

# DID-ACT Project: Specific Needs Analysis

## Interview guide version: Teachers/Faculty

### General interview rules:

- The order of the questions can change with the “natural flow” of the interview. However, make sure that you ask all the questions.
- You can ask the questions using your own words, but the meaning should not change.
- Unless it is not necessary (e.g. demographics), ask open questions that cannot be answered with a simple yes or no whenever possible.
- If an answer has been vague or superficial, ask for more details. Our goal is to receive in-depth information and understanding that can be used in the curriculum development process.
- Before starting the interview, let the participants sign the declaration of consent.
- Don't forget to start the audio recording after you received the participants' consent.
- If possible, take notes of the answers (short notes)

***Note for the interviewer: Before giving the participants our definition of clinical reasoning and the context, ask them for their definition of clinical reasoning.***

***Note for the interviewer: Describe the content of the text below***

Clinical reasoning encompasses health professionals' thinking and acting in assessment, diagnostic and management processes in clinical situations. Despite the importance of clinical reasoning, there is still a lack of explicit teaching and learning activities of clinical reasoning. To fill this gap, the EU project DID-ACT (“Developing, implementing, and disseminating an adaptive clinical reasoning curriculum for healthcare students and educators”) is planning to develop a students' and train-the-trainer curriculum on clinical reasoning.

In this interview we will ask you questions about how clinical reasoning is and should be taught and assessed at your institution, as well as what a train-the-trainer course should ideally look like. Your input is highly valued and will help to design the DID-ACT curricula.

Please answer the questions as accurately as possible. Your answers will be kept confidential. The findings from this interview are also going to be published in congress contributions and scientific publications.

***Note for the interviewer: Let the participant sign the declaration of consent now. Start the audio recording afterwards, before you start with the actual interview.***

## **PART A Demographics**

*Note for the interviewer: If you already know the answers to questions 1-4, you don't need to ask them, just note the information for each participant so it can be included in the analyses.*

**1. In which country do you work?**

**2. In which institution do you work?**

**3. What educational program do you relate mostly to?**

*Note for the interviewer: Check the answer of the participant in the list below.*

- Medicine
- Nursing
- Physiotherapy
- Occupational therapy
- Other (please specify)

**4. How would you describe your primary role/roles at your institution?**

- Healthcare Professions Educator
- Physician
- Nurse
- Physiotherapist
- Occupational therapist
- Researcher
- Dean
- Curriculum Planner/Manager
- Course Director
- Student
- Other (please specify) ...

**5a. How many years of work experience in healthcare education (excluding years of undergraduate study) do you have?**

**6. How confident are you in the following aspects of clinical reasoning\*:**

- Teaching
- Assessment
- Faculty development
- Clinical practice

\*Scale in survey: extremely confident/ quite confident/ moderately confident/ somewhat confident/ not at all confident

## Part B Students Curriculum

In the EU project DID-ACT it is planned to develop a modular, adaptable longitudinal students-curriculum on clinical reasoning which is based on a variety of methods including virtual patients and blended learning, as well as assessment.

In the following, we will ask you questions about the student curriculum.

**7. In your curriculum (i.e. overall program, not a particular course or clerkship you might be overseeing), which aspects are taught and assessed with an explicit focus on clinical reasoning?**

**How important is the inclusion of these aspects in the envisioned curriculum on clinical reasoning? Please explain why.**

*Note for the interviewer: Please ask this question open first. After the participant has answered, hand the list out to the participants. Go through the list together and look at the aspects that have not been mentioned already.*

	Is taught	Is assessed	How important is the inclusion of these aspects in the envisioned curriculum on clinical reasoning? * <b><u>Please explain why.</u></b>
Gathering, interpreting, and synthesizing patient information			
Generating differential diagnoses including defining and discriminating features			
Developing a diagnostic plan			
Developing a treatment/management plan			
Developing a problem formulation/hypothesis			
Errors in the clinical reasoning process and strategies to avoid them			
Self-reflection on clinical reasoning performance and strategies for future improvement			
Theories of clinical reasoning (e.g. knowledge encapsulation, illness scripts, narrative reasoning)			

Strategies to learn clinical reasoning (e.g. heuristics, rule out worst case scenario,...)			
Collaborative aspects of clinical reasoning			
Interprofessional aspects of clinical reasoning			
Aspects of patient participation in clinical reasoning (e.g. shared decision making)			
Other (please specify) ...			

\*Scale in survey: to a great extent / to some extent / a little / not at all / I don't know

**8. How is clinical reasoning TAUGHT in your curriculum (i.e. overall programme, not a particular course or clerkship you might be overseeing) in sessions with a main focus on clinical reasoning?**

**How important is the inclusion of these teaching formats you have mentioned in the envisioned longitudinal curriculum on clinical reasoning? **Please explain why.****

**Note for the interviewer: Please ask this question open first. After the participant has answered, hand the list out to the participants. Go through the list together and look at the aspects that have not been mentioned already.**

	Is used for teaching?	How important is the inclusion of these formats in the envisioned curriculum on clinical reasoning?* <b>Please explain why.</b>
Lectures		
Problem Based Learning (PBL)		
Case- based Learning		
Team- based Learning		
Virtual Patients (interactive online cases)		
High fidelity simulation (mannequins)		
Human simulated patients		
Other (please specify)		

\*Scale in survey: to a great extent / to some extent / a little / not at all / I don't know

9. Are you aware of any good learning resources for clinical reasoning you could recommend to be used within DID-ACT others to use for learning/teaching of clinical reasoning? If yes, please describe?

