Are CALL Packages Disregarding the Research on Dealing with Authentic Materials?

Ruth Harris
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Abstract

Since the advent of the communicative method, authentic materials have been seen as an important source of input for second language acquisition. However they have been noticeably absent from CALL packages. This paper looks at the implications of the research on reading, and explores which areas of work on authentic materials can be successfully done using CALL, and areas which are best left to a classroom, groupwork or semi-autonomous environment. A model of an integrated approach proposes ways of maximising the potential of each, providing new challenges for the teacher and student alike.

Text of article

CALL has been hailed as one of the most significant means of enhancing language learning and a revolution in terms of teaching methods and learner strategies. There has been much debate on the future role of the teacher, given the fact that CALL appears to be taking over many of the teacher’s functions. Computers can emulate their traditional role by providing instruction, then drilling and finally testing. Software designers even seek to simulate the native speaker, particularly in the design of multi-media packages where they try to create an interface which allows the student to interact with an electronic native speaker. The goal of the linguist and the computer industry appears to be to package this concept and produce stand-alone learning materials which will be more effective for the learner and more cost-effective for the institution; many educational establishments find language teaching expensive in terms of manpower, due to the need for a low student-teacher ratio and a high number of contact hours.

It is undeniable that CALL can be used very effectively in a range of language learning situations. Many packages focus on grammar-type drills, due to the strength of the theory that feedback promotes learning. Research has shown however, that without practice, students will fail to transfer what they have learned to the area of performance, what Widdowson (1985) calls “the internalization of systemic knowledge as a communicative resource”. Intensive grammatical re-enforcement courses, using CALL or other means may promote learning in the short term, but the students’ “interlanguage” at a spoken level and to some extent at a written level will lag behind their supposed proficiency in grammatical aspects of the language. The computer has brought excellent translation tools in the form of on-line dictionaries and specialised glossaries. Word-processing packages with spell-checks and data-bases
can be used to good effect, and multi-media packages are providing an up-graded language laboratory, even incorporating voice recognition features.

The limitations of CALL

However, there are language learning fields which do not benefit from CALL. To try to re-package all language skills in this way would be to disregard much of the excellent pedagogical research carried out during the seventies, eighties and nineties. Many researchers, in fact, would agree that there has not been as much innovation as one might have hoped. Vivian Cook (1988) remarks “While teachers today commonly expect students to learn by understanding meaningful messages, or by communicating information to one another, CALL programmes mostly assume that they learn by drilling or by consciously mastering grammatical rules.” Almost ten years later Watts (1997) remarks in the area of CD-ROM design “In an evaluation of widely used language learning materials on CD-ROM, it was found that while most used a wide range of media sources - color stills, video clips, music, speech - the content tended to follow drill-based approaches and employ a restricted range of exercises and activities such as filling in blanks, sentence completion and answering multiple choice questions”

Authentic reading materials

In this context, I would cite particularly the use of authentic texts - both for the development of reading skills and as an opportunity for language acquisition - as opposed to the packaged units of language which so often form the basis of texts in CALL programmes. The justification for using authentic materials is set out by Little et al. (1988) in claiming that “First, because they have been written for a communicative purpose, they are more interesting than texts that have been invented to illustrate the usage of some feature of the target language; learners are thus likely to find them more motivating than invented texts. Second, because they revolve around content rather than form, authentic texts are more likely to have acquisition-promoting content than invented texts”. He further argues that “authentic texts are a substitute for the community of native speakers within which “naturalistic” language acquisition occurs”.

To date, packages which deal with reading texts tend to re-produce the types of exercises which could be done equally well on paper. It is important to make a distinction between packages which try to create a discipline for the disorganised student, and those which actually facilitate language acquisition. In the former case, the novelty factor may be considerable, whereas in the latter case the increased learning will motivate the student to continue to work on the programme. A text fed into the computer, followed by boxes in which the student writes answers to comprehension questions, may at least initially work better than the same exercise on paper, but it does not in itself have any extra acquisition promoting characteristics.
Adaptation of authentic texts for CALL

Many software packages fail to respect the authenticity of texts and often adapt or alter them. Firstly, there can be alteration of form. Due to the size of the computer screen, and the larger case needed for electronic clarity, texts are often shortened if not simplified. Headings become banal and parallel information in the form of supplementary photographs, graphs and other visual images often removed. Recent upgrades such as WIDA’s which allows for the attachment of these, represent not just an aesthetic improvement, but a real step towards safeguarding the authenticity of the text. Grellet (1980) remarks “Authenticity means nothing of the original text is changed and also that its presentation and layout are retained... the picture, the size of the headline, the use of bold-type face, all contribute to conveying the message to the reader”. Secondly, there can also be alteration of content - primarily due to the need to shorten the text, the teacher / designer may decide to eliminate unnecessary details such as reformulations and repetitions. Grellet remarks “Paradoxically, simplifying a text often results in increased difficulty because the system of references, repetition and redundancy as well as the discourse indicators one relies on when reading are often removed or at least significantly altered.” A further complication may arise if the person editing the text is not a native speaker. Conscious that the student may be working alone on the materials, the teacher may decide to eliminate difficult phrases or words or bring the text closer to the mother tongue of the students.

