

3.10.3 The Jigsaw (mosaic) Method

Brief description, and rules of the implementation of the learning activity

The Jigsaw Method was developed by an American social psychologist in 1971 to avoid conflict situations and increase cooperation by strengthening relationships among students. The essence of the method is that the learning content is divided (like a jigsaw puzzle) into as many parts as there are members in each base group (so-called jigsaw group). Students first collaborate in “expert groups” to master their assigned section. Then, they return to their original teams to teach their peers, ensuring the complete lesson comes together through shared knowledge.

Skill focus

- **Primary Skill Focus**
 - Connectedness
- **Complementary/Secondary Skill Focus**
 - Valuing people and nature
 - Empathy

Age group	Student number	Duration
6-10 years old students	Whole class in small groups (3-4-5-6-7-8 students in a group based on their age characteristics)	15-25 minutes

Proposed step by step implementation of the learning activity

Each student receives a "piece of the mosaic" (a fragment of the lesson's content, information, a task related to the lesson, etc.), which they first work on and learn together with the other students who received the same piece (in a so-called expert group). Afterward, the “experts” return to their own mosaic groups and teach their specific section to their peers. The complete big picture (the curriculum) only comes together when everyone contributes their own specific knowledge to the group. The main rule: no one can master the entire material without the active help of the others.

1. **Preparation:** The teacher divides the lesson material assigned for that day into 3–4–5–6 parts (depending on group size) and assigns the material to groups A, B, C, D, E, and F.
2. **Forming mosaic groups:** The students are divided into heterogeneous groups of a given size (max. 4 students for 6-year-olds, max. 8 students for 10-year-olds). Each student is assigned a letter/colour. We assign a section of the curriculum to each letter/colour so that every mosaic group has one person responsible for a given subtopic. This way, each mosaic group can cover the entire lesson material for the day with the cooperation of its members. It is important that each student has access only to the material relevant to their own topic.

3. **Each student reads and processes the subtopic assigned to them.**
4. **Working in expert group:** Once this is done (Step 3), students temporarily leave the mosaic group and form so-called expert groups, meaning those with the same letter/colour sit at a new table (all "A"s at one table, all "B"s at another, etc.). Together, they discuss their own topic or the lesson segment, and based on their shared knowledge, they structure the “lesson segment” and figure out how they will teach/share it with the others.
5. **Back to the mosaic group:** Each student returns to their original mosaic group. Students report on their own subtopics to the other members of the mosaic group. The other members may ask clarifying questions to ensure they fully understand the given section of the lesson material.
6. **The teacher observes the work of the mosaic groups and intervenes if necessary.** It is even better if the student leading the mosaic group can handle the situation independently.
7. **Group task:** The group receives a task that they can only solve by combining the various pieces of information.
8. **Testing of all students' knowledge of the material.** This is what gives the mosaic group activity its stakes and what makes students really interested in engaging meaningfully and paying attention to their peers.

Indoor/Outdoor Classroom layout notes

This method works best in indoor environments, but it is also suitable for outdoor environments. For indoor/classroom use, easy-to-move chairs and tables are required. Set up dedicated “expert stations” in the corners of the room so that groups do not disturb one another and are clearly separated from their original tables.

How does this learning activity develop this particular skill?

The Jigsaw method structurally requires students to connect with and pay attention to one another. A sense of positive interdependence is developed in both the expert group and the jigsaw group. Through this, students come to understand that they cannot be as successful on their own as they can as a group, and that they need their peers.

In both cases (mosaic group, expert group), a heterogeneous team is formed. In the expert group, even the least academically gifted child must understand the given lesson content, so group members learn to provide responsible assistance to those in need, as well as that anyone can have a good idea regarding a given topic.

When an anxious, marginalized, or less skilled student returns to their group as an “expert,” the others are compelled to pay attention to them and value their knowledge, which radically increases their status and their connection to the group.

What do we want to achieve regarding primary skill development (student understanding and/or behaviour)?

By using the technique regularly and consciously, the students:

- are aware that everyone is important in a community
- are able to listen attentively and encourage one another as they share knowledge.
- understand that they cannot be as successful on their own as they can as a group
- recognize the importance of connections and that they need their peers regardless of status
- are able to voluntarily help those in need

- understand that anyone can have a good idea on a given topic.

