## Ethics Education using a Computer Program

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# I. Develop an integrated ethical decision making approach

1. State an ethical problem

2. Additional information collection and analysis of the problem

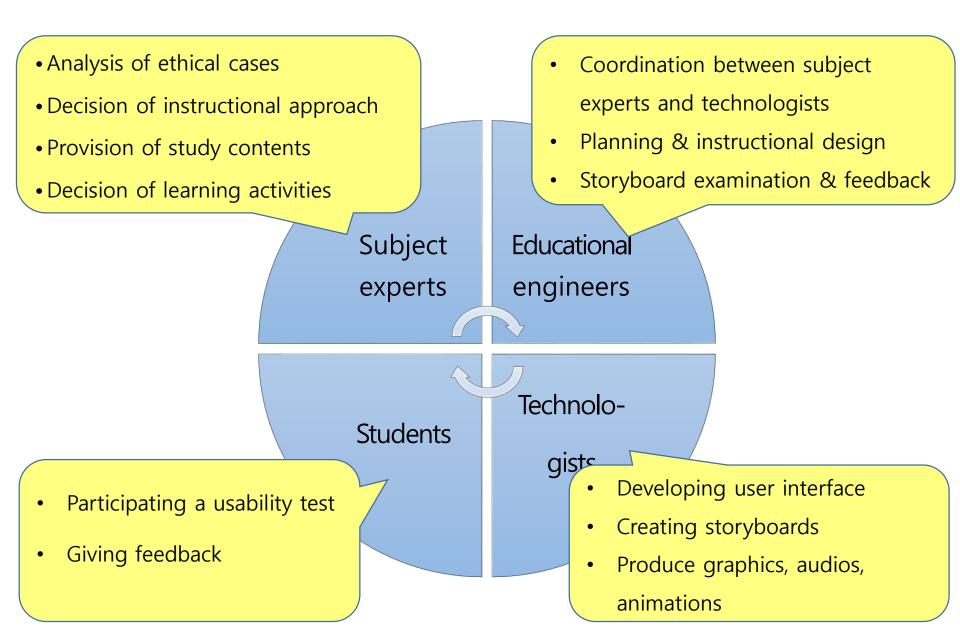
3. Develop alternatives and analyze and compare them

4. Select the best alternatives and justify your decision

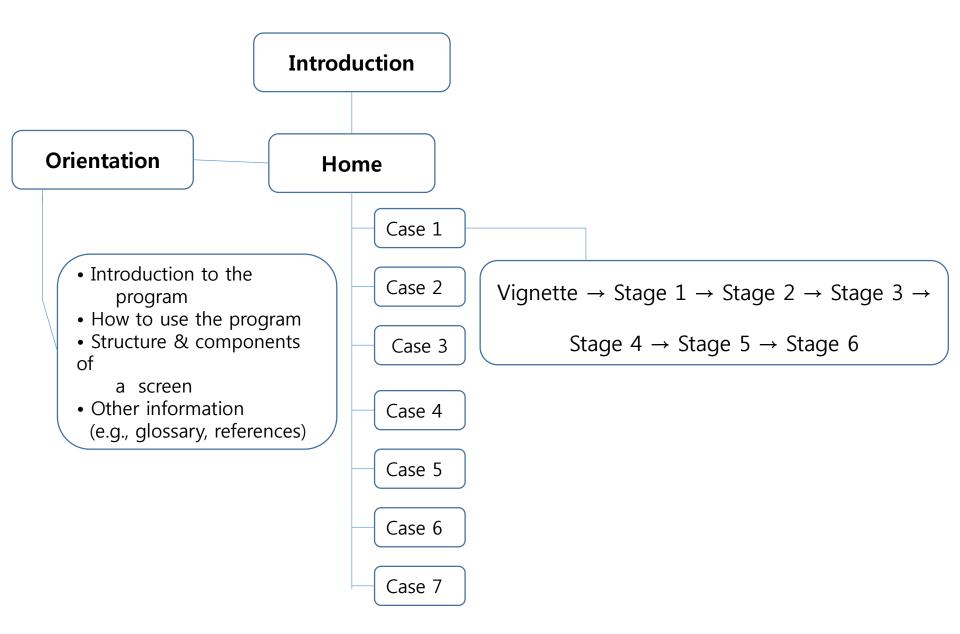
5. Develop strategies to successfully implement the chosen alternative and take action

6. Evaluate the outcomes and prevent a similar occurrence

### II. Develop a Case-based computer program



#### **II. DEVELOP A CASE-BASED COMPUTER PROGRAM**



## **III. APPLY THE PROGRAM**

#### Homepage: "Case-based Program to Train Ethical Decision Making"



#### Case: Surrogate Decision Making Step 1. Identification of an ethical problem





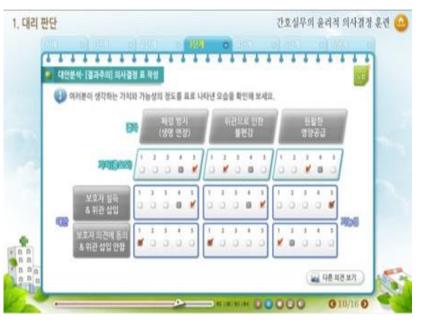
- 1) Problem statement as a conflict of ethical values:
- 2) Is this an ethical issue? Or, is this a communication problem, a clinician-patient relationship issue, or a legal problem?
- 3) Characteristics of the problem can be assessed to learn your own perception or attitudes.
  - A. Temporal urgency
  - B. Magnitude of consequences
  - C. Existing or potential issue
- 4) Do you need further information to comprehensively understand the problem or to seek alternatives or options to solve it?

