The OSCAR PUBLISHING Services
American Journal of Philological Sciences

VOLUME Vol.05 Issue 03 2025
PAGE NO. 84-90
DOI 10.37547/ajps/Volume05Issue03-22

Use of Local Pedagogical Technologies in Teaching Geography

Amonov Kholmuhammad Normurotovich

Doctor of Pedagogical Sciences (DSc), Head of the Department of Quality Control of Education at the National Institute of Pop Art named after Botir Zakirov under the State Conservatory of Uzbekistan

Received: 27 January 2025; **Accepted:** 16 February 2025; **Published:** 21 March 2025

Abstract: The article describes the concept of local technologies, the classification and definition of local technologies, and how to use local technologies in geography lessons.

Keywords: Lokal, Education Techology, Case study, Insert, Clestur, Venn Diagram, Brainstorming, Small Group Work.

Introduction: In order to activate students' cognitive activity in the study of geography, it is advisable to identify, systematize, monitor and evaluate the knowledge, skills and abities acquired by students in the course, as well as the use of local technologies in the study of a new topic.

Use of local pedagogical tehnologies in teaching geography "Case study", "Insert", "Cluster", "Venn diagram", "Brainstoring", "Working in small groups", "Chain of terms", "Term sheet", quisk games and various forms of game exercises are recommended.

The use of Case study in the teaching of problematic issues in the content of the geography course is highly effective.

"Cases" – case studies are derved from English and mean process or situation.

Initially, this technology was used in the training of business and entrepreneurs, and based on the content of the current subject, educational discussions are organized to create and solve problem situations on external and internal, objective and subjective factors of natural processes.

To use the case in the edicational process, the teacher:

• Identify problematic topics in the content of the program, create problem-solving tasks to teach these topics;

• Determine whether the problem-solving tasks will be organized individually or in small groups of students according to the level of difficulty;

• Plan ways to engage students' learning activities in solving these problems and communicating through learning discussions;

• Provide a final opinion in a learning discussion organized on the basis of problematic questions and assignments.

The concerts of the geographical crust which are in the content of the program, are led in teaching geography, as well as can be used in the teaching of the controversial 5th grade textbook "Earth – a planet in the solar system".

Geographical distations, which require pisture interpretation, play an important role in teaching geography, and studens have the opportunity to use the Case study to identify objest and connections betwenn objects.

The case study in organized on the basis of the following stages:

Phase I. Forming small groups of an equal number of students.

Phase II. Distribute the learning tasks to small groups, consisting of problem-solving questions designed to explore a specific process, and introduce them to the didactic purpose of the task.

Phase III. Focusing students' learning activities on solving learning problems. Phase IV. Listening to students' information on problem solving.

Phase V. Conducting study debates and discussions between small groups.

Phase VI. To draw a general conclusion.

While "Case Study" is used, students apply their previously acquired knowledge in new situations, expand and deepen their knowledge, master the methods of mental activity, increase mental development and professional training as an individual.

Organizing students' learning activities in this way allows them to structure their creative activities. It is recommended to use the insert on topics that are intended to study only factual material in the program content.

Insert is a pedagogical technology at the local level, which is used by students to understand the main idea and factual material in the curriculum.

To develop students' skills in using insert, they will be given learning materials and a special table. Students are encouraged to review each paragraph and mark it on a special table using specific symbols.

If the information in the paragraph corresponds to the knowledge acquired so far, "I know" –K, if the information is clear and new, then "I agree" +, if the information does not correspond to the knowledge acquired by studens, then "Need to learn"-, If you the students have difficulty mastering, then "I do not understand"-? puts the mark.

A special table used in the insert

Paragraphs №	**"I know" – K**	**"I approve" +**	**"Need to learm"-**	**"I don't understand" -?**
1.				
2.				
3.				
4 and so on.				

The following requirements must be met when using Insert in the educational progress:

Students are divided into small groups, but through the insert tool, each student first works individually and completes the table, comparing their ideas after the group members have completed the work within the allotted time;

Ensuring that the signs of the small group members in the table are the same through a learning debate, i.e., achieving uniformity across the next two columns in the table;

The teacher should organize a learning contest based on the questions and assignments based on the teaching material and the signs of the small group members in the table.

