

A technology for teaching ESP to those studying ecology and environmental sustainability

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Abstract. The authors analyzed the factors that have a serious impact on ecological stability and the environment today when resources are limited and needs are unlimited. Therefore, this article explains the importance of the educational process in the formation of ecological culture. The effectiveness of ESP technology is based on the formation of students' attitudes to the environment, and nature, i.e. ecological culture. The study was carried out on the example of the activity of the Department of "Foreign Languages" of the Karshi Engineering Economics Institute.

1 Introduction

Today, not only in our country but also in the countries of the world, consistent work is being done to ensure ecological stability, deurbanization, environmental protection, public health, rational use of natural resources, and improvement of sanitary and ecological conditions. The increasing impact of civilization on the environment is fast approaching a global ecological catastrophe. According to many scientists, this catastrophe could happen long before the crisis due to the lack of any fossil resources. All scientific progress is not capable of preventing ecological destruction, because artificial systems cannot replace the natural biological component of the environment and, therefore, cannot regulate the processes occurring in the biosphere [1,2,3].

Among the current environmental problems arising as a result of direct and indirect human influence and intervention, the following are the most important:

- extinction of many thousands of species of animals and plants;
- the ability of the world's oceans to regulate natural processes is decreasing;
- large-scale reduction of forest cover;
- depletion of mineral reserves;

Such ecological catastrophes occur due to the integration of ecological culture, the lack of adequate development and implementation of new educational technologies in schools and higher education, about the environment and ecosystem in the education of the young generation, and the formation of ecological culture. This problem should be solved as soon as possible and only with the efforts of the international community, because all the scientific problems of environmental management cannot be solved by one country alone.

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Any organism in nature is affected by various environmental components. Any properties or components of the environment that affect organisms are called environmental factors. Therefore, even in higher education, students should be taught to create an ecological culture, develop new educational technologies, implement new methods of teaching, determine the right attitude towards nature, and instill a love for the environment. Achieving purity is considered an important stage in solving environmental problems [4-9]. Ecological education is an educational process aimed at providing students with theoretical ecological knowledge in a consistent, systematic, and continuous manner.

Ecological culture is knowledge about nature, consciousness, perception, literacy, intellectual potential, and the activity of knowing how to apply it in practice, a high indicator of activity about the environment, a conscious and responsible approach.

Theoretical ecological knowledge (ecological consciousness) and the unity of activities carried out in the way of environment and nature protection serve to form ecological culture. Ecological awareness is the mental expression of concepts regarding the current state of nature and the environment, and their protection, and it is manifested as a complex socio-psychological phenomenon. Ecological activity means a set of actions carried out to ensure the protection of nature and the environment based on ecological knowledge. Ecological culture is a manifestation of students' ability to organize nature and environmental protection following social requirements. Ecological education is another important component of social education, and in the process of its organization, the following tasks must be solved: To further increase the environmental knowledge acquired by students in the educational process. Enriching their perception of nature and environmental ecology. Formation of students' belief that protection of nature and environment is a social necessity. Formation of students' skills and competencies in environmental activities and their active participation in the process of ensuring nature and environment protection. The forms of environmental education organized in the family and society are conversations, roundtables, excursions, debates, creative contests, meetings, socially useful work as well as conversation, observation, and organization of practical activities. organization with the help of methods such as incentives and punishments ensures that environmental culture is established in students. Personal examples of subjects participating in student education, educational resources, fiction, mass media materials, and their ideas, learning foreign languages, analyzing the environmental cultures of the world and other countries, and learning to form ecological culture important tools. In this article, it is important to teach the English language and use modern educational technologies in the formation of environmental culture, studying and analyzing the world experience for students studying in the field of environmental education at the Karshi Engineering Economics Institute. In this case, the use of ESP technology is of great importance.

ESP has been widely discussed by world linguists: it has methods as an object of study and as a subject. Dudley-Evans, St. John, T. Hutchinson, A. Waters, and P. Stevens are good examples of pioneers who conducted research in this field, as Hutchinson and Waters noted: "English is now the wants, needs and remained subject to the requirements. people other than language teachers" [5-11]. Students have different language learning methods for teaching environmental concepts and building environmental knowledge because they are all unique and have different needs. However, teachers must decide how to teach and what to teach in the formation of environmental culture based on the needs of the students. Indeed, all this emphasizes how important it is to take into account the different needs of students and the acquisition of environmental knowledge in education. Language teaching for an environmental education major should be tailored to the needs of the learners and the course should be adapted to the specific needs of the learners.