Some researchers such as Davies (1984) would argue that simplified texts are in their own way authentic, as they also have been written with a purpose, and are a necessary precursor to working with authentic texts, and cites research by Lautamatti suggesting that simplified texts and authentic texts are ends of the same continuum. However both researchers agree that it is preferable to write an account of what is in a text, as this is still an authentic text of sorts, than to juggle with the elements of an existing text.

Skills involved in reading

The research on reading identifies three types of processing skills. Bottom-up skills focus largely on decoding the graphemes and are essential to effective reading. “Lower-level skills are skills to be mastered as a necessary means to taking the guesswork out of reading comprehension” (Eskey 1988). Top-down skills, as defined by Goodman (1967) in coining the term “a psycho-linguistic guessing game” to describe the reading process, involve prediction, confirmation and interpretation of the text “Any text, either spoken or written, does not in itself carry meaning...a text only provides directions for listeners or readers as to how they should retrieve or construct meaning from our own previously acquired knowledge” (Carrell & Eisterhold 1986). Interactive processing involves both types of skills “Simply stated, reading involves both an array of lower-level rapid, automatic identification skills and an array of higher-level comprehension / interpretation skills” (Grabe 1991)
Designing CALL exercises to support lower level processing

Bottom-up processing focuses therefore on vocabulary, syntax and automatic recognition. A lot of problems in L2 reading arise from students having inadequate basic word recognition skills. Lack of vocabulary and unfamiliarity with grammatical structures can prevent the reader from acquiring automaticity. It is relatively easy to design CALL exercises to help develop these skills - matching terms, synonyms, antonyms; associating words with definitions, grouping semantically associated words, putting things in the correct order, creating sentences, grammar drills or transformational sentences. Nyns (1988) suggests timed reading to increase reading speed and thus promote automaticity.

CALL exercises for higher-level processing

Top-down processing however, is much more difficult to adapt to CALL. Important elements of top-down processing involve the reader predicting, confirming, and correcting as he goes along. In the eighties, schema theory attempted to explain how concepts are created in our minds by grouping words together. e.g. club, green may conjure up a number of possible images, but the addition of “hole” confirms that golf is the topic. These schemata need to be “triggered”. The triggering depends on our background knowledge of the topic and our correct understanding of each of the clues provided. A very considerable problem of cultural differences is apparent in L2 reading, where an ESL student may have difficulty seeing the connection between shamrock, beer, 17 March.

In the area of CALL applications, it is vital to provide introductory texts, help texts, supplementary audio and video clips, to help set the context of the text and to trigger the appropriate schemata. However, this can only be interactive to a degree, and there is no guarantee that the supplementary materials are triggering the correct schemata. A writing exercise prior to a reading text (Zamel 1992, Devitt 1997) could be appropriate, but again the problem of feedback occurs. A storyboard type exercise prepared by the teacher could be effective, however the student will again be working on a text rather than creating or expressing his or her own views. A writing exercise alone might not be of any real benefit unless the student gets feedback; a spell-check or grammar check may give feedback on errors, but will do little to confirm the student is on the right track.

Appropriate exercises for higher skills are difficult to design. Most packages will only accept an identical answer to the one keyed in by the teacher, therefore open-ended questions are virtually impossible to accommodate. Nyns (1988) suggests a programme which would recognise key words of vocabulary, and give a correct response if the sentence contained these words. This seems fundamentally flawed, as the presence or absence of “not” could alter the whole meaning of the sentence. Some of the matching exercises used for basic word activities could be adapted to key concepts, but inevitably the teacher / designer is providing the information, the student merely selecting.
Language acquisition and the negotiation of meaning

From a language acquisition point of view, one of the main ways in which students learn language is through the negotiation of meaning, which is a form of interaction which allows the student to acquire new structures. “This term has been used to characterise the modification and restructuring of interaction that occurs when learners and their interlocutors anticipate, perceive, or experience difficulties in message comprehensibility. As they work linguistically to achieve the needed comprehensibility, whether repeating a message verbatim, adjusting its syntax, changing its words, or modifying its form in a host of other ways” (Pica 1994) The theory behind negotiation of meaning refers to the learning of the L2 evolving out of communicative use rather than the other way around (Hatch 1978). Pica observed that spontaneous negotiation was more effective than pre-modifying input in an effort to anticipate the repetitions and reformulations needed to help the student understand. This would lead one to believe that the devices we would build into a CALL program would not be as effective as person to person interaction. Furthermore, Pica discovered that students learnt a lot merely observing spontaneous negotiation between a student and native speaker / teacher. In other words, the classroom or small group set-up is an ideal language learning situation and not easily replicated in an artificial environment.

