Virtual Aging Class for College Students Using Multimedia Simulations and Activities

Myonghwa Park[a], Seok-Jo Yang[b]

[a]*College of Nursing, Keimyung University, Republic of Korea*
[b] *Chungnam National University, Dept of Mechatronics Engineering, Republic of Korea*

Introduction

Aging Society ⟹ Aged Society

Rapid increase of Elderly Population in Korea

Aging Education

Preparing young generation for future aged society

Aging Education for College Student

Successful aging & Healthy aging education

Virtual Class with Multimedia

Web-based instruction for Digital age

Graphics, Video, Audio, Simulation, Game:

Virtual experience of Aging Process

Purpose of the Study

I. to analyze the learning need of the target students, learners' general and computer related characteristics, and technical and environmental need.

II. to design the information, interaction, motivation, and evaluation mechanisms.

III. to develop the contents using multimedia such as graphics, animation, video & audio, and simulation.

IV. to operate the developed program

V. to evaluate the program

Research Procedure

Analysis Stage **Need Analysis** **Content Analysis** **Leader Analysis** **Technical Environment Analysis**	• Education Need Analysis • Literature Review/ Course Objectives • Learner's Usability of Computer • Validity Test in Content/ Technology
Designing Stage **Information Designing** **Interaction Designing** **Motivation Designing** **Evaluation Designing**	• Contents • Learner & Content & Instructor Interaction • Motivation • Evaluation
Producing Stage **Contents Framing** **Media Production** **Integration** **Formative Evaluation**	• Contents • Motion, Image, Pictures, Illustration • Program development & Loading on the web • Pilot test
Operation Stage	• Open to the target students
Evaluation Stage	• Contents & System Evaluation

Analysis Stage

- **Topics of education program were developed based on a survey about the college students' knowledge and attitudes of aging and literature review**

- **According to the target students' needs for aging education, the topics were selected and validated with the experts in aging and gerontological area**

