

Effects on Reflection and Learning Motivation of a Mutual Evaluation Method for Videos Using ICT

Kiyoko TOKUNAGA, Miwa YAMAMOTO, Yoko YAMAGUTI.

Kyoto Koka Women's University Department of Nursing, Kyoto, Japan
 Email:k-tokunaga@mail.koka.ac.jp: Kiyoko TOKUNAGA

ABSTRACT

This study was conducted to examine the learning contents and experiences of being a recipient in a mutual evaluation method for videos ("receiving") and a sender in the method ("sending"), and to clarify the effects on reflection and learning motivation. For this study, we extracted learning contents from the data of a learning program that used a mutual evaluation method for videos of nursing students' exercises and examined them from the perspective of reflection and learning motivation. Results revealed that the receiving and the sending experiences in the mutual evaluation method were motivations for the acquisition of nursing skills. Furthermore, the sending experiences in the mutual evaluation method were reflection for nursing skills. More effective introduction of other-evaluation must be considered.

*Keywords:*nursing Mutual Evaluation Method, learning motivation, reflection, video of exercises, nursing skill, nursing students

1. Introduction

Nursing students must acquire nursing skills carefully within a short time. The process of nursing skill acquisition entails a cycle of realizing and altering personal problems. Awareness of personal problems is a cyclical driving force and a cyclical accelerating force. A mutual evaluation method for videos that record the scenes of assistance (video of exercises) is a learning method that can be used to promote the awareness of personal problems[1]. Many reports have described studies of the learning effects of the mutual evaluation method for videos. However, few reports describe the learning effects of the implementation of other-evaluation. We undertook this study because the use of the mutual evaluation method considering the learning effects is expected to raise the acquisition process efficiency.

2. Purpose of the study

We clarify the learning contents of the mutual evaluation method with receiving and the sending experiences. Then we examine the effects of the method on reflection and learning motivation.

3. Research methods

(1)Research design: The method for mutual evaluation of videos of exercises was conducted using an iPad device (Apple Computer Inc.) and LoiLo-Note (Loilo Co.), which is a learning support application for the iPad. Figure 1 presents the learning program. We conducted a questionnaire survey to ascertain whether the sending and the receiving experiences served as useful references for future learning. The learning contents were extracted by categorizing the contents of reflection papers. Results of the questionnaire and the extracted learning content were examined from the perspective of reflection and learning motivation. Figure 2 presents the mutual evaluation method with the receiving and the sending experiences.

