Communications Skills Training

The future

Background

- CST can be effective, limited evidence
- No evidence for active ingredients
- Recommended ingredients: experiential, reflective learning, structured feedback

Background

- Time-consuming,
- Inconvenient to schedule
- Costly
- Low reach

Background

WHO

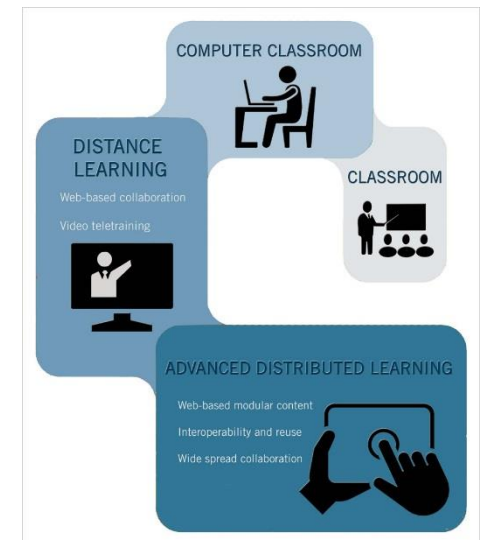Advises to make full use of 21st century toolls and inovations, digital records and e-health

Background

e-learning:

Instructions delivered on a digital device that is intended to support learning

- Knowledge transfer
- Skills-based training

Clark and Mayer 2016

Background

Digital communication training tools

- Safe environment, without consequences for patients
- No peer-pressure
- Own preferred time and learning environment
- Immediate feedback
- Personalised content
- Greater reach

Review

AIM

To identify studies which evaluated technological interventions aimed at improving health care providers communication skills

Results

- 13 independent studies describing and evaluating technological communication skills trainings for health care professionals or medical students.

- Reaction: Overall, training programs were positively evaluated and reported to have educational value

- Behavior: of 8 studies, 7 demonstrated a learning effect, either by a significant improvement in the experimental group(s) as opposed to a control group (or by a significant improvement between a pre- and post-test

Results

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Conclusion

An online training tool might be promising for supporting the acquisition of communication skills

E-learning

1st year medical students

Basic Communication skills for history taking

Structureren

Hieronder zie je zinnen uit het gesprek wanneer de coassistent zich wel houdt aan de aanbevolen structuur. Sleep de zinnen naar de juiste volgorde.

Nee, inderdaad. Vindt u dat goed?

Goedemorgen meneer Verbeek. Ik ben de coassistent, Margriet van Wanderen. Uw huisarts heeft mij gevraagd het gesprek met u te voeren. Ik zal dan straks met hem overleggen en kom daarna weer bij u terug.

Zo, dus u bent al een maand aan het hoesten. Kunt u me meer vertellen over het hoesten?

Ik wil graag van u horen welke klachten u hebt en dan kunnen we bespreken wat we daar aan kunnen doen. Waar komt u voor vandaag?

1
2
3
4
5
6
7
8

Ja hoor, dat is prima.

Ah oké, dus geen dokter van Mechelen vandaag.

Nou, ik hoest echt de hele dag door. Ik word er zelfs 's nachts wakker van. Het is net of er een haar in mijn keel zit die er uit moet. Het is heel vermoeiend.

Nou, ik kom omdat ik al een maand zo moet hoesten. Ik word er zo langzamerhand niet goed van.

Wat vind jij een goede reactie?

In de dialogen die je hiervoor gelezen hebt geeft de arts expliciet aandacht aan de visie van de patiënt door er specifiek naar te vragen. Soms komt de visie van de patiënt op een meer indirecte manier ter sprake. Uit onderzoek is gebleken dat artsen in de praktijk op heel verschillende manieren kunnen reageren.