The advantage of working with the insert is that the information provided by the teacher to fill in the gaps in knowledge, to fill in the gaps in the knowledge of the students', first among the members of the small group, and then witch each other in small groups.

The function of the source of information in the pedagogical activity of the teacher using the insert is rather reduced, and the functions of management and control of students' cognitive activity are increased.

Therefore, the teacher should carefully plan and implement these issues.

In teaching geography, the use of clusters plays an important role in order to systematize and consolidate the knowledge acquired by students'.

Cluster - means "tree" in English.

This local technology paves the way for the development of analytical-critical thinking skills by enabling students to understand the interrelationships between ideas, theories, laws, and concerts that they have been mastered and being learned.

Creating a cluster is done in the following order:

A specific idea of the content of the geography course is written in the middle of the board or paper;

The laws related to this idea, the interrelated status of

the concerts are determined by an indicator, then the factual data of these laws and concepts are written graphically and a network is formed. A conclusion is drawn about the connections between the previously studied topic and the studied topic.

In the lessons in which the cluster is used, students are divided into equal number of small groups and explained the didactic purpose and order of the assignment.

Topic: “Earth - a planet in the solar system”.

The Earth is crusted like other planets in the solar system. What does an astronaut observe from space? He sees the earth surrounded by air on all sides and clouds floating in the air shell. The Earth’s sphere of air the atmosphere.

He also sees that the poles of the earth are surrounded by very large white spots- ice and snow, and a very large area is occupied by water –the oceans and seas.

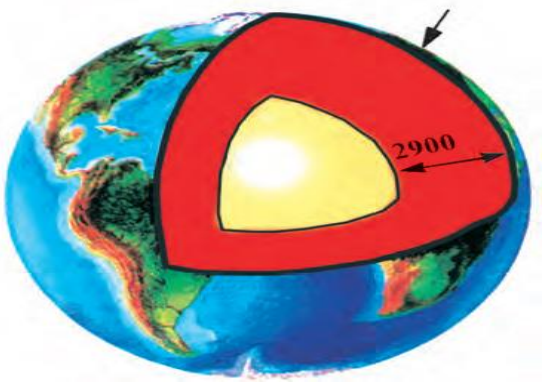
Countless lakes and rivers can be seen on land.

These are the earth’s water crust - the hydrosphere.

On land, there are forests, deserts, farms, gardens, towns and villages. There are hard rocks under forests, fields, towns and villages, deserts and oceans which form the earth’s crust. The crust is the hardest crust. All living things, plants, and the environment in which they live are collectively called the biosphere. The outer crust of the earth is better studied. But we know very little about its deer, inner part. The interior of the earth cannot be seen direktly, thet means, it cannot be explored by entering it.

The interior of the Earth is roughly studied by studying the substances released when volcanoes erupt, depending on the propagation characteristics of the earthquake waves. According to scientists, there is a nucleus (Earth’s core) in the central past of the earth. Its diameter is about 7000 km. The core is surrounded by a shell called the mantle. Its thickness is 2900km. The mantle is covered by the Earth’s crust. It is the hardest of the Earth’s crust, reaching a thickness of 5 km at the bottom of the oceans and 80 km at the foot of high mountains. Scientists speculate that the mantle is made up of magnesium, iron and lead. The temperature in it is 2000 0 C and higher [1.b. 39-40].

Scientists have found that the deeper the ground, the higher the temperature rises to 33 0 C every 1,000 m. Hence, at a depth of 50 km, the temperature reaches 1500 0 C. The temperature in the lower parts of the mantle and in the core increases even more. At such a high temperature, the rock had to be melted, that is, in a liquid state. But this is not the case. Because the pressure at those depths is so great. For example, at a depth of 100 km, the pressure is 13,000 times greater than on the surface, that means, it presses 13 tons of force on a surface 1 cm long and 1 cm wide. Therefore, the rocks in the mantle and core are assumed to be in a solid state.



The internal structure of the earth Scientists predict:

The average crust thickness is 40 km,

Earth’s mantle is 2900 km,

The outer part of the nucleus is 2080 km,

The inner part of the core is 1280 km,

The temperature in the core is 4000 0 C.

We have less information about the Earth’s core. We only know that its radius is 3500 km and the temperature is around 4000 0 C. Studying the internal structure of the earth helps a person to find answers to many questions necessary for his life. For example, are there enough minerals? Why an earthquake, can I predict it? Did the continents shift? Finding answers to questions like why a volcano erupts is important.