CALL exercises adapted to the negotiation of meaning

With CALL we could attempt to re-produce this type of interaction, by providing hints to the meaning of words and phrases. Most packages will give the shape of the word or the first letter of a word, but what is needed is more communicative interaction. These hints could be in the form of cryptic clues, synonyms, gapped sentences giving the word in a different context, or ultimately the translation in the L1. At least at the end of the session the student will have learned the meaning of the word instead of just being given the word without comment as often happens in CALL exercises. The quality of the hints will determine the inter-active nature of the program. “Hard luck, try again” may be interactive on some level but will do little to promote the acquisition of language. The preparation time for the teacher would be considerable, but each package could be re-used several times and eventually form the basis for autonomous tasks.

Design Implications

The design implications must focus therefore on appropriate pre-reading activities, aids to processing the actual text, and finally useful post-reading activities. The Think and Talk package by Berlitz has a final speaking exercise which instructs the student thus: “You now have three minutes to record your own voice. Use as much language as you can remember from the last unit”. This will certainly not do the student any harm, but is hardly a good use of the interactive features of a computer. A well-
designed classroom activity could be far more effective. The grid following lays out the possible activities in a classroom situation or an equivalent CALL situation. In many cases the classroom situation could be replaced by group work in an autonomous or semi-autonomous environment, perhaps with access to a native speaker, rather than a teacher. The shaded areas indicate the activity which I would consider to be better for the student either because of its interactive nature or acquisition promoting features. The tiering of activities to include CALL and non-CALL work would ultimately provide a very comprehensive approach to text-work with a focus on each of the skills.

The result would be a multi-functional integrated system which, rather than making the language teacher redundant and the student totally independent and isolated, would provide new challenges for the language teacher in the preparation and design of materials, and for the student to develop autonomous learning strategies in a semi-controlled environment.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Classroom or autonomous group work</th>
<th>Feedback</th>
<th>CALL</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pre-reading</td>
<td>Background text / video / discussion</td>
<td>yes</td>
<td>Background text / video / cultural information</td>
<td>unknown and difficult to quantify</td>
</tr>
<tr>
<td>Schema triggering</td>
<td>Cultural information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Pre-reading vocabulary development</td>
<td>Brainstorming</td>
<td>yes</td>
<td>Matching terms, grouping words semantically, word association</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>Organising vocabulary in semantic maps</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3. Pre-reading writing exercise</td>
<td>Creating a text using vocabulary above, predicting content of target text</td>
<td>yes</td>
<td>Writing exercise using WP package with L2 spellcheck or reconstructing storyboard created by the teacher</td>
<td>some on forms, but little on meaning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(no immediate correction)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Reading</td>
<td>Silent reading</td>
<td>no</td>
<td>Silent reading timed to promote automaticity</td>
<td>yes</td>
</tr>
<tr>
<td>5. Lower level processing/decoding</td>
<td>Decoding with dictionary or oral interaction and negotiation of meaning</td>
<td>some</td>
<td>Hypertext with hints and translations or glossaries</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>yes</td>
<td></td>
<td></td>
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<tr>
<td>6. Higher level processing</td>
<td>Open ended questions, analysis</td>
<td>yes</td>
<td>Open-ended questions with vocab recognition feature</td>
<td>inaccurate</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>Exercise Type</td>
<td>Description</td>
<td>More Negotiation of Meaning</td>
<td>Inferencing Key Words</td>
<td>Written Answers</td>
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<tr>
<td>7. Form focused exercises</td>
<td>Written or oral work on forms in text with exercises</td>
<td>some</td>
<td>Exercises on forms encountered in text</td>
<td></td>
</tr>
<tr>
<td>8. Post-reading oral exercise</td>
<td>Follow-up discussion / debate on issues raised</td>
<td>yes</td>
<td>Speak and record opinions on topic</td>
<td>none</td>
</tr>
<tr>
<td>9. Post-reading written exercise</td>
<td>Developmental writing exercise (but not immediate)</td>
<td>yes</td>
<td>Written exercise on WP with spell check</td>
<td>yes</td>
</tr>
</tbody>
</table>
Bibliography


Rivers M. (1984) “Interaction as the key to teaching language for communication” In Interactive Language Teaching Cambridge: Cambridge University Press.