Bijvoorbeeld: Stel dat een patiënt het volgende zegt: *'Ik hoop niet dat ik ook de ziekte van Crohn heb'*. Geef aan elke uiting een score. Wat vind je van de reactie van de arts?
Geef een cijfer op een schaal van 1-5 waarbij 1 staat voor een slechte reactie en 5 voor een heel goede reactie.

Hmm, hmm	cijfer? ▼
Hoe lang hebt u al darmklachten?	cijfer? ▼
Crohn is een chronische ziekte die we kunnen behandelen met ontstekingsremmers waarmee we de klachten zoveel mogelijk onderdrukken.	cijfer? ▼
De kans is klein dat het Crohn is. Meestal begint het op jongere leeftijd.	cijfer? ▼
U maakt zich zorgen dat het Crohn is.	cijfer? ▼

Ga verder

Research

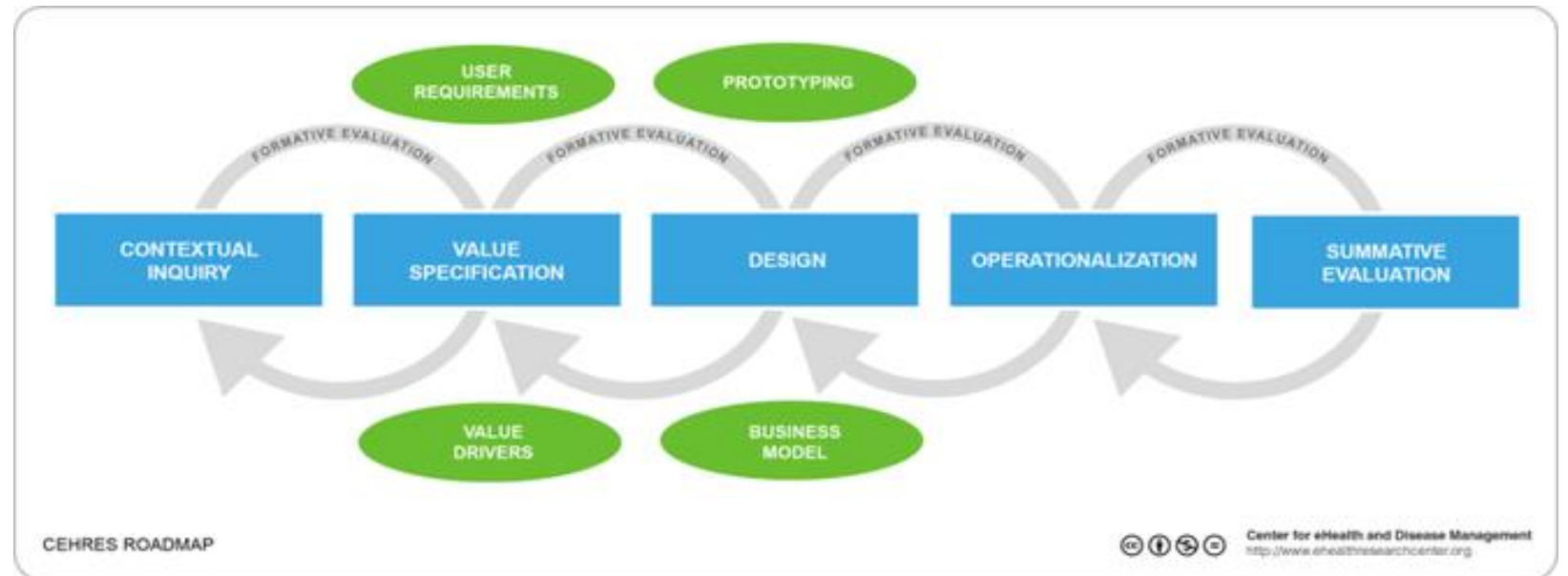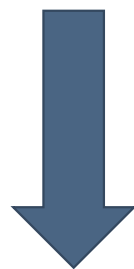Informing patients about symptom distress
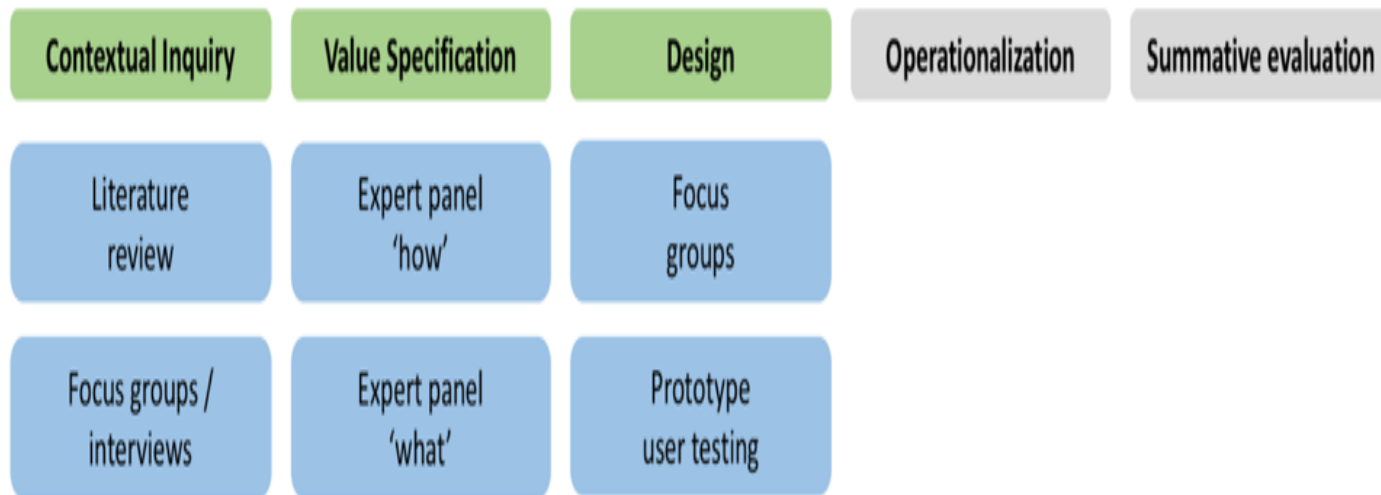
Aim

