

C-Print™ - Print™

What is C-Print™?

C-Print™ is a computer-aided speech-to-print transcription system developed at the National Technical Institute for the Deaf (NTID) as a support service option for some deaf and hard-of-hearing students in mainstream educational environments. It was developed by NTID researchers eager to improve the classroom experience for students at both the secondary and college levels, and is being used successfully in many programs around the country.

Research supports the idea that some deaf and hard-of-hearing students prefer printed text of lectures – the basis of the C-Print™ system – over sign language interpreters or notetakers as a means of acquiring information. Other students prefer an interpreter. It is an individual choice the Disability Support Service provider must work with.

Additionally, C-Print™ is cost effective and can be more readily available than stenography-based services that a university or secondary school may provide.

How does it work?

A typist called a C-Print™ captionist types a teacher's lecture (and students' comments) into a laptop computer. The typed information is displayed simultaneously on a second laptop computer or a television monitor for students to read during class. Because of the rate of speech, it often is necessary for a captionist to use strategies to condense information. The

goal is to provide a meaning-for-meaning translation while using fewer words than the original speaker. Afterward, the printed text is available to students for review purposes. The printed text produces approximately 7-10 pages per hour of class time, a manageable amount for many system users.

Currently, the system requires a computer (often a laptop) using word processing software aided by abbreviation software. The captionist receives training in an abbreviation system to reduce keystrokes, and in text condensing strategies. Captionists do not have to memorize all the abbreviations in the system. They learn a set of phonetic rules that are applied to English words in the system's dictionary.

What special equipment is needed?

To use C-Print™ in a classroom setting, one needs either two laptops (one for the captionist and one for the student) OR one laptop and one monitor (computer or television) for viewing of typed text by more than one student. When two laptops are used, the captionist and student can conduct two-way communication.

How much does it cost?

Costs of using C-Print™ vary, depending on what equipment is used; the pay level and hours the captionist works; service arrangements; and funding opportunities.

Typically, the word processing software costs approximately \$100; communication software is approximately \$100; and word abbreviation software costs approximately \$150. Costs for laptop computers, display equipment, and captionists' salaries will vary. Salaries typically are between those of a professional notetaker and an interpreter.

Ideas for Faculty Working with C-Print™ Captioning

Here are some strategies for faculty members using C-Print™:

1. Introduce the captionist and the C-Print™ service at the beginning of the first class. Show your support of the service.
2. Allow the captionist to explain briefly what C-Print™ is, and to invite interested students to look at the screen after class.
3. Give the C-Print™ captionist any available materials before the next class. Items such as a course syllabus, handouts, outlines, readings, overheads, and vocabulary lists are useful for the captionist's class preparation. They are especially helpful for making the specialized dictionary for each class, with abbreviations of often-used vocabulary specific to that class.
4. Speak loudly and clearly during class so that the captionist can hear you easily.
5. Allow the captionist to sit in a location that makes hearing you, and the other students, as easy as possible.
6. Be sensitive and supportive to the captionist's comfort and needs in the classroom setting (e.g., close blinds to reduce glare on screen, allow use of desk or table of correct height/size).
7. Restate or summarize students' comments if they are hard to hear, or somewhat disorganized.
8. Be aware that the captionist will use "down times" in the class to edit notes taken earlier. "Down times" include periods of silent reading or writing, pauses during class transitions, etc.
9. Decide whether hearing students will have access to the C-Print™ hardcopy notes. Be sure your preference on this matter is well understood by the captionist, all the students – both hearing and deaf – and your department head or dean.
10. Involve the captionist as part of the educational team when discussing student needs related to C-Print™.

For more information on how to contact professionals in the C-Print™ field, as well as other topics covered by the NETAC Teacher Tipsheet series, visit NETAC's Web site at <http://netac.rit.edu>.

**For more information, contact:
Northeast Technical Assistance Center**

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