There is one point that should be considered in teaching an ecological English in Karshi Engineering Economics Institute is that students can come from a variety of different

linguistic backgrounds which means they can also have vastly different levels of language proficiency. In that case, it is the teacher's task to take a class where all learners should have a chance to practice their language skills not feeling inferior to the other ones who are better speakers. It might happen due to the fact that there is a huge difference between Uzbek and English phonetics, grammar, lexis and other language features. From the experience we can say that the very first thing a student should learn to study ecological English is no matter how incompetent in foreign language, he or she should feel the importance of learning that and be able to imagine how successful he or she can be with better ecological English in the future. In other words, students should be able to motivate themselves when there is a language barrier. For that right from the beginner level of English the instructor should teach how to overcome difficulties.

2 Materials and methods

There has been a long debate about what might be the most appropriate approach to teaching ESP. According to Hutchinson and Waters, "There is no specific methodology for ESP" because the teacher's goal is to teach language itself, not linguistic features [11]. Therefore, the content and methods, for example, in the example of ecology education, based on the student's motivation to learn a foreign language, ecological concepts, terminology, ecological situation and the factors that create it, ecological stability, and the causes of ecological disaster should be explained simply. However, it is possible to use the direct or widespread natural method developed as a response to the grammar-interpretation method. It is designed to attract the student to the target language field in the most natural way, with the aim of perfect teaching of a foreign language for the formation of the theory of ecological culture and ecological knowledge in the field of ecology.

Figure 1 below presents a schematic illustration of the ESP educational technology, which is the basis for the perfect mastery of a foreign language, which helps in the formation of ecological culture, learning, and mastering the world experience in the fields of environmental education.

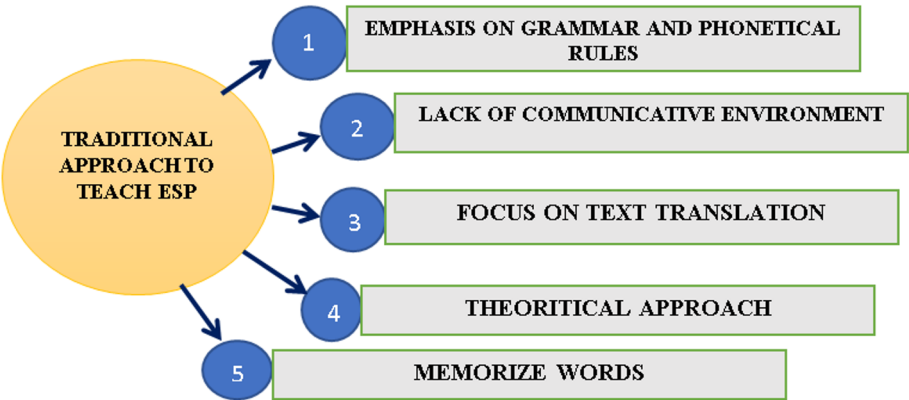


Fig.1. Traditional approach to teach ESP for ecology students.

ESP students learn ecological English using terminology specific to their area of study or work. In order to have a clear understanding of the conventional teaching methods which have already been proven as ineffective the graph 1 has been designed.

According to the author, the most common mistake in ecological English classes is that the teacher focuses on grammatical and phonetical rules. Although it is true that making grammatical error free sentences is significant aspect of instructing any foreign language,

there are some other issues to deal with during practical lessons. The content of the program should be designed based on the language needs of students in their future professions and the needs of employers. Instead of writing down the phonetical rules, learners can listen to an ecological dialogue and then retell it in other words. Virginia Evans, Jenny Dooley, Kenneth Rodgers's "Career path: Environmental engineering" (Unit 6 Climate) is a good example of works done in ESP [10-12].

Engineer 1: *I can't believe the climate changed that much in just 50 years!*

Engineer 2: *I know. It's really amazing, isn't it?*

Engineer 1: *I'll say! What were the precipitation differences again?*

Engineer 2: *Well, the last five years they've averaged about 16 inches of precipitation annually. But in the past, it was around 30 inches.*

Engineer 1: *Tha's a significant drop.*

Engineer 2: *I know. And the average temperature dropped by five degrees.*

Making up ecological dialogues and role playing are the better ways of improving communicative competence of a learner rather than copying and pasting grammar rules. In fact, contemporary English teachers claim that the very first difference between ESP and EGP (English for General Purpose) is that the former intends to develop communicative skill whereas the EGP learners are supposed to advance grammatical, sociolinguistic and other competencies as well. Besides, making use of ecological dialogues, that are consisted of authentic materials help to visualize job related environment and better understanding of professional matters. Doniyorova Gulruh Shoniyozovna stated that "due to the rapid development of science and technology in our time, the growth of new industries, great changes are taking place in the language" [10]. So, the language itself is forming and new branches are emerging like ecological English among Uzbek teachers and students of higher education institutes.