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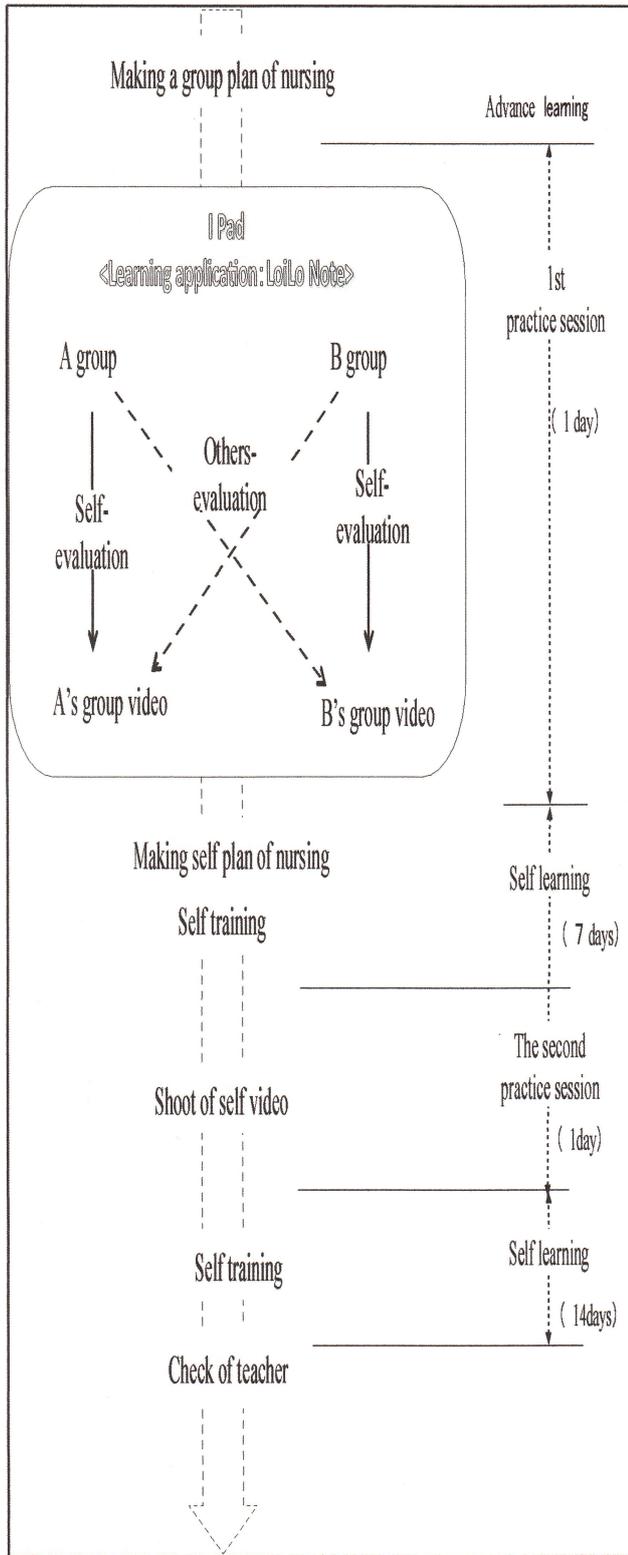


Figure 1. Learning Progress

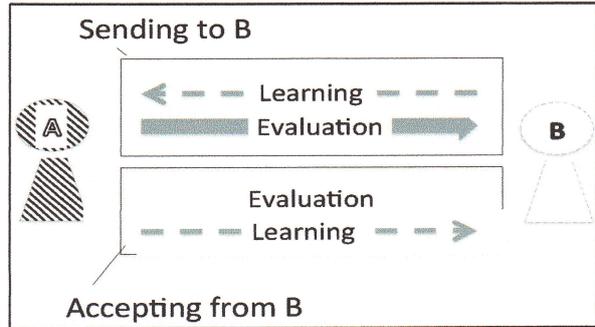


Figure 2. Mutual Evaluation Method.

(2) Participants

- first-year students of nursing
- 18–20 years old
- 97 students

(3) Study period: Early April 2015 to late August 2015.

This study was conducted over eight weeks. Subject skills are "bed-bath" and "change position."

(4) Ethical Considerations

This research was approved by the Research Ethics Committee of Kyoto Koka Women's University.

5. Results

Figure 3 presents results obtained from a questionnaire survey administered to students after they had experienced the mutual evaluation method. Table 1 presents learning contents of receiving experiences in the mutual evaluation method. Figure 4 presents results of a proportion of each category of the receiving experiences. Table 2 shows the learning contents of sending experiences in the mutual evaluation method. Figure 5 presents results of a proportion of each category of the sending experiences.

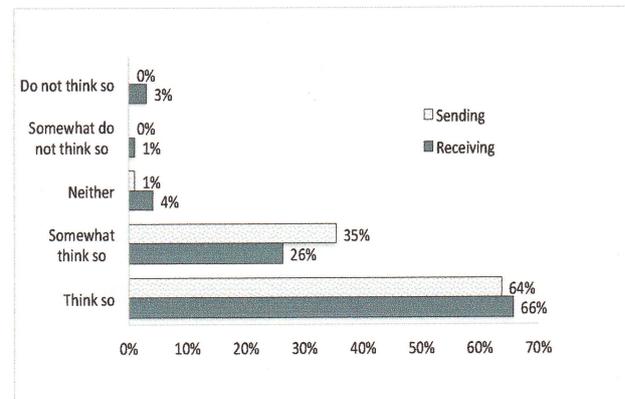


Figure 3. Extent of Referring the Learning with Sending and Receiving Experiences to Self-learning (n=98).

