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### **METHODOLOGICAL POSSIBILITIES OF THE CREAM STRATEGY IN IMPROVING ECOLINGUISTIC COMPETENCE OF PHILOLOGY STUDENTS: A CONCEPTUAL MODEL**

### **FILOLOG TALABALARNING EKOLINGVISTIK KOMPETENSIYASINI TAKOMILLASHTIRISHDA CREAM STRATEGIYASINING METODIK IMKONIYATLARI: KONSEPTUAL MODEL**

#### **ABSTRACT**

As ecological crises threaten the world, the need for education is growing, and although climate science is usually taught in ecology, geography, or biology classes, foreign language lessons can also raise climate awareness, develop ecolinguistic competence, and foster global citizenship and critical thinking.

This article discusses the theoretical and methodological foundations of improving the ecolinguistic competence of philology students based on the CREAM (Creative, Reflective, Effective, Active and Motivated) strategy and proposes a conceptual model aimed at effectively organizing this process. The main goal of the study is to develop an innovative pedagogical model for the formation of ecolinguistic competence in philology students, which serves to develop ecological awareness, ecological thinking, and the skills of analyzing and creating discourses of ecological content in English.

The research tasks were set to theoretically analyze the concepts of ecolinguistics and ecolinguistic competence, study the pedagogical possibilities of the CREAM strategy, develop the GREEN conceptual model aimed at developing the ecolinguistic competence of philology students in English lessons. Scientific and theoretical analysis, pedagogical modeling, comparative analysis, linguodidactic approaches and communicative methods were used in the research process.

#### **ANNOTATSIYA**

Dunyo bo'ylab turli ekologik inqiroz xavf solib turgan bir paytda bu kabi muammolarni hal qilish uchun ta'lim muassasalariga bo'lgan ehtiyoj ortib bormoqda. Garchi, iqlim haqidagi fan odatda ekologiya, geografiya yoki biologiya fanlarida o'qitilsa-da, xorijiy til darslarida talabalarni iqlim o'zgarishiga adolatli yondashish va ekolingvistik kompetensiyalarini takomillashtirish, ularning iqlim o'zgarishi muammolaridan xabardorligini oshirish, til o'rganish bilan birga iqlim o'zgarishining ijtimoiy, iqtisodiy va axloqiy jihatlarini muhokama qilish orqali global fuqarolik va tanqidiy fikrlash ko'nikmalarini rivojlantirish orqali iqlim inqirozi oqibatlarini yumshatish muhim ahamiyat kasb etadi.

Mazkur maqolada filolog talabalarning ekolingvistik kompetensiyasini CREAM (KREAM) (Kreativ, Reflektiv, Effektiv, Aktiv va Motivatsiyalangan) strategiyasi asosida takomillashtirishning nazariy-metodik asoslari yoritilgan hamda ushbu jarayonni samarali tashkil etishga qaratilgan konseptual model taklif etilgan. Tadqiqotning asosiy maqsadi filolog talabalarda ekologik ong, ekologik tafakkur hamda ekologik mazmundagi diskurslarni ingliz tilida tahlil qilish va yaratish ko'nikmalarini rivojlantirishga xizmat qiluvchi ekolingvistik kompetensiyani shakllantirishning innovatsion pedagogik modelini ishlab chiqishdan iborat.

Tadqiqot vazifalari sifatida ekolingvistika va ekolingvistik kompetensiya tushunchalarini

According to the results of the study, it was found that the GREEN model, developed on the basis of the creative, reflective, effective, active and motivational components of the CREAM strategy, serves as an effective methodological basis for developing the skills of philology students in forming ecological awareness, critically analyzing texts with ecological content, creating ecological discourse and expressing sustainable development ideas through language.

In conclusion, it can be noted that the conceptual model developed on the basis of the CREAM strategy is an effective pedagogical mechanism for developing ecolinguistic competence of philology students and can be introduced as an innovative approach to the process of teaching English in higher education institutions.

**Key words:** ecolinguistics, ecolinguistic competence, CREAM strategy, GREEN model, philology students, ecological awareness, ecological discourse, sustainable development.

nazariy jihatdan tahlil qilish, CREAM strategiyasining pedagogik imkoniyatlarini o'rganish, filolog talabalarning ekolingvistik kompetensiyasini rivojlantirishga qaratilgan GREEN konseptual modelini ishlab chiqish belgilandi. Tadqiqot jarayonida ilmiy-nazariy tahlil, pedagogik modellashtirish, qiyosiy tahlil, lingvodidaktik yondashuvlar hamda kommunikativ metodlardan foydalanildi.

Tadqiqot natijalariga ko'ra, CREAM strategiyasining kreativ, reflektiv, effektiv, aktiv va motivatsion komponentlari asosida ishlab chiqilgan GREEN modeli filolog talabalarning ekologik ongini shakllantirish, ekologik mazmundagi matnlarni tanqidiy tahlil qilish, ekologik diskurs yaratish hamda barqaror rivojlanish g'oyalarini til orqali ifodalash ko'nikmalarini rivojlantirishda samarali metodik asos bo'lib xizmat qilishi aniqlandi.