Another common methodological mistake that Uzbek instructors make to deliver effective ecological English classes is lack of communicative environment. Most fail to create to provide conversation involving two-way job-related discussions with the learners at least to make dialogues so that students vividly imagine real working situations. During the classes instructors speak in native language thinking to explain the rules in easier way which can be another barrier to have a fluent speech for students. Communicative competence works best if the learners are highly motivated to converse. According to Strevens, ESP should to meet learner's specific needs by choosing content from certain disciplines and using activities, syntax, lexis and discourse appropriate to these activities, and he noted that ESP may not use any pre-planned instructional teaching [11].

Focusing on ecological text translation can be one of the frequent mistakes made by instructors. Teachers of non-philological institutes should replace long and boring texts to authentic materials with varied activities not only to engage the classroom into real-job situations but also to enrich specific vocabulary which can be actively applied in daily conversation by staff. In Uzbekistan, ecological English is a part of academic subjects and locally produced textbooks are used which means Uzbek ESP textbooks do not consider the specific requirements and preferences of the learners [10]. As a matter of fact, English for Language Teaching (ELT) content and resources are applied in language classes where students are expected to develop communicative and practical competences in specific field.

Translation is not the main focus when learning English for ecological field.. However, it can be used in smaller activities to help learn vocabulary and how words are used together. This is because words often have more than one meaning and learners need to understand how to use them in different situations. Additionally, Cook states that the L1, or first language, can be beneficially used to convey meaning. This includes explaining grammar, organizing the class, and allowing students to use their first language [11]. We

can use translation activities to help us become more fluent in a second language, understand new words or phrases better, and make learning easier. Actually, if you have a good understanding of English, it's a good idea to try translating ecological tasks. Translation helps learners learn the difference between formal and informal language styles. It helps learners become better at communicating with people from different cultures. After talking about the important advantages of translation, we can say that there is a renewed interest in using translation in the ecological English classroom to make language more accurate, fluent, and clear.

3 Results and discussions

Important scientific recommendations were made based on the analysis of some traditional approaches to the teaching English for future ecologists in higher educational institutions of Uzbekistan, which are shown in Figure 1 and detailed above. As a person who creates courses and provides materials, teachers need to make own materials or change the ones that are already used in job. Instructors can also use educational resources and teaching materials to help. The main aim of any English for ecology syllabus is to identify and address the specific language needs of students, both in terms of vocabulary and practical usage, in order to prepare them for specific situations in the language. They also need to increase knowledge about what they are teaching. As an evaluator, the ESP practitioner needs to consider the different phases of the assessment. Process is a series of actions or steps taken to achieve a desired outcome. For example, he needs to understand what the students require before creating the course. He needs to see how well the students are learning in the class. And he needs to check how well students learned after the course is over, but most importantly, he has to see if the needs of the students were taken care of properly. In simple terms, English for Specific Purposes is about how language is used in a specific way in social situations.

The graph below illustrates the modern approach towards teaching English for non-philological students in higher education institutes and some recommendations an ESP teacher should follow in order to deliver effective English language classes for future ecologists.

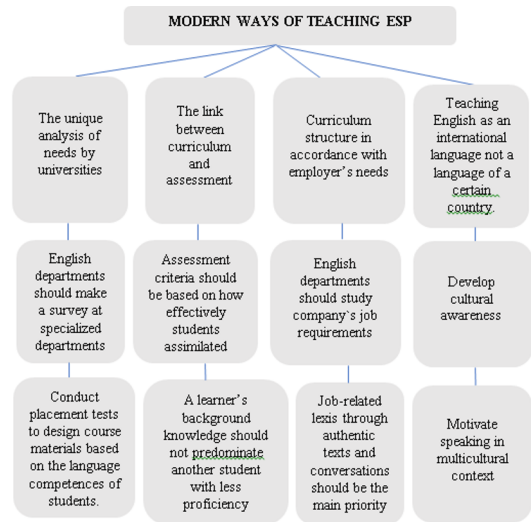


Fig. 2. Modern approach of teaching ESP in Uzbek higher education institutions.

