enterprises also have internal reserves to increase production. It would be expedient to develop and implement measures for the efficient use of this reserve.

In the course of the activities of JSC "Karshi oil-extraction" and JSC "Kasan oil-extraction" (various material costs, wages) costs are incurred in the following areas:
- material costs;
- labor costs;
- social allocation costs;

- depreciation of fixed assets and other expenses.

There are also period costs of the enterprise, including selling expenses, administrative expenses, taxes and mandatory payments, and other operating expenses.

In 2019, JSC "Karshi Oil Extraction Plant" produced goods worth 75192.1 million soms at current prices, which in 2015 amounted to 45050.1 million soms, which is almost 1.7 times more than in 2019. The total cost of production in 2019 will be 71432.2 million soms, in 2015 43763.5 mln. soms, i.e. expenditures increased by 1.6 times during the same period. Expenditures for the same period amounted to 7515.6 mln. soms. In 2019, this figure was 4.838.7 million. At that time, the cost of production in 2019 increased by 1.64 times compared to 2015 (Table 5).

The financial stability of the enterprise can be strong only if the total cost of goods for one som does not exceed 90 penny. The total cost of the enterprise in 2019 amounted to 93.76 soms at full cost, and in 2015 this figure was 97.14 soms. It can be seen that this indicator allows the company to operate with high income.

Table 5. Production cost indicators of JSC "Karshi oil-extraction" (million soums)[6]

Name of indicators	Unit of measurement	2015	2016	2017	2018	2019	2019 compared to 2015, (+; -)
The volume of branded products at current prices	mln.sum	45050.1	70005.1	71046.2	73947.4	75192.1	166.9
Cost of goods sold	mln.sum	43763.5	64449.1	58081.4	69187.5	71432.2	163.2
Including:							
production costs	mln.sum	38924.8	57837.8	59655.2	61966.1	63916.5	164.2
period costs	mln.sum	4838.7	6611.3	6824.3	7221.4	7515.6	155.3

Cost of 100 soms for branded products:							
At full cost	sum	97.14	92.06	91.34	93.56	93.75	96.5
production costs	sum	86.5	82.6	80.7	83.8	83.9	97.0
Gross profit	mln.sum	1286.6	5556.0	4545.8	4759.9	3760.0	292.2
Profit from production costs	mln.sum	6125.3	121673	10751.2	11981.3	11275.6	184.1
Efficiency at full cost	%	2.93	8.6	7.5	6.9	5.3	1.8
Efficiency in relation to production cost	%	15.74	21.03	18.03	19.33	17.64	1.12

Continuing the analysis on the example of JSC "Kasan Oil Extraction Plant", in 2019 the company produced goods at current prices in the amount of 116789.1 million soms, which in 2015 amounted to 58835.6 million soums, which is almost 2.0 times more than in 2019 (Table 6).

Table 6. Production cost indicators of JSC "Kasan oil-extraction" (million soms)[6]

Name of indicators	Unit of measurement	2015	2016	2017	2018	2019	2019 compared to 2015, (+; -)
The volume of branded products at current prices	mln.sum	58835.6	90522.5	92522.5	95575.8	116789.1	198.5
Cost of goods sold	mln.sum	48454.4	58295.7	69629.9	84420.3	94532.7	195.1
Including:							
production costs	mln.sum	46940.6	51086.2	61119.2	72859.9	83341.6	177.5
period costs	mln.sum	1513.8	7209.5	8510.7	11560.4	11191.1	739.3
Cost of 100 soms for branded products:							
At full cost	sum	94.23	91.69	95.74	90.46	92.13	97.8
production costs	sum	83.62	80.17	85.1	81.65	82.83	99.1
Gross profit	mln.sum	10381.2	32226.8	22892.6	11155.5	22256.4	214.4
Profit from production costs	mln.sum	11895.0	39436.3	31403.3	22715.9	33447.5	281.2

Efficiency at full cost	%	21.4	55.3	32.9	13.2	23.5	109.9
Efficiency in relation to production cost	%	25.3	77.2	51.4	31.2	40.1	158.4

The total cost of production in 2019 was 94532.7 million soms, in 2015 48454.4 mln. soums, i.e. expenditures increased by 1.9 times during the same period. Expenditures for the same period amounted to 11191.1 mln. soms. In 2015, this figure was 1.513.8 million soms. At that time, the cost of production in 2019 increased by 1.8 times compared to 2015.

Considering the efficiency of the analyzed enterprises, it was found that the production of JSC "Kasan Oil Extraction" in 2019 increased by 104% compared to 2015, the production of JSC "Karshi Oil Extraction" increased by 126.7% in accordance with the analysis period. Processing of products for the period is 124.7% more in JSC "Kasan Oil Extraction" than in JSC "Karshi Oil Extraction" (Table 7a - 7b). Differences in the processing of products are also reflected in the production of non-stained and stainless oil, meal, husk and soapstone. The production of non-stained and stained oil, meal, husk and soapstog at the enterprise "Kasan Oil Extraction" is on average 25% higher than at the enterprise "Karshi Oil Extraction". In particular, the production of non-stained oil increased by 28.2%, stainless oil - by 24.9%, meal - by 26.8%, husk - by 31% and soapstone - by 26.3%.

Table 7a. Efficiency of oilseed processing enterprises in Kashkadarya region[6]

№	Name of indicators	JSC "Kasan oil extraction"			
		2016	2017	2018	2019
1	Product processing (tons)	95152	98646	90363	98954
2	Unbleached oil (tons)	12479	17982	18488.5	16617.6
3	Blubber also is a cover that holds in moisture.	10563	15759.5	16430	14684.3
4	Meal (tons)	35187	44108	44405.3	41261
5	Husk (tons)	23998	31416	30981	28408
6	Soapstogi (tons)	1668	1935.2	1762.2	1667
7	Gross product value (million soums)	90522.5	92522.5	95575.8	116789.1
8	Production cost (million soums)	58295.7	69629.9	84420.3	94532.7
9	Average cost of processing 1 kg of product (UZS)	612.7	705.9	934.2	955.3
10	Average price of 1 kg of product (soums)	951.3	937.9	1057.7	1180.2
11	Profit from 1 kg of product (sum)	338.7	232.1	123.5	224.9
12	Gross profit from product processing (million soms)	32226.8	22892.6	11155.5	22256.4

Table 7b. Efficiency of oilseed processing enterprises in Kashkadarya region[6]

№	Name of indicators	JSC "Kasan oil extraction"			
		2016	2017	2018	2019
1	Product processing (tons)	62663.3	78247	69800	79364
2	Unbleached oil (tons)	12569.6	10641	14682.6	12966.9
3	Blubber also is a cover that holds in moisture	11275.8	9251.8	13060.6	11759.9

4	Meal (tons)	29923.6	31984.6	35588.0	32547.0
5	Husk (tons)	21839.0	22400	24187.0	21692.0
6	Soapstogi (tons)	1220.5	1262.1	1387.0	1320.0
7	Gross product value (million soums)	70005.1	71046.2	73947.4	75192.1
8	Production cost (million soums)	64449.1	58081.4	69187.5	71432.2
9	Average cost of processing 1 kg of product (UZS)	1028.5	742.3	991.2	900.1
10	Average price of 1 kg of product (soums)	1117.2	908.0	1059.4	947.4
11	Profit from 1 kg of product (sum)	88.7	165.7	68.2	47.4
12	Gross profit from product processing (million soms)	5556.0	12964.8	4759.9	3759.9

When analyzing the efficiency of production activities between the analyzed enterprises, "Kasan Oil Extraction" and "Karshi Oil Extraction", it was found that the income of "Kasan Oil Extraction" is 1.5 times higher than that of "Karshi Oil Extraction". The situation is primarily due to the fact that there is a gap between the volume of production and costs of enterprises. When analyzing the cost of products produced by enterprises, the average cost of 1 kg of products produced by Karshi Oil Extraction in 2019 is 900.1 soms, which is 5.8 points less than the average cost of 1 kg of products produced by Kasan Oil Extraction. It was found that such a situation is primarily due to the low cost of production of 1 kg of product and the large volume of the final product in the production of the product. The average price of 1 kg of products produced by Karshi Oil Extraction is 19.7 points lower than the average price of 1 kg of products produced by Koson Oil Extraction. In particular, the company "Kasan Oil Extraction" produces an average profit of 224.9 soms per 1 kg, and the company "Karshi Oil Extraction" - 47.4 soms per 1 kg. The final gross profit of the enterprises in 2019 at the enterprise "Kasan Oil Extraction" is 22256.4 million soms, and at the enterprise "Karshi Oil Extraction" - 3759.9 million soms, the mutual profit of these enterprises at the enterprise "Kasan Oil Extraction" is 5.9 times more.

The above-mentioned enterprises process large quantities of cottonseed with oilseeds and produce cottonseed oil and other oils, and in the process enter into contractual relations with various raw material preparation and refining enterprises. Contracts for the supply of technical cotton seeds will be signed tripartitely with the participation of the regional association "Pakhtasanoat", JSC "Karshi oil-extraction" and JSC "Kasan oil-extraction" and district ginneries. JSC "Karshi Oil-Extraction" and JSC "Kasan Oil-Extraction" undertake to make full payments and payments for products supplied to the regional association "Kashkadarya Pakhtasanoat"

before receiving the delivered products. The regional association "Pakhtasanoat" undertakes to supply technical cotton seeds through the ginnery in accordance with the schedule approved by the Ministry of Economy and Industry of the Republic of Uzbekistan.

In accordance with the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 199 of September 18, 2006, the products are shipped by JSC "Kasan Oil-Extraction" and JSC "Karshi Oil-Extraction" after payment of 100% of the fee. The quality of delivered seeds must meet the requirements of the State Standard of the Republic of Uzbekistan 596-2009. For each batch of sent seeds, the Regional Association "Pakhtasanoat" provides a certificate of conformity issued by the "Sifat" Center.

According to the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 93 of March 31, 2005[5], the representatives of the "Sifat" Center and the oil company receive the quantity and quality of technical seeds in groups in the warehouse of the ginnery. Together with the inspector of the Sifat Center, a representative of the oil company and representatives of the enterprise, technical seeds are inspected for quantity and quality in the warehouse of the ginnery and documented and accepted by the "Test Report". In this process, there are transaction costs associated with measuring the quality and quantity of the product between the parties to the contract.

The ginnery undertakes to load the finished product from its territory in a timely manner on railway wagons and trucks. JSC "Kason Oil-Extraction" and JSC "Karshi Oil-Extraction" are responsible for the provision of railway cars and cars and payment for vehicles in the transportation of goods, or it is transported by its own vehicles. Forwarder drivers of vehicles hired by the oil company must provide a power of attorney to receive the technical seed on the spot in the presence of a certificate of conformity of the "Sifat" Center. In the absence of a power of attorney, the technical seed is

not added. At the same time, JSC "Karshi Oil Extraction" spends transaction costs for freight forwarders to obtain a certificate of conformity of the "Sifat" Center.

After the truck is loaded on tractor trolleys, the ginner receives the seeds in the warehouse of the ginnery together with a representative of the oil company or another person authorized on his behalf and a representative of the "Sifat" Center on the quantity and quality of seeds. When conducting a control analysis of technical seeds at the oil plant, if there are discrepancies in quality between the analyzes, the representative of the cotton plant and oil company and the inspector of the Center "Sifat" are notified to re-examine this batch of seeds. The costs of the process associated with the control analysis and re-inspection of the seed oil plant are also transaction costs.

The parties shall take all measures to comply with the terms of the contract. In accordance with the Law of the Republic of Uzbekistan "On the contractual legal framework of business entities"[11] for refusal to pay for the delivered products, the supplier pays a fine of 15% of the amount he refused to pay. For non-payment for the delivered products in the manner prescribed by the contract, JSC "Kasan Oil-Extraction" and JSC "Karshi Oil-Extraction" are charged a surcharge of 0.4% per day, but the amount of surcharge should not exceed 50% of the unpaid amount.

The consignor must pay a surcharge of 0.4% for each day of delay in the amount of undelivered product to the oil company for unreasonable failure to deliver the product in the amount specified in the contract, the amount of the surcharge should not exceed 50% of the unpaid amount[12].

In case of disagreements and disputes, as a rule, the parties shall take measures to resolve them before the court on the basis of mutual consent. If the parties fail to reach an agreement, the dispute shall be heard in the regional economic court where the party is responsible. Examples of transaction costs incurred as a result of opportunistic behavior are fines and penalties for breach of contract and costs incurred in resolving disputes in various directions.

The analyzed enterprises annually sign pre-contracts with all ginneries in the region for the supply of raw materials. However, due to the inability of ginneries to supply all or part of the raw material, the enterprise is able to use only half of its production capacity (Table 4). As a result of a violation of the terms of the contract, the company's consideration of lawsuits against ginneries in court, the company incurs large transaction costs.

References:

1. Tukhtabaev, J.Sh., et al. (2021). Econometric Assessment of Labor Efficiency in Ensuring the Economic Security of Industrial Enterprises. *International Journal of Modern Agriculture,* 10(01), 971-980. http://modern-journals.com/index.php/ijma/article/view/700

2. Tukhtabaev, J.Sh. (2021). Econometric Evaluation of Influential Factors to Increasing Labor Efficiency in Textile Enterprises. *Webology*, Volume 18, Special Issue on Information Retrieval and Web Search.

3. Tukhtabaev, J.Sh., et al. (2021). Econometrical Assessment of Factors Affecting Diversification of Production in Farms Ensuring Food Security. *International Journal of Modern Agriculture,* 10(1), 981 - 990. http://modern-journals.com/index.php/ijma/article/view/702

4. Yakubova, Sh.Sh. (2020). "Deposit policy of commercial banks and ways of its effective formation". *Theoretical & Applied Science*, № 11. – p. 577-581.

5. (n.d.). *Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated March 31, 2005 No 93 "On measures to strengthen control over the use of cotton seed resources and increase the efficiency of their use."*

6. (n.d.). *Part of the economic activity of the statistical collection "In the numbers of Uzbekistan" 2019. Calculated on the basis of statistical data of the Republic of Uzbekistan adopted by the author.*

7. Tukhtabaev, J.Sh. (2016). "The theoretical approach on increasing the professional skills of workers and stimulating their creativity". *International Scientific Journal Theoretical & Applied Science*, № 03 (35), pp. 45-48.

8. Tukhtabaev, J.Sh. (2015). The impact of working conditions on increasing the efficiency of the use of working time in industrial enterprises. *Scientific electronic journal "Economy and Innovative Technologies"*, № 5.

9. Tukhtabaev, J.Sh. (2016). Criteria-based assessment of personnel productivity in industrial enterprises. *Scientific electronic journal "Economy and Innovative Technologies"*, № 1.

10. Tukhtabaev, J.Sh. (2016). Method of factor analysis of labor productivity in industrial enterprises. *Scientific electronic journal "Economy and Innovative Technologies",* № 2.

11. (n.d.). *Law of the Republic of Uzbekistan No. 670-I "On the contractual legal framework for the activities of business entities."*

12. Tukhtabaev, J.Sh. (2020). *An organizational and economic mechanism for improving labor efficiency in industrial enterprises in the development of the digital economy*. Monograph. - T. p. 170.

S. U. Zhanatauov
Noncommercial   joint-stock company «Kazakh national agrarian research university»
Academician of International Academy of   Theoretical and Applied Sciences (USA),
Candidate of physics and mathematical sciences,
Department «Iinformation technologies and automatization», Professor, Kazakhstan
sapagtu@mail.ru

TARIFF EQUATION $(0)*\theta_1+(0)*\theta_2+(0)*\theta_3 =(0)$

Abstract: *A cognitive model of the behavioral usefulness of subjective prices in groups of buyers has been developed. The preference of using indicators of behavioral utility over the formula utility function is declared. The model is aimed at buyers with the mentality of individuals according to the principle "I know what I want", always well aware of their interest (preferences) and acting in accordance with it. The variability of the seller's tariff price in a certain time interval is equal to 0: $zkj = 0$, and the variability zkj of the subjective price (in the same time interval) is not 0: either he subjectively considers the tariff price to be expensive $((zkj-0) <0$, the subjective price is less tariff), or cheap $((zkj-0)> 0$, the subjective price exceeds the tariff price). The buyer's opinion is practically justified if he expresses his opinion about the subjective price after the moment when he received the service and was able to assess subjectively the result of using the service. 3 systems of multidimensional equations of meanings of variability of 3 variables are solved. Calculations based on a model example gave recommendations-conclusions for the seller of services: in order to achieve stability of demand for services 1, 2, 3, prices should not be changed for "rich" individuals, it is necessary to slightly and in a timely manner increase prices for "medium-income" individuals, prices should be lowered for the "low-income" " to individuals.*

Key words: *the tariff equation, cognitive model.*

Language: *Russian*

Citation: Zhanatauov, S. U. (2021). *Tariff equation $(0)*\theta_1+(0)*\theta_2+(0)*\theta_3 =(0)$. ISJ Theoretical & Applied Science, 06 (98),* 740-753.

Soi: http://s-o-i.org/1.1/TAS-06-98-103   *Doi*: crossref https://dx.doi.org/10.15863/TAS.2021.06.98.103

Scopus ASCC: 2604.

ТАРИФНОЕ УРАВНЕНИЕ $(0)*\theta_1+(0)*\theta_2+(0)*\theta_3 =(0)$

Аннотация: *Разработана Когнитивная модель поведенческой полезности субъективных цен в группах покупателей. Декларируется предпочтительность применения индикаторов поведенческой полезности перед формульной функцией полезности. Модель ориентирована для покупателей с ментальностью индивидов по принципу «я знаю чего хочу», всегда хорошо осознающего свой интерес (предпочтения) и действующего в соответствии с ним. Изменчивость тарифнной цены продавца в некотором интервале времени равна 0: $zkj=0$, а изменчивость zkj субъективной цены (в том же интервале времени) не равна 0: либо он субъективно считает тарифнаую цену дорогой $((zkj-0)<0$, субъективная цена меньше тарифнаой), либо дешевой $((zkj-0)>0$, субъективная цена превышает тарифную цену). Мнение покупателя практически обосновано, если он выражает свое мнение о субъективной цене после того момента, когда он получил услугу и смог оценить субъективно результат пользования услугой.   Решены 3 системы многомерных уравнений смыслов изменчивостей 3-х переменных. Расчеты на модельном примере дали выводы-рекомендация для продавца услуг: для достижения стабильности спроса на услуги 1,2,3 не следует менять цены для «богатых» индивидов, необходимо немного и своевременно повышать цены для «среднеобеспеченных» индивидов, следует понижать цены «малообеспеченным» индивидам.*

Ключевые слова: *тарифное уравнение,   когнитивная модель.*

Введение

Несмотря на то, что существуют много способов обработки числовых величин (и способов как выбрать правильные числа для своих цен) индивиды почти всегда имеют субъективные мнения насчет того – дешевая или дорогая тарифная цена услуги. Мнения по поводу величины отклонения своей субъективной цены от тарифнаой цены разнятся.

