Journal of Educational Sciences (*JEDUS*) Fall & Winter, 2021, 28(2), 59-78 DOI: 10.22055/edus.2021.36064.3165

**Orginal Article** 

The Effect of Pre-Training and Scripting Strategies in a Collaborative Reasoning Based Learning Environment on the Acquisition and Transfer of Decision-Making Skills and Satisfaction

Rcceived: 23 Dec 2020

Accepted: 20 Sep 2021

Mohsen Bayat<sup>\*</sup> Hashem Fardanesh<sup>\*\*</sup> Javad Hatami<sup>\*\*\*</sup> Ebrahim Talaee<sup>\*\*\*\*\*</sup>

## Intruduction

In effective citizenship education, decision making is important skills. The purpose of this study was to investigate the effect of collaborative reasoning-based learning environment with teacher support (pre-training and scripting by procedural prompt) on acquisition and transfer of decision-making skills and satisfaction. For this purpose, the questions were: (1) what is the effect of collaborative reasoning-based learning environment with pre-training and script supports on students' acquisition of decision-making skills? (2) What is the effect of collaborative reasoning-based learning environment with pre-training and script supports on the transfer of students' decision-making skills to the novel moral story? (3) What are students' opinions about the collaborative-reasoning learning environment?

## Method

This research is a pre-test and post-test experimental designs with three experimental groups. The statistical population of the study is all sixth grade students in Neyriz in the academic year 1399- 1400. All participants were male and their mean age was 12.40 (SD = 1.33). Among the schools of Neyriz city, three schools of Mehregan, Mehrdanesh and Bahman were selected through cluster sampling. Three sixth grade classes were selected

<sup>\*</sup> Ph.D. Student, Tarbiat Modares University, Tehran, Iran.

<sup>\*\*</sup> Assistant Professor, Tarbiat Modares University, Tehran, Iran. Corresponding Author: hfardanesh@modares.ac.ir

<sup>\*\*\*</sup> Professor, Tarbiat Modares University, Thran, Iran.

<sup>\*\*\*</sup> Assistant Professor, Tarbiat Modares University, Thran, Iran.

and randomly divided into experimental groups 1 (pre-training), experimental 2 (scripting) and experimental 3 (blended method). Learning and transfer of students' decision-making skills were measured using a coding scheme prepared by the authors. Students' opinions about collaborative reasoning-based learning environment were measured using a questionnaire designed by Mehdizadeh (2007). This questionnaire was used with some changes after adapting to the classroom conditions.

## Result

The results showed that the collaborative reasoning approach with three support methods can improve acquisition and transfer of students' decision-making skills. Also, students who received a combination of support through pre-training and scripting in the collaborative reasoning process performed better in acquisition and transferring decision-making skills than the other two groups and were more satisfied with their learning environment. Also, students who received pre-training prior to collaborative reasoning performed better than the script group in acquiring and transferring decision-making skills.

## **Discussion**

Pre-training and scripting are both complementary learning strategies that, together, provide powerful instructional support in collaborative reasoning-based learning environments to empower students to acquisition and transfer decision-making skills. Pre-training creates the mental structure or model needed to understand the scripts that are presented in the collaborative reasoning process.

**Keyword:** Decision-making skills, Collaborative Reasoning, Pre-training, Script

**Author Contributions:** Dr. Hashem Fardanesh was responsible for leading the overall research process. Mohsen Bayat was responsible for research plan design, data collection and analysis and all authors discussed the results, reviewed and approved the final version of the manuscript.

**Acknowledgments:** The authors thank all dear teachers who have helped us in this research.

**Conflicts of interest:** The authors declare there is no conflict of interest in this article.

**Funding:** This research is not sponsored by any institution and all costs have been borne by the authors.