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Polyfunctionality of Integration in the Educational Environment

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Abstract. The article discusses the relevance of creating an integrative educational environment in educational organizations, which is considered as a set of certain interrelated factors (conditions) that influence a person's education. The environment of this environment is determined by the mutual influence, interaction and involvement of the subject of the educational environment in these processes. The author believes that this context is determined by the existence of a certain subjective position of the student. Integration then acts as an objective factor in the implementation of a number of principles and functions of this environment. Integration in this context determines the holistic characteristics of the educational environment and acts as a condition, principle, method and means, which reveals the peculiarity of the multi-functionality of integration. The author of the article reveals the concepts: condition, principle, method and means and their essence in defining integration itself. The multifunctionality of the educational environment, from the author's point of view, will ensure the ability of subjects to think systematically when implementing the highest level of interaction, characterized by the success and creative activity of a modern person (graduate of an educational organization), a specialist (head of an educational organization, teacher) in the transformation (development) of society into in accordance with universal human values. In addition, the teaching staff of an educational organization, when creating an integrative educational environment, actualizes the search for effective content, methods, techniques, forms of organizing training, social and pedagogical contacts of all participants in the educational process, and evaluation criteria, which actualizes the formation of original pedagogical and management technologies in education.

Key words: multi-functionality of integration, integrative educational environment, subject position, condition, principle, method, means.

1 Introduction

The main task of the Russian educational policy is to ensure the modern quality of education on the basis of preserving its fundamentality and compliance with the actual and future needs of the individual, society and the state. The basis for the realization of the state educational policy is defined as social targeting and balance of social interests, issues of improving the pedagogical skills of the teacher.

Consequently, an educational organization should organize an environment for the development of the student's personality, combining approaches focused on different pedagogical paradigms.

2 Technology of obtaining materials and research method

Thus, the problem of creating an integrative educational environment is actualized, which is considered as a set of certain interrelated factors (conditions) that can influence human education. The concept of environment presupposes the presence of surroundings. Speaking about the environment, we mean the mutual influence, interaction between the environment and the object under consideration (in our case, a student) being in this environment (V. G. Vorontsova, V. A. Kozyrev, A. P. Tryapitsyna, etc.) [3,6,9]. In this case, the inclusion of the learner in this environment, his/her certain subject position is mandatory. The subject positions of the student as a learner and self-organizer, and the subject positions of the teacher as a learner, self-organizer and educator are a

serious subject of research, since the integration of subject positions of each subject affects to the same extent both the professional development of the teacher and the development of the learner's personality [1,6].

Integration in the educational process of an educational institution ensures the implementation of such principles as: methodological, professional orientation, systematizing, integrity, polytechnicism, problematic, aimed at the implementation of teaching, educational and developmental functions.

3 Experimental results

According to researchers, the objective factors of integration are: the law of universal connection of phenomena, time as a factor of compacting life experience, the increasing volume of information, the need for creativity on the basis of stable experience, and the intensive nature of education. In addition, most studies devoted to the development of integration theory pay attention to the fact that human activity is integrative in its essence. But it realizes its integrativeness only through the formation of specific types of activity through the unity of universality and universality aimed at specific subject areas of activity (Kikets G. Yu. et al.) [3,4,9].

A.A. Danilyuk notes in his research that "integration is the peak of creative self-development of traditional education, an attempt of traditional pedagogy to overcome itself, to decisively revise its own foundations: science and didactic disunity of academic disciplines, mechanical sequence of lessons, abstracted from life, and, above all, from the life of the child" [2].

4 Discussion

Meanwhile, considering integration as a characteristic of the educational environment, it is necessary to take into account its polyfunctionality, that in theory and practice integration is considered as a condition, a principle, a way and a means.

Disclosing these functions, let us turn to the essence of these concepts closest to our problems.

The concept of "condition" is most often considered as: circumstances on which something else depends (conditioned) or the environment in which something happens. Conditions are considered external and internal, where external (practical) are activities, their objects, actions, operations, means and results; internal (personal) are the personality of its components, namely: motives, values, attitudes, personal goals of activity [5,10]. Consequently, if integration is considered as a condition, the external conditions of integration include integration as a principle of realization of these conditions, and the internal ones include integration as a way and means.

The principle in various sources is considered as an initial position of an organization or an internal belief of a person. In the problem under consideration, we assume that the first position includes the organization of learning itself, and the second position includes the mutual activity of the subjects of the educational process [5,7,8].

The method is most often considered as the development of any activity [5,7,8]. Thus, these are changes in the activities of all subjects of the educational process (learner, teacher, parent, leader) in the organization of learning.

And finally, the concept of "means" is considered as a holistic cognition of the world, of oneself; the ability to think systematically when solving practical problems [5,7,8,10]. Thus, integration is a means of influencing the subject's self-determination (life, personal and professional).

So, the educational environment, where integration is implemented in a complete system, namely its polyfunctionality, in our opinion, will provide the ability of subjects to think systematically in the implementation of the highest level of interaction, characterized by the success and creative activity of a modern person (graduate of an educational organization), specialist (head of an educational organization, teacher) to transform (develop) society in accordance with universal values [6]. Consequently, we are talking about successful, educated, creative, independent and adaptable participants of the educational process, who are humanists, democrats, citizens of their country. This environment will create conditions for the development of all participants of the educational process (head, teacher, student, parent).

5 Conclusion

The focus of the pedagogical staff of the educational organization on the creation of an integrative educational environment actualizes the search for effective content, methods, techniques, forms of training organization, social and pedagogical contacts of all participants in the educational process, evaluation criteria, etc. In addition, the integrative educational environment actualizes the transfer of authorial, not only executive powers to the head of the educational organization, teacher; creation of intensive, accompanying forms of scientific and methodological work; change of professional managerial, pedagogical thinking in the creation of real samples of experience that has no analogues in science and practice

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The linguistic and stylistic significance of foregrounding in analyzing mass media texts

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Abstract: In the fast-paced world of mass media, where information bombards us from all angles, the significance of linguistic and stylistic techniques cannot be overstated. Among these techniques, foregrounding stands out as a powerful tool used by media practitioners to captivate audiences, convey messages effectively, and shape public discourse. In this article, we delve into the intricate realm of foregrounding, exploring its linguistic and stylistic significance in analysing mass media texts. This paper intends to inform Mass media materials and its significance and linguistic analysis of foregrounding. Mass media materials are interpreted through text, using different approaches and methods to convey information. The purpose of this scientific work is stylistic and linguistic analysis of the use of foregrounding in mass media tests.

Keywords: foregrounding, cognitive meaning, discourse analysis, stylistic analysis, linguistic analysis, news, print media, mass media, headlines.

1 Introduction

The use of language in the media, such as specific types of grammatical structure or specific intonation patterns, textual content and its cognitive meaning has given rise to a newly developing field in linguistics. For example, newspaper headlines have unique syntactic features that indicate their grammatical oddity and have long been the subject of analysis by linguists[1]. In a number of studies, the linguistic and stylistic analysis is carried out in ways that illuminate the socio-cultural analysis of the media, which is the reason for the analysis. Basically, the analysis of media texts focuses on changing linguistic features and changing aspects of social context. Although discourse analysis is primarily applied to informal language, recent work has focused on institutionalized forms of discourse, including types of discourse in the media.[2]. For example, many studies have dealt with media interviews[3].

2 Methods and materials

In the formation of the current understanding of media stylistics, it is important to remember two forms of media in particular: the examination of broadcast news on radio and television, and the examination of advertisements, usually in magazines or on television. Some features of the development of approaches to the analysis of each of these speech types will be known. There is also a third media format, the media interview,

which covers in-depth news and analysis articles, and conducts extensive research and political research on discussion formats, celebrity and chat show interviews.

News. In the age of mass media, analysis of broadcast news has gained particular attention due to the social importance of the format. From the 1940s to the 1990s, radio and television programs created an atmosphere of influence and controversy around what was said. Also, because of the limited broadcast spectrum that hindered public discourse, the limited number of media channels had certain rules: ownership controls, mandatory program standards, and a complex concept of balance. With the growth of satellite, cable and, more recently, Internet television, 24-hour news and individual news feeds, portable devices such as smartphones have taken over from historically established print media, and broadcast radio as the primary mass source of information and opinion. has overtaken the dominance of broadcast news. In the centralized mainstream period, public broadcasting, radio and television news are still widely used in some settings.

The news formats developed in television news drew on earlier forms of radio news, theatrical promotional films, and earlier forms of print media. But the formats later developed and took shape in new directions. The political impact of television news content and reception, as well as its ever-evolving techniques on the formation of political ideology, are of particular interest in stylistics.

In print media, especially in the early period of stylistics, a particular field of study focused on newspaper discourse, including newspaper headlines. The wide spread of the newspaper in the 19th century led to an increase in the scope of its analysis, newspaper prose became more like academic prose, and there was an increasingly dense use of passive verbs and relative clauses[4]. These changes focused on a more colloquial style, with changes to greater use of first and second pronouns, contractions, and idioms to broaden the appeal of newspapers and magazines. Through a corpus-based study, the specific role of compressed noun-phrase structures in the linguistic patterns that make up newspaper prose, especially headlines, has been revealed.

Through the analysis, we can see several elements that focus on different types of media discourse and provide an overview of new developments in mass communication studies from the point of view of critical discourse analysis. Media discourse is the most widely heard discourse, which includes news discourse, advertising discourse, television discourse, film discourse, colloquial discourse, visual discourse, etc., and attracts the attention of analysts due to its breadth of fields. Historically, critical discourse analysis emerged and developed in stylistic linguistics, which was developed in the late 1970s, and efforts were made by several European theorists to isolate ideology in speech and to show that ideological processes manifest important elements in the functioning of linguistic features and systems of processes. This, in turn, is closely related to cognitive linguistics. Stylistic linguistics became the critical analysis of speech, and cognitive linguistics became the analysis of speech text. Because information is less word-based—a phenomenon reflected in some commercial discourses—that the semantic relationships expressed by noun-noun sequences are less important, even when students must use pragmatic knowledge to help them or ambiguity in interpretation.

3 Results and discussions

Cognitive analysis of media texts is one of the topical topics of the current period, through which the sphere of influence on the reader and listener is of primary importance. In this case, foregrounding increases the impact of conveying text content. We have observed to what extent the addressee is affected by the use of foregrounding types in modern media texts. And the extent of their use was shown in the percentage of correct use of foregrounding in public media broadcasting and media publication texts.

Indicators of the correct use of foregrounding in media texts Print media Broadcast media

Figure 1. Use of foregrounding in two types of media text: Print media and Broadcast media

The diagram above shows that despite the popularity of media broadcasts today, the public is less aware of foregrounding in broadcasts than foregrounding in media texts. We can see that print media has always had its influence. It is foregrounding that highlights content in print media texts and prompts people to engage in cognitive analysis.

With the innovations of printing and broadcasting, much of the first stylistic interest focused on transitivity. Transitivity is essentially reflected in the structures of arguments connected with verbs, analyzing the transfer of relations between individuals. When the subject of an active verb becomes an optional agent in the corresponding passive construction, it changes to the object of the active verb. The construction, occupied by different models of transition, offers the public alternative ways of describing social activity in the field of conflict. Provides a basis for a critical approach to news texts.

The heading style can be considered a mere decorative advantage. Rather, depending on the trade-off between information density, copy length, page layout, and readability, it takes on functional aspects. Stylistic analysis is necessary, first focusing on the relevant patterns, to learn what they are, then how they have changed, and then whether function can be determined due to adaptation to production conditions and the perception of expected effects and uses.

Headlines are important in media texts. Because the incentive to listen or read the text is the main element. So what is the importance of Foregrounding in Headlines? Undoubtedly, the most important thing is the correct use of foregrounding, which reveals the content of the media rather than the text itself.

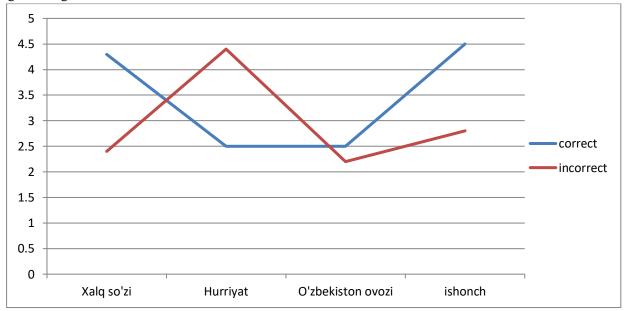


Figure 2. An analysis of newspapers known for their correct use of foregrounding in their headlines and their public impact

"Total orders for periodical press publications (newspapers and magazines) amounted to 613,045 copies. 392,450 of them corresponded to newspapers. The 5 most requested newspapers from him (251,168) accounted for about 64% of the total ordered newspapers"[6], and these newspapers: "Xalq so'zi". "Hurriyat", "O'zbekiston ovozi" and Ishonch" It is not difficult to understand that the impact wave in the cognitive analysis of the articles published in these newspapers is in the masterful use of the headlines. Among them, to what extent can the headlines used in these articles attract public attention? It was demonstrated through a statistical approach with linguistic and stylistic analysis. It was a matter of foregrounging and to what extent it was correctly applied by publishers. From our analysis, it can be seen that 2 of the given newspapers ("Xalq so'zi", "Ishonch") were able to attract public attention with their headlines, and we can see that foregrounding is used wisely and correctly in their headlines. And vice versa, in the other 2 ("Hurriyat", "O'zbekiston ovozi"), this indicator is much lower.

4 Conclusion

To sum up, Mass media have always been used as a mirror of society's development, as the main tool for shaping people's consciousness, outlook, and political level. Like all industries, the media has experienced a period of significant development. For this, all the conditions have been created in our country, and the activity of foreign mass media, the types of texts used in them, and the ability to perform a stylistic analysis of the text are of great importance.

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The role of a professional psychologist in psychological adaptation to professional activity

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Annotation: Adaptation to professional activity is the process of a person entering a profession, expressed in its goals, content, technologies, means of implementation, order and intensity of activity, production and labor discipline, organizational rules and norms, and flexibility to other requirements. It is believed that external assistance from professional psychologists, including instructors, reduces the difficulties of adaptation and contributes to success in overcoming difficulties in ensuring adaptation to the social conditions in which a specialist's professional activity takes place. In this sense, the peculiarities of adaptation to professional activity have been analyzed.

Keywords: professional psychologist, professional activity, adaptation, biological, physiological, psychological, social, sociopsychological, professional, adaptation stages, personal adaptive potential, neuro-psychological stability, communicative characteristics, moral normativity, adaptive potential.

1 Introduction

According to psychologists, uncertainty is one of the problems of the modern world (instability of the future, rapid development of technology, axiological uncertainty, mobility, polyphony of the social environment, etc.), and uncertainty is particularly evident in the profession of a military personnel [1; 2].

The duty to recognize uncertain situations and to begin to fulfill assigned tasks in any situation requires a serviceman to be flexible in the requirements of this profession. In the military profession, the level of flexibility is important, and it is precisely the adaptation to the process of military professional activity that is characterized by a number of characteristics.

This article analyzes the psychological aspects of the adaptation process to professional activity, the role of a professional psychologist in this process, and the results of empirical research on the adaptation process.

2 Materials and methods

Various studies have been conducted on the personality's adaptation to general professional activity, and its specificity is linked to activity. K.K. Platonov, in his Brief Explanatory Dictionary of Psychological Concepts, defines activity as follows: "Activity is understood as the conscious, purposeful activity of a person and their integral socio-psychological qualities, which are dialectically interconnected, defining and characterizing the degree or extent of the subject's personal influence on the objects, processes, and phenomena of the surrounding reality." [3; p-96.].

The term "adaptation" was first used in science by G. Auberg and is widely used in the natural, technical, and social sciences. This term originates from the Latin word "adaptatio" and means adjustment, adaptation. Adaptation, along with philosophical categories as a general scientific concept, serves to unify the objects studied in different sciences into a unified theoretical structure [4].

