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Journal of Social Sciences and Humanities Research Fundamentals

TYPE Original Research
PAGE NO. 17-20
DOI 10.55640/jsshrf-05-05-05

Organizing the Topic Of "Soil Salinization, Erosion and Measures to Combat It", Which Is Considered a Geoecological Problem, Using The "Saw" Method of Cooperative Learning

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OPEN ACCESS

SUBMITED 13 March 2025
ACCEPTED 09 April 2025
PUBLISHED 11 May 2025
VOLUME Vol.05 Issue05 2025

Abstract: This article involves the teaching of the topic of soil salinization, erosion and measures to combat it, which is included in the series of geoecological topics, using the "Saw" method of collaborative teaching, and reveals the features of this method aimed at improving the quality of education.

Keywords: Geoecology, arra method, soil, salinization, erosion, module, assignment.

Introduction: It is known that organizing topics based on new innovative technologies helps to improve the quality of education. The use of the "Saw" method in pedagogical practice is of great importance. is called. In this method, small groups consist of 6-8 students. During the lesson, the topic to be studied is divided into logically completed parts (blocks or modules). For each part, educational tasks are created that students must complete. Each group of students completes one of these tasks and becomes an "expert" in this part. Then the groups are reorganized. Each part (block or module) in these groups must have an "expert", these "experts" explain the knowledge they have acquired to their companions in turn, just like the teeth of a "saw" come one after another. In these groups, the educational material is reworked in a logical sequence [4; - p. 223].

It should be noted that in this lesson, students are divided into two groups. The first group is the "expert" training group. Since the training material on this topic

consists of four logically completed thought-provoking parts, the 25 students participating in the lesson, say, are divided into four equal “expert” groups of 8 students before the lesson begins, using 4 different colored cards. They complete their respective training tasks and become “experts” on this part.

The second group is the “experts” meeting group. Each of the colored cards has numbers from 1 to 8 written on the back, and the sum of the numbers on all the colored cards must equal the number of students in the practical room.

The “Experts” meeting is organized into 8 groups based on the numbers on the back of the cards, each group consisting of 4 students with the same number of cards in 4 different colors. It is important to note that each section (block or module) in these groups must have an “expert”.

At this meeting, the “experts” take turns explaining the knowledge they have acquired to their fellow students, just like the teeth of a “saw” come one after another. In these groups, 4 parts of the educational material are reworked in a logical sequence. Then, the tasks compiled on the educational material are brought into a whole, and a question-and-answer session and discussion are held between the groups. Students try to observe and write down the necessary information in a notebook, realizing that the only way to thoroughly acquire knowledge is to listen carefully to the information of their partner. Here, the teacher acts only as an organizer, organizing the independent work of students. At the end of the lesson, the teacher determines the level of knowledge of students using test tasks. The growth in the quality of knowledge of each student is taken into account[4; - p. 223].

This “saw” method was partially modified by Professor R. Savin and called it “saw-2”. The “saw-2” method has now become a small group of 4-5 students. All members work on a single task based on the educational material. Within the group, students divide the tasks into parts and take turns. Each student, having mastered his or her part, becomes an “expert”. At the end of the session, the “experts” from each small group meet in the reorganized small groups. Students’ knowledge is monitored and assessed individually using test questions. The scores of the group members are summed up, and the group with the highest score is declared the winner.

Thus, group members simultaneously perform two tasks:

1. Academic task - to achieve the goal set by the educational tasks through knowledge and creative research;

2. Socio-psychological task - to have a high culture of communication during the lesson, to maintain good morals. The student monitors the high level of completion of both tasks.

In general, collaborative learning methods have the following five characteristics:

1. Students work together on a common task or learning activity, which is best learned through group work.

2. Students work together in small groups of 2-5 members.

3. Students follow socially accepted behavioral criteria developed by the group to achieve a common task or to carry out a learning activity.

4. Students are positive and independent. The organization of work on a common task or learning activity is designed to take into account the need for students to help each other.

5. Students are personally responsible and accountable for the results of their work, or in other words, for studying, learning [1; - pp.964-971].

Theoretical bases and methodology. Subject of training: Soil salinization, erosion and countermeasures.