10a. From which study year on is clinical reasoning taught at your institution?

10b. From which year on should clinical reasoning be taught in the envisioned longitudinal curriculum on clinical reasoning?

11. How is clinical reasoning **ASSESSED** in your curriculum?

Which of the techniques you have mentioned should be implemented in the envisioned longitudinal curriculum on clinical reasoning and why?

*Note for the interviewer: Please ask this question open first. After the participant has answered, hand the list out to the participants. Go through the list together and look at the aspects that have not been mentioned already.*

	Is used for assessment	How important is the inclusion of these techniques in the envisioned curriculum on clinical reasoning?* <b>Please explain why.</b>
Written test (e.g. multiple choice questions, key feature approach, script concordance tests)		
Oral examination		
Assessment using virtual patients		
Clinical examinations (e.g. OSCE or other practical examinations)		
Workplace-based assessments (e.g. MiniCEX, summative approach)		
Other (please specify)		

\*Scale in survey: Very important / important / somewhat important / neutral / rather unimportant / unimportant / very unimportant / I don't know

12. Are you aware of any good assessment resources for clinical reasoning you could recommend to be used within DID-ACT? If yes, please describe?

13. Is teaching and assessment of clinical reasoning aligned concerning intended learning outcomes, activities and assessment at your institution? **Please explain.**

14. Do you have further suggestions for the envisioned longitudinal curriculum on clinical reasoning?

### **Part C Barriers/solutions for teaching and assessment of clinical reasoning**

15. What, in your opinion, are the main barriers/ challenges for introducing such a longitudinal curriculum on clinical reasoning at your institution?

*Note for the interviewer: Please ask this question open first. After the participant has answered, hand the list out to the participants. Go through the list together and look at the aspects that have not been mentioned already.*

- No particular challenges
- Lack of qualified faculty to teach clinical reasoning
- Lack of curricular time
- Lack of financial resources
- Lack of guidelines for clinical reasoning curriculum development
- Lack of awareness of the need for explicit clinical reasoning teaching
- Lack of top-down support
- Perception that clinical reasoning cannot be taught
- Curriculum invented elsewhere
- Don't know
- Other (please specify)

16. How could these challenges be overcome at your institution? Please explain.

## Part D Train- the - trainer course

In DID-ACT it is planned to develop a modular and adaptable train-the-trainer course for educators on how to teach clinical reasoning.

Planned contents of the course:

- Concepts of clinical reasoning
- Teaching of clinical reasoning (incl. e-learning and blended learning)
- Assessment of clinical reasoning
- DID-ACT student curriculum and strategies to include it into your curriculum

Planned methods of the course:

- Blended learning/inverted classroom, modern teaching and assessment formats

In the following part, we will ask you questions about a train-the-trainer course on clinical reasoning.

**17. Do you have a train-the-trainer course on clinical reasoning at your institution? If yes, please describe.**

**18. Do you think the DID-ACT train-the-trainer course is necessary for healthcare educators at your institution? Why yes / why no?**

**19. What should the DID-ACT train-the-trainer course on clinical reasoning cover?**

**How important is the inclusion of these aspects in the envisioned train-the-trainer course? Please explain why.**

*Note for the interviewer: Please ask this question open first. After the participant has answered, hand the list out to the participants. Go through the list together and look at the aspects that have not been mentioned already.*

- Literature on clinical reasoning
- Theory on clinical reasoning
- Clinical reasoning strategies
- Common errors in the clinical reasoning process
- Strategies on how to avoid common errors and biases in clinical reasoning process
- Teaching methods on the wards and/or clinic
- Teaching methods for face-to-face courses (e.g. seminars, problem-based learning courses, lectures)
- Technology-enhanced methods (such as Virtual Patients, e-learning...)

- Blended learning / Flipped (inverted) classroom methodology
- Assessment methods of clinical reasoning
- Don't know
- Other (please specify)

**20. In your opinion, what is the best format for the DID-ACT train the trainer course?**

*Note for the interviewer: Please ask this question open first. After the participant has answered, hand the list out to the participants. Go through the list together and look at the aspects that have not been mentioned already.*

- One time face-to-face meeting
- Series of face-to-face meetings
- E-learning course
- Blended learning/flipped classroom approach (combination of e-learning and face-to-face meetings)
- Other (please specify)

**21. Why do you suggest the format above for the train-the-trainer course? **Please explain.****

*Note for the interviewer: If the participant already gives you an explanation in question 19, skip this question.*

**22. How much time (e.g. days/hours) would you be willing to spend on a train-the-trainer course?**

**23. Do you have further suggestions for the DID-ACT train-the-trainer course?**



## Part E Barriers / Solutions

**24. What critical aspects/barriers/challenges do you see in implementing the DID-ACT train-the-trainer course at your institution?**

*Note for the interviewer: Please ask this question open first. After the participant has answered, hand the list out to the participants. Go through the list together and look at the aspects that have not been mentioned already.*

- No particular challenges
- Lack of qualified trainers to teach the train-the-trainer course
- Lack of time of trainers
- Lack of time of participants
- Lack of financial resources
- Lack of guidelines for teaching and assessing clinical reasoning
- Lack of awareness of the need for a train-the-trainer course
- Lack of top-down support
- Perception that clinical reasoning cannot be taught
- Course invented elsewhere
- Don't know
- Other (please specify)

**25. How could these challenges be overcome at your institution? Please explain.**

**26. What incentive other than a certificate might be helpful for motivating participation in this course?**

## Part F Final questions of the survey/interview

**27. Who else should I interview regarding clinical reasoning and why?**

**28. Do you have any further comments?**