1. What if a health care worker, before entering a room to care for somebody would stop for about ten seconds and think what he would find behind this door. Would it make a difference to the care given?
2. What if a professional would look around in the room where he is giving care. And would ask about something hanging on the wall. A painting, a photo or something else.
   Would it make a difference?
   My mum of 92 has a photo of Vlissingen on the wall. That's a town in the South West of Holland. And she is living in the North, because she married my dad. It is on the other site of Holland and for us Dutch 400 kilometres is a long, long distance.. Now she is getting older, she talks more and more about the town where she grew up; about the beach and the sea, it's becoming more important.
3. Imagine that a health care worker would take the time to sit for a minute, just a minute, to focus on their patient, before caring for them. Would it add something positive?
4. What if you, when entering a room, took time to make eye contact? Consciously make eye contact. Would the care become better? It happens that an elderly person says, "I've been cared for all day and not one person has looked me in the eye,"
5. What if you sometimes ask elderly what music they liked or what instrument they used to play? Recently somebody told me that she had gotten a lady in her eighties to play the piano again. Would it add to the meaning in life?
6. You could also ask people about the jewellery they're wearing. I'm wearing a ring that used to belong to my aunt Foekje (who I'm named after). She passed away 3 months ago. So, it means a lot to me. Would it not be the same to an older person?
7. And do health care professionals always know what religious convictions their patients have? Would all these things mentioned make a difference? Make health care better?

   At our University of Applied Science Viaa we believe attention to existential life-questions or attention to meaning of life or spirituality do not have to be big things like issues about life and death, but it is also the daily meaning of life. Why do I get up in the morning, what gives pleasure, what gives meaning, even for a short while.

   Like Betty Newman we think spirituality, attention to meaning of life should be the basis of health care. And we were looking for different ways to teach students about spirituality.

8. That's why we decided to design a Mobile Application and do research at the same time.
   For this Educational Design research we used five cycles.

9. The first cycle of the Educational Design Research consists of a theoretical framework. In the framework we studied the educational principles and we specified the content of the mobile application.

   The content is based on spiritual care competencies.

   Reflection on action is frequently used in healthcare training. This always involves looking back to a meaningful event. ‘Reflection in action’ is much less investigated and described than ‘reflection on action’. ‘Reflection in action’ means that, during action, reflection takes place. This enables the person to immediately adapt action and subsequently new reflection in action can take place. Even then, during reflection, action has passed, but it is supposed to be a matter of seconds or minutes, and not hours, before reflection occurs. ‘Reflection in action’ creates new understanding. In various ways learners can be encouraged to reflect in action. The ways in which students are encouraged to reflect are described as ‘reflection amplifiers’. We thought: a mobile application presenting short assignments to execute in the workplace and prompt reflection immediately after accomplishment would function as ‘reflection amplifiers’. Therefor it will help students to reflect in action. That’s why we have chosen to use situated learning and to give small assignments, like the ones I mentioned at the start.

   Comments and questions from other learners can help each individual learner even more to reflect on his or her actions.
   Through working on small assignments and online sharing about their experiences with fellow students, students are supposed to develop self-constructed knowledge. Students can adapt and discover new ways to pay attention to life-questions posed by clients. Through virtual collaboration new knowledge is constructed. Collaborative learning improves the learning experience.

   Since reflection is essential to the process of learning to pay attention to life-questions, social learning through a group timeline and situated learning through short assignments in the workplace can be expected to help learners to improve their spiritual care.

10. The next cycle was the design of the application with the help of focus group of experts and a graphic designer and computer programmer.
11. The focus group was a very diverse group. Pastoral care providers, a few people of a union for the elderly, a trainer, a specialist in palliative care etc. With their input we decided on the final content of the Mobile application.

The graphic designer and computer programmer came with a proposal for an application with a group timeline for social interaction, many small assignments and limited amounts of theory.