The lithosphere is the hard crust of the Earth. The Greek lithos means stone, sphaira means ball, or

tortoise. The lithosphere includes the crust and the upper part of the mantle.

The earth's crust consists of three layers of rock. The first floor will be mostly sedimentary rocks. They are formed by the subsidence of rocks on land and in water. They are clay, limestone, sand, sandstone, chalk rocks, lying in layers. These layers are like a book about the nature of the earth in the past. By studying these layers, geologists can learn what nature has been like on earth for thousands and millions of years. If you look at a piece of chalk or limestone under a microscope, you will know

that it is entirely the shells and bones of tiny animals.

They are ancient plants and animals that lived in the water millions of years ago, as well as remnants of coal and oil.

The second floor is made of granite. Granite is a magmatic rock. It is formed by

the penetration and cooling of magma between the layers of the earth. Magma can be compared to boiling, burning mud. It cools and turns into granite.

Below the granite layer is a basalt layer. Basalt came out of the pit. It is heavier than granite and contains iron, magnesium and calcium. Granite and basalt are igneous rosks. The crust is not the same under the continents and under the ocean.

On the continents, the crust is three layers as seen above. Under the oceans are two floors. That is, it consist only of sedimentary rosk layers and basalt.

The hard crust of the earth is not solid, but consists of individual large pieces - slabs.

These pieces are separated from each other by deer cracks and fissures.

Fragments of the crust slide in different directions over the liquid rock layer of the mantle. Where the plates slide in opposite directions collide, the earth's crust bends to form arched islands, mountains, and marginal ocean basins. Examples include the Andes, the Japanese islands, and the Mariana Trench.

Where the lithosphere plates separate or collide, they are very mobile, with frequent earthquakes. Many extinct volcanoes are located here. Such areas form seismic zones (Greek seismos - vibration) for thousands of kilometers. At this point, it is useful to compare the maps of the "Movement of lithosphere plates" and "Earthquake and the main zones of volcanoes" from the atlas. It will then be possible to find out where most volcanoes and earthquakes occur at the junction of lithosphere plates. The largest of these are the Pacific Ring of Fire and the Alpine-Himalayan Seismic Zone.

Methods of teaching the topic of the internal structure of the earth

The technologies used at the local level in teaching the topic of "Internal structure of the earth", that means, the homework in a particular part of the lesson, the technologies used in the consolidation of the newly studied topic can be used.

These include Keys, Insert, Cluster, Brainstorming, Venn Diagram, Small Group Work, Chain of Terms, Terminology Sheet, quick games, various forms of game exercises, and etc.

It is recommended to use the insert on topics thet are intended to study only factual material in the program content.

To develop students' skills in using insert, they will be given learning materials and a special table. Students are encouraged to review each paragraph and mark it on a special table using specific symbols. If the information in the paragraph correspondes to the knowledge acquired so far, "I khow" – B, if the information is clear and new, then "I agree" +, if the information does not correspond to the knowledge acquired by students, then "Should learn" -, students If you have difficulty mastering, then "I don't understand" -? puts the mark. Below is the insert table.