Xulosa sifatida ta'kidlash mumkinki, CREAM strategiyasi asosida ishlab chiqilgan konseptual model filolog talabalarning ekolingvistik kompetensiyasini rivojlantirishda samarali pedagogik mexanizm bo'lib, oliy ta'lim muassasalarida ingliz tilini o'qitish jarayoniga innovatsion yondashuv sifatida joriy etilishi mumkin.

**Kalit so'zlar:** ekolingvistika, ekolingvistik kompetentsiya, CREAM strategiyasi, GREEN modeli, filologiya talabalari, ekologik ong, ekologik diskurs, barqaror rivojlanish.

## INTRODUCTION

In the 21st century, global environmental problems, environmental pollution and depletion of natural resources are putting production before humanity. In this process, environmental awareness and responsibility are considered one of the most important factors in education. Nowadays, the process of acquiring a foreign language should not be limited to studying only grammatical rules or vocabulary. Language acquisition should be carried out in connection with cultural, social and ecological factors, and requires a deep understanding of the relationship between language and the environment.

Everyone has their own way of learning a language. Scientists describe strategy as a person's deliberate effort to learn better and use information more wisely. S.Cottrell's CREAM strategy is a great example; it's built to help students take charge of their own studies and prepare for the demands of university life [Cottrell, 2013].

“CREAM is an acronym composed of the initials of the English words creative, reflective, effective, active and motivation. Below is a discussion of each word definition:

- creative learning: effective use of imagination in learning and solving problems;
- reflective learning: a person analyzes, evaluates and learns from the work he has done;

- effective learning: is the arrangement of time, place, state of mind, resources and the use of technologies for maximum benefit. In addition, language learners are expected to connect learning with real life;

- active learning: a person should be physically and mentally active in order to “deeper understanding” of what one has learned;

- motivational Learning: the results you want to achieve, what steps to take to achieve them, and the student’s knowledge of what to do to form and maintain his enthusiasm.

Developing each of these aspects strengthens the others. For example, motivation involves thinking about what you really want. Active learning and creativity require motivation and help to stay motivated” [Cottrell, 2013; Fayzullakulovna, 2024].

S.Vaselinovska and S.Kivora state that “green” pedagogy should not be something that is added once or twice a year or done randomly, but should be a regular and permanent part of the curriculum. They recommend methods such as analyzing the media, discussing local environmental problems, conducting surveys and using songs on environmental themes to integrate environmental topics, and they emphasize the importance of developing critical thinking skills in students, which will allow them to analyze environmental problems and formulate solutions. Critical thinking is defined as a self-directed, self-disciplined process of thinking that involves evaluating information and understanding one’s own response to a problem [Vaselinovska & Kivora; 2013].

O.Abdel Latif emphasizes that GELT (Green English Language Teaching) is beneficial for teachers and students and involves a multi-faceted approach. GELT helps students connect different fields of knowledge, enhance their learning experience, and develop critical thinking. It encourages students to analyze environmental issues and develop a sense of responsibility in them. GELT also helps students understand the international nature of environmental issues and encourages them to adopt a sustainable worldview. Teachers can integrate environmental topics into language teaching methodologies and create curricula that include sustainability topics. This helps students learn about environmental issues through language learning. Teachers should design lessons that include descriptive texts on environmental topics, use multimedia resources, and implement assessment strategies that assess students’ language skills and understanding of environmental issues [Abdel Latif, 2024].

P.Uma explains that English language teaching is directly related to climate change, and in this process, language teaching is carried out through ecological content:

- special terms and phrases related to climate and ecology are taught;
- students develop language skills using authentic materials;
- critical thinking and a conscious attitude to global problems are formed;
- students participate in raising awareness about climate issues by expressing

opinions, debating, and increasing social engagement in English [Uma, 2024].

In recent years, the issues of integrating ecological content in foreign language education, incorporating sustainable development ideas into the educational process, and forming an ecological culture in students have been widely covered in scientific research. In particular, modern linguodidactic approaches show that by integrating environmental issues with language education, they allow students to develop communicative, critical, and creative thinking competencies. At the same time, the CREAM strategy, which is aimed at developing students' independent thinking, reflective activity, and motivation in the educational process, is also recognized as one of the effective pedagogical approaches.

However, an analysis of existing scientific research shows that methodological approaches aimed at developing the ecolinguistic competence of philological students are not sufficiently systematized. In particular, conceptual models and a system of exercises that serve to integrate ecological content, analyze, and create skills in the process of foreign language education have not yet been fully developed. Also, the methodological possibilities of the CREAM strategy in developing ecolinguistic competence in the process of philological education have not been sufficiently studied.