Depending on a person's interaction with the environment, adaptation types are divided into: biological, physiological, psychological, social, social, socio-psychological, and professional. Psychological adaptation manifests itself as an adaptation of the individual to conditions and tasks at the level of mental processes. Depending on the mechanisms of development, physiology distinguishes between rapid and long-term adaptation. Rapid adaptation is innate and changes little under the influence of the environment, unlike long-term adaptation, which is a gradual adaptation of the organism to the effects of stimuli [5].

The problem of adaptation is illuminated in the works of E. Erikson, A. Maslow, G. Allport, and R. Lazarus. In this regard, E. Erikson interprets socio-psychological adaptation as a homeostatic balance between the demands of the environment and the internal stimuli of the individual. The conflict arises due to the mismatch between the individual's needs and the demands of the environment, leading to a state of anxiety [5].

Psychoanalysts (G. Hartmann) distinguish between adaptation as a process and adaptation as a result of the process. According to G. Hartmann, productivity, the ability to enjoy life, and mental balance are considered intact in a well-adapted person. In the process of adaptation, both humans and the environment actively change, resulting in a state of adaptation between them. The adaptation process is managed by the EGO [6].

V.S. Sablin believes that the speed of adaptation is the achievement of a certain degree of adaptation over a certain period of time. This parameter indicates that each person has a certain ability to adapt. Adaptation dynamics encompasses periods of time characterizing some characteristics of qualitative and quantitative changes in the content of the adaptation process. This is called adaptation stages. They are divided into 3 groups [7]:

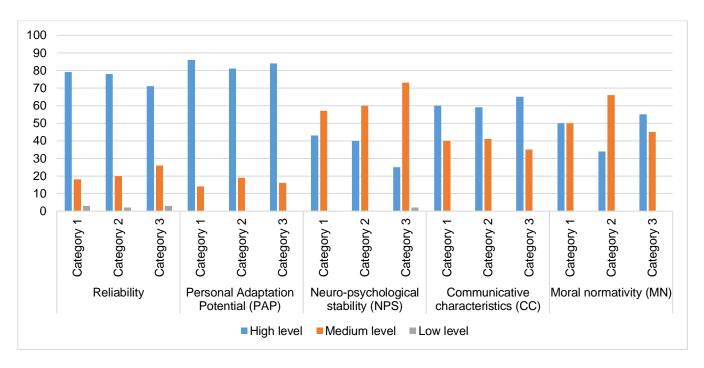
Table 1. Adaptation steps

Step 1	Step 2	Step 3
it is approximate, characterized	is a real adaptation characterized	stabilization is characterized by the
by contradictions between the	by an assessment of the level of	establishment of a dynamic balance in
expectations of the adaptive	compliance with the set	the relationship between the adaptive
person and the actual state of	requirements and their application	individual and the social environment,
affairs, and is characterized by	by group members. The individual	when the set requirements correspond to
restraint in communication and	develops a communication and	their implementation among group
rigidity in behavior.	action strategy aimed at	members. For a flexible person, this is a
	establishing consistency between	state of adaptation.
	the requirements set, their	
	application, and implementation	
	among group members.	

The higher the pace of adaptation, the less time it takes for the individual to adapt to the group, and the higher their ability to adapt. A number of methods can be used to determine the level of adaptability. Among them, the "Adaptability" questionnaire by A.G. Maklakov and S.V. Chermyanin [8] is considered effective in studying participants' characteristics such as neuro-psychological stability (NPS), communicative potential (CP), and moral normativity (MN), as well as personal adaptive potential (PAP).

3 Result and discussion

According to the analysis, the results on the reliability scale showed a large number of subjects, mainly of medium and high levels. All participants scored high on the Personal Adaptation Potential (PAP) scale, indicating good adaptability to new operating conditions and emotional resilience. The results on the neuro-psychological stability (NPS) scale were positive, and there were virtually no participants with low scores among the participants. The results obtained on the scale of communicative characteristics (CC) indicate that their communicative characteristics are generally positive. Our study did not observe subjects with a low level of moral norms. The results obtained are presented in Picture 1.



Picture 1. "Adaptability" questionnaire indicators

The effectiveness of adaptation largely depends on the genetically determined characteristics of the nervous system, as well as on learning conditions, stereotypes of learned behavior, and the adequacy of a person's self-esteem. The adaptation process is very dynamic. Its success largely depends on a number of objective and subjective conditions, functional state, social experience, life attitude, and others. Every person reacts differently to the same events, and different people may react differently to a stimulus that acts the same way [8].

The relationship between the components of the participants' flexibility and psychological state is unique, which is of great importance.

Table 2.

The connection between adaptability and mental state

Adaptability Mental status indicators	Personal Adaptation Potential (PAP)	Neuro- psychological stability (NPS)	Communicative characteristics (CC)	Moral normativity (MN)
Moral normativity (MN)	0,072*	0,062*	0,048	0,053*
Neuroticism	0,093*	0,104**	0,067	0,007**
Spontaneous aggression	0,113**	0,097*	0,086*	0,072*
Depression	0,116**	0,115**	0,115**	0,008**
Reactive Aggression	0,013	0,009**	0,026	-0,003**
Emotional lability	0,104**	0,108**	0,086**	0,016

Comment: *p < 0,05; **p < 0,01

According to the analysis results, it can be seen that with the increase in the participants' Personal Adaptive Potential (PAT), their moral normativeness (MN) also increases. This also affects their areas of neuroticism, involuntary aggression, depression, and ensures a decrease in emotional instability. The area of "Neuro-psychological stability (NPS)" is also related to all the characteristics of the psychological state of the subjects, and the more balanced the nervous-psychological stability of the participants is, the more convenient it is for them to fulfill the requirements of moral norms (MN). If the opposite is true, this leads to increased nervousness, aggression, and depression based on regrets in the subjects. Unlike other aspects, "communicative characteristics

(CC) "increase this feature ensures a decrease in the level of aggression and depression among participants. That is, negative elements in the mental state can be eliminated due to communicative characteristics. A clear reflection of moral norms (MN) leads to a decrease in nervousness, aggression, and depression among participants.

Based on the characteristics studied, the adaptive abilities of participants play an important role in expressing their mental state, ensuring the effectiveness of the socio-psychological adaptation process in various conditions and determining their personal adaptive potential (AP). The characteristics of personal adaptive potential can be obtained by assessing behavioral regulation, communication skills, and the level of moral norms.

4 Conclusion

In general, adaptation can vary depending on the types of professions and their specifics. "Adaptation is a method, form of activity that allows students in higher education to adapt to various situations, reducing the level of tension in students' professional activities and increasing their adaptive abilities, stimulating their activities in the educational process" [9]. Also, professional adaptation is the process of a person entering a profession and harmonizing their activities with the professional environment. Training a specialist for activities that are complex, extreme, and unconventional in nature is carried out in a unique way. It is understood that the successful entry of a specialist into professional activity is accompanied by adaptation processes.

Research has shown that the process of adaptation is not always successful. Sooner or later, adaptation disruption must occur under different conditions, and in some participants it happens very early, while in others it happens much later. This situation depends not only on the circumstances, but also on the personal characteristics of the participants, and requires preventive measures to be taken with them.

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Problems and solutions of teaching English in universities of applied sciences

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Abstract: Teaching English in universities of applied sciences can present a variety of challenges. One common problem is the diverse language proficiency levels of students, as some may have a strong foundation in English while others may struggle with basic communication. This can make it difficult to create lesson plans that cater to the needs of all students. Another issue is the lack of resources and support for English language teachers in universities of applied sciences. Teachers may not have access to professional development opportunities or up-to-date teaching materials, which can hinder their ability to effectively teach English.

Keywords: English language teaching, universities of applied sciences, challenges, diverse language proficiency levels, lack of resources, professional development, teaching materials, practical skills, hands-on learning, relevance, real-world examples, solutions.

1 Introduction

English language instruction in universities of applied sciences presents unique challenges due to the diverse language requirements across different fields, the need for technical language proficiency, and the support required for students during internships. In this context, it is essential to address these challenges effectively to ensure that students are equipped with the necessary language skills to succeed in their academic and professional endeavors. This article will explore the problems faced in teaching English in universities of applied sciences and propose solutions to enhance the language learning experience for students in this setting.

The focus on practical skills and hands-on learning in universities of applied sciences may not always align with the traditional methods of teaching English. This can make it challenging for teachers to engage students and make the content relevant to their field of study. To address these challenges, universities of applied sciences can provide more support and resources for English language teachers, such as professional development workshops and access to updated teaching materials. Additionally, incorporating real-world examples and practical exercises into English lessons can help students see the relevance of the language to their field of study. By recognizing and addressing the problems associated with teaching English in universities of applied sciences, educators can better prepare students for success in their future careers.

2 Methods

Teaching English in universities of applied sciences presents its own set of challenges and solutions, distinct from traditional universities. Students in universities of applied sciences are often studying English for specific professional purposes, such as business, engineering, or healthcare. This can make it challenging to tailor language

instruction to meet the diverse needs of students in different fields. Solution: Develop specialized English courses or modules that focus on industry-specific language skills and vocabulary. Collaborate with professionals in various fields to ensure the content is relevant and practical.

Students in universities of applied sciences may have limited exposure to English outside of the classroom, which can hinder their language acquisition and fluency. Solution: Encourage students to engage with English-language materials in their field, such as industry journals, websites, and podcasts. Incorporate authentic materials and real-world tasks that simulate professional communication situations.

Students in applied sciences programs may require specialized technical language skills to communicate effectively in their field. Solution: Integrate technical vocabulary and terminology into English lessons, provide opportunities for students to practice using industry-specific language, and offer workshops or resources to help students improve their technical writing and communication skills.

Many students in universities of applied sciences participate in internships or work placements as part of their program, which can impact their English language learning experience. Solution: Incorporate workplace communication skills into the curriculum, offer support and guidance for students during their internships, and provide opportunities for students to reflect on their professional experiences in English.

Universities of applied sciences often emphasize interdisciplinary collaboration, requiring students to communicate and work with peers from different fields. Solution: Encourage group projects that involve students from various disciplines, provide opportunities for cross-disciplinary communication and collaboration, and promote intercultural competence to support effective teamwork.

Ensuring that English language assessments align with the specific learning outcomes and professional competencies required in applied sciences programs can be challenging. Solution: Collaborate with program coordinators and industry partners to align assessment criteria with professional standards, use authentic assessment tasks that reflect real-world communication challenges, and provide feedback that helps students improve their language skills in a professional context.

By addressing these unique challenges with targeted solutions, instructors can create a more effective and relevant English language learning experience for students in universities of applied sciences. Emphasizing the practical application of language skills, integrating industry-specific content, and fostering interdisciplinary collaboration can help students develop the language proficiency they need to succeed in their chosen profession.

Universities of applied sciences encompass a wide range of fields, each with its own specific language demands. For example, engineering students may need technical English skills, while business students may require proficiency in business communication. This diversity can make it challenging to develop a one-size-fits-all language curriculum. Some researchers suggest developing specialized language programs that cater to the specific needs of different disciplines within universities of applied sciences. This approach involves collaborating with faculty from various departments to identify the language skills required for success in each field and designing targeted language courses accordingly.

Many programs at universities of applied sciences involve technical or vocational training, which necessitates a deep understanding of industry-specific terminology and concepts. Teaching technical English can be complex, especially when students need to apply this knowledge in real-world settings such as internships or work placements. Scholars recommend integrating technical language instruction with practical, hands-on experiences. This could involve incorporating industry-specific materials, simulations, or case studies into language classes to help students develop the language skills necessary for their future careers.

Internships and work placements are integral components of many programs at universities of applied sciences. However, students may face challenges in applying their English language skills in professional settings,

particularly if they are non-native speakers. Some studies propose providing language support services specifically tailored to students undertaking internships. This could involve offering language coaching, workshops on professional communication, or resources for workplace-specific language development to help students navigate the linguistic demands of their internships more effectively.

3 Conclusion

In conclusion, teaching English in universities of applied sciences presents a distinct set of challenges that require tailored solutions to meet the needs of students studying for specific professional purposes. From addressing the diverse language requirements of different fields to promoting technical language skills and supporting students during internships, instructors must consider the unique context of applied sciences programs to provide effective language instruction. By integrating industry-specific content, fostering interdisciplinary collaboration, and aligning assessments with professional competencies, educators can create a more relevant and practical English language learning experience for students in universities of applied sciences. By addressing these challenges with targeted solutions, instructors can help students develop the language proficiency they need to succeed in their chosen profession and navigate the demands of the professional world effectively.

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Causes of Energy Poverty and Assessment of the General Situation in Selected **Central Asian Countries**



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Abstract: Energy poverty has become one of the most important issues of recent times. It is possible to say that there are many factors that cause energy poverty today. Some of these factors can be listed as inefficient use of energy, high energy production costs due to global problems and the reflection of these cost increases on prices, lack of sufficient energy resources in the country or difficulties in accessing energy resources and individuals not being able to access energy sufficiently due to decreases in real income levels. Evaluating the issue on a country basis can also lead to some mistakes. Because even if a country is considered a developed country, income distribution differences among individuals living in that country can cause energy poverty problems in that country. Energy poverty tends to be a major problem especially in countries where income distribution imbalances are high and the majority of the population has low income levels. Central Asian Turkish Republics have their own energy resources and their geographical locations make the energy of these countries more valuable. Because the Central Asian Turkic Republics are neighbors with China, which has made significant progress towards becoming a superpower, and this geographical proximity to China means a large market where they can sell their energy and therefore a large source of income for the Central Asian Turkic Republics. This study aims to evaluate the energy poverty of selected Central Asian Turkic Republics, which have significant amounts of oil, natural gas and renewable energy resources, in the period 2000-2022. As a result of the examinations, it was determined that as of 2022, energy poverty is an issue in Tajikistan, Uzbekistan, Kazakhstan and Kyrgyzstan in terms of having clean fuels and cooking technologies, but energy poverty is not an issue in Turkmenistan, and energy poverty is not an issue in all selected Central Asian Countries in terms of access to electricity.

Keywords: Energy Poverty, renewable energy resources, majority of the population, fuels and cooking technologies

1. Introduction

The rapid globalization process experienced in recent years has caused an increase in the need for energy. Especially due to the rapid developments in technology, there have been increases in both the production volume and the international trade volume with the development of transportation and communication channels. This has been effective in increasing the need for energy resources and energy factors. In addition, the globalization process has been effective in both changing consumption habits and increasing the consumption volume. Therefore, the need for energy is increasing day by day. In addition, energy is extremely important not only as an input of the production process but also as a directly consumed element and is used in significant amounts for this purpose. Within this scope, it is seen that energy is used intensively for lighting, heating, transportation and cooking. In this context, it is possible to say that the demand for energy, both in production and direct consumption, is at high levels. However, unfortunately, energy resources are limited on earth and it is difficult to meet the total energy demand. This causes increases in energy prices and the prices of almost all energy resources, especially fuel oil, are increasing day by day. When political tensions and wars between countries with energy resources are added to this, the prices of energy resources are increasing rapidly. In addition, the efficient use of energy resources is also extremely important. Because the inefficient use of limited energy resources, in other words, their waste, means both a loss of national income, causes the production volume to be negatively affected, and indirectly causes a situation that can be expressed as energy poverty. Energy poverty is one of the important research topics of the recent period. In its most general form, energy poverty can be expressed as the problems that individuals in some countries and the entire society in some countries face due to their inability to access energy resources sufficiently in the process of meeting their basic energy needs. Energy poverty is encountered especially widely in developing countries and causes both the quality of life of individuals in these countries to decrease and negatively affects economic growth. Because the inadequate access to energy resources in both production and consumption processes causes the production activities to slow down and therefore the production volume to decline. On the other hand, developed countries have solved their energy problems to a great extent. This causes the gap between developed and developing countries to widen. In this context, it is possible to say that energy poverty has direct effects on economic growth. Therefore, the possibility and ease of access to energy resources is extremely important for both social and individual welfare increases. This study will analyze whether energy poverty is an issue in Central Asian countries, which have rich energy resources, especially in terms of oil and natural gas.

