

# Development and Evaluation of an English Learning Support System Using Model's Video and Self Video

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**Abstract:** In this study, we developed and evaluated an English pronunciation learning support system with videos, then tested two hypotheses: (a) Using video would help to improve English pronunciation and (b) Comparing a model with self would help to improve English pronunciation. Using video was effective to learn English pronunciation.

**Keywords:** Video, Modeling, Self-regulated learning, Learning support system, Language learning

## Introduction

Multimedia has been smaller and utilized in the classroom. Not only teachers, but also students can use it simply and easily. In term of video, mathemagenic effects of understanding or memorizing prose have reported when it is used together (Cowen 1984).

It is assumed that video would be effective for English learning, and then we developed and evaluated an English pronunciation learning support system with videos. We set up and tested two hypotheses as follows:

1. Using video would help to improve English pronunciation
2. Comparing a model with self would help to improve English pronunciation

## 1. Literature Review

One of the reasons to use self video is that it promotes learner's self-regulated learning. Learners control themselves as degrees of meta cognitive, motivated, behavioral engagements vary (Zimmerman, 1986). Besides, he also suggested that expectations of results and self efficacy (Bandura, 1997) motivate self-regulated learning. Both can be gained through modeling.

Bandura (1969) suggested the idea of modeling as part of social learning theory. It implies that people learn by observing a model without experiencing the behavior firsthand and he pointed out that peers of observers could be more effective models.

## 2. Method

We developed an English pronunciation learning support system. The system was developed using Flash 8 and you can use it on the web browser. A model is placed on the

left side and self is placed on the right side. It is available to record or deliver videos when you connect to Flash Communication Server.

The research was conducted in March 2007. We asked participants (male=21, female=11) practicing English pronunciation using PC to investigate effects of video. To do so, we prepared not only a system with video, but also a system without video. Besides, we prepared not only a system to record videos and voices to investigate effects of comparing models with you.

Actually, participants used 4 systems randomly to avoid order effects. The procedure was as follows: (1) Practicing shadowing which is a way of training English as following and imitating the voice which you hear. (2) Pre-test (shadowing model's audio and videoing) for System 1. (3) Using model's audio to shadow. (System 1) (4) Post-test (same as pre-test) for System 1. (5) Repeat from 2 to 4 for three times as testing four systems. (6) Answering a questionnaire about the system's usability.

### 3. Results

We marked the results of pre-test and post-test using a syllable evaluation method (Tamai, 2005). Table 1 shows that means of pre-tests and post-tests. Pre-test and post-test were compared by repeated one way ANOVA and the result was significant. [ $F(1, 31) = 84.66, p < .01$ ] We may say that the system was effective for learning. There was no significant effects among systems for both pre-test and post-test.

Table 1  
*Mean numbers of pre-tests and post-tests.*

	System	N	M	SD
Pre-test	Model's Audio	32	80.44	20.921
	Model's Audio and Self Audio	32	81.63	22.292
	Model's Video	32	84.63	23.107
	Model's Video and Self Video	32	83.56	21.318
Post-test	Model's Audio	32	108.78	21.370
	Model's Audio and Self Audio	32	105.69	22.764
	Model's Video	32	109.88	24.191
	Model's Video and Self Video	32	111.22	21.474

### 4. Conclusion

Using video was effective to learn English pronunciation for both the low level group and the high level group. For the low level group, they preferred video to audio to learn. For the high level group, they preferred audio to video and might be able to compare a model and self. The preference may depend on English levels of learners. These results may imply that we need to consider whether using self audio or video, according to learners' level.

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