Software Review: VTrain and Vocab - Virtual Flash Cards for Language Learners

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Introduction

This article evaluates two inexpensive shareware vocabulary-learning programs, VTrain, and Vocab. They both aim to help language learners learn and remember second-language vocabulary words through direct study by modeling a common tool: the flash card. As a CALL practitioner in secondary education, I approached these programs by considering their applicability to classroom instruction. As a framework for the reviews I posed the following questions to myself, and after introducing the respective programs, I will present my evaluation by way of answering them:

Rationale

- What scientific basis do the programs offer for taking the flashcard approach to vocabulary learning?
- Why would someone use such a program rather than actual flashcards?

Approach

- How are vocabulary items operationalized in the programs, and what kinds of representations are available?
- How does a user get data in and out of "lists" or "decks" of cards?

Procedure

- What kinds of interactions with the program are available to / required of the user?
- What is the nature of the feedback and or correction offered by the programs?
- What help facilities are available?

Lab Practicality

- What kind of centralized record-keeping or score reporting is available to instructors?
- Are there any practical difficulties in using the programs in an academic/networked multi-user lab setting?

Observations

- How easy are the programs to learn and use?
- How well do they meet their stated goals and do what they purport to do?
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VTrain

VTrain is written and maintained by Paul Raedle, and is available from VTrain's home at http://www.paul-raedle.de/vtrain/home.htm. The program is available for Windows only (95/98/Me/NT/2K/XP), in either English or German (a Spanish version link was inactive). The fee is 15 (US $ or ?) for a single-user license, although he is offering the program for free to "schools, universities, and other educational establishments". Site licenses for non-academic organizations are also available.

The current version (3.0, English) was used for this evaluation. The official system requirements are 4MB of RAM and 2.5 MB of disk space, although my installation[1] required closer to 8MB on disk. A sound card and a 24-bit-capable video card are recommended to handle multimedia content.

Vocab

Vocab is authored by Angus Gratton and published by 'Cab software. Vocab and attendant programs can be found at http://www.cabsoft.com. Registration for single users is US$18, and site licenses are $150. The program is only available with an English interface, and there are both Macintosh and Windows versions. Both versions were used in this evaluation; I have indicated where my comments are platform-specific.

The current version for Mac is 1.9.1 and runs on any Mac running System 7.1 or later, however, a PowerPC machine is required for sound support. Under Mac OS X it runs as a "Classic" application. Vocab requires 2MB of RAM and 4MB of disk space. The Mac version only is available with a free companion program called Vocab Scheduler 1.2, which automates the testing process. The full install took about 12 MB of disk space.

For Windows, the requirements are "any PC" running an appropriate version of Windows (95/98/Me/NT/2K). The default installation required about 3 MB on disk.

Rationale

The documentation for both Vocab and VTrain refers to "recent research" or a "scientific background" respectively, but what is offered as a scientific basis for the efficacy of the programs speaks only to strategies of rote learning through systematic, regular review. They both mention the work of the German experimental psychologist Hermann Ebbinghaus, who demonstrated the rates at which people typically forget, and how reviewing of material can facilitate a more permanent retention (Figure 1).
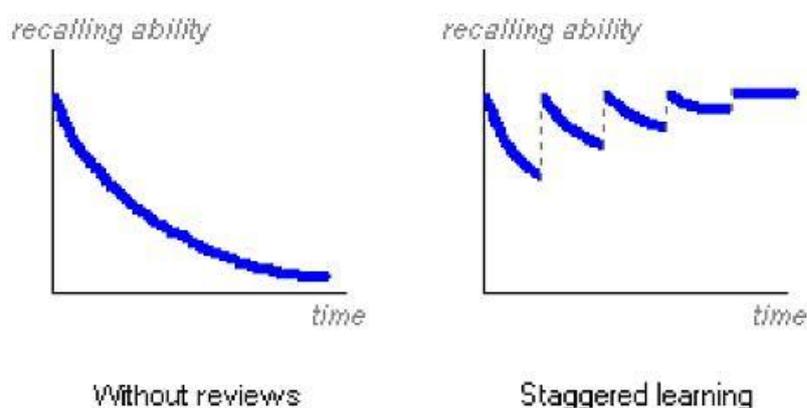
Figure 1. Recalling ability with and without reviews

Also, VTrain offers "selective learning" features the author credits to the work of German psychologist Sebastian Leitner, who devised a "learning cardfile" system to group items into "boxes" based on the "level of knowledge", as shown in Figure 2.

Figure 2. Leitner's "learning cardfile" system

Although none of the cited research is particular to second-language acquisition, researchers such as Nation (2001) and Schmitt (2000) do support direct instruction of vocabulary as an appropriate way to teach vocabulary, especially for beginners learning high-frequency items, with Nation specifically discussing the benefits of word cards.

The primary advantages these two programs offer over using paper cards are their scheduling functions and the ability to incorporate multimedia elements. Keeping track of which cards have been studied and when, which ones need to be reviewed again, etc. is a tedious task, and certainly one that can be made easier through automation. Similarly, the ability to attach audio and images to the cards offers the possibility for a richer learning experience.