Develop a (prototype) of a digital training tool for information giving skills

- In the context of treatment information in oncological hematology
- In co-creation with medical oncologists

CEHRES ROADMAP

Van Gemert-Pijnen et al. J Med Internet Res. 2011

Study Design

Contextual Inquiry	Value Specification	Design	Operationalization	Summative evaluation
Literature review	Expert panel 'how'	Focus groups		
Focus groups / interviews	Expert panel 'what'	Prototype user testing		

Contextual Inquiry

Focus groups (4, n = 16 professionals)

- Aim to assess learning needs regarding information provision
  - *What?*
    - Structuring of information
      - To ensure patients understand
      - Not to overwhelm them
    - Tailoring of information
      - Information need
      - Educational level/health litercy
      - Emotional distress
  - *How?*
    - Feedback from peers, communication expert
    - Tailored to individual learning need
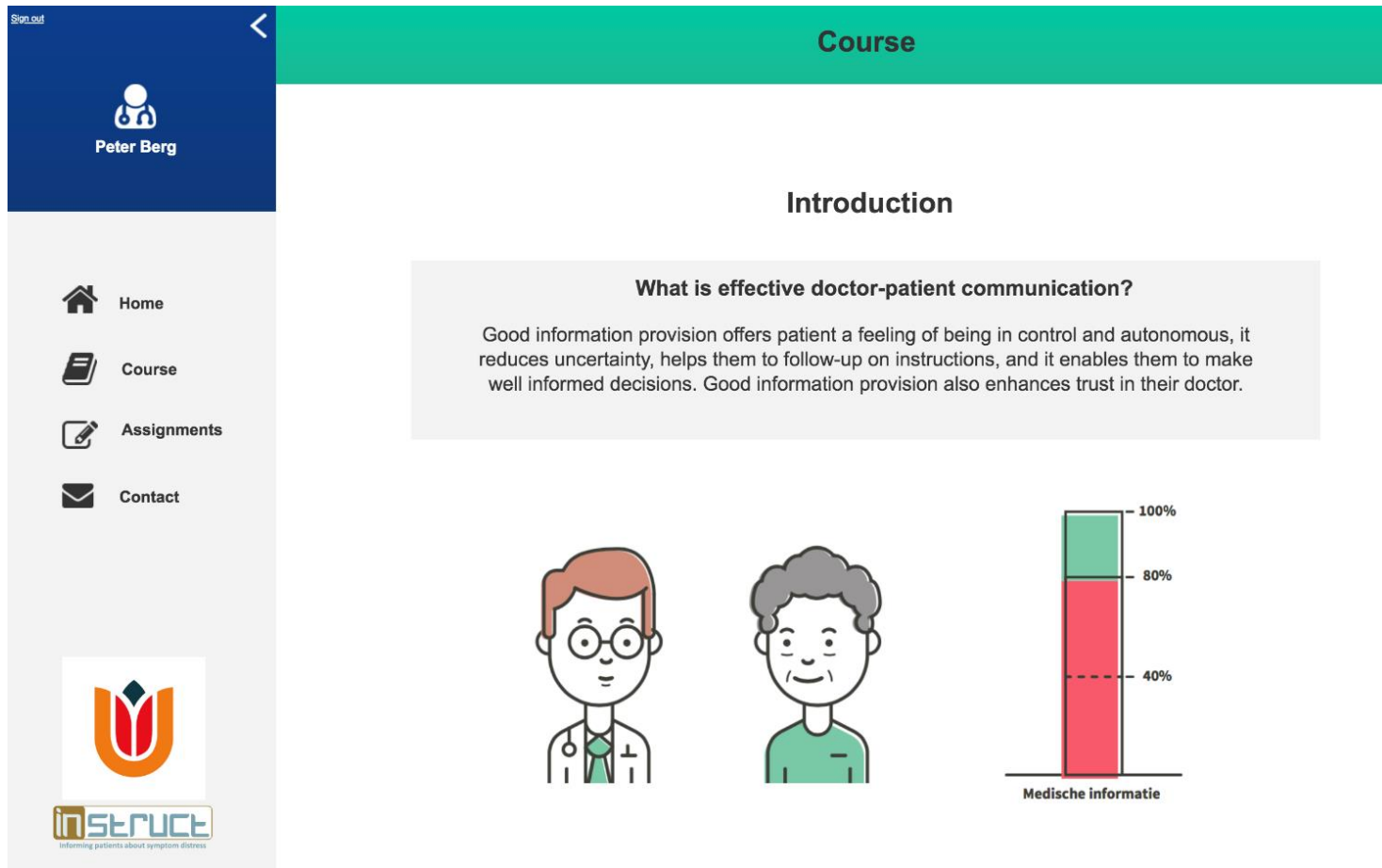
Value Specification

- *What* panel (5 multidisciplinary experts)
  - Overview of
    - sub-tasks for tailoring: e.g. check patients prior knowledge
    - Skills: e.g. *"what do you know about …."*

- *How* panel (5 multidisciplinary experts)
  - Overview of tool requirements
    - Learning needs: e.g. adapted to individual competence level
    - Tool specification: e.g. initial competence assessment
    - Feature specification: e.g. video annotation

- Consensus meeting
  - Develop e-learning and chatbot
  - Aiming at junior oncologists

Design

5 iterative steps
1. Initial prototype design

Course

Peter Berg

Home

Course

Assignments

Contact

Introduction

What is effective doctor-patient communication?

Good information provision offers patient a feeling of being in control and autonomous, it reduces uncertainty, helps them to follow-up on instructions, and it enables them to make well informed decisions. Good information provision also enhances trust in their doctor.