Suggested use, and practical subject-related examples

This method can be incorporated into any subject. For children aged 6–10, instead of reading, we use pictures, objects, or short texts in capital letters. Science: Students create a simple map showing what plants need to grow (sun, water, soil) or the steps of the water cycle using drawings and arrows.

- Reading (Literacy): We divide a story into 4 parts (Beginning, Complication, Turning Point, Conclusion) (for younger children, this can also be 4 pictures). The expert groups understand their own part. In the mosaic group, everyone must tell their own part so that the story comes together, and then they must work together to arrange the pieces of the story into a coherent whole.
- Environmental study: Topic: Parts of a plant. The 4 expert groups: Root, Stem, Leaf, Flower. They learn the function of their part. In the mosaic group, they must reassemble the plant, and everyone explains what their part does to help the plant survive.
- Vocabulary building (Foreign language or native language vocabulary): The group receives 4 new words. Each expert group gets one word; they must learn its pronunciation and meaning and come up with a sentence to illustrate it. In the mosaic group, they teach the word and the gesture to their peers and form a meaningful text from the sentences. The sentences can be modified in the mosaic group.
- Grammar: Topic: Punctuation at the end of sentences. The 4 experts: Period (statement), Question mark (question), Exclamation mark (exclamation, wish). The experts come up with 2 example sentences each. In the home group, they receive a text without punctuation marks, and the experts must tell them where their mark goes.

Materials and tools needed for implementation

- Teaching materials, information, and tasks divided into equal parts.
- Color-coded or numbered tags/cards (so that the children know which expert group they belong to).
- Group worksheet for the final assembly.
- Any other stationery (colour markers, Post-its, etc.)

Guiding questions

- In the expert group: “Is everyone sure they understand our part? How are we going to explain this to the others so that they understand it too?”
- In the mosaic group: “Whose piece is still missing from the complete picture? Who’s next in the explanation?”
- During evaluation: “How did your partner help you understand the task today?”

Tips and Tricks for dealing with challenges

- **Challenge:** A student in the expert group does not fully understand the material and therefore teaches the mosaic group incorrectly.

Tip: The teacher must monitor the expert groups very closely while they are working. Before they return to their home groups, the teacher should conduct a quick check!

- **Challenge:** Chaos and noise arise during the change of places (from the expert group back to the home group).
Tip: Use visual or audio signals (e.g., a bell signals that time is up; at the second bell, students must move in silence).
- **Challenge:** Dominant students take over the conversation in the expert group and explain things even on behalf of the quieter “experts.”
Tip: Introduce a “talking stick.” In the home group, only the person holding the “stick” may speak; the others must raise their hands if they want to ask a question.
- **Challenge:** The youngest children (ages 6–7) cannot read text independently in the expert group.
Tip: Use objects and pictures.
- **Challenge:** With younger children, it is more common that as they return to their mosaic group, they forget or do not fully remember everything that was discussed.
Tip1: Prevent this problem. Ask the students to turn to the classmate sitting next to them in the expert group and tell them the 2–3 sentences they will later share with their home group. Repeating aloud helps solidify the information.
Tip2: If this is already happening in the mosaic group, then the teacher should monitor the process, and if they see a stall, gently intervene in the mosaic group’s work. Don’t take over but guide the student’s attention; perhaps bring up a moment from the expert table (“Remember, you and Péter were just laughing about how...”).

Difficulty level tailoring

- **Beginner learners (6-7 years old):** The information for experts is purely visual (cards, pictures, physical objects). Teaching involves showing and naming their own piece to the group. Do not divide the task or the groups into more than 4 parts.
- **Advanced learners (8-9 years old):** They read and understand short, simple paragraphs. Upon returning to their home group, they must summarize what they have learned in their own words and answer their peers’ questions. The task and groups can be divided into groups of up to 6 students
- **Expert learners (9–10 years old):** Longer texts with multiple paragraphs. The task for the expert groups is not only to understand the text but also to prepare a mini-presentation or a visual explanation (e.g., a mind map) to teach their own group. The task and groups can be divided into groups of up to 8 students.

Debriefing and Reflection questions

- How did it feel to know that your group was relying on your knowledge and waiting for your explanation?
- Would the team have been able to solve the final task if you had been the only one working in the group? Why not?
- How did you feel when a classmate in the expert group helped you understand the part you hadn’t read?
- How much did working together help you learn the entire lesson?
- How did it help that everyone in the group was assigned a different part of the task at the beginning of the lesson? How did today’s class demonstrate that everyone has something valuable to contribute?