Biodiversity, climate change, the sustainable use of natural resources, health, cultural heritage, multiculturalism, and global welfare are important contents in the planning of a sustainable future. The effects of students’ own behavior should be discussed and sustainable actions practiced in local surroundings. An important goal is to learn negotiation, problem solving and decision-making skills through discussions about ecological, social, economic, and ethical principles concerning local and Educ. Sci. 2017, 7, 1 4 of 19 global responsibility in their own life. Through memorable, experiential, and active processes, students learn to discuss their own value selection and to evaluate phenomena and sources of information critically. According to the World Bank [5; p.1.], “[t]he achievement of sustained and equitable development remains the greatest challenge facing the human race.” Recently, the sustainable development goals represented a focus on the role of education in achieving a more humane world [6; -pp. 594–601.]: “education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture’s contribution to sustainable development.” This requires an ecological or participatory worldview [2; -pp. 1–14.]. It is important to understand the interlinkages between the three pillars of sustainable development (economic growth, social development, and environmental protection) and

the consequences of human choices. It means that people's ways of thinking should change toward more holistic, systemic and integrative modes [3; -pp. 43–62.].

There are various names for the zigzag technique: Boomerang, Snake's Footprint, Openwork Saw, Fine Saw, 6x6x6, 7x7. We will create a training plan using the "Saw" method.

Educational goal of the lesson: To familiarize students with the causes of soil erosion and factors leading to erosion, modern methods of stabilizing the humus layer in the soil, i.e. humus.

Educational goal of the lesson: To broaden the scientific outlook of students by familiarizing them with wind erosion, water erosion and anthropogenic types of erosion, soil pollution with pesticides, measures to restore the humus layer in the soil, to form a positive attitude towards soil ecology, and to provide environmental education and upbringing.

The developmental goal of the lesson: To increase students' knowledge about soil salinization, erosion, and soil contamination by pesticides in the territory of living Uzbekistan, to develop skills in independent work on the textbook.

Preparation of visual materials during the lesson: Soil map, videos on soil salinization and erosion, visual aids with factors causing soil degradation.

Technology used during the session: collaborative learning technology ("saw" method).

Course of the lesson:

I. Organizational part

II. Control and evaluation of the knowledge acquired by students on the previous assignment.

III. Introducing students to the topic, purpose, and course of the lesson and directing their activities to the fulfillment of educational tasks.

IV. Studying a new assignment

a) achieving high-quality fulfillment of educational tasks set by "experts".

V. Organizing a question-and-answer session, an educational debate between teams on the new assignment.

VI. Control and evaluation of students' knowledge using test questions.

VII. Processing and finalizing the new assignment.

VIII. Assigning homework.

So, there are several benefits to collaborative learning:

- Having a network of experience/expertise from other agencies that you can tap into.
- Gaining exposure to other agencies and their policies and procedures.
- Building trust as you are exposed to others and others are exposed to you.
- Improving lines of communication as a result of information sharing.
- Garnering creative resource sharing/borrowing opportunities (especially when filling critical vacancies).
- Increasing knowledge management.
- Building relationships.
- What's required of you
- Start with a plan. Identify the skills needed for your desired leadership position (director, chief, executive, etc.).

Research appropriate agencies, ones that interest you and will help you to develop resume enhancing skills, executive core qualifications (ECQs), and leadership competencies.

- Draft your leadership development plan and have people in your inner circle critique it prior to sharing with your immediate leadership.
- Incorporate detail/miscellaneous assignments and volunteer for cross-functional workgroups and teams.
- Be your own cheerleader, promoting your cross-functional/interagency skillset whenever and wherever possible.
- Be visible.
- Develop your "brand" — what you want to be known for.
- Prepare your resumes/ECQ narratives for up to five positions.
- Monitor, adjust, revise, revamp.

Most importantly, volunteer for assignments that expose you to leaders with whom you should network and seek mentorship [7].

CONCLUSION

In this technology, when determining the quality of students' mastery of knowledge, they are not compared with each other, but the daily result of each student is compared with the previously achieved result. Only then, realizing that the result achieved during the training will benefit the team, students will feel responsible and strive to study more, master knowledge, skills and competencies thoroughly.

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