Taking into account these problems, the purpose of this study is to identify the methodological capabilities of the CREAM strategy in the formation of ecolinguistic competence of philology students and to develop a conceptual model and a system of exercises that serve to effectively organize this process. The research tasks were to analyze the theoretical foundations of the concept of ecolinguistic competence, identify the pedagogical capabilities of the CREAM strategy in the educational process, develop a conceptual model aimed at developing ecolinguistic competence of philology students, and create a system of exercises that can be used in English lessons.

## **METHODS**

This study was aimed at identifying the methodological capabilities of the CREAM strategy in the formation of ecolinguistic competence of philology students and developing a conceptual model and a system of exercises aimed at effectively organizing this process. In the research process, a comprehensive scientific approach was used based on the combination of theoretical and practical methods.

First of all, the method of analyzing scientific-pedagogical, linguistic and linguodidactic literature was used to identify the theoretical foundations of the research problem. Through this method, scientific views on ecolinguistics, ecolinguistic competence, ecological discourse, as well as the pedagogical capabilities of the CREAM strategy were studied and summarized. This analysis created a methodological basis for identifying the theoretical foundations of the research and developing a conceptual model.

At the next stage of the research, the pedagogical modeling method was used. Based on this method, the GREEN conceptual model was developed to develop the ecolinguistic competence of philology students. The model was based on the

principle of integrating the creativity, reflective, effectiveness, activity and motivation components of the CREAM strategy into the educational process. The conceptual model includes interrelated components such as a guiding module, a methodological-basic module, and a final module.

The research also used the linguodidactic design method. Based on this method, a system of exercises was developed to develop students' ecolinguistic competence in English lessons. This system of exercises was divided into cognitive, interactive, and transformative stages based on the cognitive model of Bloom's taxonomy and the main components of the CREAM strategy. At each stage, a system of tasks was developed to consistently develop students' knowledge, skills, and competencies in ecological content.

The research also used the comparative analysis method. Through this method, various linguodidactic approaches, concepts of ecological education, and methodological experiences on integrating ecological content in foreign language teaching were studied and analyzed. Based on the results, the scientific and methodological foundations of the conceptual model and the system of exercises developed were clarified.

This set of methods made it possible to systematically analyze the process of developing ecolinguistic competence of philology students, identify the methodological capabilities of the CREAM strategy, and develop an effective linguodidactic model and system of exercises based on this strategy.

## RESULTS

The formal inception of ecolinguistics is widely attributed to M.Halliday's seminal 1990 address, "New Ways of Meaning: The Challenge to Applied Linguistics". M.Halliday proposed a fundamental shift in the linguistic paradigm, arguing that the discipline must evolve to address the ecological and social exigencies of the 21st century. By framing language as a factor in environmental degradation or restoration, M.Halliday provided the theoretical impetus for studying language within its broader ecological context. Since this period, the field has diversified significantly, recently expanding into pedagogical frameworks such as Education for Sustainability [Fill, 1996].

In their study, N.Haque and D.Papi emphasize that the introduction of green pedagogy in improving ecolinguistic competence is an effective methodological basis for teaching English as a foreign language. According to them, working with texts with ecological content, while forming students' critical thinking and creative approach to problem situations, serves to educate them as socially responsible individuals. In particular, for university students, activities such as critical reading, essay writing, and group presentations on an ecological topic allow them to develop language skills and a deep understanding of the concepts of sustainable development [ Haque & Papi, 2023].

E.Mete advocates an in-depth analysis of ecological texts by applying Bloom's updated taxonomy in English lessons [Mete, 2018]. J.Riegerova suggests enriching

ecological education with interactive methods, including games based on ecological monitoring and discussion outside the classroom [Riegerova, 2011]. C.Nkwetisama, on the other hand, advocates ecologically meaningful language-teaching methods based on a communicative approach that develop the capacity for deep thinking among university-level philology students at both the linguistic and content levels [Nkwetisama, 2011]. On this basis, the concept of green pedagogy can be an effective tool in shaping philology students not only as language learners, but also as environmentally conscious and socially active professionals.

M.Usama and S.Tarai's study showed that English lessons enriched with environmental topics significantly improved students' language skills, as well as their knowledge of sustainability and the SDGs. Integrating real-life sustainability topics into the language learning process not only increased students' motivation and helped them to understand the topic better, but also improved their critical thinking skills and language skills [Usama & Tarai, 2024].

Ibna Seraj Prodhan examines the integration of "green" technology into English language teaching and learning for a sustainable environment and explains that "green" pedagogy refers to environmentally-based language teaching. Environmental education is a meaningful language learning pedagogy used to raise students' awareness of environmental issues and their impact on both humans and animals [Ibna Seraj Prodhan, 2024].

