

## **HINTS ABOUT CALL USE FROM RESEARCH**

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### **Abstract**

Pedagogical hints about CALL use are extrapolated from results of research. The following hints are explained on the basis of research results from which they were drawn: The more modes in which learners receive linguistic input, the better for learning. Online help can help learners. Teachers need to help learners be aware of the value of online help. Explicit instruction is better for learning grammar than implicit instruction. Plan for good CMC experiences. Consider how learners can increase their pragmatic competence in CMC. These suggestions need to be supported or modified through future research on CALL.

### **1 Introduction**

Technology today affords learners so many opportunities for working with their second language—especially if that language is English—that we all need some guidance about how to help learners make the best use of the options. Some research has been conducted with the intention of helping teachers, software developers, and learners understand the value of technology. However, in many cases the outcomes from such research add to the complexity of our understanding rather than pointing to clear solutions and pedagogical guidance. Even though the guidance that we can get from the research is not always clear, research provides some hints about language learning through technology. The purpose of this paper is to extrapolate from the results of research on CALL to make some pedagogical recommendations to CALL users.

### **2 The more modes the better**

Many of the books that give teachers advice on using CALL indicate that one of the values of CALL is to provide learners with “comprehensible input” (e.g., Butler-Pascoe, & Wiburg, 2003, p. 15). Such comprehensible input is available as selected written texts, audio and video in CALL materials designed for language learners. However, comprehensible input is available in other modes as well. One does not need to use CALL to obtain access to comprehensible input! What is special about the comprehensible input in CALL? Is there any evidence that comprehensible input from CALL is actually facilitative of second language acquisition?

Some research suggests that comprehensible input in CALL is special when and if it is presented in multiple forms and is repeated for learners multiple times. One study with clear findings concerning the value of multiple modes of input was a study of second year German learners’

vocabulary retention (Plass, Chun, Mayer and Leutner, 1998). The learners read a story in which 82 of the 762 words had been glossed either with English text and an image, or with video, or with English text alone. They analyzed the posttest results for individual words along with the information that had been stored about number of times the word had been looked up. Words for which no information had been looked up received the lowest scores. The words for which both visual and verbal information had been accessed by the learners received the highest post test scores, those for which learners had looked up only verbal information received the second highest, and visual information the third. The implication is that the more modes in which learners had received information about a word, the more likely the word was to be remembered.

Less clear, but similar findings come from a study that investigated incidental vocabulary acquisition a Web-based listening activity which required learners to listen to an academic lecture (Kon, 2002). During the lecture, the learners had access to visual support consisting of a talking head, overhead transparency slides, picture slides, and multiple choice questions. Overall the learners improved in their acquisition of the vocabulary they had heard, at least as measured by improvement in listening comprehension for the words, but exposure alone was not the whole story. The modes of presentation of the input also seemed to make a difference. The conclusion was that a Web-based listening activity can facilitate incidental vocabulary acquisition, but that characteristics of the input appear to be related to the likelihood—the more modes of presentation the better. These findings about repetition are consistent with some current perspectives on second language acquisition (N. Ellis, 2002), but the finding from CALL about the multiple modes of presentation adds an interesting dimension to other research and suggestions for practice.

### **3 Help helps**

Most CALL materials include extensive help options for learners to draw upon as they are completing their learning tasks. Both common sense and SLA theory would suggest that learners might benefit from using the help options that are available and attending to the helpful feedback that is provided by some programs. However, is there any research evidence to suggest that help helps?

The study mentioned above that refer to learners' requesting help with the German vocabulary suggests that the help provided by the CALL program was actually beneficial to learners. Another study examining learners use of software for comprehension practice had similar findings. ESL learners used CD-ROM listening materials and Hsu (1994) recorded their requests for help along with the segments in which they requested the help. For each learner, she selected the lexical phrases that the individual had failed to recognize on the pretest. Overall, she found a relationship between improved comprehension and requests for help. Again in this study, based on observation of precisely what the learners did, it was found that help was good for learners *if* they used it.

Other research pertinent to this issue examined the effects of feedback that the learners received automatically when working with interactive CALL software. Of particular interest is feedback which pinpoints the learners error in their response and provides an explanation. A study

investigating the effects of this type of helpful feedback was conducted on learners of Japanese (Nagata, 1993). The helpful feedback for a particle error in learner Japanese would be something like this: “In your sentence, GAKUSEE is the 'subject' of the passive (the one that is affected by the action), but it should be the 'agent' of the passive (the one who performs the action and affects the subject). Use the particle NI to mark it.” Less helpful feedback would just indicate that the “NI” was missing from the sentence. The helpful feedback was shown to be more effective; students who had received it performed significantly better on post-tests and end-of-semester tests than did students who received the less helpful feedback.

#### **4 Teachers need to help learners help themselves to help**

The fact that some research indicates that learners benefit from the use of help options is, on the one hand, encouraging because one would hope that the extensive efforts that go into the development of help and informative feedback would pay-off in student learning. However, this finding also has significant implications for language teachers as well because the research has consistently shown that learners do not necessarily request the help that they need! Learners need assistance in developing strategies for effective use of online learning.

Based on his research and experience with CALL, Hubbard (2004) advises, “We should not release our students into powerful learning environments unprepared: It is our responsibility as teachers to see that they are able to make informed decisions about how to use the computer” (p. 51). This advice fits not only with the research on CALL, but also with pedagogical advice coming from methodologists. For example, Nunan argues “...that most learners, at the beginning of the learning process, do *not* know what is best. It is the function of the materials augmentation ... to develop skills and knowledge in learners which ultimately will leave them in a position where they do know what is best.” (Nunan, 1997, p. 194). In CALL this means that teachers need to know how learning can best be accomplished through technology and apply that knowledge to their teaching.