The intended goal will be achieved if the teaching of ecological English in non-specialist areas in the higher education institutions of Uzbekistan is taught on the basis of the approaches described in the above graph. Qualified specialists should conduct long-term research in order to establish such a systematic education. It is important to lay the foundations from the first stages of education for students to develop language skills within the framework of their future professions. For example, on the basis of the placement test, it is possible to develop a relatively uncomplicated professional terminology in early years of education after determining the general level of English knowledge of students.

It is also important to do a unique analysis of needs by separate universities according to the courses offered. For instance, in the Karshi Engineering Economics Institute more than 31 courses are offered and most of them are in technical, ecology, engineering, oil and gas, geology and mining, sustainable energy, economics, food industry and other fields. That means, students doing one of these courses are supposed to have knowledge in specific domain and English language competence at B2 level which is enough to communicate. Also, in practical lessons, it is important to learn texts, grammar exercises, audios not only related to the culture of English-speaking countries, but also specific international texts and information. A good example is that a student doing a degree in ecology, he or she should be taught about international organizations with ecological concerns, the ecosystems, environmental hazards, living organisms on Earth and others through English texts, audio and visual materials so that he or she could enrich his/her knowledge not only in terms of language but also the future specialty. According to Strevens, English for Academic Purpose (EAP) is a move from teaching literature and culture of English-speaking countries to teaching English language for communicative reason. [12] He also mentioned that English language should be appropriate to the needs and purpose of learners. Last decade saw an increasing trend in teaching ESP throughout the world. According to Johns, ESP continues to be even more common in English as a Foreign Language (EFL) contexts, where an increasing number of adult students are eager to learn business English or academic English in order to pursue their career or study in English medium educational institutions. [10] So, taking ESP courses are getting common in Middle East, East Asian countries, Iran, Lebanon and South Asia. Muhammed Ali Chalikandy in his article "A Comprehensive Method for Teaching English for Specific Purpose" states that due to the international trade and career growth the countries listed above started offering ESP recently [15].

English for Specific Purpose (ESP) is a course that is designed to meet the needs of specific industries or professions. However, in non - native English countries, ESP is often taught in a similar way to how General English is taught, with a focus on language teaching methods. Many ESP teachers forget that ESP is different from General English and has unique characteristics. English for Specific Purposes (ESP) is a different way of teaching English that focuses on specific subjects or fields. It has its own unique way of teaching, materials, and methods, which involve combining it with other subjects. English for ecological purposes also encourages students to be actively involved in their learning. Because ESP uses different ways, materials, and methods depending on what learners need, English teachers or experts have to figure out what those needs are, create a curriculum, make teaching materials, pick the right way to teach, and use it to meet the learners' needs that were identified. So, just knowing the language system and being able to teach it is not sufficient for an English language instructor teaching ecological concerns.

Extensive use of digital technologies plays an important role in integrating English with environmental education. However, in the widespread use of digital technologies, it is necessary to study its positive aspects as well as its negative aspects. Modern higher education in Uzbekistan today pays more and more attention to the possibility of using digital technologies in the educational process. The skill requirements of students have

changed using digital learning technologies. After analyzing the works of many scientists, they came to the conclusion that the wider application of digital technologies in the sphere of higher education in Uzbekistan requires a thorough study of this process, comparing the positive and negative sides [12-21].

4 Conclusions

Since English is an important tool for the formation of environmental knowledge, the spread of environmental culture among people on a global scale, and the entry into the global arena in terms of science and technology, it will flourish in the future in non-English-speaking countries. serves as an important tool in forming a positive attitude to the environment, and serves as a “green bridge” that stabilizes the ecological situation in every part of the world. Computer-based curricula and more complex authentic texts are designed to provide cross-cultural issues to reach the desired level of English language learners. For this, closer communication is established between employers and academic staff to determine what level of environmental English may be sufficient to meet the job requirements. The level of ecological culture achieved so far on the planet is becoming ineffective. Humans continue to have a devastating impact on nature and ecological sustainability. To bring ecological culture to the level of demand, states and organizations should be based on the formation of the legal and moral basis of ecological culture within their sphere of influence, and the formation of world ecological culture. In conclusion, in environmental education majors and building environmental knowledge in all students, ESP is always related to ESL/EFL teaching. Regardless of what is currently popular, ESP teachers must understand the needs of their students and the situations in which they are learning.

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