According to Nur et al., the development of language education programs is based on language policy, content-based language instruction (CBI) and content-based language integrated instruction (CLIL). Content-based instruction makes students independent and active learners and is based on an ecological understanding of language. Content-based language instruction and content-based language instruction (CBI and CLIL) are similar in that students learn language and academic content at the same time. Language policymakers emphasize the need for changes in the curriculum and the need to pay attention to environmental issues. "Green" pedagogy is mainly based on three main areas [Nur et al., 2022].

This approach is consistent with the goals of UNESCO's Education for Sustainable Development (ESD), and develops in learners the competencies to make responsible decisions and support sustainable societies [UNESCO, 2017].

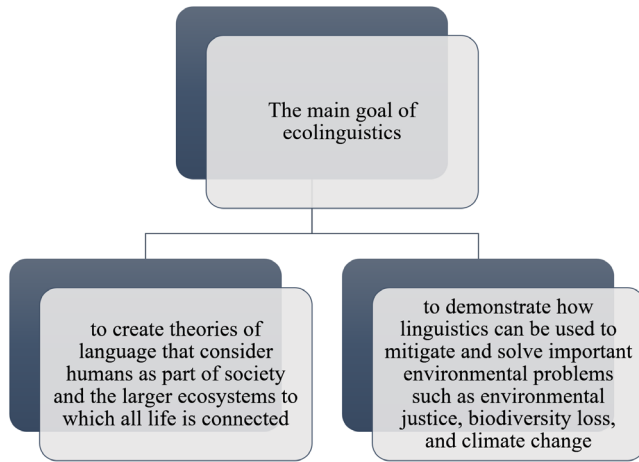
Several possible directions for the development of ecolinguistics can be distinguished:

- linguistic diversity (causes, functions, consequences);
- preservation of endangered and small languages;
- the relationship between cultural and biological diversity;
- search for ecological and non-ecological elements in the grammar of languages;
- analysis of texts that affect environmental problems;
- teaching environmental literacy [Pylaeva, 2011].

The International Association for Ecolinguistics defines ecolinguistics as follows: "The study of ecolinguistics focuses on the function of language in the relationships between humans, other animals, and nature [The International Ecolinguistics

Association, 2024; Mamatkulova, 2025] (See Figure 1):

**Figure 1.** The main goal of ecolinguistics



Below we discussed how to design an effective pedagogical framework aimed at building ecolinguistic competence in philology students. This model focuses on cultivating three key pillars: ecological awareness, critical environmental thinking, and the practical ability to analyze or produce English-language ecological discourse.

Below we analyze the reasons and descriptions given by a number of researchers and scholars for why environmental education should be integrated into foreign language lessons (see Table 1).

**Table 1.** Reasons for the integration of environmental education into foreign language lessons

Researchers	Reasons
A.Goatly [Goatly, 1996]	The main goal of combining environmental education with language teaching is to teach the practical application of the language and at the same time to ensure the implementation of various activities on environmental issues.
Y.C. Tang [Tang, 2009]	The goal of environmental education is to educate students of English as a foreign language about global environmental issues. Issues such as deforestation, climate change, pollution, food production, and biodiversity loss should be a core component of ELT lessons. This should be done at primary, secondary, and tertiary levels.
C.M. Nkwetisama [Nkwetisama, 2011]	English language teaching cannot be successful if students are unaware of global issues, including environmental threats. It is necessary to include environmental topics in the language teaching process.
M.Mliless and M.Larouz [Mliless & Larouz, 2018]	Environmental education (EE) educates students to be environmentally responsible by instilling the environmental values and conscious behaviors necessary to prevent environmental degradation.
S.Hauschild [Hauschild et al., 2012 ]	By incorporating environmental education into the language teaching process, students can be introduced to current issues, taught to create a healthy, sustainable world, and developed language skills.

A.A. Muldagaliyeva [Muldagaliyeva et al., 2017]	Environmental education is an integrative approach that can be implemented in various disciplines and professions. Language courses provide an effective opportunity to teach about environmental issues, develop dependence on nature, critical thinking, awareness and ecological sensitivity.
S.Al Karasneh [Al Karasneh et al., 2025]	In this era of increasing ecological crisis, education is an important tool for shaping sustainable thinking and developing a deep understanding of environmental issues among students.

What is a conceptual model in education? According to M.Ruth, a conceptual model is a scientific tool that visually represents information, factors, and their relationships in a particular system or process. It is often presented in the form of a scheme, diagram, map, or graphic image, revealing the interrelationships and functional relationships of the components of the process.

The main task of a conceptual model is to present complex information in a systematic, concise, and understandable way. At the same time, it allows researchers and students to understand, analyze, and interpret complex processes and phenomena more deeply. Conceptual models play an important methodological role in scientific research in forming a theoretical basis, clarifying the problem, and determining the direction of research. These models are used in almost all fields of science, and are widely used in such areas as natural sciences, social sciences, education, management, and architecture. In particular, in the field of education, conceptual models serve to identify the relationships between factors that ensure the effectiveness of the educational process [Ruth, 2024].