#### Step 2. Collection of Additional Information to Identify the Problem and Develop Solutions

- Who are actors involved in this issue and what information is needed from each?
- If necessary, provide the actors with information needed to establish their own perspectives and opinions regarding the problem.
- Biological and psychosocial information, social/historical aspects, goals, preferences, and values related to the issue.
- Who is the ultimate decision maker?
- Is the statement of an ethical problem in Step 1 correct? If necessary, correct them and restate the problem



#### Step 3. Development of Alternatives for Analysis and Comparison



- Ethical rules
- Ethical principles
- Ethical theories: Options, Outcomes, Values, and Likelihood (OOVL) Guide for utilitarianism
- Professional ethics
- Legal aspects
- Personal conscience or religion
- Institute's or society's values, guidelines, or policy

#### Step 4. Selection and Justification of the Best Alternatives

- Is the chosen alternative consistent with your own value or institution's value?
- Think about an opinion that does not conform to your choice and challenge it
- Assuming a situation when the chosen alternative was implemented, answer the following questions.
  - Legal test.
  - Front-page test
  - Gut-feeling test
  - Role model test
  - Professional standard test



#### Step 5. Development of Diverse, Practical Ways to Implement Ethical Decisions and Actions



#### Step 6. Evaluation of Effects and the Development of Strategies to Prevent a Similar Occurrence



- Evaluate the outcomes of the chosen action and the decision-making process
- Strategies for preventing a similar

problem in the future

- 1) At an individual level
- 2) At an institutional level
- 3) At the community or societal level

- Provoking curiosity and interest
  - It was fresh and innovative for me to study nursing ethics using a computer program with animation. Our generation often prefers this way of learning. I hope other courses, such as nursing management, adopt the same approach.
  - The program was very interesting and lifelike, provoked my curiosity, and attracted my attention. It was like doing a game rather than studying. I even reviewed the rest of the ethical cases that were not assigned to me.
  - At the beginning the ethics course sounded dull, boring, vague, or hard to study with little fun, but now I feel that ethics is interesting and familiar.
  - I considered ethics as just one of the theoretical academic majors with little applicability to nursing practice, but I found that ethics is an interesting topic and relevant.

- Easy to understand ethical conflicts and different positions of stakeholders
  - It was much easier to understand when clinical ethical cases were presented as a story using Flash animation rather than black-and-white text. The figures (e.g., a nurse) and images were realistic and the narrator's voice and words were clear.
  - It was a great opportunity to apply theoretical ethical knowledge to a realistic case and to put myself in others' positions; otherwise, I would not understand well patients and their families.
  - It was difficult to understand and apply my theoretical knowledge of ethics through lectures alone, but I became confident in ethical decision-making and was able to provide reasonable justification for my decisions.

		n*	Ethical Preparation					Principled Thinking			
Variables			Pre-test		Post-test		n*	Pre-test		Post-test	
			М	SD	М	SD		М	SD	М	SD
Group	Computer group	68	4.75	1.10	6.19	1.01	66	50.95	13.91	46.82	17.18
	Control group	89	5.20	1.14	5.62	1.18	83	46.07	13.09	43.70	14.73
Grade	2 <sup>nd</sup> grade	76	5.06	1.08	5.45	1.04	70	46.76	4.36	43.52	16.81
	4 <sup>th</sup> grade	81	4.95	1.20	6.25	1.11	79	49.54	12.91	46.46	14.97

Ethical preparation: 7 items, 9-point scale (e.g., ability to identify and address ethical issues)

Principles thinking: P(%) score, Korean version of the Defining Issues Test

Satisfaction		n	Mean	SD	F	Pr > F
Group	Computer group	69	3.80	0.42	46.1	<.0001
	Control group	89	3.21	0.62		
Grade	2-year	77	3.49	0.57	0.76	0.38
	4-year	81	3.44	0.65		

Satisfaction: 8 items, 5-point scale

(e.g., The case analysis has stimulated awareness of my ethical reasoning processes)

 Students' curiosity and interest in solving ethical issues, attention to learning ethics, understanding ethical conflicts or different positions of stakeholders

 Preparedness for ethical conflicts was greater in the computer group and the 4<sup>th</sup> year students than the comparing groups. However, room for improvement was obvious.

 Considering lowering P% score (post-conventional thinking) after the course, one-semester ethics course may not be enough or current ethics education may focus on conventional stage.

• Satisfaction was higher in the computer group than a control group.

• Should stimulate students' reflective thinking and their own ethical values

 To develop a more sophisticated computer program, we need knowledge of how differently students respond depending on diverse ethical issues or what critical variables affect ethical decision-making.

• To assess the effects of ethics education, we need measurement tools using ethics cases in nursing-specific contexts.

## References

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- Park, E. (2013). The development and implications of a casebased computer program to train ethical decision-making. *Nursing Ethics, 20*, 943-956.
- **Park, E.** & Park, M. (2015). Effectiveness of a case-based computer program on students' ethical decision making. *Journal of Nursing Education, 54*(11), 633-640.