

# Formative Evaluation of the SIETTE collaborative Testing Environment

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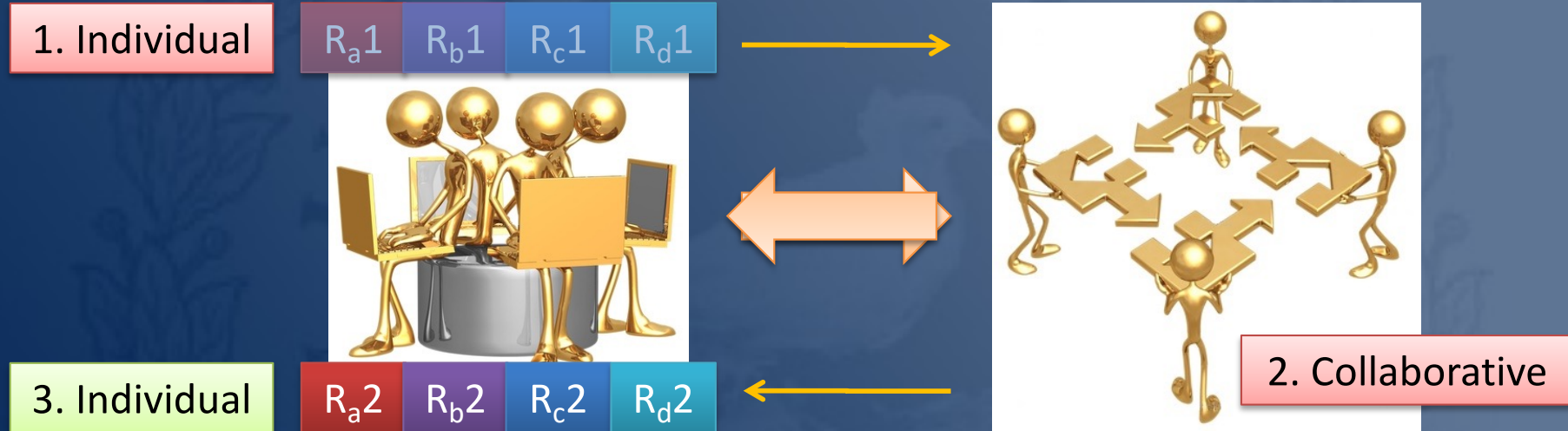
# Overview

- Introduction
  - Motivation
  - Goals
- Scenario
  - SIETTE Collaborative system
- Evaluation
  - Prototypes
- Conclusions and future work