2. Energy poverty and its economic importance

Energy poverty is defined as the lack of access to sufficient, cheap, healthy, high-quality, safe and environmentally friendly energy services that support economic and human development (Emeç et al., 2015: 11). According to another definition, energy poverty is the lack of sufficient options in accessing sufficient, affordable, reliable, high-quality, safe and environmentally friendly energy services to support economic and human development. Difficulties in accessing energy also lead to differences in energy consumption among countries. Especially in underdeveloped or developing countries with high energy dependency, the issue of energy poverty is among the issues that are extremely important for the country's economy (Öztürk and Çelik, 2023: 48). In addition, energy poverty is also used to express situations where there is access to energy but this access is not sufficient and safe. In households that cannot meet their energy needs (heating, cooling, cooking, etc.) at a sufficient level for various reasons, there may be negative consequences affecting different areas of life such as health, education, psychology, and social life (Pehlivanoğlu and Yılmaz, 2022: 30). In addition, it is possible to express energy poverty as not being able to access modern energy opportunities. This situation can be seen not only in developing economies but also in developed economies and negatively affects well-being due to reasons such as low energy consumption and dirty or polluting fuel consumption. Access to energy is, first and foremost, a prerequisite for human development. The wealth and development of a nation are closely related to its citizens' access to energy and the type of transportation. For this reason, improving energy access opportunities is considered among the problems that governments must combat (Selcuk and Köktas, 2018: 96).

Energy poverty directly affects economic growth and social welfare, first of all, and therefore its elimination is extremely important for economic development and development. Therefore, efforts to eliminate energy poverty are extremely important for the economic development and progress of countries. In other words, the issue of energy is at the center of many economic issues such as development, economic growth, poverty, unemployment, income distribution, production, export, etc. Access to energy is extremely important for countries to achieve their economic goals. While detailing the role of energy in supporting development, the International Energy Agency (IEA) observed that providing safe, affordable and modern energy for all citizens is at the center of poverty reduction and economic growth. Energy, one of the most important inputs of production, is more valuable for developed and developing country economies compared to other production elements (Öztürk and Çelik, 2023: 48). Therefore, it is useful to state that initiatives to eliminate energy poverty are extremely important. Beken and Lecuna (2023), in line with this idea, stated that investments made to solve energy poverty will support economic growth and therefore economic development in the long term. Today, two to three billion people - or roughly one in four people worldwide - lack access to the most basic energy services. In addition, consumers in the poorest countries also face high costs for energy services. Energy and energy poverty also play an important role in building an economically, socially and environmentally sustainable future. Providing reliable, safe and affordable energy services is of decisive and critical importance in addressing many of today's global development problems such as poverty, inequality, climate change, food security, health and education. Combating energy poverty has become a priority on the international development agenda (Demir and Taşkın Kuveloğlu, 2023: 51). For these reasons, effectively combating energy poverty is extremely important in terms of achieving production increases, increasing export volume, reducing unemployment and eliminating poverty and ensuring social welfare.

3. Causes and measurement of energy poverty

Today, in underdeveloped and developing countries, there is a problem of not being able to physically access modern energy such as electricity, not being able to access lighting, cooking, space heating and cooling services, as well as not being able to afford energy services with the current income level. In other words, difficulties in accessing modern fuels, high fuel prices, inefficient use of energy due to poor building insulation, and income poverty constitute the main reasons underlying the current global energy problem and energy poverty (Demir and Taşkın Kuveloğlu, 2023: 53). However, there are also driving forces affecting energy poverty, and these driving forces consist of economic and political systems, climate, the state of the economy, household income, and the policy framework. These five driving forces, which directly or indirectly affect energy poverty, vary greatly from country to country and region to region. Economic and political systems can directly affect the development of the energy market and energy supply. Climate and climate changes have various effects on energy poverty. For example, in cold climates, the need for heating may be felt more, while in hot climates, the increase in cooling needs determines energy consumption needs. This situation directly affects the total energy demand in different regions as well as main variables such as building efficiency. The state of the economy and household income levels are also directly reflected in fuel use, energy prices and payments. The policy framework affects the level of support given to vulnerable consumers. (Öcal and Başarslan Arslan, 2022: 21-22).

Difficulties experienced in accessing modern fuels constitute one of the fundamental elements of energy poverty. However, access to energy creates employment opportunities, raises education standards, improves health status and thus helps ensure sustainable development (Uğur, 2023: 193). Individuals living in poor rural areas of developing countries in particular experience significant problems in accessing modern energy resources. Because investments to be made in these areas cannot meet the cost-benefit criterion and due to the lack of investment in these regions, individuals living in these areas cannot access modern energy resources. In addition, the lack of sufficient electricity and other energy networks in developing countries also makes access to modern energy resources difficult and causes energy poverty (Ateş and Atay Polat, 2023: 293-294).

Another important factor that causes energy poverty is high energy prices. At this point, the factors that cause energy prices to increase are of great importance. Especially in countries that are dependent on imported inputs, increases in exchange rates directly cause energy costs and prices to increase. In other words, increases in exchange rates increase the prices of energy resources that consumers directly use, such as fuel, and increase production costs by causing energy costs to increase (Solmaz, 2022: 391). In addition, with the gradual exit of global economies from quarantine measures, a significant increase in oil and natural gas demand has been observed, but for various reasons, energy supply has been insufficient to meet the general increase in demand, and this has caused increases in energy prices. When Russia's invasion of Ukraine is added to this, a sharp increase in oil and gas prices has occurred due to possible disruptions in supply, and the sanctions imposed on Russia and the embargo imposed on Russian oil have caused oil and gas prices to increase even more. Accordingly, energy costs have increased, electricity prices have increased, and the problem of energy poverty has deepened even further (Demirel and Tiğrek, 2024: 1520). In other words, price increases in energy resources make it difficult for individuals to access both products and energy resources, causing energy poverty.

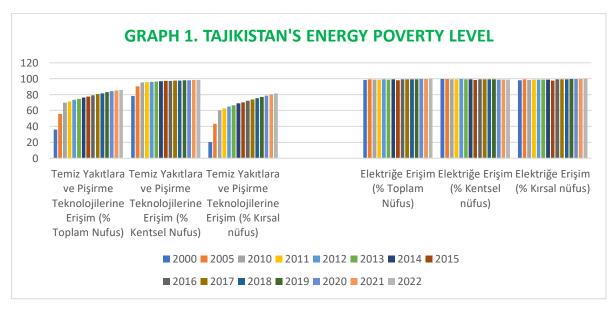
Another important reason for energy poverty is the inefficient use of energy resources. Due to houses without thermal insulation, energy is lost and energy resources are used inefficiently. This means that more energy is spent or more is spent than the budget (Demir and Taşkın Kuveloğlu, 2023: 53). In addition, since energy systems have not yet been individualized, the amount of energy consumption and payments in houses cannot be controlled. In addition, energy prices increase with the privatization of the energy market, but despite the rising prices, the low energy efficiency of houses and household appliances and the fact that heating systems are based on electrical energy increase energy consumption amounts and lead to energy poverty (Ateş and Atay Polat, 2023: 292).

Finally, low income levels also cause energy poverty. Because the decrease in individuals' real purchasing power causes their energy expenditures to decrease. In other words, individuals cannot meet their energy needs with the income they have. Although poor individuals in developed countries do not have a problem with accessing energy, they cannot meet their energy expenditures with their current income levels. The term inability to meet energy expenditures refers to individuals' inability to purchase the level and quality of energy required for their basic needs such as lighting, cooking, space heating and cooling, and using household appliances and information technologies with their income (Barış and Demir, 2023: 372). This is directly related to energy poverty. Because the problem of energy poverty occurs when an individual cannot benefit from the existing energy with their income.

Energy poverty can be measured with three different approaches that complement each other: technological threshold, physical threshold and economic threshold. While the technological threshold is based on the calculation of the population that cannot access modern energy services, according to the physical threshold approach, energy poverty is mentioned if the energy consumption of individuals is below the minimum amount of energy needed for basic needs. The economic threshold is based on the percentage of income that the household allocates from its budget for energy expenditures (Demir and Kuveloğlu, 2023: 53).

4. Energy poverty in Central Asian Turkish republics

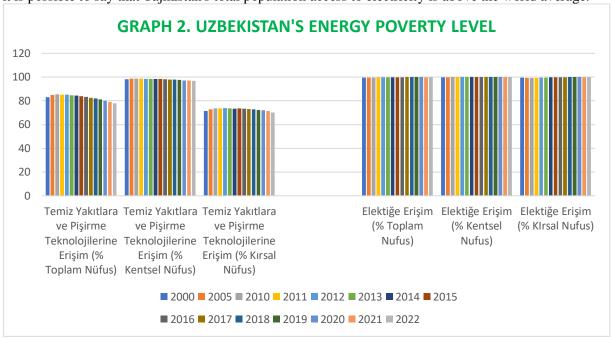
Each of the Central Asian Turkish Republics has its own energy resources. However, no matter how many energy resources a country has, its citizens may face the problem of energy poverty due to the reasons explained in detail above. In this study, which was prepared to determine whether energy poverty exists in the selected Central Asian Turkish Republics and if so, its level, access to electricity and access to clean fuels and cooking technologies were taken into account as indicators of energy poverty. An increase in the percentage of the population with access to electricity and the ratio of the population with access to clean fuels and cooking technologies to the total population means a decrease in energy poverty. The data sets related to the variables were taken from the World Bank Development Indicators Database (WDI). The graphs, which are arranged separately for each country, show the access rates of the population living in the selected Central Asian Turkish Republics to electricity according to the technological threshold approach.



Source: Prepared by me with the help of data obtained from World Development Indicators (WDI). https://databank.worldbank.org/source/world-development-indicators (Access Date: 12.12.2024)

In Tajikistan, the share of the population with access to clean fuels and cooking technologies increased from 36.1% in 2000 to 86.1% in 2022. On the other hand, the share of the population with access to clean fuels and cooking technologies in urban areas increased in 2022 compared to 2000, and this rate, which was 78.1% in 2000, was 98.4% in 2022. In rural areas, the share of the population with access to clean fuels and cooking technologies has increased significantly in recent years, and this rate, which was only 20.5% in 2000, rose to 81.7% in 2022. When a comparative assessment is made between urban and rural areas, it is seen that the share of the population with access to clean fuels and cooking technologies was 78.1% in urban areas in 2000, while this rate was only 20.5% in rural areas. On the other hand, the rate of access to clean fuels and cooking technologies in both urban and rural populations increased in 2022, reaching 98.4% in urban areas and 81.7% in rural areas. According to this data, as of 2022, only 13.9% of Tajikistan's total population, 1.6% of the urban population, and 18.3% of the rural population do not have access to clean fuels and cooking technologies. According to this data, it is possible to say that there is energy poverty in Tajikistan in terms of having clean fuels and cooking technologies. However, as of 2022, Tajikistan's access to clean fuels and cooking technologies is above the world average in both general, urban, and rural areas. Because the world's average access to clean fuels and cooking technologies as of 2022 was 73.8% for the general population, 88.9% in urban areas, and 54.5% in rural areas.

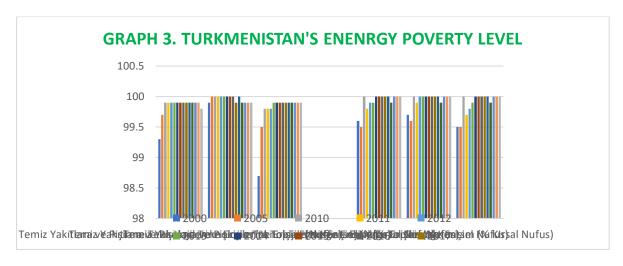
In addition, the electricity access rate of Tajikistan's total population, which was 98.5% in 2000, has increased steadily since 2015 and reached 100% by 2022. A similar trend is valid for the population living in urban and rural areas. In this context, it is possible to say that there is no problem in Tajikistan regarding access to electricity for both the general urban and rural population, and therefore there is no energy poverty. In an environment where the average electricity access rate of the world population was 78.3% in 2000 and 91.3% in 2022, it is possible to say that Tajikistan's total population access to electricity is above the world average.



Source: Prepared by me with the help of data obtained from World Development Indicators (WDI). https://databank.worldbank.org/source/world-development-indicators (Access Date: 12.12.2024)

In Uzbekistan, one of the most important countries in Central Asia, the rate of population accessing clean fuels and cooking technologies was 82.9% in 2000, while this rate decreased to 77.8% in 2022. In this context, it is possible to say that Uzbekistan is the only country among the Central Asian countries that has decreased in 2022 compared to 2000 in terms of the rate of population accessing clean fuels and cooking technologies. The share of the population with access to clean fuels and cooking technologies in urban areas in the total population also decreased slightly in 2022 compared to 2000, and the rate, which was 98.2% in 2000, was 96.8% in 2022. In addition, there has been a very slight decrease in the share of the population with access to clean fuels and cooking technologies in rural areas in recent years, and the rate, which was 71.5% in 2000, was 70.1% in 2022. When a comparative assessment is made between urban and rural areas, it is seen that while the rate of population having access to clean fuels and cooking technologies in urban areas was 98.2% in 2000, this rate was only 71.5% in rural areas. On the other hand, in 2022, the rate of population having access to clean fuels and cooking technologies in urban areas was 96.8%, while the rate of population having access to clean fuels and cooking technologies in rural areas was 70.1%. In other words, as of 2022, 22.2% of the total population of Uzbekistan, 3.2% of the urban population and 29.9% of the rural population do not have access to clean fuels and cooking technologies, in other words, they are experiencing energy poverty in terms of having clean fuels and cooking technologies. However, as of 2022, Uzbekistan's access rate to clean fuels and cooking technologies was above the world average in both general, urban and rural areas. Because the world's average access rate to clean fuels and cooking technologies is 73.8% for the general population, 88.9% in urban areas and 54.5% in rural areas as of 2022.

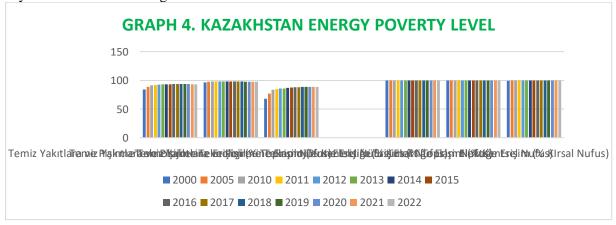
According to World Bank data, the electricity access rate of Uzbekistan's population, which was 99.6% in 2000, has been 99.9% to 100% for both the general population, urban population and rural population since 2016, in other words, it is possible to say that there is no problem in Uzbekistan regarding its population's access to electricity, and therefore there is no energy poverty. In an environment where the Average Electricity Access Rate of the world population was 78.3% in 2000 and 91.3% in 2022, it is possible to say that Uzbekistan's general population's access to electricity is above the world average.



Source: Prepared by me with the help of data obtained from World Development Indicators (WDI). https://databank.worldbank.org/source/world-development-indicators (Access Date: 12.12.2024)

In Turkmenistan, the share of the population with access to clean fuels and cooking technologies increased from 99.3% in 2000 to 99.8% in 2021. The share of the population with access to clean fuels and cooking technologies in urban areas in the total population remained unchanged in 2022 compared to 2000 and was 99.9%. In addition, the share of the population with access to clean fuels and cooking technologies in rural areas has increased slightly in recent years, and the rate, which was 98.7% in 2000, rose to 99.5% in 2022. When a comparative assessment is made between urban and rural areas, it is seen that the rate of the population with access to clean fuels and cooking technologies in urban areas was 99.9% in 2000, while this rate was only 98.7% in rural areas. On the other hand, the access rate of the population living in both urban and rural areas to clean fuels and cooking technologies was 99.9% in 2022. According to this data, as of 2022, only 0.2% of Turkmenistan's total population, 0.1% of the rural population and 0.1% of the urban population do not have access to clean fuels and cooking technologies. According to this data, it is possible to say that energy poverty is almost non-existent in Turkmenistan in terms of having clean fuels and cooking technologies, and in addition, as of 2022, Turkmenistan's access rate to clean fuels and cooking technologies was 73.8% for the general population, 88.9% in urban areas and finally 54.5% in rural areas as of 2022.