#### **5 Explicit is better for learning grammar**

The type of discovery learning that has been advocated for the use of corpora to support inductive grammar learning may prove to be effective for learners at some point, but the large majority of research attempting to distinguish differential outcomes for implicit vs. explicit grammar learning has found that explicit methods are superior.

Much of the clearest research in this area has used artificial languages in laboratory settings (e.g., de Graaff, 1997; DeKeyser, 1995), but Robinson (1996) investigated the question in an experiment using English grammar rules. Four conditions of instruction were constructed through the methods of presentation to the learners in each of the four groups: an *implicit* condition requiring learners to memorize sentences containing the relevant grammatical structures, an *incidental* condition instructing learners to read input sentences for meaning, a *rule-search* condition asking learners to identify the rules that were illustrated by the input sentences, and an *instructed* condition providing learners with explicit rules about the target grammatical points. Each of the conditions was presented in computer-assisted format, as was the

achievement test following the instruction. The instructed condition was found to produce superior results for learning all grammatical rules.

## **6 Plan for good CMC experiences**

Whereas much grammar learning might best be carried out through explicit grammar teaching, we have seen that CMC tasks offer a wealth of opportunities for learning through language practice that is not directed specifically at the teaching of any particular grammatical point. One of the early studies of CMC, for example, found that students practiced those language functions indicative of interactive competence (Chun, 1994). CMC provides a mechanism for valuable communication, but shaping the mechanism into valuable opportunities for learning is the pedagogical challenge. Here the research is very difficult to interpret because researchers have studied a variety of phenomena, but the overall finding is that teachers need to plan for good CMC exchanges.

One way of evaluating CMC has been to look for sequences on negotiation of meaning that have played a key role in the study of oral face-to-face communication. The idea is that that sequences showing a communication breakdown and repair are indicative of points where second language acquisition may occur due to the learner's attention to language and receipt of modified input, or to the need to produce modified output (Pica, 1994; Gass, 1997). Some studies have found clear evidence for this type of beneficial sequence of communication during pedagogical CMC (e.g., Blake, 2000; Pellettieri, 2000). Other studies have noted that amidst the negotiation for meaning, is little if any concern for correctness (Lee, 2001); moreover, another study has found that the amount of negotiation of meaning on CMC does not compare favorably to that found in oral face-to-face communication (García & Arbelaz, 2003).

Much remains to be learned about how to shape CMC into a language learning tool, but the research extends beyond the examination of negotiation of meaning to look at factors associated with extended international exchanges (Stockwell, 2003), with play (Warner, 2004), and with help that leads to development of pragmatically appropriate linguistic choices (Belz & Kinginger, 2003).

## **7 Think “pragmatic competence”**

One of the important and challenging areas for developing pedagogical practices for CMC is to better understand the nature of the pragmatic competence that is required for participation in a CMC environment. Pragmatic competence allows speakers to make linguistic choices that are appropriate for the context in which they are using the language, and of course, that includes the person or people to whom the language is addressed. Typical classroom discourse such as that characterized by the IRF routine is not a conducive to development of pragmatic competence because of the lack of variety in the social contexts present in the classroom (Kasper, 2001). Instead, pragmatic competence is better developed with some access to opportunities to interact with a variety of interlocutors, from whom learners are able to observe appropriate linguistic choices of pragmatic options and receive assistance.

CMC discussion provides an opportunity for learners to communicate with a variety of speakers, and therefore affords an opportunity to develop pragmatic competence. This point was made by Kinginger (2000) who was studying learners of French, whom she saw gain a better understanding of one aspect of pragmatic competence—the choice of the formal vs. the informal variety of the word “you” in French. “The long-distance relationships formed by students offer contexts for language socialization, with support for conscious awareness of, and assisted performance in the appropriate uses of the second-person pronoun (tu vs. vous)” (Kinging, 2000, p. 23)

Whereas the expanded learning contexts of CMC offer opportunities, to develop pragmatic competence that is useful for a variety of situations, the fact that CMC creates new contexts is relevant as well. Crystal’s analysis of “Netspeak” leads him to the conclusion that “[t]he electronic medium...presents us with a channel which facilitates and constrains our ability to communicate in ways that are fundamentally different from those found in other semiotic situations” (Crystal, 2001, p. 5). Given an essentially different way of communicating, he further argues that language users have to “acquire the rules (of how to communicate via e-mail, of how to talk in chatgroups, of how to construct an effective Web page, of how to socialize in fantasy roles).” He suggests that “there are no rules, in the sense of universally agreed modes of behavior established by generations of usage” (Crystal, 2001, p. 14-15). In other words, whereas English teachers can teach the generic conventions and typical register choices of the business letter, the face-to-face service encounter, and the sports report, for example, current research suggests that identifying the typical generic choices for the e-mail message or chatroom conversation would be much more difficult.

Some researchers are attempting to document the way that communication is accomplished through classroom CMC (e.g., Negretti, 1999) but in the meantime, teachers should always “think pragmatic competence,” i.e., what are the rules of pragmatic competence that learners need in order to make appropriate linguistic choices in the registers of CMC.

## **8 Conclusion**

These six pedagogical suggestions offer a starting point for considering CALL pedagogy in terms of practices that appear to be informed by empirical research. Such a set of suggestions has to be considered with care, adapted over time, and perhaps adopted as needed and relevant. At the same time, research must continue to investigate these and other issues.

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