M.Milad's article "Applying the CREAM Strategy for Coaching Teaching Practices" emphasizes the need to develop teachers through coaching rather than controlling their performance. The study used the CREAM strategy and the GROW model (Goal, Reality, Options, Will) developed by Cottrell (2008) in conjunction with the teaching practices of 19 English language teachers. The results showed that this approach significantly increased teachers' creative thinking, self-analysis, effective teaching and motivation. The author recommends that the widespread implementation of the CREAM strategy in the educational process will help teachers develop as independent, active, and self-directed professionals [Milad, 2017].

A study conducted on Papuan students found that the CREAM strategy was highly effective in developing learning skills. According to the results of the study, the use of the strategy over two cycles increased students' time management skills by 36%, concentration by 64%, writing by 33%, reading skills by 41%, and exam preparation by 39%. This indicates that through the CREAM approach, students have the opportunity to analyze their activities, set priorities, develop independent learning and self-control skills [Ginting et al., 2020].

The concept that focuses on improving the ecolinguistic competencies of philology students was presented by A.Fox and C.Wogowitsch. The concept of "green pedagogy" put forward by the researchers is described as a six-stage methodological approach that serves to deeply embed the ideas of sustainability in education. The

unique aspect of this approach is that students not only learn about sustainability topics theoretically, but also have the opportunity to directly positively influence their environment [ Fox & Wogowitsch, 2021].

M. Yildirim and T. Aytan conducted a study on the issue of increasing educational effectiveness by integrating sustainable development principles in the language teaching process (i.e. Turkish as a foreign language). The authors interpret language teaching not only as the development of linguistic competence, but also as a means of forming environmental literacy and global citizenship awareness. The curriculum design approach was chosen as the research methodology, in which the STAR (Situation, Task, Action, Result) model was used as the main pedagogical tool. The results of the study show that integrating sustainability topics into the process of teaching Turkish as a foreign language based on the STAR model increases the motivation of learners, strengthens language competence, and develops environmental awareness and social responsibility [Yıldırım & Aytan, 2025].

During our research, we also developed a conceptual model based on the CREAM strategy. In this model, each stage of the educational process is inextricably linked to the study of language materials with ecological content, the organization of reflective analysis exercises, the implementation of creative tasks on ecological topics, ensuring active participation through communicative exercises, and the formation of ecological responsibility in students.

This research work allows us to scientifically substantiate the process of improving ecological culture in the philological education system, promoting the ideas of sustainable development, and forming ecological thinking through language. Also, the developed conceptual model determines the methodological foundations of the effective integration of the CREAM strategy in the educational process and serves as an innovative direction in the development of ecologically oriented communicative competence of philological students. In this context, we have defined ecolinguistic competence as follows. *“Ecolinguistic competence is the ability of a language learner to understand the relationship between language and the environment, to understand the role of language in forming values in relation to nature, and to use language consciously and responsibly to ensure ecological sustainability”*. The process of forming this competence requires students not only linguistic knowledge, but also reflective, creative, and motivational activity. For philologists, ecolinguistic competence includes not only understanding the meaning of language units in an ecological context, but also developing ecological thinking using language, and promoting ecological values. To effectively improve such competencies, it is important to use innovative, interactive, and learner-centered educational technologies.

The conceptual model we recommend is aimed at gradually improving ecolinguistic competence by integrating each component of the CREAM strategy into the philological educational process. This model includes practical areas such as the use of ecologically meaningful language materials in the educational process, the organization of reflective analysis exercises, the introduction of creative tasks, and the formation of ecological responsibility in students. In addition, the conceptual

model represents a systematic approach aimed at combining ecological thinking with linguistic thinking. At the heart of this model are the principles of the CREAM (Creative, Reflective, Effective, Active, and Motivation) strategy. The conceptual basis of the model is the formation of ecological awareness in students, the development of ecolinguistic competence through the analysis of ecologically meaningful language units, and their creative and reflective use. While the creative component encourages students to express environmental problems in a new way through language, the reflective component strengthens their personal attitude towards environmental values. The components of effectiveness and activeness encourage active participation in practical activities and communicative exercises, and motivation forms the need for sustainable learning in students. As a result, the conceptual model created on the basis of the CREAM strategy serves to develop the ecological consciousness of philological students, the ability to deeply understand the ecological connection between language and culture. Below, we provide summarised information about the components of the CREAM strategy and their role in the model (See Table 2):