100%

80%

40%

Medische informatie

Axure: https://www.axure.com/

Assignment 2: Video Reaction

In this assignment you will be presented with several fragments of a consultation in which a patient asks a question. First read more about the patient case below before watching the video clip. Try to empathise with the situation and then record a suitable reaction.

1. Download patient case

2. Record verbal reaction

english_demo_9799632e2573.avi

Design

5 iterative steps

1. Initial prototype design
2. First user assessment session - 3 oncologists
3. Further prototype design- tasks
   1. Entry -Test
   2. Personalization
   3. Information presentation
   4. Assignments
   5. Reminders
   6. Expert coaching
4. Second user assesment session

   3 oncologists in training
1. Individual prototype testing –

   5 oncologists in training

Feature	Description
1: Entry test	**E-learning and chatbot:** Video-recording of a consultation with one of their own patients. This video-recording had to be sent to peers, who provided immediate feedback.
2. Personalization	In **the e-learning**; the content and some assignments could be tailored to participants' learning needs (e.g. to self-select a module, to obtain access to supportive literature) . **The chatbot** offered additional choices, e.g. whether the participant preferred to receive instructional material as text or video, or how much time the participant wanted to spend on this specific session.
3. Information presentation	**E-learning and Chatbot**: Similar content of the instructional and comprised brief text, an animation and video fragments of consultations. In **the Chatbot** this material was presented more interactive, whereas in the e-learning it was presented more static (scrolling and clicking).
4. Assignments	**The e-learning** contained assignments such as reviewing video-recorded consultations (their own or of colleagues) and leaving a verbal message in response to an utterance of a videotaped patient. **The chatbot** only contained the assignment to leave a verbal message
5. Reminder	In **the e-learning**, an email appeared to remind the participant of a personal learning goal. **The chatbot** provided a notification on the participants cell phone, as a reminder.
6. Expert coaching	The **e-learning module** contained a menu-option facilitating consultation with a communication expert. In de **chatbot** module, the option was offered to consult a communication expert for example after having received a too low grade for an assignment.

Individual prototype testing

- Liked combination of different presentation formats (tekst, video, animation)
- Would like more (video) examples of good/bad behavior
- Mixed feelings about reminders
- Concerns about privacy issues
- Liked link to communication expert
- E-learning and chatbot both advantages and disadvantages

Conclusions

- Time consuming development process
- Yet, ….
- Tool tailored to user needs
- Interest younger physicians
- The more concrete, the more enthusiastic
- Combining both formats

Virtual Patient

Julia van Weert, Amsterdam School of Communication Research: Willem Paul Brinkman Technical University Delft

Methodology

Adaptation of Virtual Patient
    Link with Shared Decision Making corpus
- Developed for cancer treatment options (chemotherapy or hormonal treatment) *

Design
- Second year medical students (N = 26)
- 3 consecutive virtual consults with different VP
- Questionnaires: pre-sessions; between sessions; post sessions

* Engelhardt et al

Assesment

- Measurement scales (scales 1 – 7):
  - Engagement
  - Perceived realism
  - Attitudes towards SDM
  - Self-Efficacy in SDM
- Open questions (positive and negative evaluation after each session & overall)
- System-generated feedback on SDM application after each session
- Videotapes of spoken conversation & logging of written information for assessment of correct application of SDM protocol

Methodology

Performance feedback after consultation with the VP, e.g.

