

Assessing Language Skills Through Computer Aided Assessment – An Educational Technology Perspective

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Abstract

Computer Aided Assessment (CAA) covers a range of assessment procedures and is a rapidly developing area as new technologies are harnessed. In essence, CAA refers to any instance in which some aspect of computer technology is deployed as part of the assessment process. Some of the principle examples of CAA in language learning are:

- Interactive exercises and tests completed on a computer
- Use of computers to produce coursework, e.g. using a word-processor
- word-processed writing
- Use of email to send coursework to students and (for students) to receive marks and feedback
- Use of Web pages to set tasks for students and to provide tutor support

Introduction

CAA is more than just a list of possible applications, however. Its importance is intimately bound up with raising achievement, since it can be argued that the role of ICT in raising achievement cannot be fully measured unless ICT is also used in the assessment process.

Just as oral skills cannot easily be assessed by a written test, so there are ICT-specific language skills that cannot easily be assessed through pencil and paper exercises and tests. Consider the following examples:

- reading and replying to an email from an exchange partner
- planning a journey using a Web browser
- writing an essay using a word-processor

If students spend time practising the above activities on computers the intention is to raise achievement in language learning at a general level, and this might well be picked up in a conventional test or examination. However, as the balance moves further and most of students' reading is online and most of their writing is computer-based, using paper technology is unlikely to enable students to demonstrate fully their skills, particularly ICT-related ones such as using writing tools - spellchecker, thesaurus, etc. An integrated approach to teaching, learning and assessment is always likely to be more successful than a random approach. Thus, teaching methods, learning methods and assessment methods need to cohere if learners are to learn successfully and if valid and reliable results are to be achieved from assessment procedures. This is true whether or not ICT is to be used - extensive oral practice

activities and no oral exam is still a problem in many classes, and so too is extensive use of computers and no opportunity to use computers as part of the assessment process. Moreover, the incentive for teachers to incorporate learning technologies into class work is reduced if the examinations do not use these technologies or expressly prohibit their use.

Skill	Assessment by computer	Assessment of electronic output by human being
Listening	Computer can assess a limited range of different types of responses to test comprehension.	Listening tests can be presented on a computer, students' answers can be stored electronically and assessed by a teacher.
Speaking	Very limited as yet. Automatic Speech Recognition (ASR) software is developing rapidly but it is still too unreliable to be used in accurate testing.	Students can record their own voices on a computer for assessment by a teacher.
Reading	Computer can assess a limited range of different types of responses to test comprehension.	Reading tests can be presented on a computer, students' answers can be stored electronically and assessed by a teacher.
Writing	Very limited as yet, but spellchecking, grammar checking and style checking are possible, and some progress is being made in the development of programs that can assess continuous text.	Students' answers can be stored electronically and assessed by a teacher

Listening

Listening — A Key Ingredient of Effective Communication

The most basic of all human needs is the need to understand and be understood. The best way to understand people is to listen to them – Ralph Nichols

It is also said that communication begins with listening. Lack of listening ability at all levels is a major source of work-related problems. Communication cannot be effective unless, the receiver listen with due attention or 'participation'. It further shows that communication is a joint responsibility of both the sender and the receiver. Participative listening is an essential condition of effective communication. One cannot be an effective speaker unless one is a good listener - one cannot speak unless one listens. It must, first of all be made clear that listening is a deliberate effort. It is not the same as hearing. When we hear we do not have to make any effort. But for listening we have to train our ears and ask ourselves why we want to listen to something or somebody. While listening we must discriminate, evaluate, appreciate and react.

Listening heads the list of essential managerial skills; it provides most managers with the bulk of the information they need to do their jobs.

What Happens when we listen?

Listening is a process involving five related activities, which are as follows:

1. **Sensing:** Physically hearing the message and taking note of it. Reception can be blocked by interfering noises, impaired hearing or inattention. One must tune out distractions and focus on registering the message.
2. **Interpreting:** Decoding and absorbing what one hears. The speaker's frame of reference may be different from that of the listener, so one must try to determine what the speaker means. Paying attention to nonverbal cues often increases the accuracy of interpretation,
3. **Evaluating:** Forming an opinion about the message and sorting through the speaker's ideas.
4. **Remembering:** Storing a message for future reference. To retain what one hears, we can take notes or make a mental outline of the speaker's key points.
5. **Responding:** Acknowledging the message by reacting to the speaker in some fashion.

Thus, listening requires a mix of physical and mental activities, and it is subject to a mix of physical and mental barriers.

