INSTRUCTIONAL TECHNOLOGY – UNIVERSITY OF TWENTE

RESEARCH METHODOLOGY, MEASUREMENT AND DATA ANALYSIS – UNIVERSITY OF TWENTE

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UNOBTRUSIVE ASSESSMENT OF INFORMATION LITERACY SKILLS IN A DIGITAL SERIOUS GAME

HELP PLEASE

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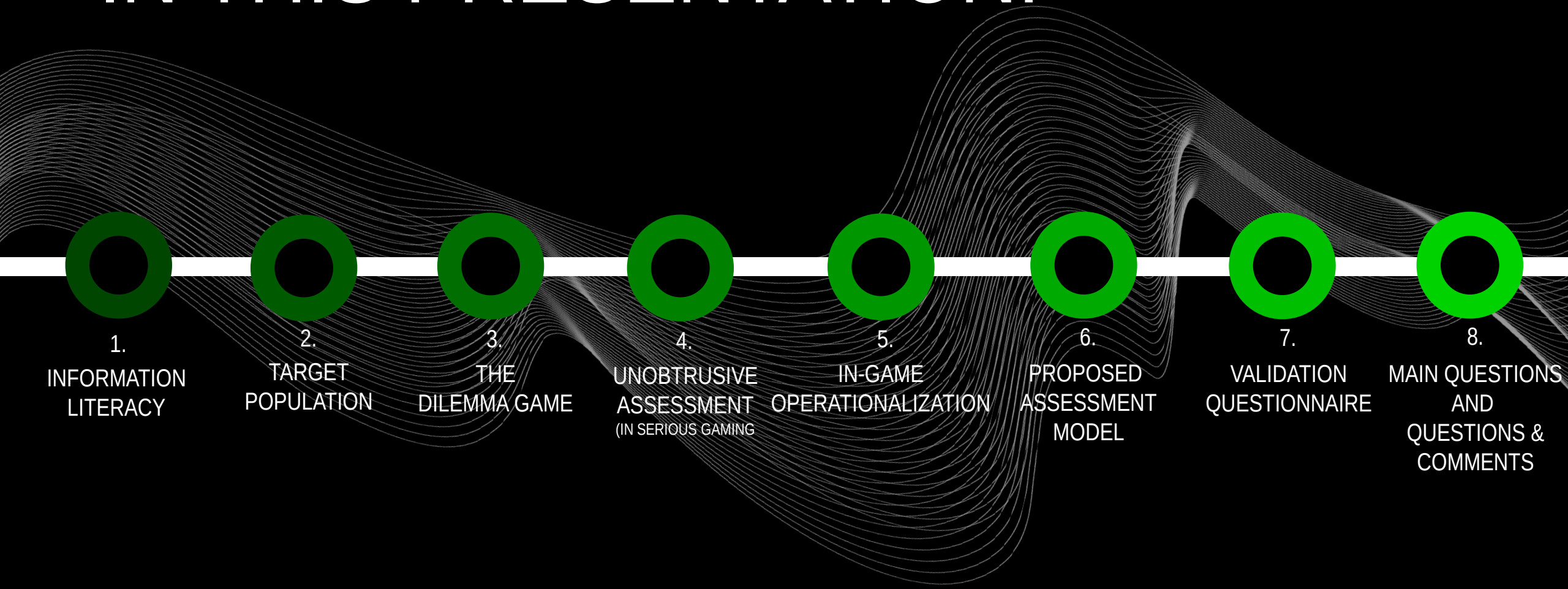
IN THIS PRESENTATION:



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INFORMATION LITERACY

- Recognize
- Access
- Incorporate
- Use effectively

}

Decision-making processes in e.g. crisis management

TARGET POPULATION

Crisis professionals

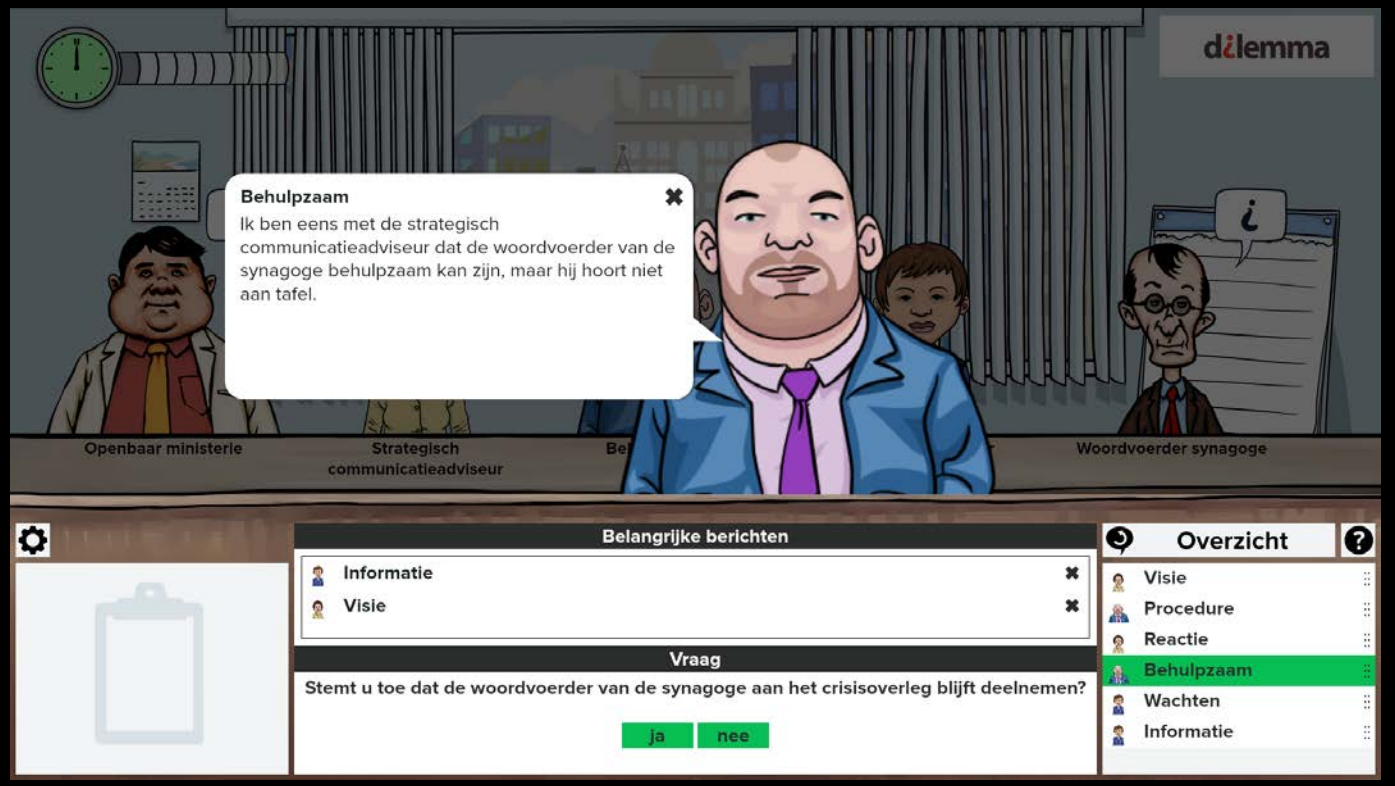
- Higher functions
- Involved in decision making processes at non-operational level during crisis situations