Изменчивость тарифнаой цены продавца в некотором интервале времени равна 0: $z_{kj}=0$, а изменчивость z_{kj} субъективной цены (в том же интервале времени) не равна 0: либо он субъективно считает тарифнаую цену дорогой (($z_{kj}-0$)<0, субъективная цена меньше тарифнаой), либо дешевой (($z_{kj}-0$)>0, субъективная цена превышает тарифную цену). Мнение покупателя практически обосновано, если он выражает свое мнение о субъективной цене после того момента, когда он получил услугу и смог оценить субъективно результат пользования услугой.

Разработаем поведенческую модель спроса для покупателей с ментальностью индивидов (по принципу «я знаю чего хочу», всегда хорошо осознающего свой интерес (предпочтения) и действующего в соответствии с ним.

Эта ментальность индивидов отрицает ментальность индивидов, подверженных воздействию «согласие в темных рукавах» [1-5]. Предприниматели с деятельностью на основе откупного права» [1,2,4] теперь должны учитывать новую ментальность клиентов. Пора отказываться от придуманных теоретиками функции спроса и применять «натурные» приемы, учитывающие сознание, субъективное восприятие полезности услуги. «Полезность услуги не зависит субъективно от трафика. Покупатель получает пользу от разговора, а количество трафика его меньше интересует» [6-7]. Не смотря на то, что «работать с функцией полезности гораздо удобнее, чем с системой предпочтений» [7], мы предлагаем признать покупателя и его субъективные цены (отклоняющиеся от тарифной цены) на услуги главным регулятором для продавца видов услуг: покупатель получает пользу от полезности содержания (смысла) разговора, иначе он (разговор) будет коротким.

Определим долю отклонений разных субъективных цен покупателей от постоянной (в интервале времени) цены продавца в группе, где доминирует количество покупателей, более всего предпочитающих услугу №1. Если доля отклонений от 0 вправо (z_{kj}>0) существенно превышает долю отклонений от 0 влево (z_{kj}<0), то продавцу можно поднять тарифную цену. Если доля отклонений от 0 влево (z_{kj}<0) существенно превышает долю отклонений от 0 вправо (z_{kj}>0), то продавцу нужно опустить тарифную цену.

Такая тактика продавца соответствует субъективным предпочтениям своих клиентов, более балансирует отношения между продавцом и покупателями.

Предпочтительность применения индикаторов поведенческой полезности перед формульной функцией полезности

Традиционная микроэкономическая модель спроса основана на модели (экономического человека) homo oeconomicus. С точки зрения стандартной теории этот рациональный экономический агент должен был подчинять все чувства и эмоции точному расчету, обладать абсолютной памятью и вычислительными способностями, всегда хорошо осознавать свой интерес (предпочтения) и действовать в соответствии с ним.

Разработанная ниже когнитивная модель поведенческой полезности цен отличается от поведенческих моделей индивида (в разных ситуациях) из когнитивных моделей [1,9-18]: Когнитивная Модель предпринимательской деятельности на основе откупного права экономики [1], Когнитивная Модель сознания индивида при принципе «согласие в темных рукавах» [2,3]. В статье [1] проведено исследование (формализована предметная область), принципа отрицательной селекци. Использовались модельные представления о изменчивости других показателей индивидуального сознания индивидов других профессий, индивидов других ценностных ориентаций [9-18]. Фундаментальный эмпирический материал для таких интерпретаций был получен в результате психологических исследований лауреатов нобелевской премии (за чувство реальности) лауреатов премии Нобеля по экономике Дэниела Канемана, Вернона Смита, (за архитектуру выбора) Ричарда Талера.

Наш подход ориентирован на субъективной оценке полезности полученной клиентом услуги, а не на оценке полезности по формальной функции полезности. Мы хотим учесть (для покупателя услуги) эмоциональный реакцию от самого разговора (содержания (смысла) разговора), состоявшегося по выбранному им самим клиентом виду услуги связи. Например, разговор матери по скайпу (Skipe) с дочерью, обучающейся за рубежом, субъективно более полезен для нее, чем поиск в Youtube или в Google (услуги привыкания [6,19]) какой-то нужной информации, не касающейся дочери. Этот пример относится к двум независимым событиям. Субъективная полезность «смысла результата разговора» по виду услуги связи «интернет» зависит от значения назначенного субъективно

покупателем услуги «полезности смысла» связи «интернет» зависит от значения назначенного субъективно покупателем услуги «полезности смысла». Допустим значение «полезности смысла» равно весу c_{11}=субъективная полезность состоявшегося разговор по Skipe с…)=0.8; c_{22}=c(Youtube)=0.5; c_{33}=c(e-mail)=0.3. Здесь покупатель диктует свои предпочтения к 3 видам услуг связи в порядке убывания их величин, руководствуясь субъективным и приблизительным превышением полезности одного вида над полезностью другого вида связи.

Умение индивида назначить (оценивая свои ощущения) 3 значения своим предпочтениям и упорядочить их в порядке убывания представляет собой первый трудный шаг. После нескольких попыток оно становится выполнимым.

Исходные данные

Мы ниже, руководствуясь смысловыми содержаниями состоявшегося сеанса назначили 3 «веса» «полезности смысла»: 0.8, 0.5, 0.3 (индикаторы поведенческой полезности). Компоненты c_{11}=0.8, c_{22}=0.5, c_{33}=0.3 относим к изменчивостям разных валидных показателей (переменных) y_1, y_2, y_3, к изменчивостям разных z–переменных z_1, z_2, z_3: c_{11}=corr(z_1, y_1)=0.8, c_{22}=corr(z_2, y_2)=0.5, c_{33}=corr(z_3, y_3)=0.3 с разными их смыслами, т.е. назначаем числа 0.8, 0.5, 0.3 индикаторами наличия знания [19] во всех z–переменных с номерами индексов 1,2,3. Назначим во всех 3-х будущих псевдо собственных векторах по одной компоненте, являющейся индикатором. Значения индексов наших индикаторов c_{11}=corr(z_1, y_1)=0.8, c_{22}=corr(z_2, y_2)=0.5, c_{33}=corr(z_3, y_3)=0.3 указывают на то, что мы должны решить задачу когнитивного определения смыслов 3-х и 3-х z–переменных.

Индикатор [19] наличия знания (индикатор поведенческой полезности) – компонент c_{kj} собственного вектора, значение которой превышает известный порог: $c_{kj} > c_0$. Номер собственного вектора совпадает с номером j доминирующего собственного числа λ_j. Величина компоненты собственного вектора c_{kj} - k-ая компонента j-го собственного вектора (j-го столбца матрицы C_{nn} собственных векторов), превышает назначенное пороговое значение c_0=0.4. Величина компоненты c_{kj} равна коэффициенту корреляции [20-27] c_{kj}=corr(z_k, y_j) указывает на вхождение имени-смысла переменной z_k (знания об z_k) в имя-смысл переменной y_j (равной $y_{ij}=z_{i1}*c_{1j}+z_{i2}*c_{2j}+…+z_{in}*c_{nj}$, а смысл y_j равен сумме смыслов z-переменных $z_{i1}, z_{i2}, …, z_{in}$ назначим разными. Этим мы фиксируем наличие 3-х y–переменных disp(y_1)=λ_1, disp(y_2)=λ_2, disp(y_3)=λ_3. Каждая y–переменная y_1, y_2, y_3 должна быть линейной

комбинацией 3-х z–переменных с коэффициентами, равными значениям компонент псевдособственных векторов. Почему? Потому что - веса 0.8, 0.5, 0.3 назначил субъективно и приблизительно, не руководствуясь правилом равенства 1 суммы квадратов этих чисел. Если указанное правило выполняется, то вектор с такими значениями компонент является собственным вектором.

Псевдособственные векторы несимметрической матрицы

Псевдособственные векторы [17,28] несимметрической матрицы W_{33} ($W_{33}=C^+_{33}\Lambda_{33}C^{+T}_{33}$,) моделируются при решении Оптимизационной Задачи, исходя из матрицы собственных чисел Λ_{33}=diag($\lambda_1, \lambda_2, \lambda_3$) и матрицы C_{33} собственных векторов неизвестной симметрической матрицы. Матрица C_{33} собственных векторов такая, что: $C_{33}C^T_{33}=I_{33}$, $C^T_{33}C_{33}=I_{33}$, а матрица C^+_{33} псевдособсвенных векторов такова, что: $C^+_{33}C^{+T}_{33}=I_{33}$, $C^{+T}_{33}C^+_{33}\neq I_{33}$. Если известна несимметрическая матрица, то Прямая Задача $W_{33}=>(\Lambda_{33}, C^+_{33})$ не имеет решения. W_{33} – несимметрическая матрица ковариаций изменчивостей нестандартизованных z-переменных (z_{kj}-изменчивостей, k=1,…,m, j=1,…,n).

В нашей моели псевдособственные векторы являются предпочтительными.

Поставим в соответствие с этими коэффициентами «полезности смысла» формальное условие «замкнутости» системы услуг $c^2_1+c^2_2+c^2_3=1$. это равенство – условие для 3-х значений первых компонент 3-х собственных векторов: $c^2_{11}+c^2_{12}+c^2_{13}=1$. другие компоненты 3-х собственных векторов также подчиняются равенствам $c^2_{21}+c^2_{22}+c^2_{23}=1$, $c^2_{31}+c^2_{32}+c^2_{33}=1$.

Если j–ый собственный вектор таков, что его компоненты (из j –го столбца матрицы C_{33}) удовлетворяют условию $c^2_{1j}+c^2_{2j}+c^2_{3j}\neq 1$, то он является j-тым псевдособственным вектором.

Понятия собственного вектора и собственного числа являются одними из ключевых в линейной алгебре, на их основе строится множество конструкций. Это связано с тем, что многие соотношения, связанные с линейными операторами (преобразованиями), существенно упрощаются в системе координат, построенной на базисе из собственных векторов оператора. Множество собственных значений линейного оператора (спектр оператора) характеризует важные свойства оператора без привязки к какой-либо конкретной системе координат. Понятие линейного векторного пространства не ограничивается «чисто геометрическими» векторами и обобщается на разнообразные множества объектов. Мы нашли

тарифные операторы, воздействующие на нулевые изменчивости постоянных (в промежутке времени) тарифных цен. При ненулевых изменчивостях субъективных цен индивидов (отличающихся от тарифных цен) из 3-х групп покупателей нами отдельно смоделированы 3 тарифные операторы, такие, что сумма тарифных операторов является тарифным оператором. Рассмотрены предпочтения индивидов из 3-х групп индивидов, для них назначены нами 3 тройки субъективных параметров.

Множество всех псевдособственных векторов линейного оператора (преобразования), соответствующих данным собственным числам, дополненное нулевым вектором, называется псевдособственным подпространством этого оператора. Поэтому множество ценовых предпочтений индивидов не единственно.

В ниже рассматриваемом примере псевдособственные векторы показали свои замечательные свойства. Матрица $Z_{mn}=Y_{mn}C^T_{33}=[z_{i.}]$ содержит в качестве своих элементов значения искомых изменчивостей, Точки $\{z_{i.}\}, i=1,\ldots,m$, вписаны в эллипсоид. Длины полуосей эллипсоида, содержащего точки $(z_{i1},z_{i2},z_{i3}), i=1,\ldots,m$, равны 2.5275. 0.4452.0.0273. Направляющими векторами полуосей эллипсоида являются 3 взаимно перпендикулярные векторы – псевдособственные векторы с длинами 1.432695103, 0.969980507, 0.59732439). Координаты в декартовой системе координат являются омпонентами 3-х псевдособственных векторов, объединенных в матрицу C_{33}. В 3-х столбцах матриц C_{33} расположены компоненты 3-х псевдособственных векторов, их длины: $c^T_1c_1=1.432695103$, $c^T_2c_2=0.969980507$, $c^T_3c_3=0.59732439$). Наша полученная в результате решения Оптимизационной Задачи матрица псевдособственных векторов C_{33} обладает свойством ортогональности, но не свойством ортонормированности: $C_{33}C^T_{33}=I_{33}$, $C^T_{33}C_{33}\neq I_{33}$. Сумма длин полуосей эллипсоида и сумма длин псевдособственных векторов равны 3: $\Lambda_{33}=diag(2,5275, 0.4452, 0.0273)$, 2.5275+0.4452+0.0273 = 3,1.432695103 + 0.969980507 + 0.59732439=3. диагональная матрица $\Lambda_{33}=diag(\lambda_1,\lambda_2,\lambda_3)=diag(2,5275,0,4452,0,0273)$, 2.5275+0.4452+0.0273=3, является спектром несимметрической матрицы W_{33}, равной произведению 3-х матриц $C_{33}\Lambda_{33}C^T_{33}$,полученных при решении Оптимизационной Задачи. Матрица псевдособственных векторов C_{33} получена преобразованием матрицы собственных векторов с ортонормированными векторами. Поэтому мы матрицу C_{33} назвали матрицей псевдособственных векторов для несимметрической матрицы W_{33}, которая до решения Оптимизационной Задачи являлась симметрической матрицей. Наш процесс вычисления матрицы C^+_{33} изобрзим так: $(\Lambda_{33},C_{33})=>(\Lambda_{33},C^+_{33})$, где C_{33} начальная матрицы собственных векторов, Λ_{33} –заданная экспертом диагональная матрица, такая, что $C_{33}C^T_{33}=I_{33}$, $C^T_{33}C_{33}=I_{33}$, $C^+_{33}C^{+T}_{33}=I_{33}$, $C^{+T}_{33}C^+_{33}\neq I_{33}$ Прямая Задача $W_{33}=>(\Lambda_{33},C^+_{33})$ не имеет решения.

Обратная Задача $(\Lambda_{33},C_{33})=>(\Lambda_{33},C^+_{33})$, где $W_{33}=C^+_{33}\Lambda_{33}C^{+T}_{33}$, $C^+_{33}C^{+T}_{33}=I_{33}$, $C^{+T}_{33}C^+_{33}\neq I_{33}$ C^+_{33} -матрица псевдособственных векторов такая, что $C^+_{33}C^{+T}_{33}=I_{33}$, $C^{+T}_{33}C^+_{33}\neq I_{33}$, W_{33} – несимметрическая матрица ковариаций изменчивостей нестандартизованных z-переменных.

Так как матрица W_{33} (Таблица 1, левая нижняя подматрица в частях №1,№2,№3 Таблицы 1) равна произведению 3-х матриц $C^+_{33}\Lambda_{33}C^{+T}_{33}$, где C^+_{33} –матрица псевдособственных векторов, то элементы W_{33} имеют значения, приведенные в таблице 1. Если бы матрица C_{33} содержала значения компонент собственных векторов, матрица W_{33} имела бы вид корреляционной матрицы: симметрическая, диагональные элементы равны 1.

Здесь матрице W_{33} соответствует матрица Y_{mn} значений изменчивости некоррелиро ванных y–переменных y_1,y_2,y_3 с дисперсиями $disp(y_1)=\lambda_1$, $disp(y_2)=\lambda_2, disp(y_3)=\lambda_3$. $(1/m)Y^T_{mn}Y_{mn}=\Lambda_{33}$, $\lambda_1+\lambda_2+\lambda_3=3$, матрица Y_{mn} преобразуется матрицей C^T_{33} псевдособственных векторов в матрицу значений изменчивости коррелированных z–переменных z_1,z_2,z_3 $Z_{mn}=Y_{mn}C^T_{33}$.

Когнитивная модель поведенческой полезности цен в группах покупателей

Рассмотрим 3 группы покупателей, в каждой из доминирует количество покупателей, больше всего предпочитающих:

а) услугу №1, тогда в 1-ом собственном векторе одна из ее компонент, например, $c_{11}=0.8$, доминирует над другими компонентами других собственных векторов: $c_{22}=0.5$, $c_{33}=0.3$;

б) услугу №2, тогда во 2-ом собственном векторе одна из ее компонент, например, $c_{22}=0.8$, доминирует над другими компонентами других собственных векторов: $c_{11}=0.5$, $c_{33}=0.3$;

$(c_{11}=0.5, c_{33}=0.3)$;

в) услугу №3, тогда в 3-ем собственном векторе одна из ее компонент, например, $c_{33}=0.8$, доминирует над другими компонентами других собственных векторов: $c_{11}=0.3, c_{22}=0.5$.

Ситуации предпочтения услуг №1,№2,№3 назовем ситуацией №1,№2,№3.

Рассмотрим ситуацию №1. Здесь факт доминирования количества покупателей, больше всего предпочитающих услугу №1, отражен в доминировани $c_{11}=0.8$ над значениями других предпочтений: $c_{22}=0.5$, $c_{33}=0.3$.

При $c_{11}=0.8, c_{22}=0.5$, $c_{33}=0.3$ решение Оптимизационной Задачи $(\Lambda_{33}, C_{33}) => (\Lambda_{33}, C^+_{33})$, дает пару матриц (Λ_{33}, C^+_{33}), с длинами вектор-столбцов $dist(c_1)=\omega_1=1.20056$, $dist(c_2)=\omega_2=0.99149$, $disp(c_3)=0.80795$, $\omega_1+\omega_2+\omega_3= 1.20056+0.99149+0.80795=3$. При этом матрица ковариаций z–изменчивостей zk z–переменных z_1, z_2, z_3 $Z_{mn}=Y_{mn}C^+_{33}$ - произведение вида $(1/m)Z^T_{mn}Z_{mn}$ равна несимметричной матрице $W_{33}:(1/m)Z^T_{mn}Z_{mn}=C^+_{33}(1/m)Y^T_{mn}Y_{mn}C^{+T}_{33}= C^+_{33}\Lambda_{33}C^{+T}_{33}=W_{33}$. Матрица W_{33} – не симметрическая, а ее диагональные элементы не равны 1.

Таков эффект применения псевдособственных векторов вместо собственных векторов для моделирования значений изменчивостей некоррелированных y–переменных y_1, y_2, y_3 и изменчивости коррелированных z–переменных z_1, z_2, z_3. Система многомерных смысловых уравнений имеет вид.

