Virtual Dialogues with Native Speakers: The Evaluation of an Interactive Multimedia Method

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Overview of the Article

In the process of learning a second language, it is important for learners to converse with native speakers. Unfortunately, it is rare that learners have the opportunities to interact with native speakers, especially for an extended period of time. Interactive Drama Inc. has developed an interactive multimedia computer system known as Conversim. This software, which incorporates speech recognition and digital video technologies, is the core of IDI’s Virtual Conversations programs.

These programs allow users to have extensive “face to face” dialogues in real time with virtual characters on CD-ROM who appear in full-motion video on a personal computer screen. Students learn from these programs by actively participating in the life like interviews and compelling dramatic situations. The student asks questions and the character response immediately. This is the primary object of a Virtual Conversations program to support a successful, believable dialogue between the user and the video character.

Use of Virtual Dialogue Method

Users: American Military personnel who have achieved a level 2 in reading, listening, and speaking proficiency at Defense Language Institute (DLI)

Problem: Erosion of proficiency

Goal: a) Sustain their existing language skills through dialogue practice  
b) Quickly recover proficiency lost due to lack of practice

Creation of the Arabic Series:

- Four Iraqi faculty members of the two Middle East Schools at DLI were selected to appear as characters in each of the scenarios, and three other DLI instructors were asked to appear as instructors in the programs.

- The faculty members portray Iraqi characters who relate dramatic personal experience under the Baathist regime. Two of the accounts are real and two are dramatic portrayals of actual circumstances.
- Each of the programs allows the student to gather information through direct dialogue with the character.

- Each of the programs has an associated video instructor who helps the student pronounce the questions and phrases necessary to interrogate the characters.

- During the simulated dialogue, the intelligent scrolling prompt continuously provides three relevant questions for the user to ask.

- The user can interrogate the virtual character to elicit information of military importance.

- The user must rely on language skills, experience, and intuition to evaluate the character’s response and solve the problem presented.

Three Experiments Conducted for Evaluation

I Technological Feasibility Study

Description:

- A one-day study
- 20 military personnel in the basic and intermediate Arabic courses at DLI.
- All participants interacted with the EPW program for approximately one hour and then completed a questionnaire of 18 questions.

Result:

Students felt very positive about the virtual dialogue method for sustaining and enhancing Arabic language skills.

II Qualitative (Phenomenological) Evaluation Study

Before the educational effectiveness of the virtual dialogue method can be quantified, we first had to identify what aspects of the language learning process were being affected by the method.

Description:

- Four intermediate Arabic students volunteered to participate as subjects
- Four Arabic simulations in total to complete
- A minimum of six hours spent on each simulation
- Journal keeping
- Interview by the IDI Stuff for evaluation both individually and in groups

**Result:**

a) a gain in confidence with the language  
b) an increased proficiency in speaking, listening, and reading  
c) enhanced motivations to study  

### III Quantitative Evaluation Study

**Description:**

- Participants had graduated from DLI with Level 2 proficiency in speaking, listening, and reading.  
- Two years away from formal language training  
- Independent study using the Virtual Conversations Arabic Series in the first week  
- No formal contact with DLI instructor  
- Specific performance objectives for each virtual character were given  
- At least spent eight hours each day  
- Pretests and posttest were conducted  

**Result:**

There is an increase of posttest scores over pretest scores in reading, listening, speaking due to the interactions of the participants with the Virtual Conversations Arab characters.

**Summary and Conclusions**

1. The “erosion of proficiency” in a language can be quickly reversed by linguistics who use this method and technology.  
2. The speaking, listening and reading skills of linguists can be effectively sustained, and probably enhanced, through the systematic use of this method and technology.  
3. Linguists using this method and technology will quickly gain confidence with the garget language and immediately improve their ability to communicate in that language.