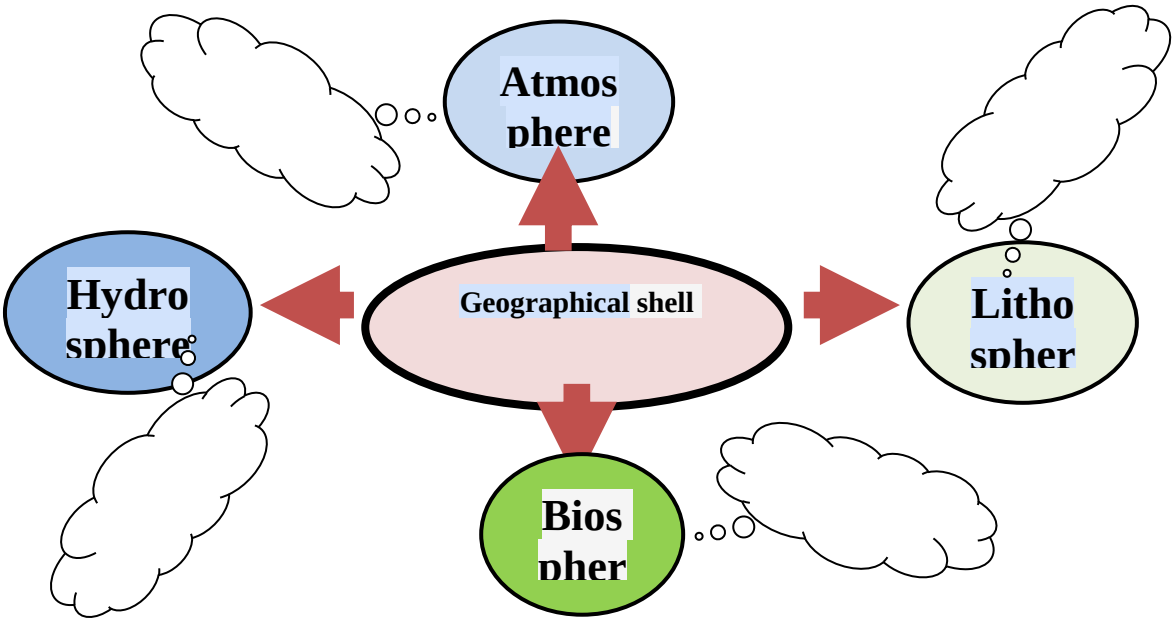
Paragraphs №	**"I know" – K**	**"I approve" +**	**"Need to learm"-**	**"I don't understand" -?**
1.The thickness of the crust is moderate				
2. Earth's mantle				
3. The outer part of the nucleus				
4. The inner of the				

nucleus				
5. The temperature in the core				

The advantage of using an insert in the classroom is that the information provided by the teacher to fili in the gars in the knowledge of students, first of all between small group members, and then with small groups, to fili in the gaps in their knowledge.

The use of clusters plays an important role in geography lessons in order to systematize and consolidate the knowledge acquired by students. (Cluster-link) is the way to create an information mar-gather ideas around some key factor to centralize and define the essence of the whole structure. Accelerates the activation of knowledge, helps to freely and openly engage new interconnected ideas on the topic in the thought process.

This local technology paves the way for the development of analytical-critical thinking skills by enabling students to understand the connections between ideas, laws, and concerts that are assimilated and assimilated, and to understand their interdependence. The cluster is formed in the following order: a specific idea in the content of the studied science course is written in the middle of the board or paper, then the concerts related to this idea are marked with an interconnected status indicator and form indicator and form a network. Creating a cluster on a single chapter or topic provides a framework for students to think systematically. At the heart of the cluster is the main idea or concert, for example, the theme “Geographical shell” is formed as follows:



Sample for creating a cluster

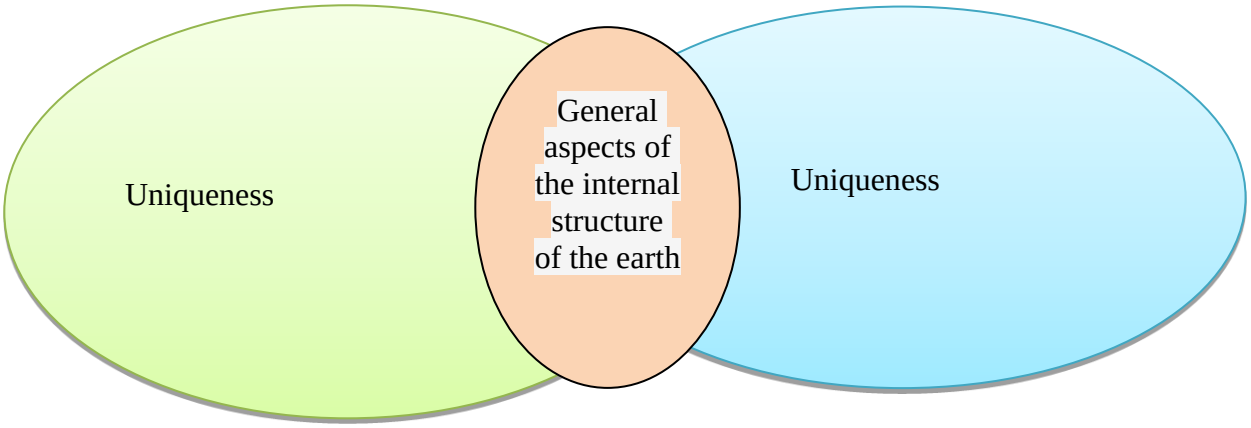
In the lessons in which the cluster is used, students are divided into equal number of small groups, after which they are explained the didaktic purpose of the task and the order of its implementation, they are given the opportunity to summarize their ideas.