Рассмотрим равенство $Z_{mn}C^+_{nn}=Y_{mn}$ зависимости между значениями $Z_{mn}=\{z_{ij}\}$ изменчивости n z–переменных и значениями $Y_{mn}=\{y_{ij}\}$ изменчивости n y–переменных, где C^+_{nn} - матрица псевдособственных векторов $(C^+_{33}C^{+T}_{33}=I_{33}, C^{+T}_{33} C^+_{33}\neq I_{33})$. Обе матрицы Z_{mn} и Y_{mn} не известны, известна лишь пара матриц (Λ_{33}, C^+_{33}), полученные в результате решения Оптимизационной Задачи $(\Lambda_{33}, C_{33})=>(\Lambda_{33}, C^+_{33})$, Неизвестная матрица Y_{mn} должна иметь диагональную матрицу ковариаций-дисперсий $\Lambda_{nn}=diag(\lambda_1, \lambda_2, \ldots, \lambda_n)$, $\lambda_1+\lambda_2+\ldots+\lambda_n=n$, y–переменных: $(1/m)Y^T_{mn}Y_{mn}=\Lambda_{nn}$. Неизвестную матрицу Y_{mn} будем моделировать отдельно от матрицы C^+_{33}. Матрица ковариаций y–переменных $(1/m)Y^T_{mn}Y_{mn}$ моделируется отдельно. Для ее моделирования достаточно иметь только матрицу Λ_{nn}. Но матрица Λ_{nn} у нас уже имеется, ибо она получена в результате решения Оптимизационной Задачи $(\Lambda_{33}, C_{33})=>(\Lambda_{33}, C^+_{33})$. Так как у нас имеется матрица Λ_{nn}, то моделируем одну из бесконечного множества множества декоррелированную выборку U_{mn} [20] такую, что она удовлетворяет условию $(1/m)U^T_{mn}U_{mn}=I_{nn}$. Тогда полагаем $Y_{mn}=U_{mn}\Lambda^{1/2}_{nn}$. Здесь операция $sqrt(\lambda_j), j=1, \ldots, n$, допустима, так как $\lambda_j>0, j=1, \ldots, n$. Теперь вычисляем матрицу $Z_{mn}=\{z_{ij}\}$ значений изменчивости n z–переменных $Z_{mn}= Y_{mn}C^{+T}_{nn}$.

При этом сумма дисперсий изменчивостей n y–переменных $\lambda_1, \lambda_2, \ldots, \lambda_n$ (равная n) равна сумме дисперсий изменчивостей n z–переменных: $\omega_1+\omega_2+\ldots+\omega_n=n$. Это равенство следует из следующих преобразований формулы $Z_{mn}= Y_{mn}C^{+T}_{nn}$. Так как $(1/m)Y^T_{mn}Y_{mn}=\Lambda_{nn}$, то умножая слева на $(1/m)$ Z^T_{mn} имеем равенство $(1/m)Z^T_{mn}Z_{mn}=(1/m)Z^T_{mn}Y_{mn}C^{+T}_{nn}$. правая часть равенства равна $C^+_{nn} \Lambda_{nn}C^{+T}_{nn}$. имеем равенство

$(1/m)Z^T_{mn}Z_{mn}=C^+_{nn}\Lambda_{nn}C^{+T}_{nn}$. След $trace((1/m)Z^T_{mn}Z_{mn})=trace(C^+_{nn}\Lambda_{nn}C^{+T}_{nn})= trace(\Lambda_{nn}C^+_{nn}C^{+T}_{nn})= trace(\Lambda_{nn})=n$. отсюда имеем $trace((1/m)Z^T_{mn}Z_{mn})= disp(z_1)+disp(z_2)+\ldots+disp(z_n)= \lambda_1+\lambda_2+\ldots+\lambda_n=n$, $\Lambda_{nn}=diag(\lambda_1, \lambda_2, \ldots, \lambda_n)$.

Для равенства $Z_{mn}C^+_{nn}=Y_{mn}$ с значениями n изменчивостей составим систему из 3-х многомерных смысл уравнений.

Каждое многомерное уравнение состоит из линейной комбинации смыслов смысл(z_{i1}), смысл(z_{i2}), смысл(z_{i3}) 3-х изменчивостей z_{i1}, z_{i2}, z_{i3} 3-х z–переменных z_1, z_2, z_3, равной изменчивости смысла одной y–переменной. Коэффициентами каждой j-ой линейной комбинации служат значения j-ой строки матрицы C^+_{33} .

Моделирование значений отклонений субъективных цен покупателей от тарифных цен на виды услуги

Мы рассматриваем 3 вида услуги, для каждого вида услуги назначена одна тарифной цена с нулевой изменчивостью. Все отклонения субъективной j–ой цены (их m штук на 1 вид услуги) покупателей от j–ой тарифной цены (j=1,2,3) продавца полагаем равными значениям изменчивостей z_{i1}, z_{i2}, z_{i3} 3-х z–переменных z_1, z_2, z_3, в совокупности (в среднем) отклоняющихся от 0 на 0: $(1/m)(z_{i1}+\ldots+z_{im1})/m=0$. Иначе говоря, вся совокупность субъективных цен индивидов-покупателей (приемлемых как покупные цены, по которым они могут купить услуги) не равны тарифным ценам, но в среднем находятся рядом с тарифной ценой. Если знак значения z_{ikj}, $k\in\{1, \ldots, m\}$, равен «минус», то покупатель предполагает допустимой цену услуги, меньшую тарифной цены, если знак равен плюс, то он способен заплатить цену за услугу, большую тарифной цены. Линейные комбинации значений z_{ikj}, j=1,2,3, образуют значения изменчивостей y_{i1}, y_{i2}, y_{i3} y–переменных, относительно которых верны те же свойства и аналогичные соотношения: $(1/m)(y_{ij}+\ldots+y_{imj})/m=0$, j=1,2,3.

Фраза «совокупность субъективных цен индивидов-покупателей, приемлемых как тарифные цены, по которым они могут купить услугу, не равны текущим тарифным ценам продавца, но «в среднем не отклоняются от тарифной цены» имеет практическое поведенческое обоснование. Издавна на восточных базарах с изобилием предложений для покупателей продавец «отступает» от своей цены в пользу цены покупателя, если тот искусно торгуется. Словесное соревнование в доводах в пользу своей цены у сторон успешно эмоционально приукрашивает уныло однообразный процесс торговли продавца, он даже доволен тем, что уступил в цене такому (интересному с его точки зрения) покупателю,

предлагает ему быть постоянным покупателем. Наличие у покупателя (не туриста) «своей цены покупки», публичное отстаивание ее является сдерживающим фактором ростацен. Отсутствуют тренеры по «борьбе цен», ориентированных либо на покупателя, либо на продавца, хотя тренеров по другим индивидуальным навыкам (как стать миллионером и т. д.) – много.

Элементы $c^{(1)}_{ij}$ найденного решения $C^{+(1)}_{33}$ Оптимизационной Задачи №1 являются постоянными коэффициентами матричной системы линейных уравнений $Z^{(1)}_{m3}[C^{+(1)}_{33}]=Y^{(1)}_{m3}$. Подставив значения коэффициентов $c^{(1)}_{ij}$ уравнения $Z^{(1)}_{m3}[C^{+(1)}_{33}]Y^{(1)}_{m3}$ имеем систему многомерных линейных уравнений когнитивных смыслов изменчивости цен (номер $^{(1)}$ не приведен):

смысл(z_1)*0.8+смысл(z_2)*(-0.2719)+
смысл(z_3)*0.53483=+смысл(y_1)+ смысл(z_1)*0.564+
смысл(z_2)*0.5+смысл(z_3)*-0.6572=
смысл(y_2)+смысл(z_1)*0.49241+
смысл(z_2)*0.81703+смысл(z_3)*0.3=смысл(y_3)

При $c_{11}=0.8, c_{22}=0.5$, $c_{33}=0.3$ решение Оптимизационной Задачи (Λ_{33}, C_{33}) =>($\Lambda_{33}, C^{+(1)}_{33}$) дает в качестве решения пару матриц ($\Lambda_{33}, C^{+(1)}_{33}$). В 3-х столбцах полученной матрицы $C^{+(1)}_{33}$ расположены компоненты 3-х псевдособственных векторов, их длины разные: $c^T_1 c_1=1.432695103$, $c^T_2 c_2=0.969980507$, $c^T_3 c_3=0.59732439$). Между матрицей $Y^{(1)}_{m3}$ и матрицей $Z^{(1)}_{m3}$ существует связь вида: $Z^{(1)}_{m3}[C^{+(1)}_{33}]=Y^{(1)}_{m3}$. При этом сумма дисперсий 3-х y–переменных $\lambda_1=2.5275$, $\lambda_2=0.4452$, $\lambda_3=0.0273$ (равная 3) превращается в сумму дисперсий 3-х z–переменных: $\omega_1=1.20056$, $\omega_2=0.99149$, $\omega_2==0.80795$, $\omega_1+\omega_2+\omega_3=1.20056+0.99149+0.80795=3$.

Это равенство, как показано выше, следует из свойства: след произведения матриц не зависит от последовательности выполнения операции умножения:$disp(z_1)+disp(z_2)+disp(z_3)=$
$trace((1/m)Z^{(1)T}Z^{(1)}))=trace(C^{+(1)}_{33}Y^{(1)T}_{m3}Y^{(1)}_{m3}$
$C^{(1)T}_{33})=trace(C^{(1)}_{33}\Lambda_{33}C^{(1)T}_{33})=trace(C^{(1)}_{33}C^{(1)T}_{33}\Lambda_{33})$
$= trace(\Lambda_{33})=3$.

2-ая ситуация. Рассмотрим 2-ую группу покупателей, в которой доминирует количество покупателей, больше всего предпочитающих: услугу №2. Тогда во 2-ом собственном векторе одна из ее компонент, например, $c_{22}=0.8$, доминирует над другими компонентами других собственных векторов: $c_{11}=0.5$, $c_{33}=0.3$;

При $c_{11}=0.5, c_{22}=0.8$, $c_{33}=0.3$ решение Оптимизационной Задачи 2 дает пару матриц ($\Lambda_{33}, C^{(2)+}_{33}$), где C_{33} –начальная матрица (Таблица 1,), $C^{(2)+}_{33}$ – матрица результата применения Оптимизационной Задачи 2. Сперва для полученной выше матрицы Λ_{33} моделируем матрицу y–переменных $Y^{(2)}_{mn}$ такую, что $(1/m)Y^{(2)T}_{mn}Y^{(2)}_{mn}=\Lambda^+_{nn}$, потом применяя матрицу $C^{(2)+T}_{nn}$ преобразует матрицу y–переменных $Y^{(2)}_{mn}$

z-переменных $Z^{(2)}_{mn}=Y^{(2)}_{mn}C^{+(2)T}_{nn}$, где $C^{(2)+T}_{nn}$ – выше полученная иатрица псевдособственных векторов ($CC^{(2)+}_{33}C^{(2)+T}_{33}=I_{33}, C^{(2)+T}_{33}C^{(2)+}_{33}\neq I_{33}$), Z_{mn} - матрица значений изменчивости коррелированных z–переменных z_1, z_2, z_3 $Z^{(2)}_{mn}=Y^{(2)}_{mn}C^{(2)T}_{33}$, с дисперсиями $disp(z_1)=\omega_1=1.20056$, $disp(z_2)=\omega_2=0.99149$, $disp(z_3)=0.80795$, $\omega_1+\omega_2+\omega_3=1.20056+ 0.99149 +0.80795=3$.

Элементы $c^{(2)}_{ij}$ найденного решения $C^{+(2)}_{33}$ Оптимизационной Задачи №2 являются постоянными коэффициентами матричной системы линейных уравнений $Z_{m3}[C^{+(2)}_{33}]=Y_{m3}$. Подставив значения коэффициентов $c^{(2)}_{ij}$ уравнения $Z_{m3}[C^{+(2)}_{33}]=Y_{m3}$ имеем систему многомерных линейных уравнений когнитивных смыслов изменчивости цен (номер $^{(2)}$ не приведен):

смысл(z_{i1})*0.5+смысл(z_{ii2})*(-0.3605)+
смысл(z_{i3})*0.78743=смысл(y_{i1})+
смысл(z_{i1})*0.39075+смысл(z_{i2})*0.8+ смысл(z_{i3})*(-0.4553)=смысл(y_{i2})+смысл(z_{i1})*0.49241+
смысл(z_{i2})*0.81703+смысл(z_{i3})*0.3=смысл(y_{i3})

3-ая ситуация. Рассмотрим 3-ую группу покупателей, в которой доминирует количество покупателей, больше всего предпочитающих: услугу №3. Тогда во 3-ом собственном векторе одна из ее компонент, например, $c_{33}=0.8$, доминирует над другими компонентами других собственных векторов: $c_{11}=0.3, c_{22}=0.5$.

При $c_{11}=0.3, c_{22}=0.5$, $c_{33}=0.8$ решение Оптимизационной Задачи 3 дает пару матриц (Λ_{33}, C_{33})=>($\Lambda_{33}, C^{(3)+}_{33}$), где C_{33} –начальная матрица (Таблица 1,), $C^{(3)+}_{33}$ – матрица результата, а матрица $Y^{(3)}_{mn}$ преобразуется матрицей $C^{(3)+T}_{33}$ псевдособственных векторов в матрицу значений z_{i1}, z_{i2}, z_{i3} изменчивостей коррелированных z–переменных z_1, z_2, z_3 $Z^{(3)}_{mn}=Y^{(3)}_{mn}C^{+(3)T}_{33}$, с дисперсиями $disp(z_1)=\omega_1=0.50401$, $disp(z_2)=\omega_2=0.64405$, $disp(z_3)=1.85194$, сумма которых равна 3: $0.50401+0.64405+1.85194=3$.

Элементы $c^{(3)}_{ij}$ найденного решения $C^{+(3)}_{33}$ Оптимизационной Задачи №3 являются постоянными коэффициентами матричной системы линейных уравнений $Z_{m3}[C^{+(3)}_{33}]=Y_{m3}$. Подставив значения коэффициентов $c^{(3)}_{ij}$ уравнения $Z_{m3}[C^{+(3)}_{33}]=Y_{m3}$ имеем систему многомерных линейных уравнений когнитивных смыслов изменчивости цен (номер $^{(3)}$ не приведен):

смысл(z_{i1})*0.3+смысл(z_{i2})*(-0.3605)+
смысл(z_{i3})*0.8832=смысл(y_{i1})   смысл(z_{i1})*0.564+
смысл(z_{i2})*0.5+смысл(z_{i3})* (-0.6572)=смысл(y_{i2})
смысл(z_{i1})*0.3097+смысл(z_{i2})*0.5139+смысл(z_{i3})*
0.8=смысл(y_{i3})

Оптимизационная задача

Алгоритм вычисления матрицы $C^+_{33}:(\Lambda_{33}, C_{33})=>(\Lambda_{33}, C^+_{33})$, где $\Lambda_{33}=diag(\lambda_1, \lambda_2, \lambda_3)$

=diag(2,5275,0,4452,0,0273), значения $\lambda_1, \lambda_2, \lambda_3$ равны длинам 3-х псевдособственных векторов: $c^T_1 c_1 = 1.432695103$, $c^T_2 c_2 = 0.969980507$, $c^T_3 c_3 = 0.59732439$). Полученные в результате решения ОЗ новые псевдособственные векторы имеют другие длины $c^{+T}_1 c^+_1 = 1.432695103$, $c^{+T}_2 c^+_2 = 0.969980507$, $c^{+T}_3 c^+_3 = 0.59732439$), но они в сумме равны 3, с длинами (1.20056, 0.99149, 0.80795), отличающимися от длин начальных векторов: (1.432695103, 0.969980507, 0.59732439). Значения длин начальных векторов можно интерпретировать как собственные числа, соответствующие неизвестной системе псевдо собственных векторов C^+_{33}. В поиске C^+_{33} состоит цель решаемой Оптимизационной задачи. Значения индикаторов $c_{11}=0.8, c_{22}=0.5$, $c_{33}=0.3$ влияют на выбор длин $c^{+T}_1 c^+_1$, $c^{+T}_2 c^+_2$, $c^{+T}_3 c^+_3$ будущих псевдособственных векторов, длины которых в сумме равны 3.

Оптимизационная задача. При заданных значениях n=3, $\Lambda_{33}=\text{diag}(\lambda_1, \lambda_2, \lambda_3)$, значениях индикаторов $c_{11}=0.8$, $c_{22}=0.5$, $c_{33}=0.3$, требуется найти матрицу псевдо собственных векторов C^+_{33} такую, что: $C^+_{33} C^{+T}_{33}=I_{33}$, $C^{+T}_{33} C^+_{33} \neq I_{33}$.

Программа-таблица ОЗ 1: целевая функция $c^+_1 c^{+T}_1 + c^+_2 c^{+T}_2 + c^+_3 c^{+T}_3 = 3$

Функции ограничений: $c^+_1 c^{+T}_1 = 1$; $c^+_2 c^{+T}_2 = 1$; $c^+_3 c^{+T}_3 = 1$; $c_{11}=0.8$; $c_{22}=0.5$; $c_{33}=0.3$.

Изменяемые значения: матрица C_{33}; матрица $\Lambda_{33}=\text{diag}(\lambda_1, \lambda_2, \lambda_3)$.