*Table 2. Components of the CREAM Strategy and their role in the model*

<b>Component</b>	<b>Content</b>	<b>Function in the Model</b>	<b>Competencies to be improved in the student</b>
<b>Creative</b>	creative use of language units in ecological context, expressing environmental problems through language in a new way	guides the student to interpret environmental problems through language in a new way; activates linguo-creative thinking	ecological creativity, creation of creative discourse, innovative use of ecological language units
<b>Reflective</b>	personal analysis, evaluation, and reflection on ecological values, ideas, and ideologies	serves to deepen understanding of ecological discourse and strengthen ecological awareness	critical-reflective thinking, conscious attitude towards ecological values
<b>Effective</b>	application of acquired knowledge in practical situations, analysis of environmental texts and discourses, media and project work	integrates ecolinguistic knowledge into communicative activities; ensures practical effectiveness	ecological text analysis, functional-linguistic skills, practical competence
<b>Active</b>	active student participation in environmental discussions, projects, debates, and analysis processes	activates communicative interactivity; encourages an active position on environmental issues	communication competence, interactive participation, environmental responsibility
<b>Motivated</b>	to form an internal need, sustainable interest, and personal responsibility for studying environmental topics	ensures the sustainability of the ecological-linguistic learning process; psychological support for the cream strategy	strong intrinsic motivation, environmental awareness, need for sustainable learning

We have named the conceptual model for improving the ecolinguistic competence of philology students, based on the CREAM strategy, the “GREEN” model. Our conceptual model is presented as an integrative-didactic system aimed at developing and improving the ecolinguistic competence of philology students. This model includes three modules (Module 1): a coherent sample of educational

material or educational content; 2) a logically divided part of educational information, this part is logically integral and complete, and its assimilation can be controlled; 3) a specific process or law section presenting the fundamental concept of science, a group of interrelated concepts within a specific topic. Here: the logically divided part of educational information) includes: a guiding module, a methodological-basic module and a final module, and is characterized as an integrative framework aimed at the practical and gradual development of the ecolinguistic competence of philology students.

The first component of our model is the orientation module, which defines the conceptual-objective and organizational-methodological foundations of the educational process aimed at improving the ecolinguistic competence of philology students based on the CREAM strategy. This module defines the general direction of the model and systematically substantiates the pedagogical conditions that serve to develop ecolinguistic competence. Within the framework of the orientation module, the main goal of developing ecolinguistic competence, the tasks serving to achieve it, the didactic principles, and the organisational forms of organising the educational process were determined. The following tasks were set:

- improving ecological awareness and ecological thinking in philology students;
- integrating the ecological component into the content of English language education;
- determining the goals and objectives of education aimed at developing ecolinguistic competence;
- systematically introducing the creative, reflective, effective, active, and motivational components of the CREAM strategy into the educational process;
- to form a positive attitude towards the ideas of environmental responsibility and sustainable development in students;
- to create a motivational learning environment based on authentic texts, exercises and tasks with ecological content.

Also, within the framework of the orientation module, the current curriculum and syllabus of the English language were analysed, and the author's changes were made to the system of topics, teaching materials and exercises in order to incorporate ecological content into the educational process. In particular, authentic texts, communicative and interactive exercises, project-based tasks covering environmental problems, environmental protection and sustainable development issues were developed and introduced into the educational process. We have determined the principles for the implementation of a number of didactic methodological base modules. In particular:

- the principle of learner-centeredness – taking into account the student's personal experience, needs and reflection;
- the principle of integrativity – the integral connection of language and ecological content;
- the principle of communication – orientation towards the creation of dialogue and discourse on ecological topics;
- the principle of activeness and creativity – ensuring the active, independent

and creative participation of the student;

- the principle of reflectivity – developing a conscious attitude towards ecological values and discourse;
- the principle of motivational orientation – forming a sustainable interest in studying ecological problems;
- the principle of practice orientation – applying the acquired knowledge in real communicative and ecological situations.

In addition to the above-mentioned principles, the “green principles” were taken into account as well [Barber et al., 2022].

As a result, the orientation module helped to form the normative-didactic basis and motivational educational environment necessary for the effective implementation of the methodological-base module of the GREEN model.

The main part of the model is the methodological-base module, which consists of five main components, each of which serves to form the student’s environmental awareness and express the ideas of sustainability through language:

#### **The GREEN Model**

**Grow** awareness of language and ecology;

**Reflect** on discourse and environmental ideologies;

**Engage** critically with texts;

**Envision** sustainable alternatives;

**Narrate** new eco-friendly discourses.

The G (Grow awareness) component aims to expand awareness in students through understanding the connection between language and ecology, understanding ecological lexicon and discourse. R (Reflect) strengthens attitudes towards ecological values through analysis of ecological discourse and ideologies and personal reflection. The E (Engage critically) component encourages students to work critically with environmental texts, thereby strengthening their skills in understanding ecological thinking and discourse. E (Envision alternatives) develops creative thinking by creating new ecological approaches and sustainable solutions. N (Narrate eco-friendly discourses) forms the ability to express ecological ideas through text and discourse, to create new eco-discourses. As a result, the GREEN model integrates the creative, reflective, effective, active and motivational components of the CREAM strategy into practical stages, ensuring the comprehensive development of ecological awareness, critical thinking and ecolinguistic competence in philology students. In short, the GREEN model, developed on the basis of the CREAM strategy in English lessons, provided the following results:

- strengthened the student’s ecological consciousness;
- provided a deep understanding of the connection between language and ecology;
- developed skills in creating and analyzing ecological discourse;
- increased the ability to linguistically express the ideas of sustainable development.