Professionals come from

- Fire department
- Health care
- Public care
- Crisis communication
- Police

THE DILEMMA GAME

- Dilemmas
  - Yes / No
- Advisors
- Information



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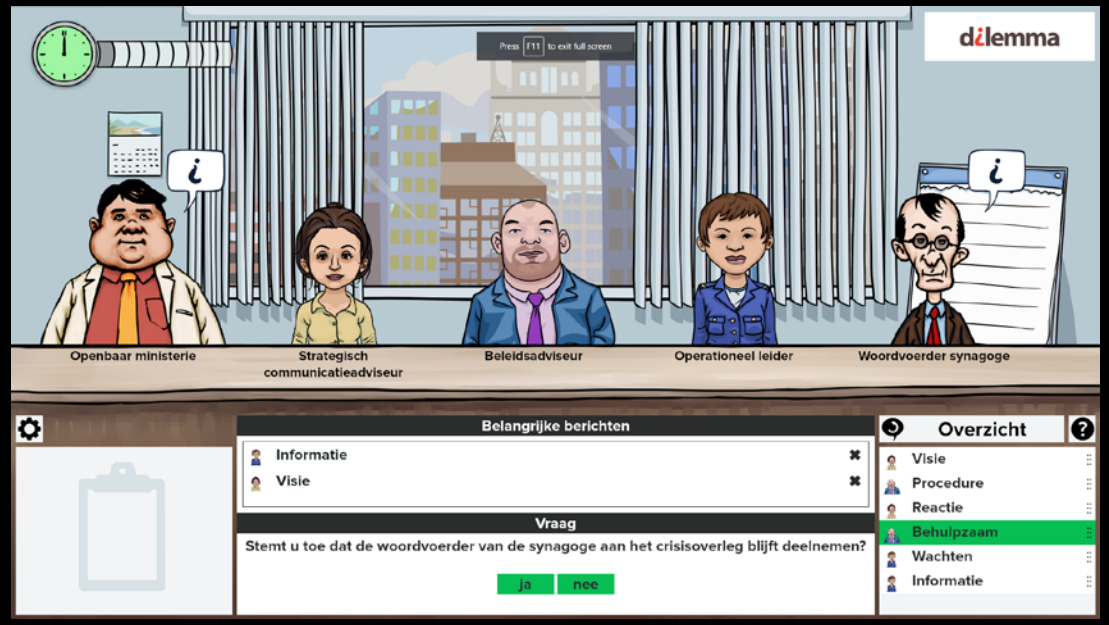
UNOBTRUSIVE ASSESSMENT (IN SERIOUS GAMING)

- "… seamlessly woven into the learning environment …"
- Gameplay actions only
- Maintain Flow



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IN-GAME OPERATIONALIZATION

- Information read
- Reading time
- Reading patterns
- Advisors asked
- Relevance markers
- …

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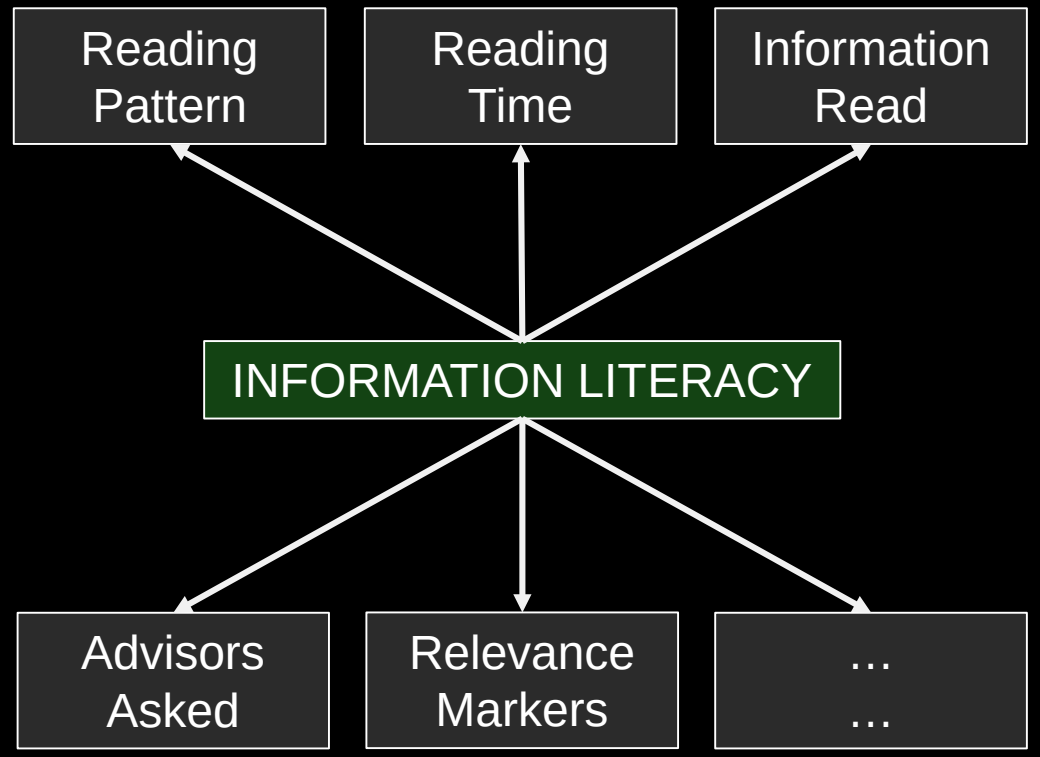
PROPOSED ASSESSMENT MODEL