В программе-таблице ОЗ 2 (программе-таблице) введены другие ограничения: $c_{11}=0.5$, $c_{33}=0.3$ ($c_{11}=0.3, c_{22}=0.5$, $c_{33}=0.8$). Замечание: процедура Solver использует программу GRD2, не изменяет значения элементов матрицы $\Lambda_{33}=\text{diag}(\lambda_1, \lambda_2, \lambda_3)$, назначенных для процедуры изменяемыми.
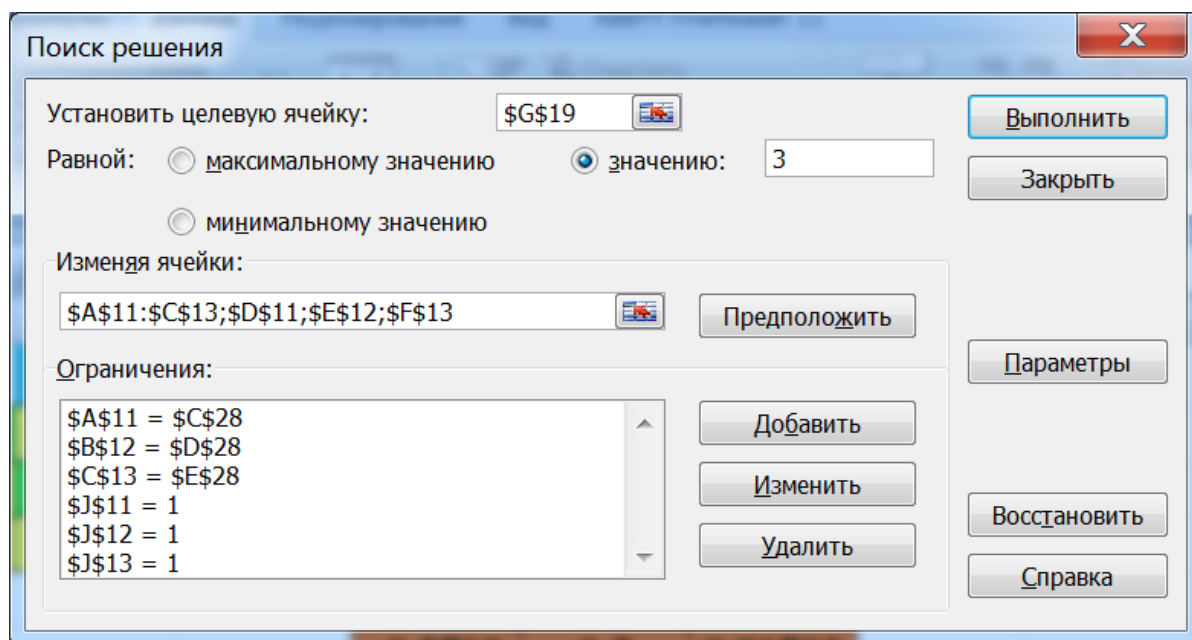

Рисунок 1. Программа-таблица ОЗ 1

Отчет о результатах приведены на Рисунке 2.
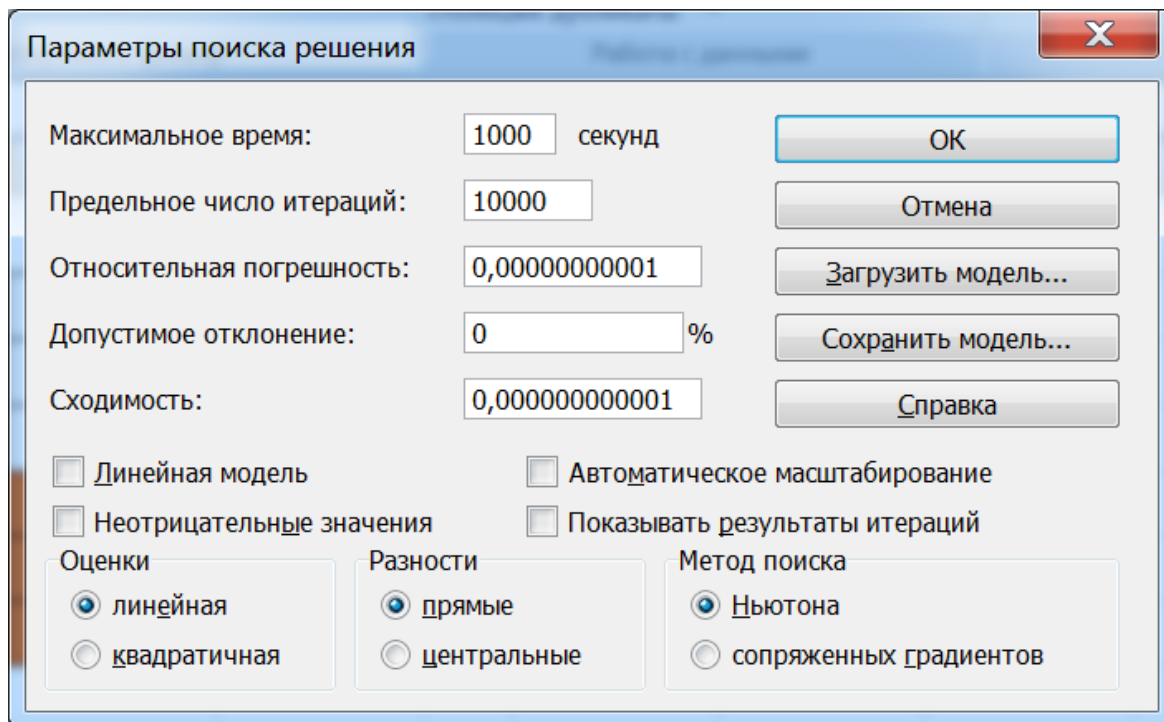
**Рисунок 2. Параметры рограммы-таблицы Solver**
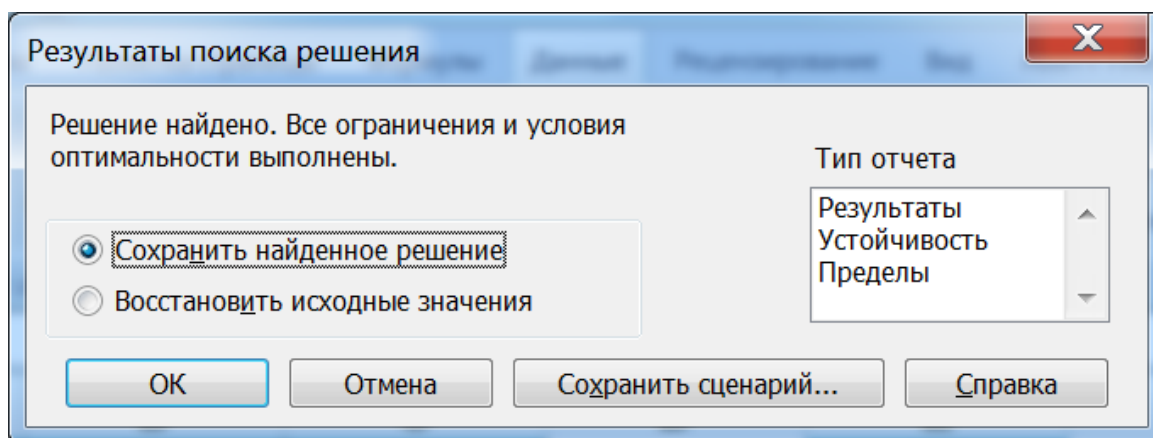
Рисунок 3. Результаты решения ОЗ

Таблица 1. Таблица «весов» $c^{(1)}_{ij}$, $c^{(2)}_{ij}$, $c^{(3)}_{ij}$ при изменчивостях субъективных цен покупателей в 3-х сценариях ценовых предпочтений покупателей

1.20056	0.99149	0.80795	№ 1	3.0000	
0.8	-0.2719	0.53483	2.5275		
0.564	0.5	-0.6572		0.4452	
0.49241	0.81703	0.3			0.0273
1.0001	0.9728	0.6532			
1.0703	0.9271	0.8784			
0.9011	0.8784	0.9125			

0.64515	1.43749	0.91735	№ 2	3.0000	
0.5	-0.3605	0.78743	2.5275		
0.39075	0.8	-0.4553		0.4452	
0.49241	0.81703	0.3			0.0273
1.0001	0.9728	0.6532			
0.3556	0.6765	0.7736			
0.4976	0.7736	0.9125			
0.50401	0.64405	1.85194	№ 3	3.0000	
0.3	-0.3605	0.8832	2.5275		
0.564	0.5	-0.6572		0.4452	
0.3097	0.5139	0.8			0.0273
1.0001	0.9728	0.6532			
0.3316	0.9271	0.5415			
0.1716	0.5415	0.3775			

Система многомерных линейных уравнений для системы тарифных уравнений

Система поведенческих уравнений для своей системы тарифных уравнений разрабатывается для действующих тарифных цен. Если нет действующих тарифных цен , то нет и тарифных уравнении. Если имеются действующие тарифные цены, то они должны периодически изменяться, желательно – с учетом субъективных отклонений поведенческих цен покупателей от постоянных (в интервале времени) цен продавца в однородной группе индивидов-покупателей. Тарифные цены должны изменяться и мы моделируем изменчивости (отклоняться от 0-изменчивости тарифной цены) z_{ij} субъективных цен покупателей, зависящих от покупательского поведения индивидов.

Эти изменчивости субъективных цен назовем поведенческими, а систему уравнений, соответствуюих тарифным уравнениям – системой поведенческих уравнений. Предполагается наличие учета психологических и социальных эффектов от присутствия изменчивости субъективных цен, обязательно отклоняющихся от тарифных цен.

При фиксированном номере $i \in \{1,\ldots,m\}$ значений изменчивостей z_{i1}, z_{i2}, z_{i3} 3 равенства из системы смысловых многомерных уравнений дают 3 системы смысловых уравнений с правыми частями, равными смысл(y_{i1}), смысл(y_{i2}), смысл(y_{i3}).

Система поведенческих смысловых уравнений при наличии действующих тарифных цен и система тарифных уравнений имеет следующий общий вид:

смысл(z_{i1})*$\theta^{(1)}_1$+смысл(z_{i2})*$\theta^{(1)}_2$+
смысл(z_{i3})*$\theta^{(1)}_3$=смысл($y^{(1)}_{i1}$)
смысл(z_{i1})*$\theta^{(2)}_1$+смысл(z_{i2})*$\theta^{(2)}_2$+
смысл(z_{i3})*$\theta^{(2)}_3$=смысл($y^{(2)}_{i2}$)
смысл(z_{i1})*$\theta^{(3)}_1$+смысл(z_{i2})*$\theta^{(3)}_2$+
смысл(z_{i3})*$\theta^{(3)}_3$=смысл($y^{(3)}_{i3}$)

Эта теоретическая система многомерных уравнений когнитивных смыслов изменчивостей 3-х z–переменных и 3-х y–переменных содержит эмпирическую систему многомерных уравнений когнитивных смыслов изменчивостей 3-х z–переменных и 3-х y–переменных с заметными весами (посоянными коэффициентами) при 3-х неизвестных смыслах смысл(z_{i1}), смысл(z_{i2}), смысл(z_{i3}). Теоретическая и эмпирическая системы равны друг другу, что не облегчает разработчику когнитивное осмысление.Соответствующая система тарифных уравнений имеет вид:

(0)*$\theta^{(1)}_1$+(0)*$\theta^{(1)}_2$+(0)*$\theta^{(1)}_3$=(0),
(0)*$\theta^{(2)}_1$+(0)*$\theta^{(2)}_2$+(0)*$\theta^{(2)}_3$=(0),
(0)*$\theta^{(3)}_1$+(0)*$\theta^{(3)}_2$+(0)*$\theta^{(3)}_3$=(0).

Для системы линейных уравнений когнитивных смыслов изменчивостей (она соответствует системе тарифных уравнений смесей тарифов) мы выше моделировали для каждого из 3-х ситуаций не пару матриц Y_{mn}, $Z_{mn}=Y_{mn}C^T_{33}$. а моделировали 3 матрицы C_{33},Y_{mn}, $Z_{mn}=Y_{mn}C^T_{33}$.

Таблица 2. Таблица отклонений субъективных цен покупателей от цен продавца в 3-х сценариях предпочтений покупателей

	Отклонения субъективных цен покупателей от цены продавца в той группе, где доминирует количество покупателей, более всего предпочитающих услугу №1 (матрица $Z^{(1)}_{24,3}$)			Отклонения субъективных цен покупателей от цены продавца в той группе, где доминирует количество покупателей, более всего предпочитающих услугу №2 (матрица $Z^{(2)}_{24,3}$)			Отклонения субъективных цен покупателей от цены продавца в той группе, где доминирует количество покупателей, более всего предпочитающих услугу №3 (матрица $Z^{(3)}_{24,3}$)		
1	1,7350	0,7655	0,0165	0,1096	0,1109	0,3240	0,7396	0,7655	-0,1592
2	1,1317	1,3297	1,4953	0,5173	0,4502	0,5395	0,2342	1,3297	0,9582
3	1,3210	1,3559	1,2916	0,3776	0,3601	0,5016	0,3109	1,3559	0,7591
4	0,9184	-0,1286	-0,2130	0,6311	0,3572	0,3203	0,7014	-0,1286	0,0043
5	1,0383	1,0202	1,2667	0,6630	0,5084	0,5398	0,3263	1,0202	0,8888
6	2,5158	1,3492	1,0658	1,0081	0,7236	0,8660	1,1270	1,3492	0,7217
7	0,5833	-0,3087	-0,4019	0,4423	0,2264	0,1821	0,5419	-0,3087	-0,1411
8	-1,1141	-1,0456	-1,2973	-0,7154	-0,5423	-0,5725	-0,3701	-1,0456	-0,9182
9	-0,4157	-0,8737	-0,7498	0,1762	0,0202	-0,1106	0,1294	-0,8737	-0,3307
10	-1,7334	-1,5543	-1,7724	-0,9377	-0,7247	-0,8049	-0,5736	-1,5543	-1,2133
11	0,1180	-0,1982	-0,1370	0,2360	0,1222	0,0750	0,1886	-0,1982	-0,0053
12	-0,9499	-1,2907	-1,4985	-0,4473	-0,4066	-0,4881	-0,1303	-1,2907	-0,9552
13	-1,0697	-0,7444	-0,5696	-0,2988	-0,2458	-0,3430	-0,3894	-0,7444	-0,3265
14	-0,7177	0,1371	0,1813	-0,5329	-0,2999	-0,2607	-0,5695	0,1371	-0,0098
15	-0,0467	0,1385	0,4816	0,3144	0,2155	0,1512	-0,0269	0,1385	0,4158
16	-3,0275	-1,8226	-1,3206	-0,9471	-0,7265	-0,9647	-1,2315	-1,8226	-0,7885
17	-1,5762	-0,7959	-0,3680	-0,3569	-0,2746	-0,4192	-0,6774	-0,7959	-0,1664
18	-0,2722	0,1489	-0,0871	-0,5363	-0,3129	-0,2222	-0,3125	0,1489	-0,2262
19	0,8436	0,8850	0,9651	0,3759	0,3171	0,3800	0,2146	0,8850	0,6209
20	-1,6039	-0,8184	-0,8422	-0,8988	-0,6177	-0,6522	-0,7797	-0,8184	-0,6566
21	0,7571	-0,1714	-0,3517	0,4157	0,2210	0,2091	0,5856	-0,1714	-0,1424
22	1,5322	1,1059	0,7172	0,2502	0,2448	0,4236	0,5111	1,1059	0,3398
23	-0,3350	0,1745	0,6288	0,2174	0,1665	0,0922	-0,2277	0,1745	0,5017
24	0,3679	1,3422	1,4991	-0,0636	0,1068	0,2336	-0,3219	1,3422	0,8291
	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0001	0,0000

Отклонения субъективных цен покупателей от тарифной цены продавца

Рассмотрим ситуацию 1 (матрицу $Z^{(1)}_{24,3}$). Здесь в этой группе доминирует полезность услуги №1: $c11=0.8$. Подсчитаем количество покупателей, более всего предпочитающих услугу №1. Число случаев отклонений ($z_{k1}<0$) равна 12, т е доля отклонений от 0 влево ($z_{k1}<0$) равна 12/24=50%. Половина покупателей может купить услугу №1 по цене, меньшей тарифной, половина - может купить услугу №1 по цене, большей тарифной цены. Вывод – не менять цну продаж

услуги №1 Аналогичен и вывод по услугам №2 ($c22=0.5$) и №3 ($c33=0.3$): цены на услугу №2 и №3 также не надо менять.

Рассмотрим ситуацию 2 (матрицу $Z^{(2)}_{24,3}$). При доминировании полезность услугу №1: $c22=0.8$.

количество покупателей, более всего предпочитающих услугу №1

доля тех, кто мог бы покупать услугу №1 по бюлее низкой цене небольшая - 9/24, а более половины: 15/24 - могли бы пользоваться услугой №2 (при $c22=0.8$) при певышающей тарифную

цену продавца. Вывод – на услугу №2 **можно повысить** цену продаж.

14/24 - могли бы пользоваться услугой №3 (при c22=0.8) при певышающей тарифную цену продавца. Вывод – на услугу №3 можно повысить цену продаж.

Рассмотрим 3 (матрицу $Z^{(3)}_{24,3}$).

14/24 - могли бы пользоваться услугой №1 (при c11=0.3) при превышающей тарифную цену продавца. Вывод – на услугу №1 **можно повысить** цену продаж.

15/24 могли бы пользоваться услугой №2 (при c22=0.5) при певышающей тарифную цену продавца. Вывод – на услугу №2 можно повысить цену продаж.

14/24 могли бы пользоваться услугой №3 (при c33=0.8) при меньшей цене, тарифная цена продавца. Вывод – на услугу №3 **можно понизить** тарифную цену продаж

Проинтерпретируем 3 ситуации по шкале «богатые-бедные». Ситуация 1 характеризует богатых – они могут и предпочитают разговоры с детьми за границей.

Ситуация 2 характеризует «среднеобеспеченных» – они могут и предпочитают пользоваться

Интернетом с его приложениями (c22=0.8). Ситуация 3 характеризует «малообеспеченных» – они могут и предпочитают пользоваться e-mail-приложениями.

Из 3-х вышеприведенных выводов следует рекомендация для продавца услуг: для достижения стабильности спроса на услуги 1,2,3 не следует менять цены для богатых, необходимо немного и своевременно повышать цены для «среднеобеспеченных», следует понижать цены «малообеспеченным».

Система тарифных уравнений

Рассмотрим 9 смысловых уравнений из 3-х систем из 3-х смысловых уравнений с усредненными значениями своих 3-х параметров $\theta_1, \theta_2, \theta_3$ (из своей тройки параметров) при неизвестных когнитивных переменных смысл(z_{i1}), смысл(z_{i2}), смысл(z_{i3}).

Определение. При любых значениях n и любых значениях числовых параметров $\theta^{(1)}, \ldots, \theta^{(n)}$ сумма смыслов z-переменных смысл(z_{i1})*$\theta^{(1)+}, \ldots$+смысл(z_{in})*$\theta^{(n)}$ равна смыслу смысл(z_{i1})*($\theta^{(1)}+\ldots+z_{in}*\theta^{(n)}$).

