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KEY STEPS IN IMPLEMENTATION OF THE SIOP MODEL IN THE PROCESS OF TEACHING FOREIGN LANGUAGES

У публікації викладено ключові етапи реалізації моделі SIOP у викладанні іноземних мов. Модель SIOP – це науково обґрунтований підхід, який забезпечує структуроване та сприятливе навчальне середовище для тих, хто вивчає англійську мову, з акцентом на одночасне викладання предметного контенту та мови. Модель SIOP є гнучкою і може бути адаптована до потреб окремих класів та учнів.

Ключові слова: *Sheltered Instruction Observation Protocol, модель SIOP, викладання іноземних мов.*

The publication outlines the key steps in implementing the Sheltered Instruction Observation Protocol (SIOP) model for teaching foreign languages. The SIOP model is an evidence-based approach that provides a structured and supportive learning environment for ELLs, with a focus on teaching content and language simultaneously. The SIOP model is flexible and can be adapted to fit the needs of individual classrooms and students.

Keywords: *Sheltered Instruction Observation Protocol, SIOP model, foreign language teaching.*

As the world becomes increasingly diverse, teachers are faced with the challenge of meeting the needs of students with a variety of language backgrounds and abilities. In particular, English language learners (ELLs) come across unique obstacles in the classroom that require specialized instruction to ensure they are able to access and understand the curriculum. One evidence-based approach that has gained widespread recognition and adoption is the Sheltered Instruction Observation Protocol (SIOP) model. Developed in the United States in the 1990s, the SIOP model provides a framework for planning and delivering content-area instruction that is accessible and meaningful for English learners. By understanding the SIOP model, teachers can gain the knowledge and tools needed to effectively support their diverse student populations and ensure equitable access to learning opportunities.

The SIOP model is designed to provide ELLs with a structured and supportive learning environment that takes into account their language proficiency level and cultural background. The SIOP model focuses on teaching content and language simultaneously, providing students with opportunities to practice new concepts and language in a meaningful way.

The SIOP model also includes a protocol or observation tool that allows teachers to evaluate their instruction and make adjustments as needed to better support ELLs. This observation protocol includes a set of criteria and a rating scale that teachers use to evaluate different aspects of their instruction, such as the use of visuals, the level of student engagement, and the level of language support provided.

The implementation of SIOP involves the following steps:

1. Lesson Preparation: teachers plan and prepare their lessons, taking into consideration the language proficiency level of their students and the specific language and content objectives of the lesson.
2. Building Background: teachers provide students with the background knowledge and vocabulary they need to understand the content of the lesson.
3. Comprehensible Input: teachers present new information in a way that is understandable to students, using visuals, realia, graphic organizers, and other strategies to support student understanding.
4. Strategies: teachers use a variety of strategies to help students understand and process new information, such as summarizing, paraphrasing, and questioning.
5. Interaction: teachers provide opportunities for students to interact with one another and with the teacher in order to practice new language and content.
6. Practice/Application: teachers provide opportunities for students to practice and apply new language and content in a meaningful way.
7. Lesson Delivery: teachers deliver the lesson, using a variety of teaching methods and strategies to support student understanding.
8. Review & Assessment: teachers review and assess student understanding of new language and content, and use the information to make adjustments to their instruction as needed.

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Overall, the SIOP model is designed to provide ELLs with a structured and supportive learning environment that helps them to acquire the language and content knowledge they need to be successful. It is important to note that SIOP is not a one-size-fits-all solution and each teacher need to adapt it to their own classroom context and students' needs. It is a flexible model that can be adjusted to fit the unique needs and characteristics of the students in the classroom, and it works best when it is used in conjunction with other language instruction methods and teaching strategies.

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ADVANTAGES AND DISADVANTAGES OF USING BIODEGRADABLE POLYETHYLENE INSTEAD OF CONVENTIONAL PLASTIC FOR AGRO-INDUSTRIAL PURPOSES
(ПЕРЕВАГИ ТА НЕДОЛІКИ ВИКОРИСТАННЯ БІОРОЗКЛАДНОГО ПОЛІЕТИЛЕНУ ЗАМІСТЬ ЗВИЧАЙНОГО ПЛАСТИКУ ДЛЯ АГРОНОМІЧНИХ ПОТРЕБ)

Стаття присвячена вивченню особливостей хімічного складу та використання біополіетиленової плівки для сільськогосподарських потреб замість звичайної плівки та агроволокна, окресленню головних переваг та недоліків використання біоплівки.

Ключові слова: *біоплівка, біорозкладання, сільськогосподарські потреби, поліетилен, біополіетилен.*

The article is devoted to the study of the features of the chemical composition and the use of biopolyethylene film for agricultural needs instead of the usual film and agrofiber, to outline the main advantages and disadvantages of the use of biofilm.

Key words: *biofilm, biodegradation, agricultural needs, polyethylene, biopolyethylene.*

The purpose of the work is to highlight the main advantages and disadvantages of using biopolyethylene on agricultural fields instead of conventional types of plastic or agrofiber.

Plastic film is used to protect crops and inhibit the growth of weeds at agriculture enterprises. This is a very expensive process and it creates a huge amount of contaminated waste that needs to be disposed. However, oxobiodegradable polyethylene film can be programmed in the production for decomposition shortly after harvest.

Polyethylene biopackages differ from conventional packages in that they contain oxobiodegradable impurity d2W. This impurity is a catalyst superconcentrate that accelerates the decomposition of polyethylene in the environment.

The process of decomposition of polyethylene with the addition of d2W is divided into 3 stages:

• Step 1: d2W additive is added to the base polymer resin during the manufacturing process.

• Step 2: d2W breaks down molecular chains so that at the end of its predetermined service life, polyethylene begins to decompose in the presence of oxygen as a result of an oxidation process that is accelerated by light, heat, and pressure.