

ICAP framework

The **ICAP (Interactive–Constructive–Active–Passive) framework** describes different **levels of cognitive engagement** in learning activities and links them to learning outcomes. The core idea is that **learning becomes deeper and more effective** as students move from passive to active, constructive, and interactive engagement.

Complexity: 

Group size: all sizes

Format: all formats

Learning objectives / benefits

- Understand that **not all “active learning” leads to the same learning outcomes**
- Support instructors in **designing learning activities** that foster deeper understanding
- Provide a framework for **analyzing and comparing teaching methods**

ICAP levels

- **Passive** – Learners receive information without overt engagement(e.g. listening to a lecture, reading without annotation)
- **Active** – Learners engage physically or procedurally with the material(e.g. highlighting text, repeating information, answering recall questions)
- **Constructive** – Learners generate new understanding beyond the given information(e.g. explaining ideas in their own words, drawing concept maps, generating examples)
- **Interactive** – Learners co-construct knowledge through dialogue with others(e.g. peer discussion, collaborative problem-solving, debating explanations)

Challenges and recommendations

- **Misinterpreting activity as engagement:** Not all visible activity leads to learning – focus on cognitive processes
- **Superficial interaction:** Ensure discussions require explanation, not just agreement
- **Time constraints:** Prioritize constructive and interactive tasks where learning gains are highest
- **Assessment alignment:** Evaluate not only participation, but the quality of reasoning and knowledge construction

Further reading

Michelene T. H. Chi and Ruth Wylie
The ICAP Framework: Linking Cognitive Engagement to Active Learning Outcomes (2014)

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