При фиксированном номере $i \in \{1, \ldots, m\}$ значений изменчивостей z_{i1}, z_{i2}, z_{i3} сумма 3-х равенств из системы смысловых многомерни уравнений, деленная на 3, дает 3 смысловых уравнений с правыми частями, равными смысл(y_{i1}), смысл(y_{i2}), смысл(y_{i3}):

смысл(z_{i1})*$\theta^{(1)}_1$+смысл(z_{i2})*$\theta^{(1)}_2$+смысл(z_{i3})*$\theta^{(1)}_3$=смысл(y_{i1})

смысл(z_{i1})*$\theta^{(2)}_1$+смысл(z_{i2})*$\theta^{(2)}_2$+смысл(z_{i3})*$\theta^{(2)}_3$=смысл(y_{i2})

смысл(z_{i1})*$\theta^{(3)}_1$+смысл(z_{i2})*$\theta^{(3)}_2$+смысл(z_{i3})*$\theta^{(3)}_3$=смысл(y_{i3})

Мы впервые построили систему координат на базисе из псевдособственных векторов, не зная соответствующего базису оператора. Мы получили такое множество собственных значений (спектр оператора), что матрица линейного преобразования привязана к конкретной системе координат с базисом из псевдособственных векторов, сумма длин которых равна суммам дисперсий как z–переменных, так и y–переменных.

Трансформация многомерного линейного уравнения когнитивных смыслов изменчивостей z_{i1}, z_{i2}, z_{i3} z–переменных z_1, z_2, z_3 и одной y–переменной смысл(z_{i1})*0.8+ смысл(z_{i2})*(-0.330966667)+ смысл(z_{i3})*0.735153333= смысл(y_{i1}) в линейное уравнение многих переменных [28-29]:

(0)*0.8+(0)*(-0.330966667)+(0)*0.735153333=(0), где 1-ое число (0) при параметре 0.8 равно средней арифметической значений изменчивости $z_{i1}, \ldots, z_{im1}$ z–переменной z_1 (значений субъективных предпочтений цен покупателей, отклоняющихся от тарифной цены на вид услуги №1): (1/m)($z_{i1}+\ldots+z_{im1}$)/m=0. Точка 0 является «равноудаленной» от всех «субъективных» точек индивидов-покупателей. Если знак значения z_{ik1}, $k \in \{1, \ldots, m\}$, минус, то покупатель предпочитает цену, меньшую тарифной цены, если – плюс, то способен заплатить цену, большую тарифной цены. Вместо «равноудаленной» точки 0 можно использовать медианную или средневзвешенную точку. Выше (Таблица 2) были приведены результаты подсчетов обеих видов модельных проявлений субъективных потенциально допустимых для индивида цен.

2-ое число (0) при параметре (-0.330966667) равно средней арифметической значений $z_{i2}, \ldots, z_{im2}$ изменчивости z–переменной z_2 (значений субъективных предпочтений цены покупателей, отклоняющихся от тарифной цены на вид услуги №2): (1/m)($z_{i2}+\ldots+z_{im2}$)/m=0. 3-е число (0) при параметре 0.735153333 равно средней арифметической значений $z_{i3}, \ldots, z_{im3}$ изменчивости z–переменной z_3 (значений субъективных предпочтений цены покупателей, отклоняющихся от тарифной цены на вид услуги №3): (1/m)($z_{i3}+\ldots+z_{im3}$)/m=0. Интерпретации знаков при z_{ik2}, z_{ik3}, $k \in \{1, \ldots, m\}$, те же, что и в виде услуги №1.

Аналогично доказываются новые смысловые уравнения когнитивных смыслов изменчивостей

3-х z–переменных и одной y–переменной вида смысл(z_{i1})*0,50625+ смысл(z_{i2})*(0.6) +смысл(z_{i3})*(-0,5899)=смысл(y_{i2}) и их трансформации в линейное уравнение многих переменных:

(0)*0,50625+(0)*(0.6) +(0)*(-0,5899)=(y_{i2}), где λ_2 равно дисперсии y-переменной y_2, число 0 равно средней арифметической значений $z_{i2},…,z_{im2}$ изменчивости z–переменной z_3: $(1/m)(z_{i2}+…+z_{im2})/m=0$.

Аналогично обосновываются новое смысловое уравнение когнитивных смыслов изменчивостей 3-х z–переменных и одной y–переменной вида

смысл(z_{i1})*0,431506667+смысл(z_{i2})* 0,715986667+ смысл(z_{i3})*0,466666667=смысл(y_{i3})

и трансформация многомерного линейного уравнения когнитивных смыслов изменчивостей z_{i1},z_{i2},z_{i3} z–переменных z_1,z_2,z_3 в линейное уравнение многих переменных:

(0)*0.431506667+(0)*0.715986667+

(0)*0.466666667=(0), где число (0) при параметре **0.431506667** равно средней арифметической значений $z_{i1},…,z_{im1}$ изменчивости z–переменной z_1 (значений субъективных предпочтений цены покупателей, отклоняющихся от тарифной цены на вид услуги №1): $(1/m)(z_{i1}+…+z_{im1})/m=0$.

Заключение

Аксиоматический подход к построению функции полезности обладает крупным недостатком, связанным с трудностью проверки субъективных предположений в реальных условиях отрасли связи.

Наш подход также использует известную гипотезу, говорящую о том, что люди сначала оценивают полезность («вычисляют» число утилей) одного вида связи, затем оценивают другой вид связи (ощущают большую полезность), а потом в конце оценки последнего вида услуги связи суммируют эти оценки. Как следствие: многие отказываются потреблять виды услуг связи в совокупности и предпочитают расценивать результаты выбора как чистый прирост своих расходов в целом.

Нами проведены моделирование 3-х ситуаций и их оценка по шкале «богатые-бедные». Ситуация 1 характеризует богатых – они могут и предпочитают разговоры с детьми за границей. Ситуация 2 характеризует «среднеобеспеченных» – они могут и предпочитают пользоваться Интернетом с его приложениями (с22=0.8). Ситуация 3 характеризует «малообеспеченных» – они могут и предпочитают пользоваться e-mail-приложениями.

Из 3-х вышеприведенных выводов следует рекомендация для продавца услуг: для достижения стабильности спроса на услуги 1,2,3 не следует менять цены для богатых индивидов, необходимо немного и своевременно повышать цены для «среднеобеспе ченных» индивидов, следует понижать цены «малообеспеченным» индивидам. Это – реальная ситуация.

Реалистичность выводов из результатов расчетов по Когнитивной Модели Поведенческой Полезности Цен в Группах Покупателей видов услуг связи в приведем выше модельном примере показывает обоснованность, правильность разработки деталей математической, когнитивной моделей, а таблицы, рисунки иллюстрируют точность вычислений и полученных решений Оптимизационных Задач. Наша модель может использоваться в условиях необходимости часто менять тарифные цены, например, на рынке продаж ценных бумаг. [30,31].

References:

1. Zhanatauov, S.U. (2020). Cognitive model of variability in negative breeding indicators. ISJ «Theoretical & Applied Science», №8, vol.88, pp.117-136. www.t-science.org
2. Zhanatauov, S.U. (2020). Cognitive modeling of dependence of quantities of its in apartments from changes in income and expenditures of population Republic of Kazakhstan. *ISJ «Theoretical&Applied Science»*, №1, vol.81, pp.543-555. www.t-science.org
3. Zhanatauov, S.U. (2020). Cognitive modeling of dependence of number of individual telephones at enterprises on changes in structures of income and expenditure of enterprises. *ISJ «Theoretical & Applied Science»*, №2, vol.82, pp.213-221. www.t-science.org
4. Zhanatauov, S.U. (2020). Formula of the key indicator "power of a profitable enterprise". *ISJ «Theoretical & Applied Science»*, №2, vol.82, pp.222-236. www.t-science.org

5. Zhanatauov, S.U. (2021). Cognitive computing: models, calculations, applications, results. *ISJ «Theoretical & Applied Science»*, №5, vol.97, pp.594-610. www.t-science.org

6. Zhanatauov, S.U. (2020). Minimum volumes of types of communication services to maximization subjective utility of a communication service package. *ISJ «Theoretical & Applied Science»*, №12, vol.91, pp.531-546. www.t-science.org

7. Zhanatauov, S.U. (2021). Stone-Geary behavioral demand model for addictive communication services. *ISJ «Theoretical & Applied Science»*, №2, vol.94, pp.255-273. www.t-science.org

8. Zhanatauov, S.U. (2018). Model of digitalization of the validity indicators and of the measurable indicators of the enterprise. *Int.Scien.Jour. "Theoretical & Applied Science"*, № 9(65): pp.315-334. www.T-Science.org

9. Zhanatauov, S.U. (2013). Kognitivnaja karta i model` social`no-jekonomicheskih faktorov kar`ernoj uspeshnosti shkol`nikov municipal`nyh shkol SShA. *Sibirskij pedagogicheskij zhurnal*, №6, pp. 28-33.

10. Zhanatauov, S.U. (2014). Analiz budushhih debitorskoj i kreditorskoj zadolzhen nostej munici palitetov gorodov. *Jekonomicheskij analiz:teorija i praktika*, Moscow: №2(353), pp.54-62. www.fin-izdat.ru/journal/analiz/

11. Zhanatauov, S.U. (2018). Model of digitalization of indicators of individual consciousness. *Int.Scien.Jour. "Theoretical &Applied Science"*, №6(62): pp.101-110. www.t-science.org

12. Zhanatauov, S.U. (2018). Digitalization of the behavioral model with errors of non-returnable costs. *Int.Scien.Jour. "Theoretical &Applied Science"*, №8(64): pp.101-110. www.t-science.org

13. Zhanatauov, S.U. (2019). Cognitive model for digitalizing indicators individual consciousness of a civilized entrepreneur. *Int.Scien.Jour. "Theoretical & Applied Science"*, № 8(76): pp. 172-191. www.t-science.org

14. Zhanatauov, S.U. (2018). Model of digitalization of the validity indicators and of the measurable indicators of the enterprise. *Int.Scien.Jour. "Theoretical &Applied Science"*, № 9(65): pp. 315-334. www.t-science.org

15. Zhanatauov, S.U. (2019). Cognitive model of the structure of the municipal body on monitoring the moral environment for subsides of human resources. *Int. Scien.Jour. "Theoretical & Applied Science"*, № 7(75): pp.401-418. www.t-science.org

16. Zhanatauov, S.U. (2020). Measurement of variability of unmeasured indicators of individuals. *ISJ «Theoretical & Applied Science»*, №10, vol.90, pp.204-217. www.t-science.org

17. Zhanatauov, S.U. (2020). Cognitive model of educational, scientific work of a university professor. *ISJ «Theoretical & Applied Science»*, №5, vol.85, pp. 830-843. www.t-science.org

18. Zhanatauov, S.U. (2019). Cognitive model for digitalizing indicators individual consciousness of a civilized entrepreneur. *Int.Scien.Jour. "Theoretical &Applied Science"*, № 8(76): pp. 172-191. www.t-science.org

19. Zhanatauov, S.U., & Seitkamzina, R.B. (2020). Matrices of indicators of recoverable knowledge. *ISJ «Theoreti cal&Applied Science»*, №3, vol.83, pp.464-475. www.t-science.org

20. Zhanatauov, S.U. (2013). *Obratnaja model` glavnyh komponent*. (p.201). Almaty: Kazstatinform.

21. Zhanatauov, S.U. (2019). A matrix of values the coefficients of combinational proportionality. *Int. Scientific Journal Theoretical &Applied Science*, №3(68), 401-419. www.t-science.org

22. Zhanatauov, S.U. (2017). Theorem on the Λ-samples. *ISJ «Theoretical & Applied Science»*, № 9, vol. 53, pp.177-192. www.T-Science.org

23. Zhanatauov, S.U. (2018). The theorems of values of relationships between groups of variables. *ISJ Theoretical & Applied Science*, 03 (59): 249-256. Soi: http://s-o-i.org/1.1/TAS-03-59-43 Doi: https://dx.doi.org/10.15863/TAS.2018.03.59.43

24. Zhanatauov, S.U. (2018). Modeling eigenvectors with given the values of their indicated components. *Scientific Journal Theoretical & Applied Science*, №11(67), pp.107-119. www.t-science.org

25. Zhanatauov, S.U. (2018). Inverse spectral problem with indicated values of components of the eigenvectors. *Int. Scientific Journal Theoretical & Applied Science*, №11(67), pp.358-370. www.t-science.org

26. Zhanatauov, S.U. (2018). Inverse spectral problem. *Int. Scientific Journal Theoretical & Applied Science*, №12(68), 101-112. www.t-science.org

27. Zhanatauov, S.U. (2017). Block-diagonal correlation matrices of Λ-samples. *International scientific journal Theoretical &Applied Science*, №12, vol.56, pp.101-111. www.t-science.org

28. Zhanatauov, S.U. (2020). Transformation of a system of equations into a system of sums of cognitive meaning of variability of individual consciousness indicators. *ISJ «Theoretical & Applied Science»*, №11, vol.91, pp.531-546. www.t-science.org

29. Zhanatauov, S.U. (2021). Modeling the variability of variables in the multidimensional

equation of the cognitive meanings of the variables. *ISJ «Theoretical & Applied Science»*, №1, vol.93, pp.316-328. www.t-science.org

30. Zhanatauov, S.U. (2017). A model of calculation risk changing of the interest rate "yield to maturity date" for foreign currency bonds of the republic of Kazakhstan. *ISJ Theoretical &* *Applied Science*, № 8, vol. 52, pp. 19-36. www.t-science.org

31. Zhanatauov, S.U. (2019). Risk calculation model of interest rate change " yield to maturity date " for the state securities of the republic of kazakhstan nominated in tenge. *Int.Scien.Jour. "Theoretical &Applied Science"*, № 9 (77): pp. 401-419. www.t-science.org

Clarivate
Analytics indexed

Zebo Pulatovna Aminova
Tashkent Institute of Engineers of Irrigation and Mechanization of Agriculture
Associate Professor, PhD, Karshi Department,
Karshi, Uzbekistan

DESIGNING ESP COURSES WITH MEDIA LITERACY

Abstract: *In teaching and learning ESP, video data plays crucial role in improving learners' listening and speaking comprehension because it contains subject matter which is needed to acquire. Furthermore, the idea of developing students' media literacy through integrating English mass media resources (multimedia form) into the English for Specific purposes classroom. According to visual texts analysis and its interpretation allow students to access, analyze, and evaluate various kinds of mass media – TV news programs, talk shows, movies, and documentaries on profession. This article illustrates some thoughts of scholars and its analysis.*
Key words: *ESP classes, media literacy, ESP learners.*
Language: *English*
Citation: Aminova, Z. P. (2021). Designing ESP Courses with Media Literacy. *ISJ Theoretical & Applied Science, 06 (98),* 754-756.
Soi: http://s-o-i.org/1.1/TAS-06-98-104   *Doi*: crossref https://dx.doi.org/10.15863/TAS.2021.06.98.104
Scopus ASCC: 3304.

Introduction

In recent years, media literacy is being more demandable than before due to requirement of ESP learner in acquisition of technical and semi-technical vocabularies. Additionally, it is universally acknowledged that teaching and learning a foreign language cannot be reduced to the direct teaching of linguistic skills like phonology, morphology, vocabulary, and syntax. Today, English teachers face an unequalled challenge: bridging the gap between traditional teaching aimed at developing all kinds of students' listening, reading, speaking and writing, skills, and communicative teaching focused on contextualizing the language (Simpson, Obdalova, 2014). In order to meet the challenge, teachers should have a well-planned and balanced curriculum motivating students by meaningful and relevant activities. One of the most effective and modern approaches from this perspective would be integrating mass media into the ESP classroom. The approach is based on the concept of weaving media literacy development into the curriculum. While having media literacy as an isolated topic, students may face certain difficulties in their efforts to discuss mass media because they have mastered neither the vocabulary nor

proper speaking skills, integration of media literacy into practical course of ESP might provide them with scaffolding support and language input needed to access, analyze, and evaluate various kinds of mass media – TV news programs, talk shows, movies, and documentaries. We have widely discussed the issues, presented some examples pointing to media resources.

Features of media literacy

Additional factors should also be considered: teaching media literacy is especially important in university classrooms because students, as media consumers, tend to be more influenced in subtle but far-reaching ways by the media they encounter than adults. Besides, "media presentations convey cumulative messages that shape, reflect, and reinforce attitudes, values, behaviors, preoccupations, and myths that define a culture" (Silverblatt, 2001). This occurs in part because media consumers, who have limited time and attention, automatically process the bulk of the messages that they encounter rather than expending the effort that would be required to evaluate them. Media literate students are supposed to have a better understanding of the information that

they receive and are more likely to consider its quality and assumptions (Facione, 2013). They are capable of making judgments and grounding them in good reasons. They are flexible in their thinking and capable of revising their own judgments when confronted with new ideas and information. As a result, they are better able to succeed when faced with problems that have complex causes or debatable solutions (Halpern, 2003). The aim of our research is:

- to design a course incorporated into the practical English curriculum to infuse media literacy into the core content;

- to evaluate the effectiveness of mass media analysis and interpretation in the ESP classroom for enhancing students' media literacy and improving their language performance.

The main criteria used for evaluating students' media literacy performance used for the project are as follows:

- knowledge of various media formats specificity;

- accurate identification of the core issues;

- understanding depth and significance of the problem;

- ability to make deep inferences consistent with each other;

- improved foreign language performance;

- demonstration of high levels of critical judgment, interpretation skills.

- being aware of profession;

-be able to acquire necessary instruments to implement;

Reading and media comprehension

An individual envisages while reading and evaluates the thoughts in a text. Therefore, teaching reading is an important focal point of education. Pointing out the importance of teaching reading, Yalcın (2002: 51) argues that every stage of it should be handled studiously with scientific data. According to Yalcın, this depends on not only the efforts of

teachers but also the arrangement of course books and educational materials in a proper way.

While reading as thinking and understanding, learners are able to enhance a structure and a strategy including the stages of activation, attribution, interrogation, visualization, deduction, summarization, and synthetization. It is seen that habits of watching television and using Internet prevail against the information obtained by reading or at university. This situation makes media literacy more important. Moreover, There are different definitions concerning the concept of media literacy in the relevant literature. While Thoman (1999: 50) defines media literacy as an ability to derive visual and verbal symbols from television, newspaper, radio, computer, magazine and advertisements which we encounter in our everyday life, Cantor and Wilson (2003: 363) defines it as maintaining a critical thinking ability against media violence and questioning the applications, messages and impacts of media. Media literacy means integrating the abilities of media reading, following, speaking and listening with the thinking ability. Aufderheide (1993) defines it as the ability to access, analyze, evaluate and convey messages in "a variety of written and unwritten forms" (television, video, cinema, advertisements, Internet etc.).

Conclusion

Increasing awareness of students' on media literacy through integrating English mass media resources (multimedia form) into the English classroom is a challenging, demanding task for the language teacher who must possess interdisciplinary knowledge and keep developing it alongside with the students. Both the teacher and the students have to fully understand that media literacy is essential for successful cross-cultural communication. We learn a lot through media literacy (TV, Internet and other platforms). Those gave us a great opportunity to extend of horizons of knowledge, and understand the phenomena around the world.