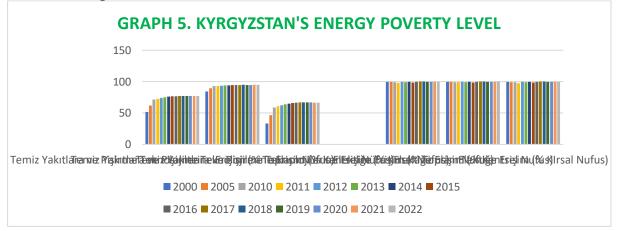
In addition, the electricity access rate of Turkmenistan's population, which was 99.6% in 2000, has always been 100% from 2014 to 2022, except for 2019. In 2019, this rate was 99.9%. A similar trend is valid for the population living in urban and rural areas. In this context, it is possible to say that there is no problem in Turkmenistan regarding access to electricity for both the general urban and rural population, and therefore there is no energy poverty. In an environment where the Average Electricity Access Rate of the World Population was 78.3% for 2000 and 91.3% for 2022, it is possible to say that Turkmenistan's general population has access to electricity above the world average.



Source: Prepared by me with the help of data obtained from World Development Indicators (WDI). https://databank.worldbank.org/source/world-development-indicators (Access Date: 12.12.2024)

In Kazakhstan, the share of the population with access to clean fuels and cooking technologies increased from 84.2% in 2000 to 93.1% in 2022. The share of the population with access to clean fuels and cooking technologies in urban areas in the total population remained almost unchanged in 2022 compared to 2000, and this rate, which was 96.6% in 2000, was 97.4% in 2022. In addition, the share of the population with access to clean fuels and cooking technologies in rural areas has increased significantly in recent years, and this rate, which was 67.9% in 2000, rose to 88.5% in 2022. When a comparative assessment is made between urban and rural areas, it is seen that the share of the population with access to clean fuels and cooking technologies in urban areas was 96.6% in 2000, while this rate was only 67.9% in rural areas. On the other hand, in 2022, the rate of population with access to clean fuels and cooking technologies in urban areas was 97.4%, while in rural areas, the rate of population with access to clean fuels and cooking technologies was 88.5. In other words, as of 2022, 6.9% of Kazakhstan's total population, 11.50% of the rural population, and 2.60% of the urban population do not have access to clean fuels and cooking technologies, in other words, they experience energy poverty in terms of having clean fuels and cooking technologies. In addition, as of 2022, Kazakhstan's access to clean fuels and cooking technologies was above the world average in both general, urban, and rural areas. The world's average access to clean fuels and cooking technologies as of 2022 is 73.8% for the general population, 88.9% in urban areas, and 54.5% in rural areas.

It is possible to say that the electricity access rate of the Kazakhstan population, which was 99.6% in 2000, has been 100% for both the general population, the urban population and the rural population since 2005, in other words, there is no problem with the electricity access of the population in Kazakhstan, and therefore there is no energy poverty. In an environment where the average electricity access rate of the world population was 78.3% in 2000 and 91.3% in 2022, it is possible to say that the electricity access of the general population of Kazakhstan is above the world average.

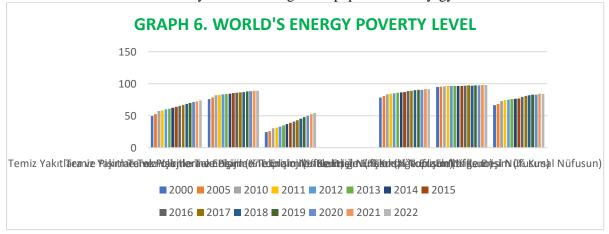


Source: Prepared by me with the help of data obtained from World Development Indicators (WDI). https://databank.worldbank.org/source/world-development-indicators (Access Date: 12.12.2024)

In Kyrgyzstan, the share of the population with access to clean fuels and cooking technologies increased from 51.9% in 2000 to 77.0% in 2022. The share of the population with access to clean fuels and cooking technologies in urban areas in the total population increased in 2022 compared to 2000, and this rate, which was 84.2% in 2000, was 94.8% in 2022. In addition, the share of the population with access to clean fuels and cooking technologies in rural areas has also increased significantly in recent years, and this rate, which was 33.2% in 2000, rose to 66.4% in 2022. When a comparative assessment is made between urban and rural areas, it is seen that the rate of the population with access to clean fuels and cooking technologies in urban areas. On the other hand, in 2022, the rate of population with access to clean fuels and cooking technologies in urban areas was 94.8%, while in rural areas, the rate of population with access to clean fuels and cooking technologies was 66.4%. In other words, as of 2022, 33% of Kyrgyzstan's total population, 5.2% of the urban population, and 33.6% of the rural population do not have access to clean fuels and cooking technologies, in other words, they experience energy poverty in terms of having clean fuels and cooking technologies. In addition, as of 2022, Kyrgyzstan's access to clean fuels and cooking technologies was above the world average in both general, urban, and rural areas. The world's average access to clean fuels and cooking technologies as of 2022 is 73.8% for the general population, 88.9% in urban areas, and 54.5% in rural areas.

However, the electricity access rate of the Kyrgyz population, which was 99.6% in 2000, has maintained its high course over the years and has been realized as 99.7% as of 2022. In other words, it is possible to say that there

is no problem in the Kyrgyz population's access to electricity, and therefore there is no energy poverty. In an environment where the average electricity access rate of the world population was 78.3% in 2000 and 91.3% in 2022, it is understood that the electricity access of the general population of Kyrgyzstan is above the world average.



Source: Prepared by me with the help of data obtained from World Development Indicators (WDI). https://databank.worldbank.org/source/world-development-indicators (Access Date: 12.12.2024)

Finally, when we look at the world's energy poverty level, while the total population's access to clean fuels and cooking technologies was 49.2% in 2000, it has increased steadily over the years and reached 73.8% as of 2022. While the access rate of the population living in urban areas to clean fuels and cooking technologies was 76.1% in 2000, it has increased steadily over the years and reached 88.9% in 2022. Finally, the access rate of the population living in rural areas to clean fuels and cooking technologies has increased steadily, from 24.2% in 2000 to 54.5% in 2022. In other words, as of 2022, 26.2% of the world's total population, 23.9% of the urban population, and 45.5% of the rural population do not have access to clean fuels and cooking technologies, in other words, they experience energy poverty in terms of having clean fuels and cooking technologies. This data shows us that the world's population's access to clean fuels and cooking technologies has continuously increased from 2000 to 2022, in other words, the world's energy poverty has decreased, but the energy poverty in question is still high.

While the world's population's access to electricity was 78.3% in 2000, it has increased steadily over the years and reached 91.3% as of 2022. The share of the population with access to electricity in urban areas in the total population has also increased steadily over the years and increased from 94.8% in 2000 to 97.6% as of 2022. The rate of access to electricity in rural areas has also increased steadily, rising from 66.5% in 2000 to 83.9% in 2022. In other words, as of 2022, 8.7% of the world's total population, 2.4% of the urban population, and 16.1% of the rural population do not have access to electricity, and therefore experience energy poverty. These data show us that the rate of access to electricity in the world's population has increased from 2000 to 2022, and therefore energy poverty has decreased, but energy poverty is still at high levels on a global scale. In addition, the share of the population with access to electricity in all Central Asian Turkish Republics in the total population in the 2000-2022 period was higher than the world average.

5 Conclusions and Recommendations

Energy poverty constitutes one of the important economic problems of the recent period. In its most general form, energy poverty, which is defined as the inability to provide sufficient, high-quality, cheap and safe energy resources, which constitute one of the basic elements of economic development, has significant effects on many macroeconomic elements, especially economic growth. Because one of the most important elements of the production process is energy. If energy cannot be provided at sufficient levels and quality, production activities will either slow down or stop, which will cause an increase in the unemployment rate, a decrease in the national income level, a decrease in the level of welfare and a slowdown in economic growth. In addition, the inability to provide sufficient energy will also cause decreases in the comfort of consumers. The reasons for energy poverty can be listed as difficulties in accessing modern fuels, high fuel prices, inefficient use of energy due to poor building insulation and income poverty. Energy poverty can be measured with three different approaches that complement each other: technological threshold, physical threshold and economic threshold. In this study, selected Central Asian countries were analyzed in terms of energy poverty level. As energy poverty indicators, access to electricity and access to clean fuels and cooking technologies data obtained from the World Bank Development Indicators

Database (WDI) were taken into account. As a result of the examination, it was determined that in Tajikistan, there is energy poverty in terms of having clean fuels and cooking technologies, but there is no energy poverty in terms of access to electricity; in Uzbekistan, there is energy poverty in terms of having clean fuels and cooking technologies, but there is no problem in access to electricity, therefore there is no energy poverty; in Turkmenistan, there is no energy poverty in terms of both having clean fuels and cooking technologies and access to electricity; in Kazakhstan, there is energy poverty in terms of having clean fuels and cooking technologies, but there is no problem in access to electricity, therefore there is no energy poverty; and finally, in Kyrgyzstan, there is energy poverty in terms of having clean fuels and cooking technologies, but there is no problem in access to electricity, therefore there is no energy poverty. In addition, it has been determined that the world's population's access to clean fuels and cooking technologies and access to electricity has been continuously increasing from 2000 to 2022, in other words, the world's energy poverty has decreased, but the energy poverty in question is still at high levels. In line with all this data, it is possible to say that all of the selected Central Asian countries examined have both a clean fuels and cooking technologies and an access to electricity rate above the world average as of 2022. The fact that Uzbekistan, Kazakhstan and Turkmenistan have rich reserves of oil and natural gas, and Kyrgyzstan and Tajikistan have significant renewable energy resources is of great importance in the emergence of such a result. Thanks to these energy resources, the energy poverty problem is either not experienced at all or is experienced at a limited level in these Central Asian Turkish Republics. However, this does not mean that the problem of energy poverty will not be experienced in these countries in the future. Therefore, it is of great importance to take serious and effective measures for the future. In line with this aim, investments in renewable energy sources should be emphasized, consumer awareness regarding energy consumption should be created, and existing energy resources should be used more effectively by developing technologies that will allow less energy to be used in the production process.

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Corbotermic reduction processes components of from wastes of copper concentration plant

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Abstract: the article considers the composition of waste of a copper processing plant, waste of a copper processing plant in recent years has occupied several hectares of land, at the same time the quantitative composition of valuable elements and components increases. For the extraction of iron, the composition of chemical iron-containing elements was studied, it was determined that the tailings contain iron metasilicate (II) (FeSiO₃), experiments were conducted to reduce iron and thermodynamic processes and reaction kinetics were studied.

Key words: copper, waste, kinetics, reaction, metallurgical plant, production, valuable elements, iron oxides, iron sulfides.

1 Introduction

Sulfide copper concentrate obtained during enrichment is sent to a copper smelter for pyrometallurgical processing in order to extract copper, noble and rare metals. As a result of enrichment of raw materials, the increase in the amount of metal in its content is achieved by removing a large part of the gangue. The waste of the copper processing plant is 459.3 million tons, in which the amount of copper is 0.115% or 530.6 thousand tons, gold - 0.209 g / t or 96.3 tons, silver - 1.06 g / t or 487.8 tons [1, 2, 3]. Currently, the extraction and processing of minerals, the extraction of precious metals is one of the most pressing problems of non-ferrous metallurgy. A semi-quantitative spectral analysis of the waste of the copper processing plant of JSC AGMK was carried out. After spectral analysis, the chemical composition of the substances was studied, the results of which are included in Table. 1.

2 Results of chemical analysis of an average ore sample

Table 1

Components	Samples, %	Components	Samples, %
SiO ₂	39,82	K ₂ O	0,84
Fe_2O_3	11,93	Na ₂ O	1,46
FeO	7,27	$S_{ m gener}$	<0,4
TiO ₂	1,74	$S_{ ext{sulfid}}$	0,036
V_2O_5	0,06	SO_3	<0,01
MnO	0,14	CO_2	0,22
AI_2O_3	9,44	P_2O_5	0,13
CaO	14,84	H_2O	0,2
MgO	10,0	other	1,2

The amount of iron in the sample is 13.5%. The accompanying useful components are titanium dioxide - 1.74% and vanadium pentoxide - 0.06%.

The amount of iron extracted by magnetic separation in the sample of tailings of the copper processing plant is 58.81%. The presence of 1-3% sulfur in the waste, that is, the presence of iron sulfide, does not allow the separation of Cu_2O , PbO, ZnO compounds, and the process takes place in three stages, namely:

- first Fe and associated S loss:

$$2FeS + 3O_2 = 2FeO + 2SO_2$$

- the second is to separate SiO₂:

$$FeSiO_3 + CaO = CaSiO_3 + FeO;$$

- in the third stage, Fe3O4 changes to the following state with additional C:

$$Fe_3O_4 + 4CO = 3Fe + 4CO_2$$

From this, the kinetics of reactions was studied:

1)
$$2FeS + 3O_2 = 2FeO + 2SO_2$$

$$\Delta H_p = 2\Delta H^0_{\text{FeO}} + 2\Delta H^0_{\text{SO2}} - 2\Delta H^0_{\text{FeS}} - 3\Delta H^0_{\text{O2}} = 2 \cdot (-272,2) + 2 \cdot (-296,90) - 2 \cdot (-104,01) = -930,18 \text{ kDj/mol.}$$

$$\Delta S_p = 2\Delta S^0_{\text{FeO}} + 2\Delta S^0_{\text{SO2}} - 2\Delta S^0_{\text{FeS}} - 3\Delta S^0_{\text{O2}} = 2 \cdot (60,75) + 2 \cdot (248,07) - 2 \cdot (60,33) - 3 \cdot (205,03) = -118,11 \text{ kDj/mol.}$$

$$\Delta G = \Delta H_p - T \cdot \Delta S = -930,18 - 298 \cdot (-118,11) = 34266,6 \text{ kDj/mol.}$$

$$T_r = \Delta H_p / \Delta S = -930,18 / -118,11 = 7,875 \text{ K.}$$

In the second stage of the process, as a result of the combination of iron oxide compounds wustite and hematite, magnetite compounds are formed. According to the determined results, iron and silicon elements in the waste form fayalite - Fe_2SiO_4 mineral [3,4]. A temperature of approximately 1000-1125°C occurs in the combustion layer, and during sintering in the presence of silicon dioxide, Fe_2O_3 and Fe_3O_4 [5] are partially reduced and fayalite Fe_2SiO_4 is formed. The kinetics of decomposition of iron and silicon compounds in waste with the help of lime shows the temperature dependence of the isobaric-isothermal potential (Gibbs free energy) of thermodynamic analyses. The standard enthalpy and entropy indicator of the kinetics of substances is presented Fe_3SiO_4

$$\Delta H_p = 3\Delta H^0_{\text{Fe2SiO4}} + 2\Delta H^0_{\text{So2}} - 2\Delta H^0_{\text{Fe3O4}} - 3\Delta H^0_{\text{Sio2}} - 2\Delta H^0_{\text{co}} = 3 \cdot (-1477.8) + 2 \cdot (-393.38) - 2 \cdot (-1117.1) - 3 \cdot (-968.05) - 2 \cdot (-110.54) = 139.27 \text{ kDj/mol.}$$

$$\Delta S_p = 3\Delta S^0_{\text{Fe2SiO4}} + 2\Delta S^0_{\text{So2}} - 2\Delta S^0_{\text{Fe3O4}} - 3\Delta S^0_{\text{Sio2}} - 2\Delta S^0_{\text{co}} = 3 \cdot (145.2) + 2 \cdot (213.68) - 2 \cdot (146.19) - 3 \cdot (42.7) - 2 \cdot (197.53) = 47.42 \text{ kDj/mol.}$$

$$\Delta G = \Delta H_p - T \cdot \Delta S = 139.27 \cdot 298 \cdot (47.42) = -13991.89 \text{ kDj/mol.}$$

$$T_r = \Delta H_p / \Delta S = 139.27/47.42 = 2.937 \text{ K.}$$

$$3) \text{ FeSiO3} + \text{CaO} = \text{CaSiO3} + \text{FeO}$$

$$\Delta H_p = \Delta H^0_{\text{FeO}} + \Delta H^0_{\text{CaSiO3}} - \Delta H^0_{\text{FeSiO3}} - \Delta H^0_{\text{CaO}} = (-272.0) + (-1635.1) - (-1194.9) - (-635.1)$$

$$= -77.1 \text{ kDj/mol.}$$

$$\Delta S_p = \Delta S^0_{\text{FeO}} + \Delta S^0_{\text{CaSiO3}} - \Delta S^0_{\text{FeSiO3}} - \Delta S^0_{\text{CaO}} = 60.75 + 81.92 - 93.93 - 38.1 = 10.64 \text{ kDj/mol.}$$

$$\Delta G = \Delta H_p - T \cdot \Delta S = (-77.1) - 298 \cdot 10.64 = -3247.82 \text{ kDj/mol.}$$

$$T_r = \Delta H_p / \Delta S = -77.1/10.64 = -7.246 \text{ K}$$

The thermodynamic values of all substances participating in the reactions are calculated for standard conditions, and their initial values are given in Table 2.