In addition, the methodological-basic module includes four interrelated stages:

cognitive, analytical, integrative-practical and monitoring stages. In the structure of the model, the cognitive stage is distinguished, which serves, first of all, to awaken environmental consciousness and improve students' environmental awareness in foreign language lessons. The main goal of the cognitive stage is to form basic knowledge, concepts and terminology related to ecology in students. At this stage, students get acquainted with texts in English on topics such as environmental problems, environmental protection, sustainable development, and climate change. During the lesson, activities such as reading and listening to authentic texts with ecological content, mastering basic environmental terms, and forming initial concepts on environmental problems are carried out. As a result, students develop a base of environmental knowledge and form an initial conscious attitude towards environmental issues.

The next analytical stage is aimed at in-depth analysis, comparison and evaluation of previously acquired environmental knowledge of students. At this stage, special attention is paid to understanding the interrelationship between the causes of environmental problems and their consequences. That is, in this process, students analytically study texts that cover environmental problems, compare the ecological situation of different countries and localities, and express a well-founded critical attitude to existing problems. It also involves developing the skills of students to express their thoughts logically and based on evidence by participating in discussions and debates in English.

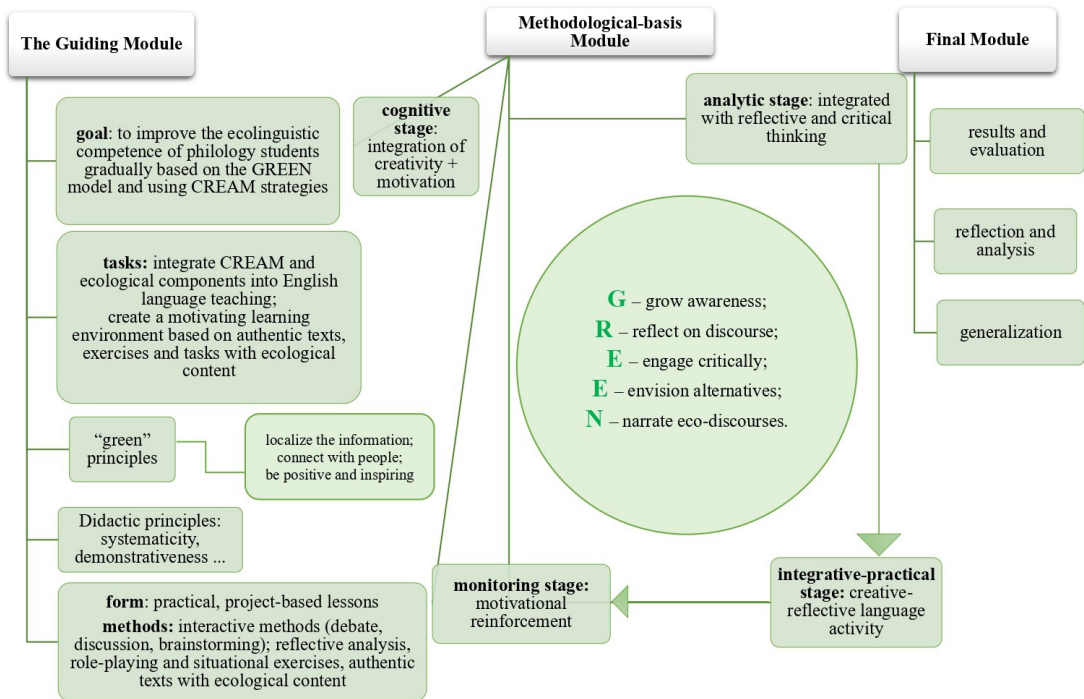
The integrative-practical stage, on the other hand, combines creative and reflective activities and is aimed at helping students create environmental texts, reinterpreting existing texts, and strengthening their personal attitudes towards environmental values. The proposed system of exercises is aimed at the comprehensive development of receptive, interactive and productive speech activities in accordance with the requirements of the communicative approach and the Common European Framework of Reference for Languages (CEFR). As a result, students, along with linguistic and communicative competencies, also develop axiological competence based on ecological values. According to the definition of B.Siddikov, axiological competence is a person's ability to make decisions based on values in social and professional activities, which is a complex psychological and pedagogical system consisting of cognitive, affective and behavioral-practical components [Siddiqov, 2025]. At the same time, knowledge of environmental content is systematically and coherently integrated with the process of learning English. At this stage, students' linguistic, communicative and intercultural competencies are developed through tasks in environmental content. In this process, students will have the opportunity to apply their environmental knowledge and skills in real-life situations, improve their skills in expressing environmental issues in English through the development of environmental projects, the creation of materials in English aimed at environmental advocacy, participation in environmental campaigns or social initiatives, etc. In addition, role-playing games and interactive exercises serve to increase the communicative activity of students, allowing them to actively participate in the process of dialogue on environmental problems. As a result,

this stage, combining environmental awareness with language competencies, creates a solid pedagogical foundation for the development of environmental responsibility and active citizenship in students.

