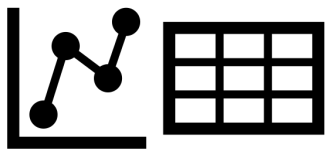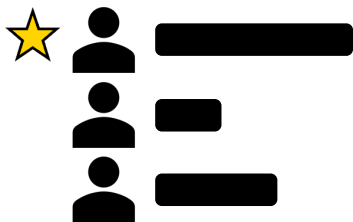**(Traditional Methods)**

Obtaining Problem-solving data

→

Statistical Knowledge Tracing methods
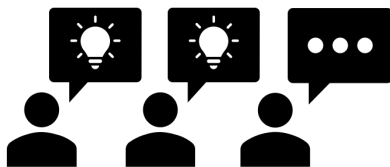
→

Relative assessment

(Proposed Method)

Analyzing knowledge components of problems

→

Investigating students' knowledge states

→

Absolute assessment