- how VP was invited to explain its values, desires and preferences
- how much of the conversation focused on values and desires that the VP considers important or less important
- VP understanding of the purpose of the meeting
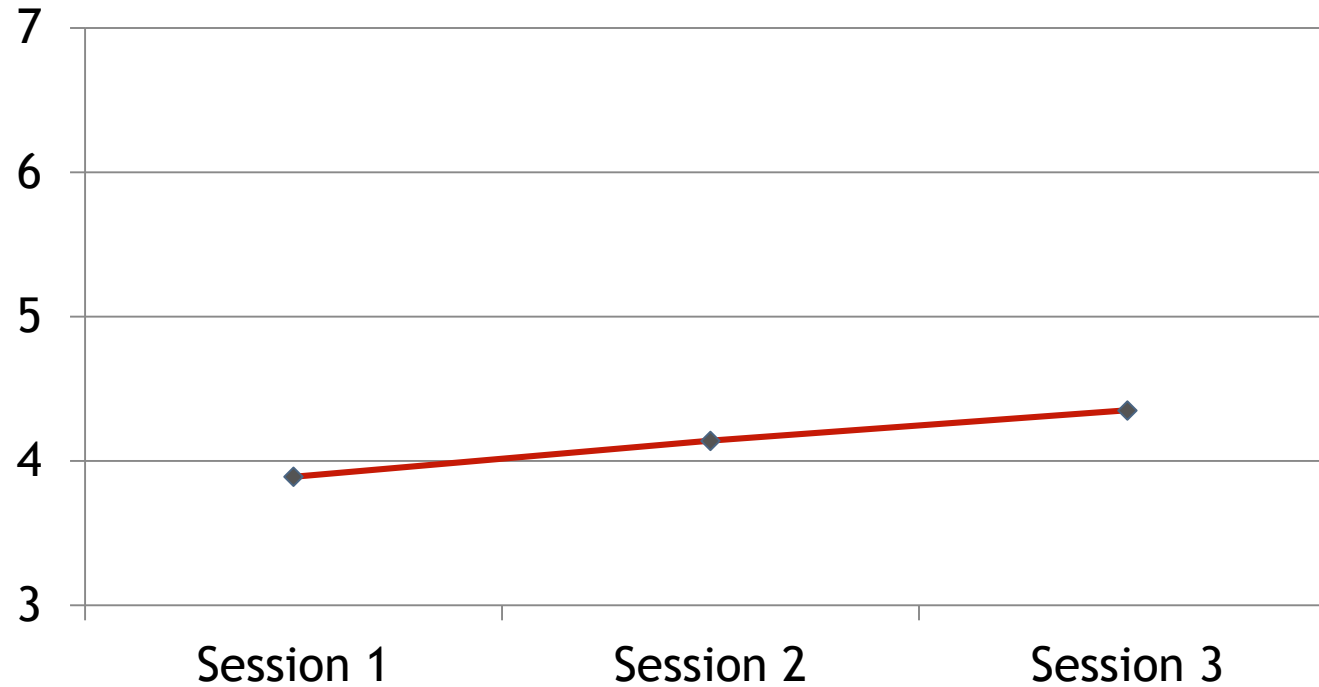- How well the outcome of the SDM consultation matches with the optimal outcome for VP

