

The ICAP Framework

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The Challenge:

Lectures do not allow students to be deeply engaged in their learning, and as a result, students do not learn difficult concepts well.

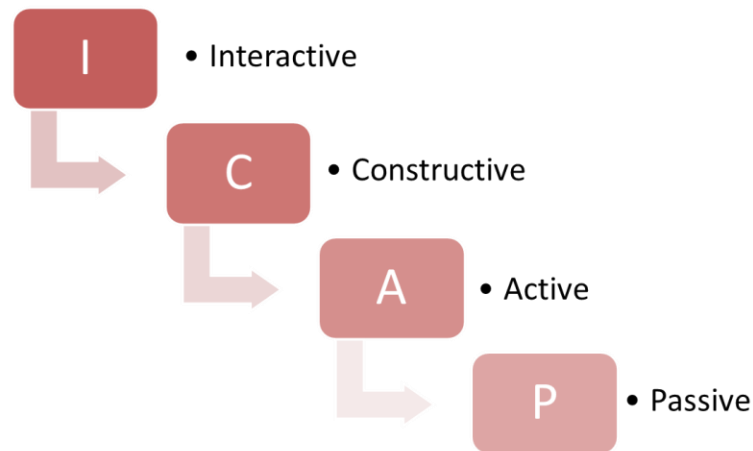


The Solution: The I.C.A.P. Framework (Chi, 2009)

There are different levels of engagement in active learning

The ICAP Framework classifies activities by students' visible engagement, which tells us what they are doing cognitively

Helps teachers to plan lessons in which students are deeply engaged in learning



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The Solution: The I.C.A.P. Framework

I

- Produce dialogue between 2 people (Overt)
- Co-construction of knowledge (Activity)
- Co-inferring (Cognitive)

C

- Produce output beyond given material (Overt)
- Generating (Activity)
- Inferring (Cognitive)

A

- Physically manipulating (Overt)
- Focusing, selecting (Activity)
- Integrating (Cognitive)

P

- Paying attention (Overt)
- Receiving information (Activity)
- Storing information (Cognitive)



The Results: From Classroom & Lab Studies

Classroom Study:

Students learned more deeply from Interactive engagement

Lab Study:

Student learning gains increased with deeper levels of engagement

(Menekse, Stump, Krause, & Chi, 2013)



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Active Learning in MIT-Haiti Workshops