References:

1. Aufderheide, P. (1993). *Conference report. National Leadership Conference On Media Literacy*, Washington, DC: Aspen Institute.
2. Cantor, J., & Wilson, J. B. (2003). Media and violence: intervention strategies for reducing aggression. *Media Psychology*, 5, 363-403.
3. Thoman, E. (1999). Skills and strategies for media education. *Educational Leadership*, 56(5), 50-54.
4. Yalcın, A. (2002). *Turkci ogretim yontemlari*. Ankara: Akcağ Yayınları. Retrieved 28.10.2009 from http://earged.meb.gov.tr/pisa/dil/tr/sunum.html

Clarivate
Analytics indexed

5. Facione, P. A. (2013). *Critical Thinking: What it is and why it counts*. Millbrae, CA: Measured Reasons and the California Academic Press.

6. Halpern, D. F. (2003). *Thought and Knowledge: An introduction to critical thinking* (4th ed.). Mahwah, NJ: Erlbaum.

7. Silverblatt, A. (2001). *Media literacy: Keys to interpreting media messages* (2nd ed.). Westport, CT: Praeger.

Clarivate Analytics indexed

QR – Issue   QR – Article

Dildor Bakhtiyarovna Otajonova
Chirchik State Pedagogical Institute
Senior Teacher, Tashkent region
princess1986@bk.ru

THE EMERGENCE OF DETECTIVE FICTION IN THE NINETEENTH CENTURY

Abstract: The article is devoted to the argument that draws upon many aspects of critical frameworks such as the regulatory and disciplinary functions of detective fiction as well as the connection between detection and storytelling. However, my analysis focuses primarily on the figure of the detective rather than criminals or the law courts. Specifically, it argues that the detective novels that begin to emerge at the end of the eighteenth century and develop over the course of the nineteenth century link detection and authorship. Late eighteenth-century, proto-detective novels such as Caleb Williams, suggest that successful detection is contingent upon the detective's ability to cultivate the trust and admiration of their audience as well as craft a compelling, believable, and socially accepted narrative of the crimes they investigate. The repetitive nature of criminal activity in these novels represents a larger genre shift that deemphasizes the importance of the crimes themselves in favor of a detailed examination of the psyche and investigative method of the detective.

Key words: detective genre, novels, discipline of detective genre.
Language: English
Citation: Otajonova, D. B. (2021). The emergence of detective fiction in the nineteenth century. ISJ Theoretical & Applied Science, 06 (98), 757-759.
Soi: http://s-o-i.org/1.1/TAS-06-98-105   Doi: crossref https://dx.doi.org/10.15863/TAS.2021.06.98.105
Scopus ASCC: 1208.

Introduction

Scholarly interest in crime and detective fiction is a relatively new development in the field of literary studies. In introduction to The Cambridge Companion to Crime Fiction, Martin Priestman notes that, prior the 1960s, "*Crime fiction was certainly written about, but on the assumption that readers and authors were already dedicated fans…Where the authors claimed some academic credentials, their love for the genre was owned up to as a guilty pleasure*" [8]. Priestman goes on to attribute the growing amount of critical attention detective fiction has garnered in recent years to the increasingly blurred lines between "'*high' and 'low' literature*" [8]. He argues that this shift helped to transform detective fiction from a genre largely relegated to the status of popular literature to one worthy of serious critical analysis.

Results and discussion

The discussion surrounding detective fiction is diverse in nature. However, a dominant topic that emerges within this scholarship is the connection between detection and storytelling. Critics such as D.A. Miller, Howard S. Babb, and Jerrold E. Hogle convince that the link between detection and narrative is central to the genre's function as a means of social and political regulation. Others scholars, including Jan-Marissa Schramm and Jonathan H. Grossman, discuss the complex relationship between detection and criminality to emphasize the extent to which both detectives and criminals rely upon narrative manipulation and effective storytelling [9]. Peter Thoms describes detection as an act of narrative control that detectives engage in to divert attention from and atone for their own real or imagined "*crimes*." Emily R. Anderson argues that the ease with which both criminals and detectives manipulate narrative destabilizes the concept of objective truth [1].

D.A. Miller's *The Novel and the Police* argues that the portrayal of the police in nineteenth-century novels establishes and enforces a set of social norms and boundaries [6]. The police often appear to operate on the periphery of these novels, a position that lends police officials an air of ambiguity and cultivates a degree of skepticism toward their abilities. However, according to Miller, the ambiguous and marginalized position of the police in novels contributes to their power. Appearing marginalized and ineffective enables police officers to investigate with a greater degree of freedom by making their maneuvers seem trivial and unworthy of notice. In addition, he characterizes the police as agents and masks of a far larger system of discipline and power.

Miller further asserts that there is "*a radical entanglement between the nature of the novel and the practice of the police*" [7]. He suggests that, while many critics characterize the novel as a transgressive and revolutionary form, it perpetuates a set of normative values and behaviors that integrate even the most potentially disruptive and scandalous acts into 'a systematic function of its own self-maintenance' [7]. Miller claims that the image of the novel as radically transgressive is, in fact, a central component of its power as a regulatory tool. Referencing Foucault's theory, Miller argues that the most effective systems of discipline are those that engage in constant observation while keeping their own machinations abstract and unseen.

In their article, "The Texture of Self in Godwin's Things as They Are," Howard S. Babb and Jerrold E. Hogle argue that narrative plays a central role in constructing identity and regulating behavior. They assert that, in Caleb Williams, Caleb is entrapped and defined by the narratives of which he is a part. While Caleb attempts to become the author of his own narrative and thereby escape the damaging stories others construct about him, his efforts only serve to entangle him further in a corrupt social and moral system. Babb and Hogle state that "the self…is a mere object of desire projected by the schemes of previous writing. Thus, Caleb tries to create a self…by making himself an 'I' wrapped in textual chains that are different from him and different from their own referents" [2, 262]. They suggest that Caleb's efforts to construct an autonomous identity by telling his own story merely reinforce the power of, and his position within, a preexisting narrative framework . In "Vicarious Villainy and the Burden of Narrative Guilt," Jan-Melissa Schramm details the ways in which eighteenth and nineteenth-century detective novels draw upon and manipulate the stylistic conventions of legal trails and newspaper articles to develop their fictional narratives of crime and detection. In addition, Shramm asserts that the narrative surrounding criminality, particularly the characterizations of detectives and criminals, reflects the agendas and biases of those in power. She applies

her argument about the constructed nature of identity to the authors of detective novels, who have complete control over creating the criminals and detective figures in their texts, as well as to the characters within these novels who seek to craft a vision of criminality and detection that most benefits them.

Jonathan H. Grossman's *The Art of Alibi: The English Law Courts and the Novel* argues that detective fiction of the eighteenth and nineteenth centuries borrows heavily from the narrative style and structure of the law courts. Grossman suggests that the extent to which detective fiction employs the conventions of a legal trial reflects a larger shift from an emphasis on physically punishing criminals to recognition of the importance of storytelling in relation to crime. He states that detective fiction "defined itself against and through the cultural and material presence of the law court- a symbolic and real place where stories are reconstructed" [5]. Thus, Grossman blurs the lines between fictional and nonfictional accounts of detection by asserting that they are fundamentally narrative acts that consist of similar stylistic and structural elements. In "'*The Narrow Track of Blood*': Detection and Storytelling in *Bleak House*," Peter Thoms argues that detection is primarily an act of narrative control. Specifically, he asserts that detection gives those who engage in it a tremendous degree of power over the live and narratives of others and describes how characters in Bleak House "are hounded even to death" [10, 148] by the novel's various detectives.

According to Thoms, the primary motivation of the detectives in Bleak House is a "desire for the narrative and thus for the private identity of another" [10, 149]. He further asserts that the reason detectives are so eager to gain control over the narratives of others is that it draws attention away from their own guilt and fear of self-exposure. Thoms states that "Dickens's characters fear self-exposure-and their own guilt- and turn instead to probing the inner lives of others…Lacking (and dreading) a defining sense of themselves, these detectives compensate by attempting to read and write the objects of their detection" [10, 149-150]. He suggests that the characters in Bleak House have a deep fear of surveillance. They dread the thought of someone discovering their secrets and exposing them to public scrutiny. Playing detective alleviates these characters' fears by allowing them to become the observer rather the observed. Detectives expose the secrets of others in order to protect their own. Thoms further argues that many characters in Bleak House internalize the process of detection. He states "One could say that the guilty, such as Esther, internalize detection. Adhering to a doctrine of self-denial, they rigorously police themselves, and through such scrutiny they keep the flawed self- the criminal- in check" [10, 153]. He asserts that detection involves not just the close observation of others, but careful

regulation of one's own behavior. While Esther is one of the novel's central detective figures, she also feels an enormous amount of shame over the fact that she is the product of her mother's illicit affair. Thoms asserts that, for Esther, playing detective is an attempt to alleviate her own guilt and move beyond her role as a physical representation of her mother's transgressions.

Emily R. Anderson's "*I Will Unfold A Tale—!': Narrative, Epistemology, and Caleb Williams,*" argues that the extent to which criminals and detectives manipulate narrative for their own benefit in Caleb Williams destabilizes the concept of objective truth. She asserts that "*From beginning to end, Caleb Williams interrogates the construction of narrative, thereby raising a central problem of empiricism: are the stories we tell about the world true*" [1, 99]. According to Anderson, Godwin suggests that many of these stories are not only factually inaccurate, but have the potential to be highly damaging and dangerous. She ultimately claims that the novel questions a central tenant of Enlightenment thought: that reason and observation can form a complete and accurate picture of the world.

Conclusion

During the late eighteenth century, proto-detective novels such as Caleb Williams [3], suggest that successful detection is contingent upon the detective's ability to cultivate the trust and admiration of their audience as well as craft a compelling, believable, and socially accepted narrative of the crimes they investigate. While mid-Victorian detective novels like Charles Dickens' *Bleak House* and Wilkie Collins' *The Moonstone* still maintain the importance of the detective's reputation and image, their primary focus is illustrating the impossibility of constructing a fully unified and complete account of crimes. Fin de siиcle detective novels such as Arthur Conan Doyle's *A Study in Scarlet* and *The Hound of the Baskervilles* assert that there is a cyclical pattern to narratives of crime. The repetitive nature of criminal activity in these novels represents a larger genre shift that deemphasizes the importance of the crimes themselves in favor of a detailed examination of the psyche and investigative method of the detective.

References:

1. Anderson, E. R. (2014). *"'I Will Unfold A Tale –!': Narrative, Epistemology, and Caleb Williams." Eighteenth Century Fiction* 22.1 (2009): 99-114. Project MUSE. Web. 10 February.
2. Babb, H. S., & Hogle, J. E. (2014). "The Texture of the Self in Godwin's *Things as They Are*." Boundary 7.2 (1979): 261-282. JSTOR. Web. 10 February.
3. Cohen, M. (2014). *"Godwin's Caleb Williams: Showing the Strains in Detective Fiction,"* Eighteenth Century Fiction 10.2 (1998): 203-220. Project MUSE. Web. 10 February.
4. Godwin, W. (2000). *Caleb Williams*. Canada: Broadview Press. Print.
5. Grossman, J. (2002). *The Art of Alibi: English Law Courts and the Novel.* Baltimore: Johns Hopkins University Press.
6. Miller, D.A. (1988). *The Novel and the Police*. Berkley: University of California Press. Print.
7. Miller, D.A. (2014). "From Roman Policier to Roman-Police: Wilkie Collins's *The Moonstone*." NOVEL: *A Forum on Fiction* 13.2 (1980). JSTOR. Web. 11 February.
8. Priestman, M. (2003). *The Cambridge Companion to Crime Fiction.* Cambridge: Cambridge University Press. Print.
9. Schramm, J. (2002). *"Vicarious Villainy and the Burdon of Narrative Guilt." The Devil Himself: Villainy in Detective Fiction and Film. Eds. Stacy Gillis and Phillipa Gates*. Connecticut: Greenwood Press,11-24. Print.
10. Thoms, P. (2014). *"The Narrow Track of Blood': Detection and Storytelling in Bleak House."* Nineteenth-Century Literature 50.2 (I1995): 147-167. JSTOR. Web. 11 February.

Clarivate
Analytics indexed

QR – Issue   QR – Article

Sardor Urozboy uglu Sharifzoda
Urgench State University
PhD researcher

PEDAGOGICAL ASPECTS OF THE PROCESS OF FORMATION OF BASIC COMPETENCIES USING INTEGRATED LEARNING MATERIALS

Abstract: *This article analyzes the theoretical aspects of using an integrative approach in the formation of basic competencies of students. In addition, the personal views of the author are given.*
Key words: *practical tasks, development, motivation, activity, mental activity.*
Language: *English*
Citation: Sharifzoda, S. U. (2021). Pedagogical aspects of the process of formation of basic competencies using integrated learning materials. *ISJ Theoretical & Applied Science, 06 (98),* 760-763.
Soi: http://s-o-i.org/1.1/TAS-06-98-106   *Doi*: ᶜʳᵒˢˢʳᵉᶠ https://dx.doi.org/10.15863/TAS.2021.06.98.106
Scopus ASCC: 3304.

Introduction

The methodological strategies of the integrative approach are aimed at systematizing the theoretical basis for the solution of educational problems and the harmonization of single and different district indicators. An integrative approach to education implies that there is a need to supplement and improve its content using a number of integrating units. In particular, the integration between academic disciplines has its own specific goals, which includes the harmonization of generalizations, the integration of components between academic disciplines, the separation of methods of activity, their transfer to different disciplines.

Today, special attention is paid to the organization of the educational process on the basis of a competent approach. This expands the possibilities of directing the technological process to practical activities. The need for practical-technological direction in education stems from the logical, complex, systematic, interdisciplinary nature of the subject. The competency approach requires the formation of an integrated system of interdisciplinary systematic analysis of education and its implementation.

Materials and methods

The competency approach defines learning outcomes as a general, integrated behavioral phenomenon. It consists of a set of motive-value, cognitive, interactive and empirical qualities.

Today, when new demands are placed in front of a person, the process of education requires the formation of special qualities in the person. They are:

1. Formation of individuals capable of solving political, environmental, intercultural problems.

2. Formation of individuals capable of solving problems in the field of values, taking into account cultural, ethnic, religious values and differences, social diversity. Also, to create favorable didactic situations for mastering the tools and methods of interethnic communication.

3. To prepare students to perform various roles in social life, such as a citizen, a voter, parents, a family member.

4. Develop general skills that allow you to search and analyze information.

5. Develop the ability to make decisions in a variety of situations; as well as developing the skills to take responsibility for decisions made in uncertain situations, to work in a team, and to organize team activities.

6. Ability to receive continuing education, ensuring the development of cognitive activities[1].

The requirements for the formation of the above competencies should be reflected in the content of education on the basis of ensuring the integration of a set of disciplines. For example:

Clarivate Analytics **indexed**

- **Socially active civic competence**; it includes political and social knowledge, individual responsibility, and the ability to resolve conflicts within a group without the use of force.

- **National and cultural competence**; this competence includes the formation of the knowledge necessary to live in a multicultural society, the development of an environment of tolerance, the ability to live and work together in society with members of other religions and nationalities.

- **Communicative competence**; within this competence the skills of written and oral communication in one or more languages are formed[2].

- **Competence in working with information**; within this competence, knowledge related to the acquisition of information in society, the mastery of information technology, awareness of their opportunities and barriers to use, critical-analytical attitude to information, the ability to disseminate propaganda tools are formed.

- Competence for self-development; Within the framework of this competence, it is planned to adapt students to the rapidly changing technological environment, to create opportunities for success in the social and professional spheres.

As a result of the formation of these basic competencies, students are actively prepared for social life and future work, which ensures the success of the individual in any field of activity. Therefore, the use of an integrative approach in the formation of basic competencies in students is especially relevant in a person-centered learning environment.

Clarification of the basic concepts underlying the competency approach, including reliance on modern approaches of pedagogical scientists, didactic description of the relationship between the terms "competence" and "having competence", an integrative justification of competence as a set of competencies, competence as a component of social competence it must be pedagogically disclosed that it serves to ensure labor activity.

The peculiarity of competence is reflected in its connection with human activity. It ensures the productivity of human activity in a particular field. Therefore, the process of formation of competencies in students in technology classes is accelerated. In order to form competencies in students, it is necessary to follow the general requirements associated with it. Competence is the basis for a person to perform a certain activity. Including labor, professional activity, educational activity, creative activity, communication activity, independent learning activity.

Results and discussion

Competences are defined by the structural structure of their components. Competences include knowledge, methodology for applying this knowledge, as well as mastering this methodology, practical skills.

The analysis of the structural structure of competence as its characteristic of a constantly evolving activity requires differentiation according to the specifics of the activity. Human labor skills consist of motivational-valued, cognitive-based on knowing, active, reflexive parts[3].

The formation and development of competence in students in the process of technology education requires the creation of special pedagogical conditions. In this case, the defining components of the pedagogical system are reflected. These conditions allow the content of technology education to be deepened, expanded and enriched on the basis of an integrated approach. There is a need to choose mutually compatible pedagogical technologies that motivate students to work.

These technologies should enable students to engage in subject-subject relationships in the process of technology education. Most experts emphasize the need to rely on their performance in the process of developing competencies in students. They identified the stages that affect the activities of the subjects of the educational process. At the same time, they recommend to pay attention to the motivational-valuable, fast-acting, analytical-evaluative areas of students. Therefore, in the formation of basic competencies in students on the basis of an integrative approach, it is necessary to pay special attention to the composition of multi functionality in them. Technology education, extracurricular pedagogical processes, educational activities in various circles plays an important role in the formation of multi functionality in students.

Diagnosing the level of formation of basic competencies in students is a complex pedagogical phenomenon. There are a number of contradictions in this process. This is especially evident in the process of vocational guidance and technology education of students. The formation of basic competencies in students can be done not only in the learning process, but also through independent learning. Therefore, in diagnosing the level of competence of students, it is necessary to take into account the dynamics of the development of its components. In determining the integral indicators, the focus is on the validity psychometric apparatus.

At the current stage of development of the competency approach in pedagogy, the focus is not on the formation of competence, but on the analysis of its rapid development[4]. Therefore, the competency approach is implemented in different directions. An analysis of research devoted to the theory and practice of the competency approach shows that a number of experts have expressed their views on the integration of competencies and their implementation in the learning process. In particular, the research work of O.A.Valikhanova on mathematical competence,

L.S.Petrova on mathematical subcompetition, I.B.Akhpasheva on information and communicative competence, V.V.Kalitina on program-algorithmic competencies is devoted to the problem of formation of integrated competencies in students.