Monitoring stage – assesses and reflects on students’ environmental awareness. At this stage, changes in students’ knowledge, skills and attitudes are analyzed. At this stage, not only teachers evaluate students, but also students, together with teachers, evaluate their own activities, express changes in their views on environmental problems, and determine areas of future environmental activity. As a result, an environmentally conscious, environmentally responsible specialist is formed who can freely express his/her opinion on environmental problems in English. The third component of the model – the final module – is described as a result block aimed at summarizing, evaluating and analyzing the final results of the process of developing ecolinguistic competence of philology students. Through this module, the effectiveness of the educational process organised on the basis of the GREEN model was determined, and the practical results of the CREAM strategy were evaluated. Within the framework of the final module, assessment criteria were developed based on the cognitive, functional and axiological components of the improved ecolinguistic competence of philology students. During the assessment process, the level of formation of students’ knowledge of ecology, skills in analyzing and creating ecological discourse, as well as their conscious attitude towards ecological values was determined.

In this module, the results of students’ self-assessment and reflection were summarized, and qualitative changes that occurred during the educational process were analyzed. As a result, the educational process organized on the basis of the GREEN model was characterized by ensuring the comprehensive development of ecological awareness, critical thinking, and ecolinguistic competence in philological students, which allows them to freely and reasonably express environmental issues in English.

The guiding, methodological-basic and final modules of the GREEN model are inextricably linked and form a single didactic system. While the guiding module defines the target and organizational-methodological foundations of the educational process, the methodological-basic module provides for the gradual formation of ecolinguistic competence on the basis of these foundations. The final module serves to determine, evaluate and generalize the effectiveness of the implemented pedagogical process. The consistent and systematic combination of these modules is an important factor ensuring the pedagogical effectiveness of the GREEN model (See Figure 2).

*Figure 2. GREEN model based on the CREAM strategy*

## DISCUSSION

The results of the study showed that the methodological approach based on the CREAM strategy has effective didactic potential in the formation of ecolinguistic competence of philology students. The developed GREEN conceptual model allows for the systematic integration of ecological content into the language learning process and serves to develop students’ skills in ecological awareness, critical thinking, and creation of ecological discourse.

An important aspect of the model developed within the framework of the study is that it is not limited to theoretical mastery of ecological knowledge, but also involves its practical application through communicative activities. The components of the GREEN model, Grow awareness, Reflect, Engage critically, Envision alternatives, and Narrate eco-discourses serve to develop students’ ability to analyze environmental problems, approach them critically, and express ideas about sustainable development through language.

Also, the developed system of exercises, integrated with the cognitive model of Bloom’s taxonomy and the components of the CREAM strategy, allows for the gradual development of students’ knowledge, skills, and competencies. Cognitive exercises serve to master ecological concepts and terminology, while interactive exercises develop the skills of analyzing and discussing discourses with ecological content. Transformative exercises help students develop creative thinking and an independent position on environmental issues.

An important advantage of this methodological approach is that, by integrating language education with environmental education, it serves to develop not only students' linguistic and communicative competencies, but also axiological competencies based on ecological values. However, there are some limitations to the study. In particular, the developed model and system of exercises are intended mainly for students of philological studies, and additional methodological adaptation may be required for its application in other educational areas. In addition, experimental studies are necessary to further determine the effectiveness of the model.

At the same time, the results of the study show that a methodological approach based on the CREAM strategy can be an effective tool for integrating ecological content in foreign language teaching. This approach serves to develop students' environmental awareness, create environmental discourse, and form a responsible communicative position on environmental issues.

### CONCLUSION

In conclusion, in today's globalization, the development of ecolinguistic competence of philological students is an urgent task that serves not only the education system, but also the ecological sustainability of society. During the study, it was found that the GREEN model, developed on the basis of the CREAM strategy, is an effective methodological basis that allows for the deep integration of ecological ideas into the philological educational process. The components of the CREAM strategy – creativity, reflective, effectiveness, activity and motivation – consistently form students' skills in understanding, analyzing, applying and creating creative discourse of ecologically meaningful language units. The GREEN model, on the other hand, gradually applies this strategy to the practical process, directing students to expand their ecological awareness, critically analyze ecological discourse, design sustainable alternatives and create new eco-discourses. The results of the study showed that the CREAM strategy is highly effective in developing ecological culture, incorporating sustainable development ideas into the educational process and forming ecological thinking through language. Thus, the developed conceptual model is of practical importance as an innovative approach to developing ecologically oriented linguistic and communicative competence of philological students and creates a solid theoretical and methodological foundation for further improving ecolinguistic education.

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