

## The Role of Instruction in Knowledge Construction in Online Learning

**Authors :** Soo Hyung Kim

**Abstract :** Two different learning approaches were suggested: focusing on factual knowledge or focusing on the embedded meaning in the statements. Each way of learning has positive effects on different question categories, where factual knowledge helps more with simple fact questions, and searching for meaning in given information helps learn causal relationship and the embedded meaning. To test this belief, two groups of learners (12 male and 39 female adults aged 18-37) watched a ten-minute long Youtube video about various factual events of American history, their meaning, and the causal relations of the events. The fact group was asked to focus on factual knowledge in the video, and the meaning group was asked to focus on the embedded meaning in the video. After watching the video, both groups took multiple-choice questions, which consisted of 10 questions asking the factual knowledge addressed in the video and 10 questions asking embedded meaning in the video, such as the causal relationship between historical events and the significance of the event. From ANCOVA analysis, it was found that the factual knowledge showed higher performance on the factual questions than the meaning group, although there was no group difference on the questions about the meaning between the two groups. The finding suggests that teacher instruction plays an important role in learners constructing a different type of knowledge in online learning.

**Keywords :** factual knowledge, instruction, meaning-based knowledge, online learning

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