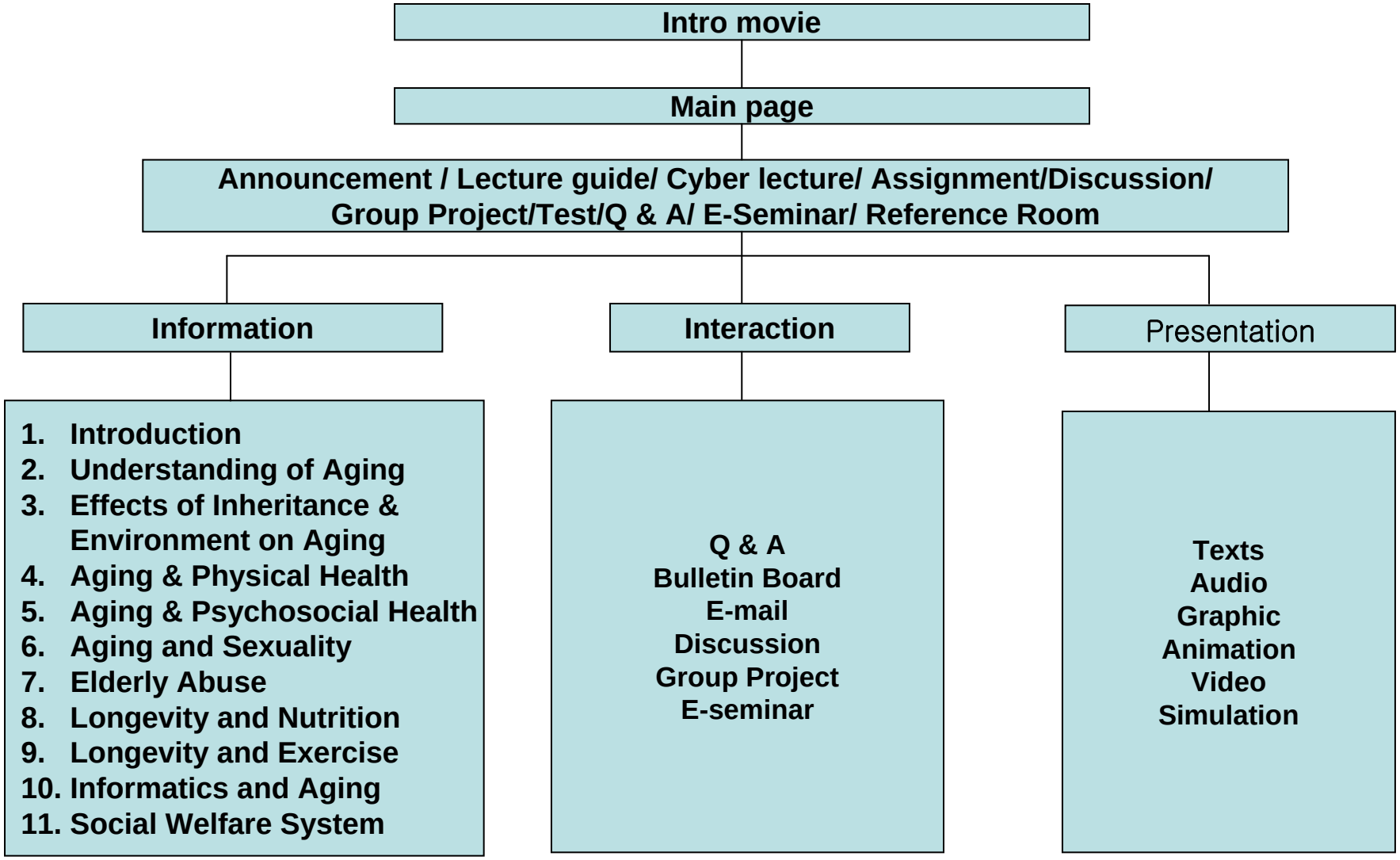
Designing, Producing, & Operating

- Designing
  - Education information: cyber lecture, reference room
  - Interface between learner and contents, learner and instructor, learner and learner : Q & A, bulletin board, e-mail, discussion, group project, e-seminar
  - Motivation : game, simulation, video & audio
  - Evaluation : quiz, test, assignment

- Producing
  - 45 cyber classes, 10 videos, 104 images, 8 simulations, and 10 text based teaching material

- Operating
  - The final program was uploaded on the cyber class homepage of K University

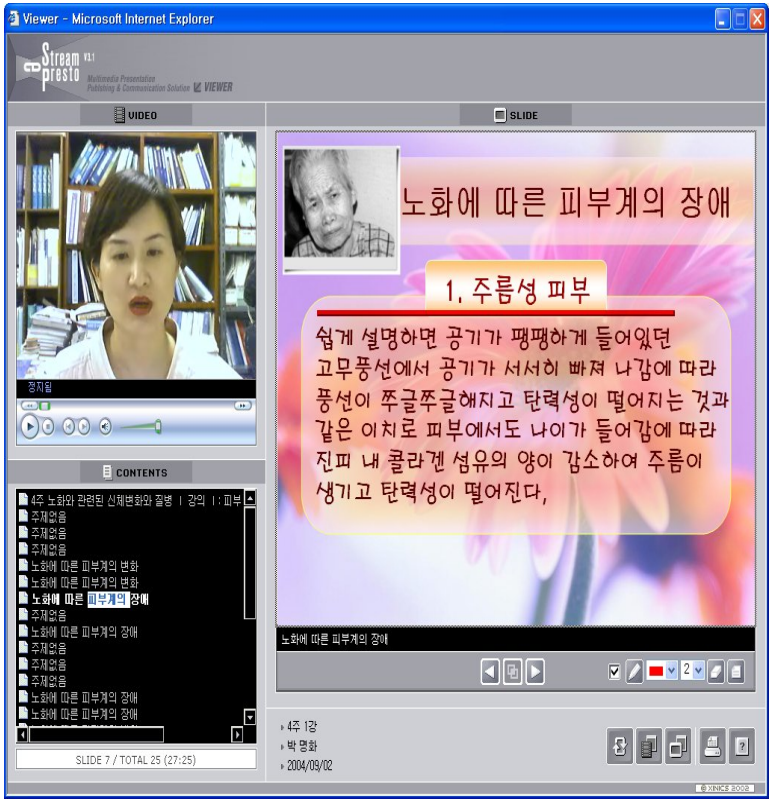
Structure of the System



Class Websites

Main Page

Cyber Lecture



Simulation & Game

Simulation of Visual Aging

Game of Bone Health

Evaluation

Category	Item	Mean
Instruction function	**Easy to understand**	**4.00**
	Convenient	**3.80**
	Satisfied	**4.10**
	Interested	**4.50**
	Accurate	**4.00**
	Concentrated	**4.20**
Screen Construction	**Appropriate letter size**	**4.30**
	Logical construction	**4.10**
	Attractive graphic	**4.40**
System Function	**Variety of multimedia**	**4.30**
	Exact learning guide	**4.00**
	Fast upload & download	**3.50**
	Quick and appropriate interface	**4.00**

Conclusion

- Virtual Multimedia class on aging education is an effective learning tool for the college students.
- Virtual class with multimedia such as video, audio, and simulation can clarify instruction by allowing students to visualize complex and dynamic process of aging.
- The ultimate objective of this line of research will be to determine how best to prepare the multimedia such as simulations and games on aging education for successful aging and health promotion for the different age group such as middle age or old age group.

Information

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Contact Information	Myonghwa Park, PhD, RN 194 Dongsan-dong, College of Nursing Keimyung University, 700-712 South Korea e-mail: mhpark1@kmu.ac.kr Tel: 82-53-250-7552