Is CALL Obsolete? Language Acquisition and Language Learning
Revisited in a Digital Age

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Bieber.>

When the term CALL (Computer-Assisted Language Learning) was introduced in the
1960s, the language education profession knew only about language learning, not
language acquisition, and we assumed the computer’s primary contribution to second
language acquisition were programs based on traditional language learning.

Things have changed dramatically.

First, subconscious language acquisition has been shown to be more powerful than
conscious learning. Studies strongly suggest that consciously learned knowledge about
language has only limited functions – its primary function is as a Monitor to edit
language we produce, either before it is spoken or written, or after, and there are severe
conditions that must be met for this to happen successfully. Studies also provide
consistent evidence that we acquire language and develop literacy primarily from
understanding what we read and hear, that is, when we obtain comprehensible input

Second, computers have changed. Thanks to the Internet, computers do a lot more than
they used to do, supplying an astonishing variety of kinds of visual, aural, and written
input, providing a means of social interaction, as well as “information.” In addition, the computer now appears in many more mobile forms than the original desktop or even laptop – as smartphones, tablets, etc.

These changes have led to the computer being used for language acquisition, not just learning, and as a major source of comprehensible input. As evidence that this is taking place, we present two important results from recent studies done with second language acquirers.

**Result One: English language acquirers use the Internet a great deal, and much of this use is in English. This is true for both social and informational use of English.**

Jarvis (forthcoming) found that Thai undergraduates studying in Thailand with lower to upper intermediate proficiency reported substantial use of English when using computers, smartphones and tablets (Table 1). Note that no subjects reported using only their L1 and at least 95% reported using at least some English.

*Table 1. Responses to “Generally, when using computers, smartphones and tablets which languages do you use? (tick one letter only)”*

<table>
<thead>
<tr>
<th></th>
<th>Only Thai</th>
<th>Mainly Thai, some English</th>
<th>Mainly English, some Thai</th>
<th>Only English</th>
<th>Thai, English, other languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>n = 120 subjects, living in Thailand From: Jarvis (forthcoming).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td>61%</td>
<td>31%</td>
<td>3%</td>
<td>5%</td>
<td></td>
</tr>
</tbody>
</table>

These results were confirmed by responses to a similar question asked of EFL students in their own country (Table 2, from Jarvis, 2013).

*Table 2. Responses to “When using computers outside of your studies which language do you usually work in?”*

<table>
<thead>
<tr>
<th>L1</th>
<th>n</th>
<th>only L1</th>
<th>mainly L1, some English</th>
<th>mainly English, some L1</th>
<th>only English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thai</td>
<td>56</td>
<td>3.6%</td>
<td>78.6%</td>
<td>17.8%</td>
<td>0</td>
</tr>
<tr>
<td>Arabic</td>
<td>67</td>
<td>3%</td>
<td>52.2%</td>
<td>29.9%</td>
<td>14.9%</td>
</tr>
</tbody>
</table>

All subjects university students of EFL in their own country. Levels ranged from “foundation level” to “upper intermediate.” From: Jarvis (2013).
The same subjects also indicated that they use English substantially for social functions online. Over half agreed with the statement: “I use English to communicate online with friends from other countries” (Thai speakers: 54%; Arabic speakers: 73%).

Other studies confirm that the use of English on computers and other mobile devices includes both academic and social functions. The following is from a study of young adults (ages 18-24) who spoke English as a foreign language and who were studying in the UK (countries of origin = Saudi Arabia, Greece, China, Poland, Cyprus, Pakistan). Jarvis and Achilleos (2013) administered a questionnaire and found that all students reported daily or nearly daily use of their computer and related devices. As presented in Table 3, English is used extensively for social purposes and for obtaining information, both personal and “academic.”

Table 3. Use of English by students studying in the UK

<table>
<thead>
<tr>
<th>Use</th>
<th>n</th>
<th>L1 Only</th>
<th>Mainly L1, some English</th>
<th>Mainly English, some L1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet, information of personal interest</td>
<td>56</td>
<td>3.6%</td>
<td>48.2%</td>
<td>41.1%</td>
</tr>
<tr>
<td>Internet, academic information</td>
<td>56</td>
<td>5.4%</td>
<td>16.1%</td>
<td>46.4%</td>
</tr>
<tr>
<td>Social networking sites</td>
<td>51</td>
<td>5.8%</td>
<td>21.5%</td>
<td>41.1%</td>
</tr>
<tr>
<td>E-mail</td>
<td>56</td>
<td>0.0%</td>
<td>37.5%</td>
<td>42.9%</td>
</tr>
</tbody>
</table>

From: Jarvis and Achilleos (2013).