Table 2

Substance	FeSiO ₃	CaO	CaSiO ₃	FeO
ΔH° (kJ/mol)	-1194,9	-635,1	-1635,1	-265
ΔG° (kJ/mol)	-1117,5	-603,5	-1549,8	-244
$\Delta S^{\circ} (J/(mol*K))$	93,93	38,1	81,92	60,8

Using the values given in Table 2, the results of chemical reactions of the addition process of iron (II) metasilicate with lime were calculated according to Hess's law and are presented in Table 3.

Table 3
Values of sulfidation reactions under standard conditions (298 K)

values of sufficient reactions under standard conditions (276 K)					
$N_{\underline{0}}$	Thermodynamic values	$FeSiO_3 + CaO = CaSiO_3 + FeO$			
1	ΔH _{reac} , kJ/mol	-70.1			
2	ΔG _{reac} , kJ/mol	-72.8			
3	ΔS_{reac} , J/(mol·K)	10,69			

From the values of thermodynamic calculations under standard conditions, it can be known that the chemical reaction under study is an exothermic reaction, the value of its standard Gibbs energy is negative, that is, The reaction proceeds spontaneously at 298 K. An increase in entropy was observed in the particles formed in the studied propagation reaction system, which is reflected in Table.4.

Table 4 Gibbs energies of the addition reaction of iron (II) metasilicate with lime at different temperatures

Globs energies of the addition reaction of from (11) metasticate with finite at different temperatures							
№	T, K	T, °C	ΔG ^T , kJ/mol	No॒	T, K	T, °C	ΔG ^T , kJ/mol
1	398	125	-184,86	8	1098	825	-192,56
2	498	225	-185,96	9	1198	925	-193,66
3	598	325	-187,06	10	1298	1025	-194,76
4	698	425	-188,16	11	1398	1125	-195,86
5	798	525	-189,26	12	1498	1225	-196,96
6	898	625	-190,36	13	1598	1325	-198,06
7	998	725	-191,46				

To extract iron oxide from beneficiation plant tailings, it is necessary to determine the form of iron in the raw material. For this purpose, the quantitative analysis method was used in this study. The ratio between the percentage content of iron and silicon in 100 g of raw material and moles was determined: nFe = 52.7/56 = 0.941 mol, nSi = 25.42/28 = 0.907 mol. Then the molar ratio nFe : nSi : 1:1. This indicates that the combination of iron and silicon corresponding to this molar ratio is a mineral of the composition $FeO \cdot SiO_2$ or $FeSiO_3$. In the presence of lime, foaming was carried out by the compound $FeSiO_3$ – iron (II) – metasilicate. Coal $BShO_2$ of the Angren coal mine was used as a regenerator after adding lime to the waste of the copper processing plant and burning. As a result:

The gases formed as a result of the reaction, having a reducing atmosphere, accelerate the return of iron oxide to the metallic form:

$$FeO + CO \rightarrow Fe(met) + CO_2(gas)$$
 (3)

In some carbon regions in the reaction system, cementite (Fe₃C) is formed:

$$3FeO + 4C \rightarrow Fe_3C + 3CO(gas) \tag{4}$$

The formed cementite also helps to reduce higher oxides to lower oxides or to restore the metallic form.

$$4Fe_2O_3 + Fe_3C \rightarrow 11FeO + CO \tag{5}$$

$$FeO + Fe_3C \rightarrow 4Fe + CO$$
 (6)

The metallization process is carried out in a rotary tube furnace at a temperature of 1200°C for 2.5 hours. After heat treatment of 575 g, 311.57 g of iron were formed in the material. The iron-containing metallized sediment was separated by magnetic separation. As a result of magnetic separation, 350 g of rich concentrate was obtained, containing 89.03% - 311.57 g of iron. The degree of metallization is 84.65%.

3 Conclusion

According to the production practice, it was observed that the recovery of magnetite with solid carbon occurs in the temperature range of 1000 - 1125°C (1273 - 1398K). In this range of temperatures, sulphide minerals were oxidized step by step in the recovery thermodynamics, and the composition was 50.6%, silicon oxide was 22.9%. In this case, lime helped to remove silicon oxides and restore carbon iron oxide.

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Semantic features of praseological units of the English language denoting "time"

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Abstract: In this article we studied different specific features of phraseological units denoting "time" in the English language. While denoting with phraseological units denoting "time", we can frequently find the lexeme "time" in the different position in the structure of phraseological units: e. g: before one's time, time is money, have all the time in the world. While dealing with phraseological units denoting "time" we could find the lexeme "time" in different position in the structure of phraseological units. Besides that, many different proverbs, presumes, historical events, national regalia words can be found in the English language. Although phraseological units denoting "time" are frequently observed in the English language, to our mind, because of the member of this type phraseological units we tried to use above mentioned historical phraseological units to analyze more deeply the status of the phraseological units denoting time in the English Language.

Keywords: Proverb, unit, lexicons, discourse, metonymy, perception, influence, regalia, semantic, motivation.

1 Introduction

Teaching and learning of foreign languages specifically the English language has become one of the most important matters in our Republic after having achieved the state sovereignty in 1991-as the need for specialists with a good command of foreign languages is increased. The development of scientific researches is paid a special attention by the state government of the Republic of Uzbekistan in the "National Program of Preparation of Specialists" adopted in 1997. A special stress is given to the development of the education system to a higher level, to improving national spirituality and outlook to the implementation of public schools properly with the necessary equipment and the advanced teaching technology in teaching process.[1]

The perfect language policy led by the government of the Republic of Uzbekistan provides the creation of all conditions that serve the stable development of languages of all nationalities existing in our country.[2]

The problem of phraseological units has always been one of the most disputable, interesting and important matters of general linguistics. A number of great linguists and lexicologists as such Vinogradov V, Arnold I, Smirnitskiy I, Koon in A and many others have deeply investigated the main peculiarities of phraseological units. Their investigations have served as the bases of our research work. Although the problem of phraseological units has been investigated by many linguists this matter still needs further investigation.

2 Methods

Lexicology is the part of linguistics dealing with the vocabulary of a language and the properties of words as the main units of language. The term lexicology is composed of two Greek morphemes: lexis meaning – "word, phrase" hence lexicons "having to do with words" and logos which denotes "a department of knowledge". This, the literal meaning of the term lexicology is "the science of the word". The term vocabulary is used to denote the system formed by the sum total of all the words that the language possesses. The term word denotes the basic unit of a given Language resulting from the association of particular meaning with a particular group of sounds capable of a particular grammatical employment. [3]

A word therefore is simultaneously a semantic, grammatical and phonological unit. The term word will be discussed at length later on: nevertheless recognized as proved by the existence of a sizable, literature of article,

dissertations and book- length monographs. The distinction between the two basically different ways in which Language may be viewed the historical or diachronically- (Gr. die "through" and chromos "time") and descriptive or synchronic – (Gr. sync "together", "with") is a methodological distinction, a difference of approach, artificially separating for the purpose of study what in real Language is inseparable because actually every linguistic structure and system exists in a state of constant development. The distinction between a synchronic and a diachronic approach is due to the Swiss philologist Ferdinand de Saussure (1857-1913) [4]. The concept sphere of time is a dynamic process where the representation of time is influenced by human experience, common cultural background and society. The unanimous understanding and perception of time in English society is formed by the influence of Christian religion. For instance: Times a fifth of the God Time is god's creature. In the process of existing English-American language Society under the influence of extra linguistic factors certain changes are undergone in the representation of time; the content structure of the concept time is modified with mental transformations. Conceptual metaphors are formed:

Time is recourse, time is a commodity. Time is money. By the influence of modern telecommunication and computer technological period new conceptual metaphors of time are appeared:

- Time is a virtual entity.

Main characteristics of temporality which is specific for the concept "time" are smoothness, orientation of relative watcher; continuity, duality of waters position, volume, dynamics, attention, substantiality, perfectness, discreteness.

Metonymical transference process also plays an essential reel in the conceptualization of time. Interaction of metaphor and metonymy can be found both in conceptual and language level.

3 Result

Based on modern tendency of the term concept we can define a concept as mental formation which owns such characteristics as universality/uniqueness, simplexes / complexity, national/cultural specific feature that can be realized in different language levels. The concept "time" is a universal concept having identical semantic structure in English, Spanish, and Russian. This structure follows the nucleus - prophetical model which in the center is set meaning of continuity.

"Period of time", "moment", "circle" represent close periphery of the concept, "present", "past", "future" are sub concepts which form linear structural organization of time. Close periphery "human life" (age), "the life of nature" (a season). "Moment" may have the sub concepts "beginning", and "end". The analysis of potential seems of the word-term "time" and word-terms of sub concepts of time gives a chance to distinguish. For periphery of the concept formed by other concepts, which can be distinguished and as independent mental units: "youth", "old age", "birth", "death", "season", "fast", "and slow".

Fundamental conceptual metaphors time is god's creature, time is a gift of the god, forming Christian model of time find its reflection in the system of the English language and life in, the base of English-American language, world pictures.

The image of time-gift is not limited in religious discourse. It is characteristic for original English language texts, among which correspondence, poems, modern sociological and even in language works: "May God Bless her and you and grant you many years of peace and love", "God speed you, ancient father, and give you a good day", "... time was still understood as being God Given", "One of our major cultural models of life is that each of us is allotted a certain fixed time on earth".

The conceptual metaphor "time" is money lies on the base of understanding the time as money which is one of the types of material resource.

The time conceptualized as a resource and goods pretrial the characteristics of material object. Here the following conceptual metaphor is produced: Time is a solid object, where the happening event of time is understood as physical body. In lexical level to the notion of time the lexical semantic field of "shape" is produced: "Organization within a time – grid of calendars and clocks facilitating precisian".

Thus, metonymy as well as metaphor plays an important role in the conceptualization of time which allows dividing the period of time with individual characteristics based on subjective perception of events and time as inseparable units.

The term motivation is used to denote the relationship existing between the morphemic, phonemic composition and structural pattern of the word on the one hand, its meaning on the other. There are three main types of motivation:[5]

- 1. Phonetical motivation
- 2. Morphological motivation
- 3. Semantic motivation

The derived word rethink is motivated in as much as its morphological structure suggests the idea of thinking again. Phonetically motivations are: - hiss, buzz, cuckoo, giggle, whistle. Its motivation is therefore morphological. It is readily seen that motivation stops here on word level: the ultimate constituents, the morphemes re-and- think are non-motivated. Compare detainee, bituminize, etc. As to compounds, their motivation is morphological if the meaning of the whole is based on the literal meaning of the components, and semantic if the combination of components is used figuratively. Thus, eyewash as "a lotion for the eyes" is motivated morphologically. The same applies to such compounds as air-taxi, crash-Land, pressure-cabin, etc. If, on the other hand, eyewash is used metaphorically and means something said or done to deceive a person so that he thinks that what he sees is good, through in fact it is not; the motivation is semantic. Compare also: heart- breaking, time-server, and lick-spittle.

Semantic motivation is based on the co-existence of direct and figurative meaning, i.e. of the old sense and new within the same synchronous system. Mouth continues to denote a part of the human face, and at the same time it can mean metaphorically any opening or outlet: the mouth of river, for instance. It its direct meaning the word mouth is not motivated, so that semantic motivation is also only relative.

When the connection between the phonetically and morphological structure of the word and its meaning is conventional and there is no synchronously perceptible reason for the word having the has, the word is said to be non-motivated.

Let us analysis some more examples of phraseological units denoting time which can be divided into two groups- fully non-motivated and partially non-motivated phraseological units. So, let us see some fully non-motivated phraseological units below:

E.g. When Queen Anne was alive- Juda qadim zamonda.

This phraseological unit is fully non-motivated as we can see the meaning of this phrase me cannot have anything in common with the words queen, Anne, alive. Here we understand very long time ago.

Another example: Rome was not built in a day. In this example we cannot see a direct translation or interpretation of the whole sentence where the words Rome, built day do not have direct connection with the interpretation of the phrase me. The Last example which we are going to study is a very well-known expression frequently found in fairy-tales- one upon a time which the tales be.g.in with (Bir bor ekan, bir yo'q ekan). E.g. Once upon a time, in a very small country town, at a considerable distance from London, there lived a little man named Nathaniel Pip kin... (Dickens, "Pickwick Papers", chi XVII). – Bir bor ekan, bir yo'q ekan.

The second semantic group of phraseological units, as we have above mentioned is phraseological units of partially non-motivated ones. Let us analyze some examples below. For instance, Father time (Vaqt oily hakam)-The phraseological unit which is partially non-motivated i.e. here we can understand the interpretation of the word "time" where as the Lexeme father has completely lost its lexical dictionary meaning. e.g. A benevolent-looking person, with a broad forehead adorned like that of father time by a single lock of snowy hair (H.Haggard, "Stella Fresenius", chi V)

Serve one's time (Xizmat davrini yakuniga yetkazmoq). E.g. Having served his time in Indian army ha was free to come home and stay with a good pension. (W. Thackeray, "Vanity Fair" chi LVII). e.g. While these acts and deeds were in progress in and out of the office of Sampson Brass, Richard Swilled, being often left alone there in, be.g.an to find the time hang heavy on his hands (Ch. Dickens, "The Old Curiosity Shop", chi LVII).

In no time (darhol, tezda). E. g. The Queen's argument was that if something wasn't done about it in less than no time, she'd have everybody executed all round (L. Carroll) "Alice in Wonder Land", chi VIII.

Make up for lost time (yo'qotilgan paytni o'rnini to'ldirmoq) e.g. the ack-ack guns opened up. Whether they were big ones or the light caliber... the guns always sounded as if their crews had been asleep and had started too late and were trying to make up for lost time. (S.Heym, "The Crusaders", book I, ch4).

The last example which we are going to present is the phraseological units take one's time which can be partially non-motivated. e.g. "Look, Alan" he said. "In a situation like this it's best to take sometime and think it out". (D. Carter, "Tomorrow is with us" chi. XI).

Dealing with the analysis of semantic features of phraseological units denoting time we can observe different linguistic phenomena such as synonymy, antonym, polysemy, euphemism, irony, sayings, proverbs, metaphor, metonymy and many others.