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VALIDATION QUESTIONNAIRE

Demographic information

- Age, Gender
- Organization, Function, Experience

20 statements

- Recognize: 5
- Access: 5
- Incorporate: 6
- Use effectively: 4

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VALIDATION QUESTIONNAIRE

- N = 41

- Fire department
- Health care
- Public care
- Crisis communication
- Police

- $\lambda_2 = 0.695$

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VALIDATION QUESTIONNAIRE

- N = 41

- Fire department
- Health care
- Public care
- Crisis communication
- Police

- Recognize: $\lambda_2 = 0.354$
- Access: $\lambda_2 = 0.4$
- Incorporate: $\lambda_2 = 0.386$
- Use effectively: $\lambda_2 = 0.647$

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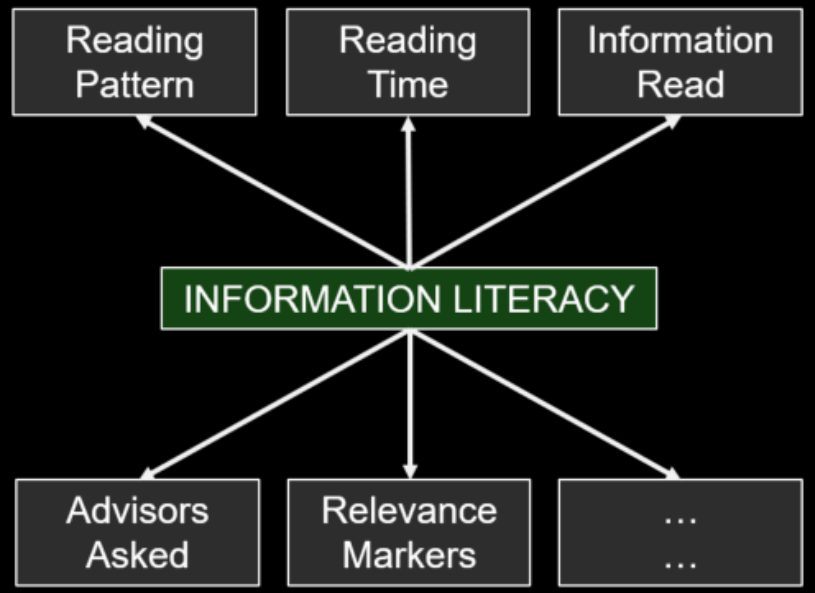
MAIN QUESTIONS

How to proceed with the questionnaire?

- Recognize: $\lambda_2 = 0.354$
- Access: $\lambda_2 = 0.4$
- Incorporate: $\lambda_2 = 0.386$
- Use effectively: $\lambda_2 = 0.647$

What analyses fit this kind of gameplay data?



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QUESTIONS & COMMENTS

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