

# Is Inquiry-Based Learning Effective?

How can a teacher ignite students' interest in school subjects? Instead of the teacher telling students everything they need to know, inquiry-based learning asks students to construct their own knowledge through experiences and explorations. Inquiry-based learning emphasizes learning by doing and mirrors the work of scientists as they actively discover knowledge. In inquiry-based learning, students undertake some or all of the follow activities:

- formulating a question or a set of questions;
- designing an investigation to research the question(s);
- identifying and collecting relevant resources;
- developing explanations based on evidence and scientific knowledge;
- sharing investigation procedures and findings;
- reflecting on the learning process and outcomes.

Research has found that inquiry-based activities can boost students' learning in a wide range of school subjects. There is evidence that inquiry-based learning can motivate students to learn and advance their problem solving and critical thinking skills. However, the effectiveness of inquiry-based learning depends on the guidance provided by teachers. Unguided or minimally-guided inquiry may not work for students who have less previous knowledge or ability in the subject area. When the demands of the learning activities exceed students' abilities, their learning is blocked and they may develop misunderstandings about the topic.

Therefore, appropriate guidance must be incorporated into students' inquiry learning. For example, teachers should guide students to develop a good question for investigation, monitor their inquiry process, and provide guidance when they encounter difficulties. Teachers should give students ongoing feedback and encourage them to constantly assess their own learning.

Compared with having the teacher present all of the information, research offers clear evidence that teacher-guided inquiry works in the best interests of students and their learning.

**For online resources as well as the research references that inform this issue, please visit:**  
**[www.cea-ace.ca/facts-on-education](http://www.cea-ace.ca/facts-on-education)**

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