L.S.Petrova [1] distinguished mathematical subcompetitions and substantiated their information-technological, content-model, computational-experimental integration. These competencies are logically separated from the structure of general cultural and professional competencies and are integrated in the imagination of students. On this basis, a specific model of integrated competencies is formed.

E.A.Kagakina's research reveals the integration of intercultural and professional competencies. The author of the study theoretically substantiated the combination of general cultural and scientific competencies in the study of a particular subject [5].

In the study of E.A.Kagakina, the function of the competencies included in the cluster and the leading competence are distinguished[6].

New information and information technologies create favorable conditions for integrated learning. Such an education system, on the one hand, ensures the activation of teachers and students, on the other hand, the diversity of teaching materials, the implementation of teaching on the basis of a flexible order.

All this requires updating and continuous improvement of educational content based on international experience. The integration of topics in the curriculum, the development of a high level of competence of students is the main goal of modernized education.

With the help of integrated learning materials, students are first provided with the information they need to develop basic competencies. This ensures the formation of a number of basic competencies in students:

- selection and design of information needed to solve tasks in the learning process;
- creation of conditions for students to analyze educational materials and independent learning on the basis of improvement of existing technologies;
- management of the educational process based on a competency-based approach using information technology;
- formation of tasks that allow easy mastering of basic competencies;
- modeling the learning process based on a competency-based approach, integration of the content of knowledge, information, assignments, which allows the formation of basic competencies;
- selection of teaching materials based on a competency-based approach and the development of a framework for designing the learning process.

Conclusion

In short, the formation of basic competencies in students on the basis of knowledge integration is a complex phenomenon and requires its own pedagogical interpretation. Based on the integration of knowledge, students' cognitive abilities expand, they develop the skills of analysis, generalization, appropriate assessment of events, creative thinking. To implement such an approach, a number of requirements must be met. As a result of fulfilling these requirements, students' learning activities will be accelerated, and opportunities for logical thinking will be expanded. These requirements should be as objective as possible.

It is impossible to solve the problem of pedagogical integration without relying on such an approach. In order to successfully solve the pedagogical tasks related to integration, it is necessary to study the correlation of structural units inherent in both parts of it and realize that the integration of competencies is a social pedagogical necessity.

References:

1. Kukushkin, V.S. (2008). *Pedagogicheskie tehnologii,* Rostov n/D, S. 121-132 (serija «Pedagogicheskoe obrazovanie»).
2. Narzieva, N. (2017). Ŭkuvchilarda tadkikotchilik kŭnikmalarini shakllantirishga bŭlgan integrativ jondashuvning mazmuni. *Uzluksiz ta#lim,* Toshkent, №4, pp.45-48 (13.00.00; №9).
3. Osipova, S.I. (2016). Kompetentnostnyj podhod v realizacii inzhenernogo obrazovanija. *Pedagogika,* № 6.
4. Hutorskoj, A.V. (2002). Kluchevye kompetencii i obrazovatel`nye standarty [jelektronnyj resurs]. *Internet zhurnal «Jejdos»,* http://eidos.ru/journae/2002/0423.htm
5. (n.d.). *Integrativnoe obuchenie.* Retrieved from http://www.ido.tsu.ru/ss/?unit=199&page=593
6. Kagan, M.S. (1974). *Chelovecheskaja dejatel`nost`.* (p.328). Moscow: Politizdat.
7. Leont`ev, A.N. (1977). *Obshhee ponjatie dejatel`nosti.* (p.368). Moscow: Nauka.

Clarivate
Analytics indexed

8. Ergashev, I. (n.d.). *Uzbekistan's national ideology in the context of democratic society development*.1000 kopii. p.18.

9. Sodirjonov, M. M. (2020). Education as the most important factor of human capital development. *Theoretical & Applied Science*, (4), 901-905.

10. Farxodjonova, N. F. (2021). Modernization Of Uzbek Language And National-Spiritual Heritage In National Culture". *The American Journal of Social Science and Education. Innovations,* T. 3, №. 01, p.585.

Clarivate
Analytics **indexed**

Egambergan Madrahimovich Khudoinazarov
Urgench State University
Senior Lecturer, Department of
"Methods of Primary Education"

AN ACTIVE APPROACH TO EDUCATION AS A METHODOLOGICAL BASIS FOR THE STUDY OF PROBLEMS OF PRACTICAL TASKS

Abstract: *This article describes the methodological foundations for studying the problems of active joint practical tasks in primary mathematical education.*
Key words: *practical tasks, development, motivation, activity, mental activity.*
Language: *English*
Citation: Khudoinazarov, E. M. (2021). An active approach to education as a methodological basis for the study of problems of practical tasks. *ISJ Theoretical & Applied Science, 06 (98),* 764-767.
Soi: http://s-o-i.org/1.1/TAS-06-98-107   *Doi*: crossref https://dx.doi.org/10.15863/TAS.2021.06.98.107
Scopus ASCC: 3304.

Introduction

Throughout our research, we have taken into account that there are two aspects to the use of practical assignments in the learning process: meaningful and procedural. Based on this situation, we need to choose a specific educational model to address the developmental issues of students. This will definitely affect the content of the practical assignments. As an example of such technology, we adopt developmental educational technology. The concept of "development" is explained in the pedagogical dictionary as follows:

Development - it is a qualitative change in the human psyche and body. These changes occur as a result of the influence of the social environment, housing conditions, and the people around it. In the development of a person, that is, in his upbringing, the educational institutions organized by society and the upbringing involved in the educational process play an important role.

Materials and methods

Development - it is an objective process, the formation of quantities and, that is, the qualities, merits and rights of the individual by external and internal controlled factors, the transition from easy to difficult, from simple to complex, from abstract to specific, from simple forms of life to higher activity.

L.V. Zonkov ignores the developmental aspect of educational activity in considering the essence of "general development", does not show the place and role of the student in the learning process.

In contrast, V.V. Davidov believes that the essence of developmental education lies in the creation of conditions for the development of each student. That is, he sees each student as a "self-changing subject of education". To be such a subject means to have the need for the self-transformation and the ability to satisfy it through education, that is, to desire, love and be able to study [1].

I.S. Yakimanskaya describes developmental education as follows: "Education, which ensures the full acquisition of knowledge, shapes learning activities and thus has a direct impact on the intellectual development of students. This is developmental education" [2].

Taking into account all aspects of developmental education, we are based on the definition given by H.J. Ganeev - "education is developmental education, the purpose and result of which is the intellectual development of students and the acquisition of knowledge, aimed at shaping the method of working in a particular field of information"[3].

This affirmation shows that there is always activity between educating a person and his mental development. Therefore, when considering primary developmental education, it is crucial to first

thoroughly analyze the content and structure of educational activities. The mental development of young students is directly related to this situation.

Thus, based on the reasons mentioned above, we consider the proactive approach as a methodological basis in creating a system of practical tasks.

However, it is impossible to address this issue without the "activity" category. Since this category has important methodological significance for activating students cognitive abilities.

Research in recent years has illustrated that the "category of activity" is more deeply grounded and clarified.

For M.S. Kagan, activity is the activity of a subject directed to another object or to other subjects [4]. The definition proposed by M.S. Kagan identifies three main elements of activity and establishes structural relationships between them: the activity of the subject in relation to one object or another; the object in which the activity of the subject is directed; activity itself is expressed in one-way or another affecting an object or establishing relationships between subjects. Based on these facts, it is possible to formulate a definition of cognitive activity. If object-oriented activity is returned to the subject in the form of information about the qualities of the object, connections, relationships, the laws of the real world, that is, knowledge, then such activity is called cognitive activity. If the activity of the subject is expressed in the form of information about the importance of this object for the subject, such activity is called value-oriented activity.

Psychologist A.N.Leontev reveals activity through relationships. He focuses on not any process when in terms of activity; It means that 1 the processes by which a person meets certain requirements in the course of the implementation of this or that relationship in the world [5]. So, the activity done by man is always focused on its needs and an object that satisfies him. This subject arouses and directs the activity of the subject.

Results and discussion

According to the systematic-structural approach, activity has its own structure like other psychological phenomenon.

The purpose of the activity is an objective goal processed by the person, defined by the role of the need for that person, rather than as reflected in the mirror.

The motive of the activity is to arouse passion for the activity.

Method of activity - implementation of activity.

The result of the activity is the result, which is obtained at the end of the activity.

The structural elements of the activity are characterized by mobility. For example, the activity may lose motivation and become a simple operation. The motive of some activity may shift to the goal of

the action and as a result, this action may become the activity. Such kind of reciprocal rotations always occur in the field of research.

The first condition for the proper organization of learning activities is internal necessity and motivation. Learning needs motivations which are directed children' to learning process. Here, the knowledge is presented as the result of processing the teaching material. Such processing reveals internal or significant relationships of the material.

Whenever a teacher who regularly requires students to learn about a subject in the classroom by experimenting with that subject, then students are faced with issues that require them to carry out learning activities. Each learning experiment, which requires students to determine the internal and external interrelationships of the material being studied, has a creative character. According to V.V. Davidov, "a person's personality is reflected in his creative work"[3]. The need to develop students' learning activities and the ability to implement them contributes greatly to the development of the student's personality. Learning activities cannot be able to exist without the need for its main component.

Let us consider about this in the example of practical assignments.

4+5	6+3	5+4	7+2
10-1	11-2	12-3	

1. Find the value of these numeric expressions

2. What symbols can be used to represent a given number of expressions

3. What kind of interesting situation did you notice in the value of these numerical expressions?

4. Create a numeric expression with a value of 9

5. Which of these numerical expressions is redundant in finding the sum? Why?

6. What kind of interesting situation did you notice in the examples of the differentiation of those numerical expressions?

The second stage for the organization of educational process-is a learning task that requires students to experiment with a solution to the material, which they are learning.

Under the control of the teacher students, discover their most important relationship in the subject in the process of solving the learning problem.

The last step for the organization of educational process-it is a self-control, the student evaluates himself.

In the process of acquiring knowledge lies effort, P. Y. Galperin and N. F. Tanzila developed the theory of sequential formation of mental movements that was strictly adequate to the assimilated knowledge.

According to this theory, learning leads to the acquisition of areas of activity and the direction of mental action, and its planning and implementation as well.

The following tips are very important to form the skills of voluntary and competencies

1. Creating motivation

2. Explain and differentiate the directed scheme of movement, divide the movement into actions that are understandable and achievable for students

3. Forming the movement in a material or in a materialized form

4. Formation through oral speech without relying on a material or, materialized means of action (all the operations and instructions of the algorithm are said aloud in the order of their execution)

5. Shaping actions through internal speech (the actions are self-reported and the action is shortened and automated)

6. There are three main types in the formation of tasks according to the theory of step-by-step formation of mental movements.

The first type of targeting: the student is given a sample of the action and the result is stated, but it should not be depicted how to perform the action. The student searches for the correct answer by himself. In this case, he may learn how to perform the mental action correctly, but he will not develop a solid skill. They have no idea how to transfer the formed action to new forms. A teacher who is working on the first type of targeting will be preoccupied with over-repetition and delivery in this case.

The second way of targeting: the student is given all the instructions to perform the action or task perfectly, that is, the finished action algorithm is given.

In the training carried out in strict accordance with the instructions of the algorithm, the work will be error-free and faster than the first. The algorithm is mastered during the exercises. The following can be taken as an example to use the algorithm, 38+ 7, calculate the perimeter of a rectangle, solving an equation to find an unknown additive, and so on. In which case, the student compares the current task with the previous one. If the they there is no difference between them, the algorithm given by the teacher is successfully used in the performance of a new task, whereas it should be noted that the scope is limited by the specific conditions of performance of actions and tasks. The disadvantages of the second type of work is that the sequence of actions is given from the outside. As a result, the development of the students creative thinking slows down, but the method of algorithmic activity is well improved by them. If the student is always given ready-made algorithms, references and notes, they will not be able to advance in mental development, but can learn the skills and abilities of the subject well enough.

In the third type of targeting, the first priority is to analyze the situation, not to teach the method of action in a particular situation. The teacher conducts an in-depth analysis of problem solving with students in a special way.As a result, students independently; create a generalized scheme or algorithm for solving the problem. This is now a creative work.

As an example, we will consider the orientation of students to discover their abilities by involving in the organized work .

Cut a rectangular out of the paper with sides of 4 cm and 16 cm. Then divide it into four equal pieces and 8 equal pieces by folding .How the pieces change as the number of them increases.

Conclusion

The work carried out on the third type correspondents to the laws of formation of meaningful generalization and serves to develop theoretical thinking of the students in their subject. The transition from the method of algorithmic activity to creative theoretical thinking is carried out .Such kind of formed actions are able to withstand changing conditions and has unlimited mobility in solving the same type of questions.

Thus, based on the third type, the aspect of activation of cognitive activity is realized, that is, the learning activity of students is combined with cognitive activity. One of the important features of learning activities is the creative nature of education.

Nurturing the creativity of students can be done only through their active participation in the process of creative activity. Consequently, in addition to the mathematical goals, learning activities aim to develop student's mental and creative abilities.

References:

1. Xudoynazarov, E. M. (2019). Didaktic possibilities of oral exercises in forning initial classes pupils' mathematical thinking activity. *Eastern European Scientific Journal*, Ausgabe – Germany, 1-2019, pp. 249-253.

2. Jakimanskaja, I.S. (1979). *Razvivaushhee obuchenie*. (p.144). Moscow: Pedagogika.

3. Jakimanskaja, I.S. (1979). *Razvivaushhee obuchenie*. (p.147). Moscow: Pedagogika.

4. Kagan, M.S. (1974). *Chelovecheskaja dejatel`nost`*. (p.328). Moscow: Politizdat.

Clarivate Analytics **indexed**

5. Leont`ev, A.N. (1977). *Obshhee ponjatie dejatel`nosti*. (p.368). Moscow: Nauka.

6. Farxodjonova, N. F. (2016). *Problemi primeneniya innovatsionnix texnologiy v obrazovatel'nom protsesse na mejdunarodnom urovne.* Mejdunarodnaya konferentsiya. Innovatsionnie tendentsii, sotsial'no-ekonomicheskie i pravovie problemi vzaimodeystviya v mejdunarodnom prostranstve.

7. Numonjonov, S. D. (2020). Innovative methods of professional training. *ISJ Theoretical & Applied Science*, 01 (81), pp. 747-750.

8. Sodirjonov, M. M. (2020). Education as the most important factor of human capital development. *Theoretical & Applied Science*, (4), 901-905.

9. Sodirzhonov, M. M. (2020). Rol` trudovogo vospitanija v razvitii chelovecheskogo kapitala. *Uchenyj XXI veka*, (1), 89-92.

10. Jergashev, I., & Hudajnazarov, A. U. (2020). Ўzbekiston zhamijati boshkaruvida joshlar faolligini oshirishning ma#navij omillari. *Izhtimoij fanlar,* T. 5, №. 3.

11. Khudoynazarov, E., & Yarmetov, J. (2021). Application of problem-based teaching methods in the development of mathematical thinking skills of students. *Psychology and Education Journal*, T. 58, №. 1, pp.4537-4541.

Clarivate Analytics **indexed**

J. R. Yarmetov
Urgench State University
Dean of the Faculty of Pedagogy

N. O. Bekberganova
Urgench State University
"Theory and methods of education" (primary education) 1st stage master
sapayev-2017@mail.ru

THE CONTENT AND ESSENCE OF THE CONCEPT OF PRACTICAL ASSIGNMENTS IN PRIMARY MATHEMATICS EDUCATION

Abstract: *This article describes the methodological foundations for studying the problems of active joint practical tasks in primary mathematical education.*
Key words: *practical tasks, exercises, development, motivation, activity, mental activity.*
Language: *English*
Citation: Yarmetov, J. R., & Bekberganova, N. O. (2021). The content and essence of the concept of practical assignments in primary mathematics education. *ISJ Theoretical & Applied Science, 06 (98),* 768-771.
Soi: http://s-o-i.org/1.1/TAS-06-98-108   *Doi*: crossref https://dx.doi.org/10.15863/TAS.2021.06.98.108
Scopus ASCC: 3304.

Introduction

In defining the content and essence of the concept of practical tasks, we have focused on such aspects as the rules and algorithms of actions formed in students based on the current program in solving most problems of the school mathematics course, the simplest research skills.

Research is considered as the study of the laws of origin, change, development of an object.

Experience, knowledge, and methods and techniques of object study are used in the research process. The result of research is the acquisition of new knowledge.

Materials and methods

Regarding the process of teaching mathematics: to put the research problem among the main components of educational research, to understand its purpose, to pre-analyze the available information on the problem and the problem under consideration, conditions and methods of problem solving, to formulate and formulate initial hypotheses analyze and summarize the results, check the validity of the hypothesis on the basis of the obtained evidence, formulate new results, laws, properties, determine the

place of the results obtained on the problem in the existing knowledge system. Skills such as purposeful observation, comparison, hypothesis making, proof or refutation, and generalization play a special role in the formation of skills such as generalization.

Let us explain the concept of "practical assignments". This concept cannot be explained without relying on the concept of "exercise"[1].

Exercise is a sequence of actions performed in order to master an activity. Activities to improve the quality of an activity are also part of the exercise.

Normally, many repetitions of actions in the acquisition of knowledge, skills and competencies in education are also carried out as a result of exercise.

Exercise is a training to acquire and improve certain skills.

We analyze this sentence. We can distinguish the followings:
- Training;
- Acquisition and improvement of any skills.

If we apply the above to education, the exercises are first, the learning process; we learn that the second is the performance of exercises that follow specific didactic goals, so we define the concept of exercise as follows: "Exercises represent the process of teaching

and learning, aimed at achieving the main goals of education".

Part of the exercises are practical assignments. Therefore, they also retain all the features of the generalized term "exercise", but in turn have their own characteristics. Tasks with a practical content express the process of acquiring knowledge, accelerate the learning process through the development of mathematical speech, and serve to develop students' thinking and creative abilities. Only when practical assignments are presented in a certain system in the learning process can they successfully complete their tasks.

Results and discussion

In developing a theoretical model of practical tasks in the developmental education system, we relied on the work of G.I. Sarantsev [107]. In this case, the author considered the concept of "exercise" on the basis of high school materials. He looked at the concept of exercise as a multifaceted phenomenon in the teaching of mathematics, showing its following main features:

1) shaping actions appropriate to the content of mathematical education;

2) a means of purposeful formation of knowledge, skills and competencies;

3) methods of organizing and managing students' learning activities;

4) one of the forms of implementation of teaching methods;

5) a tool that connects theory with practice [2].