# Motivation and objectives

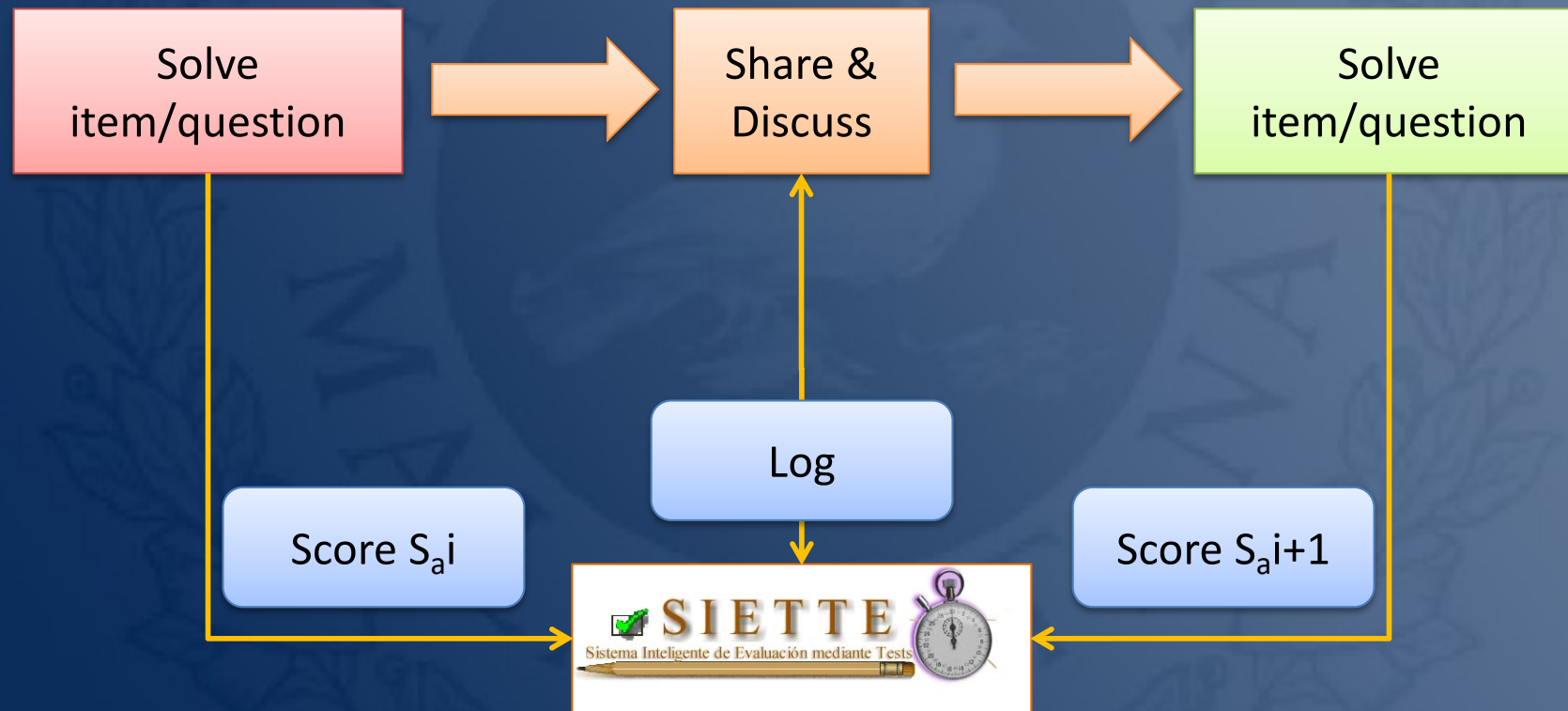
- Motivation
  - Define authentic activities that promote collaboration
  - Learning environments that focus the students in the learning objectives
  - Explore and measure the influence of collaboration in individual knowledge
- Goals
  - Define a scenario that combines individual and collaborative learning
  - **Apply this scenario into an assessment environment**
  - Track the students' discussion and collaboration during an evaluation process
  - Measure the effect of collaboration in an assessment environment

# Scenario



- Tests environment: SIETTE ([www.siette.org](http://www.siette.org))
1. Members of a students' group solve individually an item/question of a test
  2. Individual results are shared in the group
    - Students can see their partner's responses
    - Students discuss trying to find the correct solution
  3. Students solve again the same item/question individually

# Collaborative Script



- sequences the items
- controls the chat tool
- gives awareness information
- saves the discussion process in the log file

# Current Interface



Sistema Inteligente de Evaluación mediante Tests

**Collaborative mode  
demo video**

# Formative Evaluation

- 1st prototype (march 2005)
  - Synchronization problem
  - Log time consumption (scalability)
  - Forbidden communication
- 2nd prototype (October 2006)
  - Solved previous problems
  - Awareness information added
- Final prototype (March 2007)
  - Stable version

# Formative Evaluation (2)

- 2nd & 3rd prototypes Evaluation
  - Collaborative Test
  - Post-test usability questionnaire
- Results:
  - Slowness improvement
  - Increment of usefulness (9% → 14%)
  - Collaboration encourages students



# Conclusions and Future work

- Tool for Self-assessment instead of formal evaluation
  - Improvement of Collaborative characteristics from practise
  - Advantages:
    - It is possible to measure quantitatively the effects of collaboration
    - Due to time schedule, students focus the discussion on the topic of the question (the knowledge itself)
    - Students encouraged by this technique
- Current work:
  - Statistically analyze whether or not collaboration increases the performance in assessment
- Still work remaining:
  - Collaboration script including agreement group answer
  - Comparison with other tools

The background features a large, faint watermark of the University of Málaga seal. The seal is circular, with the word "UNIVERSITATANA" around the top and "MÁLAGA" at the bottom. In the center, there is a shield with a book and a quill, flanked by laurel branches.

Thank you for attending

Any question ?

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