In linguistics, semantic analysis is the process of relating syntactic structures, from the levels of phrases, clauses, sentences and paragraphs to the level of the writing as a whole, to their Language-independent meanings, removing features specific to particular linguistic and cultural contexts to the extent that such a project is possible. The element of idiom and figurative lexicology is the study of lexis or stock of words in a language. We will also use the word vocabulary interchangeably with lexis. Take note that lexis and vocabulary are non-count nouns, if you need to refer to two individual items, you should talk about lexical items or vocabulary items. You might also encounter the term lexicon, which can be used in a couple of ways, firstly it can be used as a more technical version

of lexis, and many people use it synonymously with dictionary. As an example here we point the phraseological units in time and on time which are each other from stylistic point of view.

4 Disscussion

Discussing the problem of English phraseological units denoting time it should be noted that they can also have a stylistic meaning as expressive means or stylistic devices which supply stylistic devices which supply stylistic coloring of the phraseological units of this type. Stylistically use of phraseological units points out that they may be used ironically, metaphorically, metonymically or euphemistically. Now let us take the following phraseological unit "take one's time" which can also be used ironically. e.g.: Pledge had sent the apprentice to fetch some journal- box packing from the store-room and the apprentice was taking his time about coming back. (A. Saxton, "The Great Midland", p 1919). This type of phraseological units can be also used as hyperbola. e.g.: time after time twenty and twenty times; ten times, Doreen times. I've told him twenty and twenty times.

Another example: times out of number times without number. And he and she had agreed times without number that novelty was the salt of life, the essence of interest and drama (Y. Galsworthy, "The white monkey", parts I, chi XIII).

Metaphorical use of the phraseological units denoting time can be seen in the following example: Golden time.

It was a golden time of my life; we were happy, healthy and wealthy.

In the semantic analysis of the phraseological units denoting time we can observe a number of Americanisms and colloquial use of phraseological units. Let us see the following examples:

All the time (Americanism)

Have a thin time (coll.)

Hire one's time hire one's own time (aimer)

It beats my time (aimer.)

No time swap knives (aimer coll.)

Sell time (aimer), on time (aimer)

Take time (aimer), make time (aimer.)

He is a business all the time.

5 Acknowledgment

The study of historical development of the English phraseological units has always been one of the most important and interesting problems of English phraseology. From historical point of view the phraseological units denoting "time" have been originated from different historical sources such as mythology, the Bible, national regalia and the works of many writers. To prove our words, let us take the following phraseological units connected with time:

- a) Phraseological units connected with the English regalia: When queen Anne was alive (very long ago)
- b) Phraseological units connected with the historical facts: When Adam delved and Eve span, since Adam was a boy (coll. Long ago);
 - c) Phraseological units connected with belief: halcyon days (peaceful time)
 - d) Phraseological units connected with sea: When one's ship comes home;
- e) Phraseological units of Shake spear isms: Salad days (Antony and Cleopatra) (youth), at one fell swoop (immediately) (Macbeth);
 - f) Phraseological units used by Chaucer: a nine day's wonder (not very long time);
 - g) Phraseological units created by J. Milton: fall on evil days (bad days have come);
 - h) Phraseological units connected with the Bible: at the eleventh hour (at the last moment);
- i) Phrase logical units connected with mythology: the golden age (very good peaceful time), take time by the forelock (to use convenient time), fiddle while Rome is burning; the tortoise wins the race while her hare is sleeping;
- j) Phraseological units connected with the borrowings: appetite comes with eating (French); Rome was not built in a day (French) time is money (Americanism)

According to their structure the phraseological units denoting time may have the following types of patterns:

- 1) Adjective + noun
- E.g. a rough time, close time, fine time, etc.
- 2) Verb +noun
- E. g has a time, lose time, Kill time, save time etc.
- 3) Preposition + noun

E.g. on time, in time, by time, against time, at a time etc.

4) Adverb + noun

E.g. next time, last time. Etc

5) Indefinite pronoun + noun

E. g. All the time.

6) Preposition + adjective + noun

E.g. in good time, at the same time, at odd time etc.

7) Verb + adjective +noun

E. g. Have a rough time, have a thin time etc.

8) preposition+ pronoun + noun

E.g. at this time, at that time, at one's time etc.

9) Numeral + noun

E.g. ten times, nine times out of ten, etc.

10) Preposition + noun+ preposition + noun

E.g. from time to time

11) Verb + pronoun + prepositional phrase + noun

e. g. put somebody up to the time

12) Noun + verb

e. g. time flies, time will tell, etc.

Dealing with the structural patterns of phraseological units denoting time it is also necessary to point out the use of sayings and proverbs which are closely connected with the historical practice of a given nation. According to their structure proverbs and saying are usually a number of sayings and proverbs connected with time:

e. g. Time is money.

Lost time is never found again.

Make hay while the sun shines.

Time cures all things.

Time is the best healer.

Time and tide wait for roman.

Time works wonders.

6 Conclusion

Phraseology appeared in the domain of Lexicology and is undergoing the process of secreting as a separate branch of linguistics. The reason is clear-lexicology deals with words and their meanings, where as phraseology studies such collocations is different of words (phraseology isms, phraseological units, idioms), where the meaning of the whole collocations is different from the simple sum of literal meanings of the words, comprising a phraseological unit. In our research we have studied different specific feature of English phraseological units denoting "time". While dealing with phraseological units denoting "time" we could find the lexeme "time" in different position in the structure of phraseological units. Besides that, many different proverbs, presumes, historical events, national regalia words can be found in the English language. Although phraseological units denoting "time" are frequently observed in the English language, to our mind, because of the member of this type phraseological units we tried to use above mentioned historical phraseological units to analyze more deeply the status of the phraseological units denoting time in the English language.

In this article we have looked through different specific feature of English phraseological units denoting "time". While dealing with phraseological units denoting "time" we could find the lexeme "time" in different position in the structure of phraseological units. Besides that, many different proverbs, presumes, historical events, national regalia words can be found in the English language. Although phraseological units denoting "time" are frequently observed in the English language, to our mind, because of the member of this type phraseological units we tried to use above mentioned historical phraseological units to analyze more deeply the status of the phraseological units denoting time in the English language. The phraseological units denoting "time" are very often found in the English language. Syntactically this type of phraseological units can be:

- a) Noun phraseology isms
- b) Verb phraseology isms
- c) Adjective phraseology isms
- d) Prepositional phraseology isms
- e) Adverb phraseology isms

According to their motivation English phraseological units denoting "time" can be divided into completely and partially non-motivated. Different semantic changes such as poly semi, synonymy, antonym, homonymy,

metaphor, metonymy, euphemisms can be observed in semantic analysis of the given type of English phraseological units. Phraseological units denoting "time" can be observed in non-motivated proverbs and sayings which are equal to the phraseological units.

Thus semantic analysis of the phraseological units helps us to point of the main features of English phraseology.

Summarizing all above given, it is possible to draw a conclusion that the study of English phraseological units, specifically phraseological units denoting "time" plays on essential role among linguistic researches.

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A Comparative Analysis of Educational Discourse in Uzbek and English Languages

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Abstract: This article defines the rapid evolution of educational discourse in the context of in Uzbek and English Languages. Traditional face-to-face teaching methods are scrutinized, revealing their limitations in addressing the diverse needs of today's multilingual and multicultural student populations. The study emphasizes the importance of understanding the linguistic and cultural features of oral educational discourse to overcome communication barriers. Through a comparative analysis of Uzbek and English educational discourses, the article identifies four main communication styles—closed, aggressive, manipulative, and open—and examines their manifestations in different cultural contexts. The research highlights the critical role of teachers as communicators and the impact of social and cultural norms on educational interactions. The findings underscore the necessity of adapting educational practices to accommodate diverse cultural backgrounds, enhancing the effectiveness of teaching and learning in a globalized educational sphere.

Key words: educational discourse, oral communication, multilingual education, multicultural education, didactic communication, social communication, communication styles, Uzbek discourse, English discourse, cultural barriers.

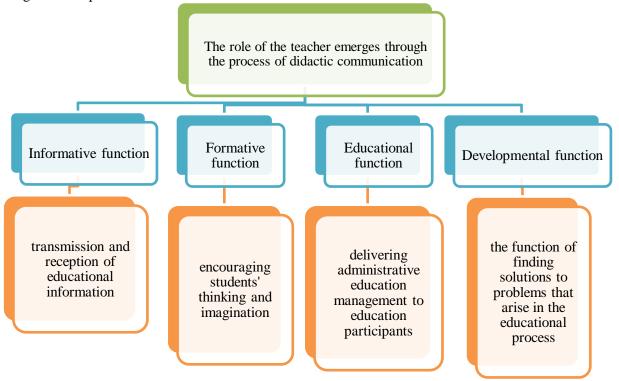
1 Introduction

The rapid improvement and change of educational forms and tools, the "attack" of digital technologies on the educational process expanded the research scope of the educational discourse. Face-to-face teaching processes, which were once considered the main and traditional form of education, have not satisfied the needs of learners and providers. On the one hand, this can be explained by the fact that today's modern world education fills its audience with multilingual and multi-cultural education participants, that is, international students are also attracted to a certain educational field, on the other hand, the development of web technologies is remote forms of education cause discourse participants who are owners of another culture to interact for educational purposes. This requires the study of linguistic and cultural features of oral educational discourse in order to overcome cultural barriers in communication. Communication is a linguistic thinking activity in a complex form. As a result of this activity, speech structures are formed, and the "traces" of linguistic thought activity are stored in the structure of these structures. But it is not easy to find these "traces" and separate them into parts, because in the composition of the text, all the elements of our thoughts become tools for realizing the speech pattern born in the human mind. In addition, it should not be forgotten that linguistic units are also involved in the formation of the communication text [1].

Simultaneously with the philological researches, general pedagogical and psychological researches were also carried out, which determine the role and function of the teacher in the educational environment, and the teacher and the student are at the center of the participants of the educational discourse, and the teacher is a coach, communicator, supervisor, teacher. It shows that there are a number of tasks such as creating the environment and conditions of education, forming and developing the student's behavior, and ensuring their safety. Each task, based on its characteristics, causes the occurrence of specific forms of social communication in the speech process.

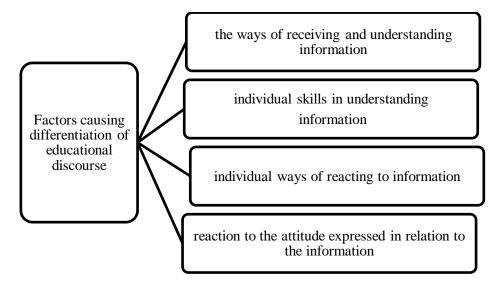
2 Methods

It is known that the educational environment serves for the learner to develop knowledge, skills and abilities in various fields of science and science, and in this process, a unique communication personality is created between the teacher and the teacher. comes out and has different social status[2]. The role of the teacher comes out mainly through the process of didactic communication. In the process of such a discourse, the following tasks are performed between the teacher and the student:



1. The role of the teacher emerges through the process of didactic communication.

In the process of didactic communication, the mental communicative activity of the teacher determines that he has his own style of speech in relation to each of the above-mentioned social problems. In the discourse situation, the individual characteristics of the speech participant are added to the speech style and cause the educational discourse to differ from each other under the influence of the following factors[3].



2. Factors causing differentiation of educational discourse

Although educational discourse cannot be put into the same patterns as other areas of communication, the factors and causes of communication describe four main styles of educational communication. We would like to describe them below:

As factors and causes of communication:

- 1. Closed communication style. In this case, the participants of educational communication avoid face-to-face communication. Common signs of this style include extreme kindness in communication, avoiding the issue, delaying the decision-making process, or waiting for others to make a decision in the situation. In the process of observing the Uzbek and English educational discourse, we can observe that in the Uzbek oral educational discourse, the communicative signs listed above are relatively more observed. The fact that the rules and principles of the written order are relatively dominant in the English educational discourse, and the fact that there is little habit of "circumventing" the issue according to the rules of speech etiquette shows that the general communication style is not typical for the English educational style.
- **2. Aggressive communication style.** In this style of communication, there is a strict commanding tone and cases of dominating the reader or listener. In the Uzbek educational discourse, the habits listed above are observed in the example of an angry, stubborn or very demanding teacher. In the English style based on the principled approach, speech expressions with an aggressive attitude are relatively less observed.
- **3. Manipulative style.** As the main sign of this style, it is observed that the participants of the dialogue wait for a convenient time and use discursive tools specific to the speech to increase the effectiveness of the speech. In the Uzbek language, phraseological units such as "read into the sentence", "he speaks the cock of the sentence" and "gapi sharp" are used in relation to the owners of this style.
- **4. Open style**. In this case, there are signs such as expressing one's opinion openly and sincerely, not trying to influence others, and expressing the opinions of others.

All the characteristics described above differ in English and Uzbek educational discourse according to their social and mental characteristics, but also according to the implementation of the discourse in oral and written form. It is known that oral discourse has different characteristics from written discourse. These differences are more apparent in the following aspects:

Written discourse has a grammatically more complex structural structure than oral discourse, and the possibilities of expression are also wider. In oral discourse, sentences consist of short and simple sentences. Long and rambling sentences are often observed in written discourse. According to M. A. Halliday, it is wrong to say that the sentences in oral discourse are grammatically simple, because they also have their own grammatical complexity, and sentences in oral discourse can last longer than in writing[4].

Oral discourse is much freer in terms of using vocabulary than written discourse. In written discourse, lexical units (noun, verb, adjective, adverb, conjunction, auxiliary, etc.) are very dense and orderly. In oral discourse, this density is not noticeable. In oral educational discourse, it is also related to content knowledge. lexical units may participate, but they are not organized and densely arranged in the written discourse. In addition, in the oral educational discourse, which is not subject to specific formal patterns, the dense arrangement of terms and denominational units is not observed. The written discourse is rich in descriptive terms In oral discourse, the speaker's discourse in lecture classes may deviate from the general oral discourse characteristics in some cases.

3 Result

In oral discourse, not only language units, but also body language participate in conveying the general content of the speech, and this plays an important role in the understanding of the expression. In the written language, non-verbal elements specific to body language do not participate, requiring a more open and complete expression of thought in the educational discourse. This difference is not a fixed feature of spoken and written speech, but changes according to the context. The discursive purpose of the speaker in expressing the speech also determines how open and detailed the expression is. The occurrence of oral speech according to the requirements of a certain topic or situation increases the possibility of understanding the intended idea, and the referent understands what is being said in the course of the discourse.

Oral speech is not organized in advance and syntactic-structural patterns of sentences are not created. This can lead to the use of some sentences through repeated expressions, the repetition and explanation of thoughts, and at the same time, the topic can change between thoughts. In contrast to written discourse, in oral discourse, the division of opinion by the interlocutor is often observed. Although many stops, pauses, and repetitions are observed in the realization of oral discourse, for those who accept the discourse as corpus material, both types of discourse are common, and in the process of creating and improving the corpus, they are not significantly different from each other.

In contrast to the written discourse, the oral educational discourse, which requires a real speech situation and a reason for its realization, requires the communication participants to overcome the obstacles caused by the linguistic and cultural barriers of the language.