Jarvis and Achilleos reported that this heavy use of English on the Internet did not appear to be simply a result of students coming to the UK and wanting to improve their English: 85.7% (48/56) did not agree with the statement: “I did not use the English language when using technology before coming to study in the UK.” In other words, they used English on the Internet in their home countries as well. This result was confirmed in Jarvis (forthcoming), who asked similar questions of Thai students living in Thailand.

Table 4 is a closer analysis of data presented in Table 1. The responses show an impressive amount of English use on the Internet for a wide range of uses for a group with English proficiency ranging from lower to upper intermediate.
Table 4. Use of English by students living in Thailand

<table>
<thead>
<tr>
<th>Use</th>
<th>Only Thai</th>
<th>Mainly Thai, some English</th>
<th>Mainly English, some Thai</th>
<th>Only English</th>
<th>Thai, English, other languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Messaging</td>
<td>33%</td>
<td>57%</td>
<td>4%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Facebook, Instagram</td>
<td>13%</td>
<td>73%</td>
<td>8%</td>
<td>5%</td>
<td>1%</td>
</tr>
<tr>
<td>YouTube</td>
<td>8%</td>
<td>63%</td>
<td>20%</td>
<td>7%</td>
<td>2%</td>
</tr>
<tr>
<td>Games</td>
<td>4%</td>
<td>45%</td>
<td>34%</td>
<td>17%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Only uses done by at least 80% of the subjects included here. From: Jarvis (forthcoming).

**Result Two:** English language acquirers think that non-pedagogical uses of the computer in English are helpful for English language development, and in some cases value them more than they value pedagogical programs.

At the core of CALL lies the assumption that computer programs entailing direct instruction are useful. Most of the students studied by Jarvis (2013) appear to agree (94% of the Thai speakers, 77% of Arabic speakers).

However, this enthusiasm is not reflected responses to other questions. Only 35% of the students surveyed in Jarvis (forthcoming) said that they “use computers, smartphones and tablets to do English language exercises online.” Jarvis and Achilleos (2013) reported similar results, with only 29% saying they used “web pages designed for English language learning.”

In two studies, acquirers of English were asked to compare the effectiveness of traditional CALL and “other uses of the computer.” Results from Jarvis (2013) (speakers of Thai and Arabic in their own country) show support for both, with somewhat more support for traditional CALL (Table 5).

**Table 5. Views of computer use and impact on English competence**

<table>
<thead>
<tr>
<th>Activity helps practice and/or learn English</th>
<th>Thai</th>
<th>Arabic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest sites with English practice exercises</td>
<td>94.1%</td>
<td>77.4%</td>
</tr>
<tr>
<td>Other internet sites in English</td>
<td>92.2%</td>
<td>69.8%</td>
</tr>
<tr>
<td>Social networking</td>
<td>74.5%</td>
<td>61.5%</td>
</tr>
</tbody>
</table>

From Jarvis (2013).
But responses in Jarvis and Achilleos (2013; subjects all studying in the UK) show a greater preference in “other things” for improving their English. The difference between the results presented in Tables 5 and 6 could be related to differing proficiency levels, with subjects represented in Table 6 more likely at a higher level of English than those in Table 5.

Table 6. English programs vs. “other things” for English language development: Helpful for acquiring English

| Using web pages designed for English language learning | 28.6% |
| Doing various other things but using English to do so such as accessing information on the WWW, communicating with friends/family, listening to music etc. | 71.4% |

From: Jarvis & Achilleos (2013).

What we can conclude is that students have considerable respect for digital devices as a source of comprehensible input, which in turn, also suggests that they have at least some appreciation for subconscious language acquisition.

Even though a number of students see language exercises as important, it is likely that with more access to the Internet, more second language acquirers will conclude that doing “other things” helps English development even more, a conclusion consistent with current language acquisition theory.

*Is the term CALL still appropriate?*

The implications of the research presented here are clear: The term CALL is obsolete, because its focus is limited to the computer, and because of its emphasis on conscious learning. Alternative acronyms such as Technology Enhanced Language Learning (TELL) or Mobile Assisted Language Learning (MALL) account for some changes in the field, but continue to focus on conscious learning. It is time to move beyond CALL. MALU (Mobile Assisted Language Use) as defined by Jarvis and Achilleos (2013) is a significant improvement when discussing electronic devices: MALU covers more than desktop and even laptop computers, and makes it clear that more than language instruction and/or learning is involved.
References


About the Authors

**Huw Jarvis** is a Senior Lecturer in TESOL at the University of Salford, UK. He has published widely in technology and language education and is the founder and editor of TESOLacademic.org, which disseminates open access TESOL-based research and keynote talks via YouTube.

**Stephen Krashen** is a Professor Emeritus at the University of Southern California, USA. He has contributed to the fields of second language acquisition (SLA), bilingual education, and reading. He holds a black belt in Tae Kwon Do and was the 1977 Venice Beach Incline Bench Champion. A number of his publications are available from http://sdkrashen.com/.

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