Within the allotted time, defend the cluster they have created, prove their point, the best and easiest structured cluster is identified, and the winners are encouraged.

One of the technologies used locally in geography lessons is the Venn diagram, named after the English scientist John Venn who developed it. Venn diagram requires analysis and comparison of concepts and processes of the studied topic.

On the subject of the internal structure of the earth, the study of substances released during volcanic eruptions can be used to compare similar and different and useful aspects such as the propagation properties of earthquake waves, the core of the earth and its diametr, mantle and its thickness, its composition, temperature. It is recommended that the Venn diagram can be seen as follows.

Expert sheet for Venn diagram



Venn diagram is used to compare, contrast, or contrast two and three aspects and commonalities in a lesson. This method develops students' skills of systematic thinking, comparison, comparison, analysis.

The Brainstorming method is a step-by-step process in which the teacher desigins the topic from simple to complex

1. The thickness of the crust?
2. What about the Earth's mantle?
3. What is the temperature in the nucleus?
4. What is the geographical crust itself?
5. Compare how the biosphere and hydrosphere are related to each other?
6. Why is a volcano erupting? and so on.

Problem texnology: to teach students to correctly solve various problem situations arising from the subjest of the subjest, to develop skills in determining the nature of the problem, to acquaint them with some methods of problem solving and to teach them to choose the right methods, problem causes, problem solving actions teaches correct identification.

Mode of the lesson: After the teacher divides the students into groups and plases them in their places, he explains the rules and requirements of the lesson, that is, the lesson should be staged and each stage requires maximum attention from students, they work individually, in groups and in groups, he says. This mood helps students to be ready to complete the tasks assigned to them and stimulates interest in completing them. After explaning the rules and requirements of the training, the training will begin:

Carefully watch the film prepared by the students for the lesson and try to identify the problem, memorize it or mark it in a notebook (if it is not possible to show the film, then the teacher can make a map, poster, picture, poster or a problem on the subjest) the described text can be used as the study material in the book or atlas):

• The problems identifed by each group member from this sheet (picture, text, lif event) are written on a piece of paper in Whatman or format with a felt-tip pen;

• At the end of the allotted time, the work is read out by the group;

• Distributed to the groups by the teacher, replacing the papers selected and written by the groups;

• From the problems written by the groups in the handouts, each group member chooses one of the problems that interests him / her;

• In the following diagram distributed by the teacher, each group member selects one of the problems they are interested in;

• Independently analyze the problem selected by each group member in the following diagram distributed by the teacher. For example.

Tupe of problem	**The problem came reasons for withdrawal**	**Problem solving and your actions**
What causes earthquake waves?		

- At the end of the individual activity, each student reads out the analytical work done;

- collective exchange of views on problems and their solutions;

- After the defense, the teacher concludes the lesson. Thanks to the small groups for their fun work.

As a result of training with such technology, students learn that the cause of problem must be determined before it has been solved, and then they must choose the methods and techniques they need and clearly define their actions.

The use of “Concept Analysis”, “Group Work”, “Remember” exercises, “BLIS” method, “Classification” and “Contour Map” methods are also effective when the local pedagogical technologies are used.

REFERENCES

P.Gulomov, R. Kurbanniyozov. Geografiya. 5th grade textbook. Tashkent.: “Yangiyul poligraf service”. 2015 y-213 p.

A. Soatov, A. Abulqosimov, M.Mirakmalov. Geografiya. 6th grade textbook. Tashkent.: “Teacher” Publishing and Printing House. 2017 y.

Tolipova J.O. Pedagogical teachnologies in teaching biology. Textbook. Tashkent.: “Chulpon”. 2011-159 p.

Tolipova J. Theory and practice of developing the level of scientific and methodological training of a biology teacher. Dissertation written for the degree of Doctor of Pedagogical Sciences. - T.: 2006, 280 p.

Vaxabov H. Mirzamaxmudov O.T. Methods of teaching geography. Namangan.: “Namangan”. Publishing house. 2016. 251p.