Based on this recommendation, we looked at the practical tasks from different aspects of the learning process: content, methods, teaching aids, learning activities.

Usually, the main attention in didactics is focused on the selection of the content of education, which should be considered, to determine the sequence, intelligibility, structure of its expression. It should be noted that no matter how carefully selected and suggested the training material is, it will not be able to ensure effective mastery of the material on its own. To do this, it is necessary to carefully choose the same teaching aids, that is, to choose teaching methods that allow you to master the content of the given knowledge. It is impossible to acquire knowledge effectively without special organization of educational activities. Practical assignments are one of the ways to organize mastery, to identify the necessary intellectual behavior and to ensure the acquisition of knowledge. In this case, it is important to take into account not only what content of knowledge is acquired, but also how it is acquired, that is, how it provides cognitive activity, under what pedagogical conditions it is manifested.

The effectiveness of education is directly related to the level of activity of the student in cognitive activities, their independence in the process, which in turn is determined by the interests of students. Research has shown that students 'interest in learning depends not only on their age-related abilities, but also on their ability to generalize more skills.

Tasks of practical content have the ability to fulfill the above conditions. Because they include exercises that are able to take into account the interests and abilities of the volunteer learner. Exercises can be divided into four categories[3].

The first category of exercises includes:

1) Learning exercises;

2) Exercises on repetition of separate facts, numbers, and concepts;

3) Exercises for repetition of rules;

4) Exercises for repeating addition, multiplication, division tables;

The given exercises are more of an exercise involving phrases such as "which of the following", "what is this", and "what is it called".

The second category:

1) Tasks to determine the facts, measuring length, weight;

2) Exercises for counting and expressing methods and processes of action;

3) Exercises for the analysis and synthesis of states and processes;

4) Exercises on matching and differentiation (comparison and fragmentation);

5) Exercises on distribution (classification);

6) Exercises to determine the relationship between the facts (function, method, result, tool, etc.);

7) Exercises on abstraction, definition and generalization;

8) Solve uncomplicated examples.

The simplest mental activity will be required to perform the above exercises. Such exercises usually consist of phrases such as "compare," "find similarities and differences," and "in what way"[4].

The third category includes:

1) Transfer exercises (transmission, transformation);

2) Narrative exercises (interpretation, explanation of meaning and significance, justification);

3) Exercises on induction;

4) Exercises on deduction;

5) Proof and verification exercises;

6) Assessment exercises.

The exercises listed require complex mental processes. These include induction, deduction, interpretation, persuasion, etc.

The fourth category includes:

1) Problematic issues and situations;

2) Ask questions and formulate issues or exercises;

3) Exercises to find based on their own observations;

4) Exercises based on their own thinking.

Doing these exercises requires independence. Usually, they start with the following words: think; focus your attention; determine based on your own observations and something like these. Now these exercises require the simplest processes. They need to be grouped into larger blocks, structures, so that they are new to students.

Thus, practical assignments serve the following purposes: diagnostic, predictive, and emotionally motivating.

According to the theory of knowledge, the source and driving force of the development of the intellect is contradiction. Therefore, the development of students' creative and thinking skills, cognitive independence is not possible without problematic situations.

The need to apply problem-based learning necessitated a study of lesson structure. M. I. Mahmutov concluded that the structure of the lesson should be considered at three levels: didactic, logical-psychological and methodological. He highlighted the following general didactic components of the lesson structure:

1. Activation of previously acquired knowledge and methods of action of students.

2. Formation of new concepts and ways of action.

3. By using skills and competencies[5].

Tasks of practical content are one of the elements of the lesson structure. They activate students' thinking skills; students' listening skills are developed when completing practical tasks. Practical assignments, along with other forms of work, allow students to activate a variety of activities. For example, the speed of thinking, speech, actions are activated. All of these in turn shape skills and competencies.

Thus, in the structure of the problem-developmental lesson is characterized by the fact that the practical tasks have a place and can be used in all stages of the practical tasks. In this case, practical tasks appear as a means of activating the cognitive activity of students.

In understanding the essence of practical tasks, the research of Yu.K.Babansky, I.D.Zverov, V.V.Kraevsky, I.Ya.Lerner, M.N.Skatkin and others on teaching methods was fruitful. Our research has shown that in the process of teaching mathematics, practical assignments have emerged as a single form of the whole teaching group.

Conclusion

Despite its abstract nature, mathematical knowledge has emerged under the influence of practice and is applied in practice. Therefore, teaching mathematics should definitely be done with real things, in connection with other subjects. It follows from the requirement that tasks of practical content serve as an important function, a means of carrying out the connection between theory and practice.

Now we can create a theoretical model of practical tasks. This model describes the learning process from all angles. The theoretical model of practical tasks serves to theoretically understand the tasks of practical content as a methodical process.

References:

1. Babanskij, Jy.K. (1982). *Optimizacija uchebno-vospitatel`nogo processa*. (p.192). Moscow: Prosveshhenie.

2. Mahmutov, M.I. (1981). *Maktabda muammoli ta#limni tashkil kilish*. (p.185). Toshkent.

3. Sarancev, G.N. (1985). *Teoreticheskie osnovy metodiki uprazhnenij po matematike v srednej shkole*: Diss. . dokt. ped. nauk. (p.303). Saransk.

4. Xudoynazarov, E. M. (2019). Didaktic possibilities of oral exercises in forning initial classes pupils' mathematical thinking activity. *Eastern European Scientific Journal*, Ausgabe – Germany.1-2019, pp.249-253.

5. Khudoynazarov, E., & Yarmetov, J. (2021). Application of problem-based teaching methods in the development of mathematical thinking skills of students. *Psychology and education* (2021) 58(1): pp. 4537-4541.

6. Madraximovich, K. E., & Ruzimovich, Y. J. (2021). *Application of Problem-Based Teaching Methods in the Development of Mathematical Thinking Skills of Students*. Annals of the Romanian Society for Cell Biology. pp. 43-47.

7. Khudoynazarov, E., & Yarmetov, J. (2021). Application of problem-based teaching methods in the development of mathematical thinking skills of students. *Psychology and Education Journal*, T. 58, №. 1, pp. 4537-4541.

8. Farxodjonova, N. F., & Abdurahimov, V. A. (2020). *Modern technologies of students training in higher education*. nauka i tehnika. Mirovye issledovanija. pp. 5-7.

9. Farxodjonova, N. F. (2019). *Modernization and integration: social-philosophical analysis*. Rol'nauki v formirovanii sovremennoj virtual'noj real'nosti.

10. Sodirjonov, M. M. (2020). Education as the most important factor of human capital development. *Theoretical & Applied Science*, (4), 901-905.

Muslimaxon Bahodirjon qizi Erkaboyeva
Kokand state pedagogical institute
researcher
greatbektash@mail.ru

THE USE OF AUTHENTIC MATERIALS ON TEACHING READING

Abstract: The goals of this research are to describe the use of authentic materials on teaching reading, the problems and the solutions in using authentic materials and its effects on students reading motivation. This research was case study research. The sources of data were event, informant, and document. The techniques of data collection were observation, interview, and document. The results of the research are in determining the materials; the teacher considers criteria such as the topic and the difficult level of the text. The problems of the use of authentic materials are related to time constrain and the students' lack of vocabulary mastery, proper use of authentic materials gives positive effects on students reading motivation. The student have positive task orientation, ego involvement, need for achievement, high aspiration, goal-orientation, perseverance and tolerance of ambiguity.

Key words: authentic materials, teaching reading, reading motivation.

Language: English

Introduction

Learning to read is considered important. It is stated by Budiantari, Nitiasih, and Budasi that learning to read is one of the most important things that should be accomplished by the students because it is their foundation for most of their future academic endeavors. It means that reading is the basic skill students should learn when someone would like to learn English and it can influence the other skill. It is also supported by Pang, Muaka, Bernhardt, and Kamil stating that learning to read is an important educational goal. They add that for both children and adults, the ability to read opens up a new world and opportunity. It means that reading is an important skill to be accomplished by both children and adults. Commonly, reading becomes one skill that is emphasized more in education setting. In English lesson, reading is considered as one of important English skills that teacher expects the students to acquire. The statement is supported by Williams who states that students should be taught reading so that the students can have further practice of language they have already met through listening and speaking, the students can practice language in order to reuse it in writing, the students can learn how to make sense of

texts, in order to extract information they need from them, the students can find enjoyment through reading. In teaching reading, there is a competency or a goal that the teacher expects the students to achieve at the end. That competency has been written in Permendiknas no 23 tahun 2006 stating that the students should be able to "understand the meaning of written interpersonal and transactional text formally or informally, in the form of recount, narrative, procedure, descriptive, news item, report, analytical exposition, hortatory exposition, spoof, explanation, discussion, review, public speaking in the academic context, and popular and authentic literature, in the real life." To help students to be able to reach the goal of reading - to be able to understand what the text trying to convey - one thing that is considered important is the teaching materials. Teaching materials are the resources a teacher uses to deliver instruction to the students. It is supproted by Richard who states that teaching materials are a key component in most language program. It supports and facilitates the teaching and learning process. He adds that whether the teacher uses textbook, institutionally prepared materials or his or her own materials generally serves as the basis for much of the language

input learners receive and the language practice that occurs in the classroom. Chanda et.al. add that teaching material enables everyone in a classroom situation to participate effectively. Since teaching material is important in the process of teaching and learning, the use of teaching material is one thing to be considered to be applied so that it can create an effective source of learning during the teaching and learning process. It is believed that authentic material is considered as good and interesting teaching material to be used. It is also suggested by Silberstein to use text that are realistic in term of the students' reading needs and abilities, and that are authentic. He says that reading passages should be authentic in the sense that they resembles the "real-worlds" texts students will encounter and that they require the same approaches to reading. Students will learn best if they are involved in real-life situation. Authentic material brings students to real-life and meaningful context. Tamo adds that bringing authentic materials into the classroom can be motivating for the students as it adds a real life element to the student's learning experience. In a plain word, authentic material can increase students' motivation to learn. Motivation to learn is an important aspect in the process of reaching the goal. It is said by Brown that it refers to the intensity of one's impetus to learn. So, the involvement of students during teaching and learning process and the effectiveness of the process are influenced by students' motivation they bring in the classroom. In teaching reading using authentic materials, teacher has an important role. Teacher should apply the appropriate teaching activities and method when using authentic materials so that the students can understand the text. As Daskalos& Ling says that this should of course be done with the teacher acting as a guiding force. The teacher should present various ways of working with a text to the students, listen to their suggestions and perhaps create a combined list of activities. Furthermore, the method should be adapted to fit the needs of the different classes. What is perfect for one class will not necessarily work in another.

Conclusion and suggestion

From the result of the research, the conclusions that can be drawn is the proper use of authentic materials include the choices of the materials for teaching reading, such as considerations which are the topic and the difficult level of the text. There are also some problems when using authentic materials that are it spends more time for the students to understand the text and the students' vocabulary mastery but it can be overcome by building the students' background knowledge or prior knowledge about the text, forming the students in a group discussion or to works in group, helping and guiding the students, making an evaluation. It will be better for the teacher to keep on using authentic materials for teaching since authentic materials give positive effects on students' reading motivation in terms positive task orientation, ego involvement, high aspiration, needs for achievement, goal-oriented, high perseverance and tolerance of ambiguity.

References:

1. Aebersold, J., & Field, M. L. (1997). *From Reading to Reading Teacher: Issues and Strategies for Second Language Classroom.* Cambridge: Cambridge University Press.
2. Al-Azri, R. H., & Al Rashdi, M. H. (2014). The Effect of Using Authentic aterials in Teaching. *International Journal of Scientific & Technology Research*, 3(10).
3. Brown, D. (2004). *Language Assessment: Principles and Classroom Practices.* San Fransisco: Longman.
4. Budiantari, P.Y., et al. (2013). Developing Anthentic Reading Material for The Tenth Year Students of State Vocational High School 1 Kubutambahan. *E-Journal Program Pascasarjana Universias Pendidikan Ganesha Program Studi Pendidikan Bahasa Inggris.*
5. Daskalos, K., & Ling, J. J. (2005). *The use of authentic and adapted texts in the study of English in Two Swedish Upper Secondary Schools and A Study of Student and Teacher Attitudes towards These Texts.*
6. Silberstein, S. (1994). *Technique and Resources in Teaching Reading.* New York: Oxford University Press.
7. Tamo, D. (2009). The Use of Authentic Materials in Classroom. *LCPJ*, 2 (1).
8. Farxodjonova, N. F., & Abdurahimov, V. A. (2020). *Modern technologies of students training in higher education.* nauka i tehnika. Mirovye issledovanija, pp. 5-7.
9. Farxodjonova, N. F. (2019). *Modernization and integration: social-philosophical analysis.*

Rol'nauki v formirovanii sovremennoj virtual'noj real'nosti.

10. 9.Sodirjonov, M. M. (2020). Education as the most important factor of human capital development. *Theoretical & Applied Science*, (4), 901-905.

11. Ergashev, I. (n.d.). *Uzbekistan's national ideology in the context of democratic society development*. 1000 kopii. p.18.

Contents

Clarivate
Analytics **indexed**

Clarivate
Analytics ^{indexed}

International Scientific Journal
Theoretical & Applied Science
www.T-Science.org

Импакт фактор журнала

Impact Factor	2013	2014	2015	2016	2017	2018	2019	2020	2021
Impact Factor JIF		1.500							
Impact Factor ISRA (India)		1.344				3.117	4.971		6.317
Impact Factor ISI (Dubai, UAE) based on International Citation Report (ICR)	0.307	0.829							1.582
Impact Factor GIF (Australia)	0.356	0.453	0.564						
Impact Factor SIS (USA)	0.438	0.912							
Impact Factor РИНЦ (Russia)		0.179	0.224	0.207	0.156	0.126			
Impact Factor ESJI (KZ) based on Eurasian Citation Report (ECR)		1.042	1.950	3.860	4.102	6.015	8.716	8.997	9.035
Impact Factor SJIF (Morocco)		2.031				5.667			7.184
Impact Factor ICV (Poland)		6.630							
Impact Factor PIF (India)		1.619	1.940						
Impact Factor IBI (India)			4.260						
Impact Factor OAJI (USA)						0.350			

Clarivate Analytics indexed

INDEXING METADATA OF ARTICLES IN SCIENTOMETRIC BASES:

International Scientific Indexing ISI (Dubai, UAE)
http://isindexing.com/isi/journaldetails.php?id=327

Cl.An. // THOMSON REUTERS, EndNote (USA)
https://www.myendnoteweb.com/EndNoteWeb.html

Research Bible (Japan)
http://journalseeker.researchbib.com/?action=viewJournalDetails&issn=23084944&uid=rd1775

Scientific Object Identifier (SOI)
http://s-o-i.org/

РИНЦ (Russia)
http://elibrary.ru/contents.asp?issueid=1246197

Google Scholar (USA)
http://scholar.google.ru/scholar?q=Theoretical+t-science.org&btnG=&hl=ru&as_sdt=0%2C5

Turk Egitim Indeksi (Turkey)
http://www.turkegitimindeksi.com/Journals.aspx?ID=149

Directory of abstract indexing for Journals
http://www.daij.org/journal-detail.php?jid=94

DOI (USA)
http://www.doi.org

CrossRef (USA)
http://doi.crossref.org

Open Academic Journals Index (Russia)
http://oaji.net/journal-detail.html?number=679

Collective IP (USA)
https://www.collectiveip.com/

Japan Link Center (Japan) https://japanlinkcenter.org

PFTS Europe/Rebus:list (United Kingdom)
http://www.rebuslist.com

Kudos Innovations, Ltd. (USA)
https://www.growkudos.com

Korean Federation of Science and Technology Societies (Korea)
http://www.kofst.or.kr

Clarivate Analytics **indexed**

AcademicKeys (Connecticut, USA)
http://sciences.academickeys.com/jour_main.php

Cl.An. // THOMSON REUTERS, ResearcherID (USA)
http://www.researcherid.com/rid/N-7988-2013

RedLink (Canada)
https://www.redlink.com/

TDNet
Library & Information Center Solutions (USA)
http://www.tdnet.io/

RefME (USA & UK)
https://www.refme.com

Sherpa Romeo (United Kingdom)
http://www.sherpa.ac.uk/romeo/search.php?source=journal&sourceid=28772

Cl.An. // THOMSON REUTERS, ORCID (USA)
http://orcid.org/0000-0002-7689-4157

Yewno (USA & UK)
http://yewno.com/

Stratified Medical Ltd. (London, United Kingdom)
http://www.stratifiedmedical.com/

THE SCIENTIFIC JOURNAL IS INDEXED IN SCIENTOMETRIC BASES:

Advanced Sciences Index (Germany)
http://journal-index.org/

SCIENTIFIC INDEXING SERVICE (USA)
http://sindexs.org/JournalList.aspx?ID=202

Global Impact Factor (Australia)
http://globalimpactfactor.com/?type=issn&s=2308-4944&submit=Submit

International Society for Research Activity (India)
http://www.israjif.org/single.php?did=2308-4944

Clarivate Analytics **indexed**

CiteFactor (USA) Directory Indexing of International Research Journals
http://www.citefactor.org/journal/index/11362/theoretical-applied-science

International Institute of Organized Research (India)
http://www.i2or.com/indexed-journals.html

JIFACTOR
http://www.jifactor.org/journal_view.php?journal_id=2073

Journal Index
http://journalindex.net/?qi=Theoretical+%26+Applied+Science

Eurasian Scientific Journal Index (Kazakhstan)
http://esjindex.org/search.php?id=1

Open Access Journals
http://www.oajournals.info/

SJIF Impact Factor (Morocco)
http://sjifactor.inno-space.net/passport.php?id=18062

Indian citation index (India)
http://www.indiancitationindex.com/

InfoBase Index (India)
http://infobaseindex.com

Index Copernicus International (Warsaw, Poland)
http://journals.indexcopernicus.com/masterlist.php?q=2308-4944
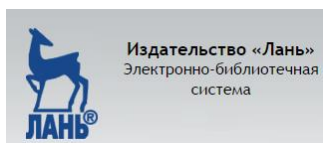
Электронно-библиотечная система «Издательства «Лань» (Russia)
http://e.lanbook.com/journal/

Clarivate
Analytics **indexed**

Printed «Theoretical & Applied Science»