Some corresponding disadvantages are that computers are, for the time being at least, generally less portable and hardy than a stack of paper cards. Also, the promise of multimedia is accompanied by the threat of creating and managing a multitude of sound and graphic files.

Approach

Both programs are targeted mainly at helping students remember L2 vocabulary "words", although to some degree they are flexible enough to model arbitrary paired associations. VTrain's interface allows longer strings of rich text, images, or even any OLE object to

be inserted into a card. Vocab is limited to the learning of vocabulary words or short phrases or sentences - anything longer becomes unwieldy and works against the interface. Sounds can be recorded from within both programs and attached to cards for playback during study and tests.

Each L1-L2 pair of words constitutes a "card" in either program, with cards being organized into "lessons" in VTrain and "lists" in Vocab. Cards can be typed in individually or more conveniently, imported from tab-delimited text files. Such imports are limited to plain text formats in both programs, although VTrain does allow for adding a link to associated sound files.

As multiple or alternate definitions can be awkward to fit onto a flashcard, items which do not have a nice one-to-one correspondence in the L1 and L2 languages can be problematic, because both programs require answers to be typed in exactly as they appear on the card. There are, however, features in both programs to deal with trivial mistakes such as capitalization and jumbling of words, or even jumbled characters in the case of VTrain, and to ignore user-defined strings of characters. Vocab provides the ability to define synonyms for words in either or both languages that are also accepted as correct alternative answers.

Both programs also allow the insertion of remarks or comments in the card that can be optionally displayed during tests but which are not required as part of an answer. This is useful for adding disambiguation or other cues without burdening the student with having to type that additional information.

Vocab can handle any script system supported by an underlying Mac OS, assuming appropriate fonts are installed. On the Windows side, however, the author warns that non-Roman scripts have not been sufficiently tested and are therefore not supported. Although VTrain itself supports any single or double-byte script supported by the version of Windows used, the documentation points out that multilingual computing on Windows versions before 2000 is problematic, and offers various suggestions and workarounds.

Procedure

Using Vocab

Of the two programs, Vocab is conceptually simpler and therefore easier and more intuitive to use. Words to be learned are organized into lists (see Figure 3), each of which corresponds to a single file on disk. The interface only allows one list to be open at a time, and with a list open the user has three alternatives for study, accessible via buttons at the top of the document window: Slide Show, Flash Card Test, or Test.

The Slide Show option presents the words in the list in full-screen mode; this is useful for previewing the words in a new list before testing. The Flash Card Test briefly presents, or flashes, each item in both languages before hiding one and requiring the user to type it in. The "regular" Test option (Figure 4) dispenses with the preview flash and immediately prompts for an answer.

Typically, users would open (or create) a list they wish to study, select from among the three activities and when finished, close that list file and open another. On the Macintosh, Vocab Scheduler eases this tedious burden by automatically scheduling reviews for lists. It uses an algorithm to space from 10 to 22 reviews from each list out

over about 16 weeks, selectively favoring problem words, such that not all words from each list are tested each time. Tests can be set to pop up automatically on designated days, or even as a screen saver, and a helper application, Am I Scheduled? allows the user to easily check for waiting tests.

Figure 3. An example Vocab list

Figure 4. A Vocab test

Using VTrain

VTrain takes a more complex approach. Like Vocab, words are organized into lists, called "lessons", however, unlike in Vocab, these are not the logical units of study. Another file type called a "cardfile" serves that purpose, directly implementing the concept of selective learning described above via several separate boxes into which cards are sorted based on how well they are learned.

The default interface provides access to VTrain's numerous features and functions via a complex array of controls (menus, toolbars, etc.), although it can be simplified. Interaction with VTrain takes place in one of four "function modes": Lesson Edition mode, List views, Training mode, or Flashing mode. In Lesson Edition mode the cards in a lesson file can be edited, with a selection of text formatting tools available. In List mode (Figure 5) the cards in a lesson can be browsed easily, and as VTrain does allow multiple lists to be open at the same time, drag and drop between them are supported. In Training mode (Figure 6) the program prompts the user to type the contents of the opposite side of cards as they are displayed, and is performed on one box of a cardfile at a time. Flashing mode is considered a presentation-only variant of Training mode and displays the cards of a lesson or a box sequentially.
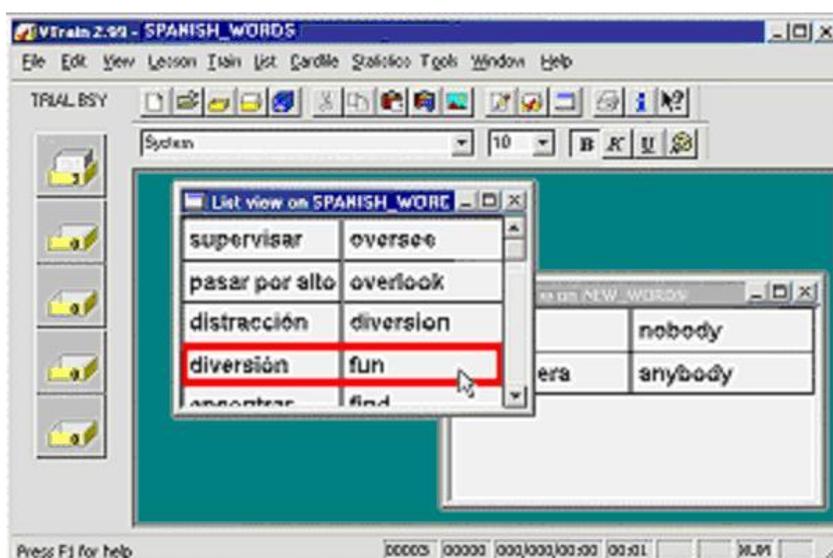