If we analyze the social characteristics, signs and elements of the educational discourse, this type of discourse process cannot be far from the rules of culture and social communication of the dialogue participants. It is known that intercultural communication is based on the ability of representatives of two cultures to understand each other. According to O. A. Leontovich, there are several linguistic factors that determine the national and cultural specificity of intercultural communication. For example: Reflecting the cultural traditions of the people: permissions, prohibitions, stereotypical actions and features of communicative universal etiquette[5]. We can see such communication criteria in the Uzbek educational discourse. For example, in the Uzbek language, the pronouns you and you are used to refer to the second person. According to cultural norms, the pronoun you is used to express the content of respect towards the teacher, and it is not considered a cultural norm to censure the teacher. But in English, the pronouns you and you are represented by the same lexeme, and in the process of English oral educational discourse, there is almost no need for a meaningful distinction between the lexemes you and you. But in Russian and Turkish languages, lexical-semantic laws work differently between you and you in polite form in Uzbek. That is, in the process of communication in these languages, the personal pronoun you is also used in relation to persons who are close to him. In English, the forms of addressing each other between the teacher and the student are completely different from those of the Uzbek language. In the Uzbek language, the use of address words such as ustoz, muallim (slang mallim), domla for the teacher is considered a norm in the educational discourse. In some places, in the situation of oral discourse, this speech norm is violated, and there are cases of addressing the teacher by first name (surname) or using the words brother and sister together with the name. In such speech situations, the lexeme is characterized according to the age and gender of the communicants.

4 Discussion

In the oral educational discourse of the Uzbek language, when the teacher addresses the students, calling the student by his last name or first name is a speech norm and is actively used. For comparison, if we analyze the norms of oral educational discourse in English, the lexeme "professor" or "teacher" is used before the surname in relation to university and college teachers. *Sir, Mister*, for males in relation to school-level teachers or other participants in education; and for women, we can see that they add the last name along with the lexemes *Mrs, Miss, Mam.* For example: *Doctor Padgett, Professor Brown. Mrs Sarapin, Miss Cala* and others. Addressing the teacher by name by the student is a violation of the norms of speech etiquette in the educational discourse. According to the English culture, the teacher's address to the student often uses the lexemes *mam, sir* or calls them by name. We can also know from the use of very small language elements belonging to two cultures in the situation of educational discourse that the interaction of representatives of two cultures on the same educational platform creates a conflict of specific cultural and speech norms.

In both societies, the forms of educational discourse cannot go far from the speech etiquette of the society and show sociolinguistic signs resulting from the intersection of language and society. In general, by comparing some lexical semantic groups specific to speech etiquettes in Uzbek and English, and their comparative study, it will be of great importance to reflect the rules of etiquette and culture in these languages.

The typical British etiquette is "very polite" looking, but far from real feelings, more of a "fake character". "Politeness" is a form of communication for most English people and an important part of British culture. In English speech etiquette, the words "Iltimos" (Please), "Rahmat" (Thank you) and "Uzr" (Sorry) are regularly used.

Respecting the elders and honoring the youth is one of the ancient customs of the eastern peoples, including the Uzbeks, and this custom has been going on since the time of the primitive community system. The first forms of education formed in the land of Turkestan, which is the cradle of Eastern civilization or renaissance, show that in madrasa education, respect for teachers was very high, and in Uzbek, phrases such as "Teacher is as great as your father" and "Piri komil". It is observed that the ratio is given through, and units such as tolibi ilm, shogird, o'quvchi are used in relation to students. It is a historical fact that in the Uzbek cultural life, parents emphasize that "the flesh is ours, and the bones are yours", and the above-mentioned demanding style is the leader in the treatment and attitude towards the student.

Another linguistic and cultural feature that emerges in the oral educational discourse is the expression of the social situation and the social functions of communication. Science and education cannot exist completely apart from the social life of the people. One of the most actively used teaching techniques in the educational process today is the use of metaphors. Naturally, teaching methods of metaphors require taking examples from social life. A collection of content knowledge related to social life cannot exist without national culture. For example: if we imagine the example of the educational discourse in Uzbekistan, the communication of content knowledge related to a specific social situation by the teacher to the students requires background knowledge of the intended topic from the communicators.

Oral communication is an art that can be learned and honed through study, presentation skills, and practice. Intellectual interest should be at the forefront of oral communication. It is a means of developing good communication skills. A person who has enough knowledge can communicate better because content is the soul of the communication process. It should also have an attitude of discussion and reflection, as this improves intellectual skills and at the same time contributes to effective communication. Effective writing skills and good oral communication skills go hand in hand. A student with good writing skills will be able to organize and present his thoughts in a systematic way. Many teachers effectively use teaching methods that are understandable to all students in the process of educational discourse. Many teachers create a positive classroom culture where differences become strengths. Many teachers understand how their own cultural beliefs and attitudes affect their interactions with students, and they continually develop the ability to see each student's perspective in their classroom.

5 Conclusions

Linguistic and cultural features of oral educational discourse in the process of mutual reference between the teacher and the student: asking for permission, giving permission, requesting, in the process of discussion, as well as in the communication of students with each other, student and education appears more vividly in discursive situations between responsible others. Although educational discourse is considered to be closer to literary language and scientific method than to street-style colloquialism because it works with a specific content, it is in discourse that the learner or the giver is a representative of another culture or speech etiquette, it creates cultural spaces specific to intercultural communication. These cultural spaces are often used to describe a specific social situation, use lacunae and realities, phraseological units of a linguistic and cultural nature, dialect elements, paremiological units, non-verbal language elements that are associated differently in different cultures, and language and nation-specific elements, although expressed through the same sign, is more obvious in the standards of speech etiquette. In the form of distance education, the social features of oral discourse are clearly visible and cause certain cultural communication norms to be agreed between the addressee and the addressee.

There are notable disparities in communication techniques between Uzbek and English educational discourses, which can be attributed to different social and cultural standards. These variations emphasize how crucial context-specific teaching and learning strategies are. They also need to create a welcoming environment that transcends cultural divides. Good educational discourse aims to improve the learning process by fostering meaningful, culturally sensitive relationships in addition to imparting knowledge. To keep up with these developments, one must pursue ongoing professional growth.

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Problems of digital transformation of education and their impact on scientific education

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Abstract: This article examines the main problems of digitalization, including infrastructural and international features, low level of digital literacy of teachers and students, as well as insufficient funding of educational projects. The analysis is based on the study of digital education technologies and educational outcomes in different regions of the country. The results show that despite the successes in large cities, rural areas face serious challenges due to limited access to the Internet and digital tools. Digital technologies such as virtual laboratories have proven highly effective in improving the quality of science education, but require a consistent approach to teaching methods. The article offers recommendations for developing employment, improving the qualifications of teachers, attracting investment and expanding cooperation with international organizations. Implementation of the proposed measures will create the basis for large-scale digitalization, improving the quality of scientific education and training competitive specialists.

Keywords: digital transformation, science education, digital literacy, infrastructure, problems of digitalization, distance learning, educational technologies.

1 Introduction

In the context of rapid technological development and global digitalization, education is becoming one of the key areas associated with transformation processes. Uzbekistan, being in the stage of active reform of the educational system, is faced with the need to use digital technologies to increase the competitiveness of its educational institutions and train personnel that meet the requirements of the modern economy.

Digital transformation in Uzbekistan is aimed at achieving several strategic goals: increasing the accessibility of education, modernizing classical programs, developing digital devices and integrating international standards. Particular attention is paid to reforms in the field of scientific education, which requires not only theoretical training, but also practical research, the use of laboratory equipment and access to modern information resources.

However, the introduction of digital technologies into the educational system of Uzbekistan is accompanied by a number of challenges. The country faces uneven levels of labor force development, insufficient training of teachers to work with digital tools, as well as limited access of students from the atmosphere to modern technologies. This is especially true for science education, which traditionally uses complex teaching methods that require large resources.

At the same time, Uzbekistan has the reserve potential to overcome these opportunities. The government of the country actively supports the introduction of information and communication technologies (ICT) in the educational process. For example, programs such as "Digital Uzbekistan – 2030" have been launched, aimed at modernizing all spheres of life, including education. Educational platforms are being created, access to online courses and digital libraries is provided, virtual laboratories are being introduced, and advanced training programs are being organized.

This article presents the main problems of digital transformation of education in Uzbekistan and their impact on scientific education. The main emphasis is on identifying the obstacles and opportunities that can ensure sustainable development of scientific education.

2 Research methods

To study the problems of digital transformation of education in Uzbekistan and its professional scientific education, a comprehensive methodological approach was used, including both qualitative and quantitative research methods. Given the specifics of Uzbekistan, special attention is paid to studying the context of the national educational system, accessibility and monitoring of digital technologies of the national educational process.

The process used a mixed-method approach, combining quantitative and qualitative methods to obtain a multifaceted picture of the problems of digital transformation of education in Uzbekistan. The following were taken into account:

- -socio-economic characteristics of the regions;
- -definition between urban and rural entities;
- -analysis of cultural factors, including the adoption of new technologies by teachers and students.

The strategy was divided into three stages:

- 1. Preparatory: secondary data collection and preliminary questionnaire.
- 2. Main: conducting field research and surveys.
- 3. Analytical: data processing and interpretation taking into account the specific features of the region.

The study focused on three key aspects:

- 1. *Infrastructure*: availability of equipment, high-speed internet, digital platforms and software in educational institutions.
- 2. **Personnel training**: the level of digital literacy of teachers and students, as well as additional programs to improve them.
- 3. *Efficiency of digital solutions*:intelligent technologies in educational processes with an emphasis on natural and engineering sciences.

Data collected from the following sources:

- -analysis of the regulatory framework: programs and strategies being studied, such as "Digital Uzbekistan 2030", the Law "On Education" and the National Concept for the Development of Education until 2030;
- -statistics: research of reports of the Ministry of Higher Education, Science and Innovation of the Republic of Uzbekistan, data of the State Statistics Committee and international organizations (UNESCO, World Bank) on the development of ICT in education;
 - -social surveys: surveys are conducted among teachers and students studying natural sciences;
- **keywords and reports**: Reviews demonstrate digital technologies in universities of Uzbekistan, including the use of an online platform (EDU.UZ) and virtual laboratories.

Observations were conducted during classes at universities (for example, Tashkent University of Applied Sciences). The use of electronic tools (projectors, virtual laboratories) and students' enthusiasm for working with digital tasks were studied.

The following indicators were used for the analysis:

- the level of access to the Internet and digital devices in educational institutions;
- several students and teachers who have undergone digital skills training;
- -availability and quality of digital educational resources, including local online platforms;
- the spread of digital technologies in natural science education (virtual laboratories, data analysis programs);
- Students' performance in science subjects before and after digital technology intervention.

Modern digital tools are used to collect and analyze data:

- **−Google Forms** for survey;
- -Excel for processing statistical data.

The methodology allows to correct the problems of digital transformations of education in Uzbekistan at the systemic level. A combination of typical and quantitative methods is used to apply a comprehensive approach to the study of public digitalization of scientific education, regional specifics, infrastructure limitations and sociocultural context. This approach allows to develop recommendations based on the needs and capabilities of the country's educational system.

3 Results and their discussion

The study revealed significant differences in the level of digitalization of educational institutions in Uzbekistan depending on the region and type of higher education institution. In cities, especially in Tashkent,

Samarkand and Bukhara, educational institutions are provided with modern infrastructure. Many universities in Uzbekistan have a high degree of digitalization:

- -online learning platforms are used (for example, moodle and ziyonet);
- -virtual laboratories have been introduced for studying physics, chemistry and biology;
- -However, in a number of regions, the digitalization of universities is limited due to closed equipment and lack of funds.

The effectiveness of digital technologies in science education. During the COVID-19 pandemic, the introduction of distance learning helped maintain the educational process, but significant gaps were identified, such as in universities with developed infrastructure, students successfully implement technology programs.

The main obstacles to digital transformation:

- -outdated equipment in the country's universities.
- -shortage of specialists in the development and support of educational platforms.
- -limited access to specialized courses for teachers, especially in the regions.
- -insufficient funding for progressive educational activities.
- -uneven distribution of funds between the capital and regional authorities.

Despite the difficulties, Uzbekistan has seen successful results in digitalization of education:

- -creation of a national educational platform ZiyoNet, uniting resources for schoolchildren and students;
- -implementation of teacher training programs through a platform such as EDU.UZ;
- -developing partnerships with international organizations, including UNESCO and the World Bank, to finance digitalization projects.

The results of the study confirm that digital transformation in Uzbekistan has great potential, but its implementation faces systemic violations, lack of access to technology, lack of funding and low digital literacy.

To achieve the development of digital technologies in scientific education, a comprehensive approach is needed, including:

- -increasing investment in digital infrastructure;
- expansion of teacher training programs;
- -development of local solutions that observe the characteristics of atmospheric phenomena.

This will not only improve the quality of scientific education, but also increase the competitiveness of Uzbekistan in the international educational arena. The analysis showed that the main problems of digital transformation of education include:

- 1. Lack of work: Many technology institutions, especially in the regions, face problems of limited access to modern technologies and the Internet, which makes it difficult to use digital tools.
- 2. Low digital literacy among teachers and students: Despite the availability of modern technologies, many teachers and students do not have the skills to use them effectively.
- 3. Limited opportunities for hands-on learning: In science education, the hands-on component plays a key role. Virtual labs and simulations, although pseudonyms, cannot always replace real experiments.
- 4. Resistance to change: teachers and administrators of educational institutions are often not ready for radical changes and the transition to digitalization.
- 5. Inequality in access to education: Students from disadvantaged backgrounds face difficulties in accessing digital devices and the Internet, which leads to the formation of a form.

Digital transformation of education in Uzbekistan is a strategic direction within the framework of the state program "Digital - 2030". However, its products face a number of problems that have a significant impact on scientific education. This section discusses important aspects identified during the research, their causes and possible solutions.

In Uzbekistan, there is an imbalance in the level of digitalization between urban and rural educational institutions.

Reasons:

- -limited availability of high-speed internet;
- -insufficient funding of universities in different regions;
- -migration of qualified teachers from rural areas to the city.

Recommendations:

- -development of telecommunications infrastructure, including installation of basic methods and improvement of Internet coverage in regions with atmospheric influences;
 - -increasing motivation through financial support and providing opportunities for professional growth.

Political and financial aspects.

Digital transformation requires significant investments, which are decreasing unevenly. The reason is the limited state budget for modernization of education, as well as the concentration of funds in large universities of the capital region. As a result, there is a gap in the quality of educational services between regions and a decrease in the pace of digitalization in higher education.

It is recommended to pengage the private sector to finance educational technologies through public-private partnerships, and expand the participation of international partners and organizations in educational initiatives.

International experience and adaptation opportunities. Uzbekistan can adopt successful practices from other countries:

- -Finland and Estonia: implementation of electronic devices even in remote areas;
- -South Korea: use of interactive educational platforms with state support.

The application of such approaches in Uzbekistan is possible through the localization of experience, taking into account the country's characteristics.

Digital transformation of education in Uzbekistan is a promising but complex process that requires systemic access. To eliminate the identified problems, it is necessary to:

- 1. Develop infrastructure and ensure conditions for access to digital technologies in the context of variable and climate change.
 - 2. To improve the level of digital literacy of teachers and students.
 - 3. Strengthen state and international support for scientific education through digitalization.

These steps not only accelerate digital transformation, but also help create a competitive generation that can integrate into the global level of emergency knowledge.

4 Conclusion

The analysis demonstrates serious problems and predicts serious changes in education in Uzbekistan. The main findings confirm that, despite positive steps, digitalization of education faces systemic and regional barriers that must be overcome to achieve results.

Digital transformation can significantly improve the quality of scientific education in Uzbekistan by:

- -expanding students' access to modern educational tools, including virtual laboratories and simulations;
- -increasing the competitiveness of graduates of Uzbek universities in the international arena through mastering digital skills;
- -accelerations are part of Uzbekistan's global educational ecosystem, which opens up new opportunities for scientific research and innovation.

Digitalization of education in Uzbekistan can become a catalyst for the country's development. However, this requires a systematic approach, including:

- support for the development of the proactive side from the state and business;
- -taking into account the specific features of the region;
- creating an ecosystem in which digital technologies will become part of the educational process.

These measures will not only maintain current barriers, but will also ensure the development of a new generation of specialists capable of responding to global challenges, strengthening Uzbekistan's scientific and educational leadership in countries and on the international arena.

