

# Intrinsic Cognitive Load

## Theory

**Intrinsic cognitive load** is the result of inherent complexity of the information which needs to be processed. For example, when translating a number of words intrinsic cognitive load is quite small, but when translating same number of words forming part of a sentence intrinsic cognitive load is higher since not only meanings of individual words, but also their relations must be analyzed.

Still, it should be noted that there is **no objective measure** of element interactivity, since what exactly will be considered as an *element* depends on learners existing schemata and how developed and automatized they are. Unlike a novice, an experienced learner with an appropriate schema will be able to manipulate multiple elements and their relationships as one and will therefore experience reduced element complexity and intrinsic load.<sup>1)</sup>

## Practice

Earlier it was considered that intrinsic cognitive load

- *“cannot be manipulated through instructional design without changing nature of the task or compromising understanding.”*<sup>2)</sup>

Still, recent findings suggest it is possible to reduce intrinsic cognitive load using techniques like

- **simple-to-complex** sequencing<sup>3)</sup>,
- **modular presentation** of solution procedures<sup>4)</sup>, or
- **simplified whole tasks**<sup>5)</sup>.

1)

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2)

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3)

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4) 5)

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