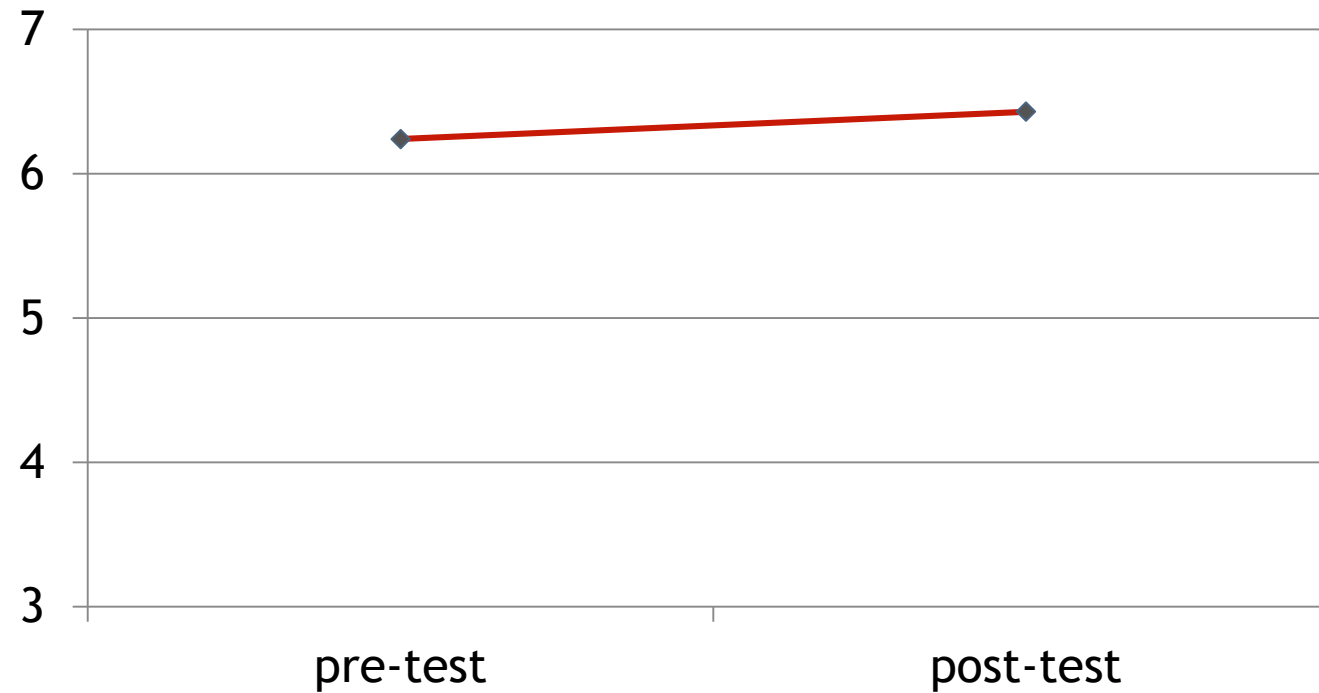- https://vimeo.com/301575300/418ccf25eb

Preliminary results

Increase of **Perceived Realism***

- *M* session 1 = 3.89 (SD = 0.70)
- *M* session 2 = 4.14 (SD = 0.96)
- *M* session 3 = 4.35 (SD = 0.68)

Preliminary results

Increase of **Attitudes** towards SDM*
- Mean_pre = 6.24 (SD = 0.50)
- Mean_post = 6.43 (SD = 0.49)

Preliminary results

Positive points about VP:

- The VP clearly expressed preferences and wishes
- The VP was good at communicating her deliberations
- The VP could ask realistic questions and give realistic answers
- The VP showed her understanding during the consult ("*Oh okay*") ➡️ feeling that VP was listening

Positive points about VP:

One can not practice too often how to interact with patients. That is much easier this way.

She provided vague answers, just as normal patients would do. You really need to ask additional questions.

With certain questions, the patient actually provided more information. I guess this is how it will work in real conversations, someone will only say what he really thinks if you explicitly ask

Participant feedback

Negative points about VP:

- The VP not always responded adequately to questions
- Participants were unsure about the VP's understanding
- Sometimes no decision or too quickly a decision by VP
- The VP sometimes interrupted when participant was talking

Negative points about VP:

She suddenly asked "Will I still live long ? " which I guess is in there to generate empathy, but I got frustrated because I was in the middle of my story and was interrupted repeatedly

She quite often gave weird answers if I asked something

Participant feedback

Positive spontaneous feedback:

- 9 out of 26 participants appreciated the 'easy' way of practicing SDM skills and/or learned how to effectively ask questions to receive adequate answers.

Negative spontaneous feedback:

- 7 out of 26 participants did not agree with the system-generated feedback on SDM

Conclusion

- VP immersion seems satisfactory
- Increased realism over time indicates that users need some time to get used to a VP
- Further improvement needed, particularly on corpus
- VP (in improved version) has potential as an effective learning tool for communication skills training.

Communications Skills Training

The future