Figure 5. VTrain's List views mode, showing two open lists

Figure 6. Training on box 1 of a 5-box cardfile in VTrain's Training mode

In a typical routine, users would first create or open one or more lessons of cards, and then add them to the first box of a cardfile for study. As the user then performs sessions in Training mode the cards in the file are promoted or demoted to higher or lower boxes. The user must manually open and close the various files: what is called an "automatic scheduling function" is just an ability to link cardfiles together, allowing cards to be promoted or demoted among them, according to an elaborate scheme as explained in the documentation.

Feedback and Statistics

Both programs give immediate feedback on right and wrong answers during testing. In Vocab, statistics on how many times words have been answered correctly are kept per word and as an average per list. The user can define a percentage threshold to define the "problem words" in a list, which can then be isolated and given extra attention or copied to a new list. Per word statistics are conveniently visible in word lists, and summary statistics can be accessed via a dialogue box. In VTrain, statistics on questions answered correctly are available per word or study session, and profiles of the number of times the cards in a cardfile have been asked and answered correctly in succession are also available. Statistics information is mostly available through dialog boxes, although a status bar in the main window shows some limited information.

Help

Documentation for both programs is complete and fairly intuitive to use, assuming one can read the languages in which they are available. VTrain offers context-sensitive help in Windows Help format, and Vocab includes help files in HTML format. Web sites are a source of additional information and resources.

Lab Practicality

Both programs can be used in a lab setting, but pose a few challenges. VTrain's configuration file mixes both application settings and user preferences and is stored in the application's folder, making it difficult to isolate users from changes made by others. VTrain relies on the concept of a "Work directory" in which all data files must be stored; this can be changed from within the program and can be set to be a shared network folder. Because cards are added to cardfiles only as links, edits saved to a flashcard in a lesson file are immediately available to all cardfiles that are linked to it. This "Smart Lesson Update" feature allows instructors to easily make changes in the material quickly available to all students. Each cardfile is represented by several files on disk; an index plus one for each box. A six-box cardfile a week for a year would, therefore, result in over 360 files on disk per student.

Vocab allows a user's work to be stored anywhere but requires each student to have a separate copy of each list an instructor may distribute; when mistakes are found afterward there is no elegant way to propagate corrections to the students' copies. Vocab works well with the multi-user preferences model on the Macintosh, allowing its use in Apple's Macintosh Manager environment.

The record-keeping functions described above are useful for individual students, but unfortunately offer no way for an instructor to gather the data together from the various students' files.

Observations

Both programs give the sense that some forethought and experience with flashcard learning has gone into their design. They both offer the student reasonable control over the study session through various options such as choosing which language direction to be tested or on which words to concentrate. They also aid the user in practical tasks such as automatically switching keyboard layouts or input methods.

Vocab's intuitive interface and simplicity make it easy to learn and use, even for students as young as junior high school. Especially with Vocab Scheduler, it does a great job of getting out of the way, putting very little "computer" between the user and the words being learned. For students who do not need the image or rich text support, it is an excellent choice for a flashcard tool. Testing on the Macintosh was uneventful, but as the documentation warned, incompatibilities with the Japanese version of Windows resulted in some crashes on that platform.

VTrain is more complex and has a bit of a learning curve - I would hesitate to impose it on younger students. The support for multimedia elements is a nice feature, especially for instructors creating class materials with time to invest, and some free sample lesson files are available from the VTrain site. Overall, I found VTrain quirky, and although not all functions operated as advertised or expected, motivated learners can probably overlook these blemishes and make productive use of the program.

Notes

1. As both programs were evaluated running on a Japanese version of Windows Me hosted in Virtual PC v.5.0.2 on an Apple 600 MHz G3 iBook running Mac OS 10.1.4,

I did not fully test the multimedia capabilities of the two programs. The Macintosh version of Vocab was tested in OS 8.6, 9.2.2, and 10.1.4 in both English and Japanese environments.

2. Figures 1, 2, 5, and 6 were taken from the VTrain documentation and are Copyright c1999-2002 by Paul Raedle. Figures 3 and 4 are screenshots taken from version 1.9.1 of Vocab.

References

Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.

Schmitt, Norbert. (2000). *Vocabulary in language teaching*. New York: Cambridge University Press.