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Table 1. Proportion of each Category of Receiving Experiences

Solution	Other evaluation method became a remedy of a concrete solution I got concrete advice from others, and found a solution I got advises of solutions from other evaluation method
Self evaluation	I noticed that I could not do actions which I thought I could I was pointed out my mistakes which I could not notice I could understand good points of my actions
Viewing points of evaluation	I realized different between self evaluation self and others evaluation
Needs other evaluation	It is a pity that there are few contents of others evaluations Abstract opinions do not become references I want concrete evaluations

Table 2. Proportion of each Category of Sending Experiences

Solution	Other's resources became references I want to adopt good actions I realized there are another methods
Self evaluation	I realized again that actions which others could not do same as I I understood not good actions of mine I could do actions that I thought I could I could find my good action
Viewing points of evaluation	Parts of actions I thought it is important are different from others I could understand how my actions were seen from others
Self subjects	I found remedy of my actions Others subjects are mine I will be careful that bad actions or points of others It was an opportunity which I look my actions over again

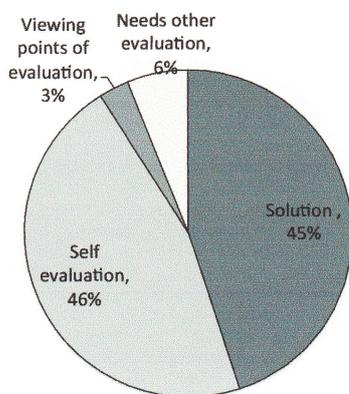


Figure 4. Ratio of each Category of Receiving Experiences.

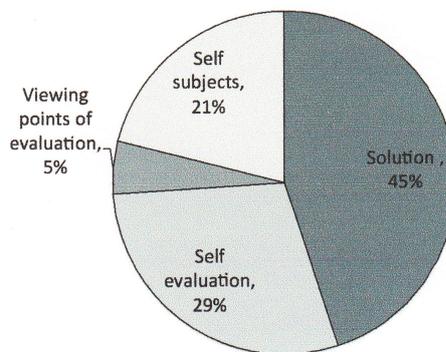


Figure 5. Ratio of each Category of Sending Experiences.

6. Discussion

A comparative examination was conducted using Keller's ARCS model[2]. Implementation of the mutual evaluation method among students is a learning process with fellow students that poses a challenge: it falls under the aspect of <relation>. More than 80% of students used the mutual evaluation method as a reference for learning. The willingness to use it as a reference for learning can be regarded as a <challenge> related to oneself. It falls under the aspect of <relation>. <Discovery of specific methods and actions> and <Discovery of personal problems> in the sending experience and <Laxity of self-evaluation> and <New discovery> in the receiving experience can be regarded as the <satisfaction> that is gained during checking and evaluation of learning results obtained using video as a medium. That discovery therefore can be regarded as an aspect of <satisfaction>.

Desire at this level of interference is related to feelings of inferiority, feeling helpless, and lower motivation for learning. Teachers have changes for students at the appropriate learning environment. Furthermore, a <Check of personal problems> category of the sending experiences is applicable Reflection (Schon)[3]. Students compared the others' actions and behaviors. They also received student assessments of their actions. Results show that students are discovering self-problems with "Others' subjects are mine." Sending Experiences in the Mutual Evaluation Method might present opportunities for reflection.

Receiving and the sending experiences in the mutual evaluation method affects learning motivation by enhancing the aspects of <relation> and <satisfaction> related to learning motivation. Sending Experiences in the Mutual Evaluation Method might present important opportunities for reflection.

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