The Jigsaw Cooperative Learning Can Improve Chemistry Education

Research has indicated that the jigsaw strategy is an effective way to develop students’ collaboration skills, science knowledge, and positive attitudes toward science. The jigsaw strategy is particularly effective for learning topics that can be easily divided into subtopics and require accessing substantial amounts of information.

**Six Key Phases**

1. Provide structure – The teacher assigns students to groups. Each student is assigned a subtopic.
2. Acquire expertise – Students become “experts” by individually researching their subtopic. This can be done through a closed or an open structure. Students meet with other experts researching the same subtopic. The teacher visits the groups to assist students in working together, and making sure that information is accurate.
3. Teach each other – Students return to their group to teach each other.
4. Test students’ understanding – The teacher assesses students’ understanding of the whole topic.
5. Synthesize – The teacher asks each group to solve a problem that requires students to synthesize what they have learned from the whole topic.
6. Process group work – The students reflect on what was done well and what improvements can be made in collaborative skills.

![Diagram of the jigsaw cooperative learning process]

**References**