Digital transformation of education in Uzbekistan is a strategic task that requires long-term progress and concerted action. Despite the difficult situation, the measures already taken create preconditions for progressive changes. Implementation of the recommendations proposed in this training will not only overcome current barriers, but also bring scientific education to a new level that meets the requirements of the 21st century.

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Effectiveness of Video Materials in Teaching EFL Learners

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Abstract: The current article is dedicated to the topic "Effectiveness of video materials in teaching EFL learners". This article is described educational videos have become an important part of higher education, providing an important content-delivery tool in many flipped, blended, and online classes. Effective use of video as an educational tool is enhanced when instructors consider three elements: how to manage cognitive load of the video; how to maximize student engagement with the video; and how to promote active learning from the video. Video is a powerful tool in today's classroom. The success of teaching a foreign language through video depends on preparing students for the perception of a video. The expansion of international relations and the entry into our market of British and American teaching and methodical complexes, including video fragments, video lessons, significantly expanded our possibilities in using audiovisual techniques.

Key words: dynamic ,subtitle, stimulate, versatility, sensory, utterances, engagement, facilitating, dimming, visibility, captions, blending learning.

1 Introduction

In the era of modern English language teaching when the focus has been on the communicative needs and interests of the students, teachers have to think of different innovations to bring to the classroom. As a consequence of the status of English language as the international language, the emphasis has been on the speaking and listening as two essential skills in communicating among people all over the world. The ever-growing needs of the listening and speaking skills has shifted the emphasis from learning the grammar and literature of the language to the communicative needs and skills. Thus, empowering the communication skills requires mastering the speaking and listening skills which are considered as the foundation of the language that facilitates the learning of other skills. No doubt that the communicative language teaching (CLT) is the most effective approach in this respect[1]. Accordingly, maintaining the communicative approach in English language learning requires many issues to be considered by course designers and teachers such as course design, classroom methodology, materials design, assessment, and the like. Due to the complexity and difficulty of the speaking and listening because of the associating skills and elements it is important to think of any motivating and effective strategies that help support and stimulate students' learning. Among these effective strategies are videos, films, and TV shows. In comparison to the textbooks and other traditional materials that might fail to adapt to students' needs and interests, video materials have got a great level of interest as they bring authenticity, reality, flexibility, and variety to the EFL

classroom and curriculum development [2].

Several empirical research studies have proved the usefulness and the impact of multimedia on people in various fields such as policy, health, economy, and education is no exception. The literature on foreign language materials design and several empirical studies emphasized the importance of utilizing movies in EFL teaching on the basis of enhancing students' communicative skills and competence. Multimedia plays a great role in the improvement of English language proficiency. Video materials have been widely used in EFL classroom because of their association with the communicative language teaching in addition to their role in facilitating language learning and stimulating the students [3].

In an attempt to enhance the speaking and listening skills several teachers decided to integrate video materials into classroom teaching for teaching a variety of subjects. Although some of them are concerned about teaching subjects such as writing, reading, Grammar, and listening, they use videos along with textbooks, worksheets, and other materials. They believe that the speaking skill is very challenging as it takes place in an EFL environment where there is a lack of exposure to the natural use of the language and a limited practice of the English language. In this respect, teachers have a role in designing, contextualizing, and adapting materials in accordance with the needs and interests of students. The main purpose of the study is to contribute to knowledge about designing and using video materials by teachers. For this, the study aims to gain an in-depth understanding of the utilization of video materials in EFL classroom, and exploring the reason(s) of incorporating video materials into the EFL classroom from the perspectives of teachers and students.

To put it in another way, the main focus has been on understanding or examining the role of video materials on a particular subject that might be speaking, listening, reading comprehensions, writing, or grammar. However, this study attempts to understand and examine the idea of integrating video materials in all kinds of subjects including speaking, listening, reading, writing, and grammar. To my knowledge, there is no study in the existing literature that has been conducted for this purpose.

2 Methods and materials

The success of teaching a foreign language through video depends on preparing students for the perception of a video. The expansion of international relations and the entry into our market of British and American teaching and methodical complexes, including video fragments, video lessons, significantly expanded our possibilities in using audiovisual techniques. In the event that the video is an attachment to a British or American educational complex, the teacher can use the technology of its application developed by foreign methods and described in teacher's book. In this case, video is an effective means of teaching a foreign language. Together with the English educational complexes there is a large number of feature films. Their viewing at the senior stage of education is close in importance to the reading of the original fiction and has no less significance for the study of a foreign language, since it allows to develop skills of listening, speaking and writing on authentic material, which contributes to the improvement of the communicative competence of students. We now have more access than ever to video. News programs, adverts, comedies, documentaries, dramas, academic lectures are available in digital format via the internet. Most of these resources weren't originally created as teaching materials. So it serves a real-world communicative purpose. Some materials are authentic resources adapted for language teaching. Authentic material not originally produced for ELT purposes, but adapted to different grades [4].

There are some positive characteristics of using video in the process of learning foreign languages: the class does not require dimming, and therefore, the contact of teacher with learners is continuous; video provides the possibility of using different modes of operation, e.g. freeze frame, using only video track (with audio track turned off) etc.; videos can easily be used for different types of work: individual, pair, group, collective; video equipment allows to split movie into desired number of clips, depending on the objectives of individual needs and characteristics of learners to continue working with each clip separately.

When teaching the perception of speech by ear, it is necessary, first of all, to develop aural skills and speech hearing with the support of native speakers. And in this case, it is the authentic audio video texts that allow the students to hear the speech of the native speakers, which reflects the living reality, the peculiarities of the national culture. Most importantly, the authentic material provokes the students' cognitive interest, the willingness to discuss problems, and, therefore, contributes to their motivation to learn a foreign language. If the learner perceives foreign speech, then he begins to realize that all his efforts spent on learning a foreign language were not in vain. Thus, the main task of the teacher at the stage of work with authentic material is the selection of audio or video material that

would be interesting, informative, accessible to understanding, corresponded to the modern reality of a foreign language society and would create favorable conditions for mastering new regional information, behavior of native speakers, would facilitate their familiarity with the people's way of life, its culture.

Some teachers think that watching videos in EFL classroom is more entertainment than education. However, if we consider video as a text (a source of information) and we make a lesson using it that helps learners develop language; we can use video resources to capture learners' attention. Video materials should be accompanied with support for language learning.

There are some positive characteristics of using video in the process of learning foreign languages: the class does not require dimming, and therefore, the contact of teacher with learners is continuous; video provides the possibility of using different modes of operation, e.g. freeze frame, using only video track (with audio track turned off) etc.; videos can easily be used for different types of work: individual, pair, group, collective; video equipment allows to split movie into desired number of clips, depending on the objectives of individual needs and characteristics of learners to continue working with each clip separately[5].

When teaching the perception of speech by ear, it is necessary, first of all, to develop aural skills and speech hearing with the support of native speakers. And in this case, it is the authentic audio video texts that allow the students to hear the speech of the native speakers, which reflects the living reality, the peculiarities of the national culture. Most importantly, the authentic material provokes the students' cognitive interest, the willingness to discuss problems, and, therefore, contributes to their motivation to learn a foreign language. If the learner perceives foreign speech, then he begins to realize that all his efforts spent on learning a foreign language were not in vain. Thus, the main task of the teacher at the stage of work with authentic material is the selection of audio or video material that would be interesting, informative, accessible to understanding, corresponded to the modern reality of a foreign language society and would create favorable conditions for mastering new regional information, behavior of native speakers, would facilitate their familiarity with the people's way of life, its culture [6].

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The simplest form of control is the task of specifying correct and incorrect statements, choosing one correct variant from several proposed. This form of control is the quickest way to test understanding when developing listening skills; however, it does not develop the ability to speak. Answers to the questions asked before the survey allows you to organize a conversation on the content of the scanned fragment, and at a more advanced stage - the discussion, especially when the questions are of a problem nature.

Arrangement of frames in the order of their appearance in the film allows not only check the attention of students, but they give support for oral utterances. Personnel illustrate the development of the plot and serve as a good basis for retelling. A more complicated task can be given to justify the choice, why one frame does not precede another. An even more complicated version is a method of introducing "jamming". When among the frames of this video fragment there is a frame from the "alien" film. Students are asked to explain why this shot could not be part of the video they watched.

The video serves as a good dynamic visibility for the practice of speaking in another language and creating situations of such communication in the classroom [7].

3 Result and Discussion

Teachers can use videos to deliver course information that can be extremely helpful in opening up class time. Lectures and other introductory information can be viewed before class, which allows for more practice- and skill-related class activities. These videos are accessible at the student's convenience and can be watched numerous times to assist with coursework and skill mastery.

Videos can be a great way to keep former students involved and engaged in what's going on at their alma mater. Alumni can watch athletic events, see campus activities and accomplishments and even take online courses. This can be a powerful recruitment tool, too! Alumni who feel engaged and informed about the current status of their alma mater will be much more likely to recommend it to potential students than those who don't.

Benefits of Using Videos in the Classroom

The benefits of using videos in an educational setting are numerous. Their convenience and versatility make them an asset to students, teachers and educational institutions alike.

Benefits to students:

Videos increase knowledge retention, since they can be stopped and replayed as many times as needed. They can also be reviewed long after the initial lesson was taught.

Benefits to teachers:

Videos increase student engagement, which in turn helps boost achievement. If students are interested in the material, they will better process and remember it.

They offer the flexibility to pause or skip throughout the video to have class discussions or review particular areas. They enable teachers to create a flipped classroom, or "blended" learning environment. However, videos are also beneficial to teachers who teach in traditional classroom settings.

Benefits to institutions:

The potential to improve marketing and communications. Digital videos help to broaden your audience by reaching a greater number of people. These can be posted on your institution's website or linked in an email or digital advertisement, or posted on social media. More flexible faculty and staff training. It's often difficult for schools to assemble their faculty and staff at the same time, resulting in fragmented information acquisition. Using digital videos as a delivery method for training ensures that your faculty and staff have equal access to the information. Offering this option not only improves their retention and recall, but also serves as an archive to review it any time. Ability to record campus events for live or on-demand viewing. When parents, students and alumni feel closer to what's going on at your school, they'll feel more invested, thus increasing the likelihood of positive recommendations and engagement with students new and old.

The following recommendations are helpful when creating an effective and beneficial educational video:

Limit videos to about five minutes or less, unless you are trying to relay a great deal of information. Maintain a conversational and enthusiastic tone to keep learners engaged. Properly balance auditory and visual elements throughout. Break videos into short segments by topic or theme. Include interactive and responsive features, such as a short quiz, to promote reflection and ownership. When using video clips in the classroom, shorter clips (around five to 10 minutes) help students learn the information without being overloaded or losing their focus. Longer videos are also effective — however, their total length should typically be limited to no more than 30 minutes. Showing video clips in short segments and keeping the total length contained to a concise running time helps to keep viewers engaged. Video brings the outside world into the classroom.

We now have more access than ever to video. Newscasts, advertisements, comedy routines, documentaries, dramas, and even academic lectures are available on DVD, via the internet, or even as student-produced projects. Most of what's out there wasn't originally produced as teaching material, which means it serves an authentic real-world communicative purpose. Some materials, for example the Discovery Channel documentary videos that accompany Cambridge University Press's new Unlock series, are authentic materials adapted for language teaching. This is the best of both worlds: authentic subject matter not originally produced as ELT material, but later adapted to be pedagogically sound through grading.

Video engages learners

Some teachers feel that watching a video is entertainment rather than education. However, if we think of a video as a text – a source of information – and we create a lesson around it that helps learners develop language, then we can use video to capture and hold learners' attention, while at the same time teaching them. Most of us wouldn't give our learners any sort of text to read without offering support for language learning. When we offer the same support with video, the result will be effective, enjoyable lessons. (In future posts, I'll explore ideas for exactly what to do with video in the classroom.)

Video is a great source of information

English learners – especially students of English for academic purposes – often need to carry out research for projects. Film and video (documentaries in particular) can be excellent sources of information. The visual input often helps clarify and support the language input, making research more effective.

It works at lower levels, too. In many cases, we can completely ignore the audio portion of a video and still be left with a great source of visual information. This is especially useful when we want to control the language level; we don't need to grade the input, but instead can grade the language activities we provide. Academic skills such as summarising, paraphrasing, and giving an opinion are often linked with reading as a source of input. However, as I mentioned earlier, a video is also an information-rich 'text' that can provide students with the ideas and concepts

that they must learn to manipulate successfully. Many teachers successfully use video in the 'flipped' classroom, where learners are given input (for example a YouTube video) outside of the classroom to feed into output, which can be done during class time.

Video can also provide a good reference point for critical thinking: for example, in considering advertisements, learners can develop the skills of considering motivation, whether or not supporting details are valid, and so on. Video provides a good model for learner output

Video may provide a significant means to improve student learning and enhance student engagement in biology courses. To maximize the benefit from educational videos, however, it is important to keep in mind the three key components of cognitive load, elements that impact engagement, and elements that promote active learning. Luckily, consideration of these elements converges on a few recommendations:

- Keep videos brief and targeted on learning goals.
- Use audio and visual elements to convey appropriate parts of an explanation; consider how to make these elements complementary rather than redundant.
- Use signaling to highlight important ideas or concepts.
- Use a conversational, enthusiastic style to enhance engagement.
- Embed videos in a context of active learning by using guiding questions, interactive elements, or associated homework assignments.

This method helped the learners to develop their listening skills. To develop sequencing, listening, and creative writing skills, we told students to play an excerpt of three to four minutes from the middle section of a work they have not yet studied in class. Depending on the class's achievement level, grade, course, and past experiences in literature, they may also be able to use an obscure excerpt from the middle section of a work already studied. Use of a familiar work will give this strategy an additional edge and provide the students with an evaluative tool for measuring their own comprehension and recall of previously studied literary works.

We used the materials, which we had used during my tutorial classes. The pupils were delighted with the change from their textbook. However, we found out that they were not used to such kind of new method. Their knowledge background was not as it should have been in most cases; they made many mistakes. Most of the pupils also liked the topics we had chosen.

4 Conclusion

The practical part is based on the practical use of audio materials in teaching which deals with the author's personal experience with using these materials in his lessons surveys. EFL classes with access to the necessary technology can effectively use YouTube and other online video streams. However, it is important to understand that there are some limitations. First, YouTube limits itself to copyright restrictions. If students are determined to focus on certain clips that are not available on YouTube because of copyright laws, then students will have to purchase these clips on their own. Secondly, given the vastness of the YouTube library, it may take some degree of structuring and guidance from the teacher to prevent students from spending unproductive hours on site viewing. The third attention of the teacher may have to be taken into account; this is the nature of most of the material on YouTube. Although the site does not allow nudity, there is a sufficient amount of content and provocative language. Teachers of younger students would be useful to consider this. Finally, some countries put bans on YouTube and other streaming video streams, which means that studies in these countries can face great difficulties when accessing useful online video.

Language is a significant aspect of the culture of the people and all over the countries, mankind has transmitted language from one generation to another, through the process of socialization. A child through association with the adults in the society learns language. Words are not neglected, but the boys and girls also study pictures and exhibits, work in a shop or laboratory, take school journeys, look at models, listen to radio programs and transcriptions, study slides and motion pictures.

To provide students with the ability to measure their own listening skills, We offered them regularly scheduled listening skills sessions, followed by regularly scheduled audio genre listening sessions. Have the students maintain a portfolio of their listening skills transcriptions, and genre predictions. After several exercises, have the students write and share their own self-evaluations of the ways in which their listening and genre skills have been enhanced. We would recommend using video materials and modern alternative teaching approaches and methods to all the language teachers. It is important to have good class management skills and be able to inspire the pupils. The

positive results will definitely delight both teachers and their students. During our work, we have found out that authentic materials play an important role in teaching a second language. They enrich the traditional lessons and are interesting for students, too. However, the pupils are not used to learning from alternative sources. They do not have much responsibility for their learning. In my opinion, they should be taught independence since early age.

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