12. Entering the application you will land on the assignments page. There are more than 120 small assignments. Participants are free to decide which ones they like and want to do. And not all have to be completed.
13. We have divided the assignments in me/the other/we
    me (recognizing one's own spiritual needs), the other (recognizing spiritual needs of the elderly), together or we (adequate response on spiritual needs).
14. This is an example of a small assignment: Look for an image or object that symbolizes the value of your life. And it says: this is the hand of my son and grandson. Children and grandchildren greatly add to the value of life. I think it must be very difficult to not have children unintentionally. Especially when you get older.
15. This is the theory page. It starts with some concepts. What is spirituality, what adds to the daily meaning of life etc. The second chapter is about the nursing methodology and spirituality. What do you ask, what do you write down etc. The next two chapters are about communication and reflection and the last two about the organization we work in and the society we life in.
16. Looking back on your life by writing a life story book, but also by just talking about it can be important for people. This page gives some information, with photos and poetry. Sometimes we used short film clips. And always give suggestions for more books or articles to read.
    Below you see 'our own experience'. The theory parts are connected to the timeline and activities.
17. When you click on 'our own experience' you see the question: have you ever thought about how it would be to make a life story book about yourself. Which questions you certainly would want to answer. And then the participant had the choice out of a lot of questions, could choose one and answer.
18. With the design we in the third cycle tested the feasibility.
19. The design of the mobile application was send to 26 people, like nurses, caregivers, elderly people and students, to test and review. In general they were all positive, but they also had comments. And of course, some people said, "No don't do this," and some people said, "Yes, do this," And I had to decide. 26 people, 26 opinions, and I had to decide. It wasn't an easy process, but very rewarding. We could see the application improve even more. Spelling mistakes were removed, colours were adjusted, text was revised.

A group of lecturers gave their educational opinion. The idea was to only use the tool for situated learning in the workplace, but the first part of activities to help participants to think about their own spiritual needs can be done in a group of students in school setting.

Several suggestions for an teacher's guide and instruction for participants were made.

20. We did cycle four and five together with the help of four graduating students.
21. First we gave a 156 participants the spiritual care competency scale. The participants were mainly students of different colleges and universities and 14 graduated workers.
    The spiritual care competency scale was used to assess whether healthcare workers have developed spiritual care competencies after having learned through the mobile application. The SCCS consists of 27 statements for instance 'I can report orally and/or in writing on a patient's spiritual needs' or 'I can attend to a patient's spirituality during the daily care (e.g. physical care)'. Participants are asked to estimate their own level of competency by circling an answer in a 5-point Likert scale which best reflects the extent to which they agree or disagree with each statement
    I just said we merged the fourth and fifth cycle together. As a result of that we had not paid enough attention to the implementation in of the mobile application in the group of participants. A response rate for the post-test of 30 % was achieved, but only 10,3 % says to have used the mobile application.
22. Nevertheless, the score of the SCCS post-test is significantly higher than the score of the SCCS pre-test, $F(1, 43) = 15.32$, $p < .001$, $r = 0.51$. This is a large effect. There was no difference in SCCS scores between the participants who use or did not use the mobile application.
23. In addition, there is a significant interaction effect with the participants who used the application. A higher increase applies for the participants who have used the application than for participants who have not used the application, $F(1, 43) = 4.67$, $p = 0.036$, $r = 0.31$. This is an average effect. Although the response rate was low and more research should be done, we felt very positive about it.
24. A half open questionnaire was developed in order to discover why participants have not used the mobile application, what they thought could be improved and if they planned to use the mobile application in the future. I remember sending this questionnaire and not getting any response. Sending it again and still not getting response. I felt like pulling the participants through the computer!
    The two most important reasons not to use the application were 'lack of time' and 'other priorities'

25. We got the advice to imbed the application more in the whole teaching program and make use of blended learning. Support the participants by face to face contact with each other and lecturers.

    And that is exactly what two students have done in their third year internship. They have implemented the application in two teams. One in a nursing home and one in a team giving care at home.

26. So where are we now:

    I could say a lot more, but I will finish by saying: We have received the first orders.

    Soon the Educational Design Research report will be finished. If you want to receive it you can send me an email. It's in English, I promise!

    And in this company it is good to say that we could translate the application in English. So that not only in Holland, but all over the world attention to spiritual needs could be improved.