Collaborative expression program by creating digital storybooks

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Abstract

We propose a basic learning program to foster ability to understand and empathize with others. In the program, a student creates a digital storybook collaborating with an elderly person who needs care. The collaborative expression activity in the program provides the elderly persons a way to express themselves while promoting students' learning. We developed a Web application for publishing storybooks, and a tablet PC application to view storybooks for execution.

Objectives

Our study focuses on communicational competence, particularly the ability to understand, be concerned with, and empathize with others in different social positions. We designed a learning program to foster it for students in higher education through a collaborative expression project, and developed a tablet PC application as a tool.

In the program, a student pairs with an elderly person who needs assistance because of physical difficulties, and they create a digital storybook together. The storybook is presented using a tablet PC (iPad) application, and also is published on the Internet. Normally, an elderly person who is hospitalized or confined to home has few ways to express and publish their own contents. Information and communication technology (ICT) such as the Internet and mobile PCs give freedom of location and situation.

Art expression programs have been widely practiced and reported for counseling and nursing as a communication method. However, most of them are executed in the fixed relation that one person is a facilitator and the other is a participant, and there is scarcely any program that allows equal collaboration.

Processes of the program and tools

The collaborative program is comprised of three processes: the student interviews the partner to discover the story theme; the student and the partner elaborate the story together; and the student edits a digital storybook, that consists of images, texts, and sounds of narration. We developed a viewer application and a Web system to integrate image, audio, and text files into a digital storybook, and to publish it on the Internet. They are applied to the program. The viewer application shows a title list of uploaded storybooks, and displays the selected one in a lightbox (Fig). Each page is shown with texts while playing the audio file, and the previous or the next page is turned by touching the monitor.

Fig. *Title list on the application(left) and viewing(right)*

Implementation and discussion

To examine the feasibility of our learning program, we have implemented an experimental project in which four women students and four elderly persons aged 80-90 (three women and a man) in a care home participated. Students belong to the graduate school of media and information.

The themes of the created storybooks were inspired from concrete episodes that were meaningful and important in the elderly partners' past lives. The collaborative creation brings an objective view of the original episodes to them, and provides a channel to convey messages to the outside world. Moreover, we surveyed the effect of our program by the communication skill scale. The students responded the same questionnaire before and after attending the program. The result indicates that the students acquired the confidence on acceptance of others and ability of understanding. In the future, we intend to study deeply the feasibility of our collaborative expression program for communication design education.