The main ways of assessing listening skills can be summarised as follows:

- i. Multiple-choice, drag-and-drop, and fill-in-the-blank tests with single-words or very short sentences, but these types of tests cannot easily assess more open-ended aspects

- such as the ability to infer; and in multiple-choices tests students can get the answers right by guesswork.
- ii. Completely open-ended answers cannot be assessed. Single-word answers or answers consisting of very short sentences can be assessed to a limited extent.

Speaking

Limited assessment of speaking skills is possible. Self-assessment and peer assessment can be managed if facilities are available (e.g. microphone and headphones) to allow students to record themselves and listen to the playback. A number of multimedia CD-ROMs have this feature. The **Encounters** series of CD-ROMs, for example, allows students to take part in a role-play by recording their own voices - and re-recording them until they are satisfied with the results - and then saving the whole role-play on disk, with their own voices slotted into the appropriate positions in the role-play, for assessment by a teacher: To assess speaking skills solely by a computer, using **Automatic Speech Recognition (ASR)**, is a very complex task and research in this area is developing rapidly. ASR can be motivating for students working independently, but computers are still not completely reliable as assessors.

Reading

At a basic level it is simple to assess reading comprehension in much the same way as it is possible to assess listening comprehension, e.g. with multiple-choice, drag-and-drop and fill-in-the-blank tests. If well designed, this form of assessment works effectively and instant feedback can be offered to the student, which has a beneficial effect on learning. The main ways of assessing reading skills can be summarised as follows:

- i. Multiple-choice, drag-and-drop, and fill-in-the-blank tests with single-words or very short sentences, but these types of tests cannot easily assess more open-ended aspects such as the ability to infer; and in multiple-choices tests students can get the answers right by guesswork.
- ii. Completely open-ended answers cannot be assessed. Single-word answers or answers consisting of very short sentences can be assessed to a limited extent.

More extended reading tasks are harder to set on computer. On-screen reading of longer texts is in any case inadvisable. Research indicates that people read around 25%-30% more slowly from a computer screen. Web guru Jakob Nielsen writes:

Reading from computer screens is about 25% slower than reading from paper. Even users who don't know this human factors research usually say that they feel unpleasant when

reading online text. As a result, people don't want to read a lot of text from computer screens: you should write 50% less text and not just 25% less since it's not only a matter of reading speed but also a matter of feeling good. We also know that users don't like to scroll: one more reason to keep pages short. [...] Because it is so painful to read text on computer screens and because the online experience seems to foster some amount of impatience, users tend not to read streams of text fully. Instead, users scan text and pick out keywords, sentences, and paragraphs of interest while skipping over those parts of the text they care less about. Be Succinct! Writing for the Web, Alertbox for March 15, 1997.

Extended texts are more likely to be print-based unless they are in hypertext format, i.e. separate pages linked together as on the Web, or CD-ROM reference materials. In the case of hypertext, the computer may be a suitable medium for assessing information-gathering techniques. The skills needed to track down documents, follow links within and between them and find specific extracts are of increasing importance in academic life, in commercial settings and in leisure time. These skills are, to an extent, generic rather than specific to any given language although learners do need to know key terms involved in searching for information. Many teachers are aware of the need to ensure that learners are equipped with the appropriate language skills for Web browsing, e.g. foreign language terms for help, search, next page, OK etc.

Writing

Limited assessment of writing skills is possible. It is fairly straightforward to program computers to assess the accuracy of single words and short sentences typed at the keyboard, and work on parsing students' typed responses, diagnosing errors and providing appropriate

feedback is in. There are also features in modern computer software that can be used within the assessment process, such as spellcheckers to enable self-assessment of spelling, and also grammar and style checkers, which - although still imperfect - do pick up many errors that students can use to self-correct, such as errors of gender or number: see example below which is a screenshot from Microsoft Word. As for assessing continuous pieces of text, some progress has been made in developing programs that can roughly grade short essays. An example of such a program (for English) is **BETSY (Bayesian Essay Test Scoring System)**, which is downloadable for non-commercial purposes from <http://edres.org/betsy>.

Conclusion

The final reason for communicating, of course, is to promote action. And the key to effective action is not accurate information but persuasive ideas. An idea is something you can say or write about something. A name is not an idea. These phrases are all names but, for our purposes, they aren't ideas:

- Asian Market
- Operations Director

To turn them into ideas, we have to say something about them:

- The Asian market has become unstable
- Bill Freeman is now Operations Director

What we have done is very simple. We have created sentences. An idea is *any thought that we can express in a sentence*. Ideas are the currency of communication. We are paid for our ideas. When we communicate, we trade ideas. Like currency, ideas come in larger or smaller denominations: there are big ideas, and little ideas. We can assemble the little ones into larger units, by summarizing them. Like currencies, ideas have a value and that value can change; some ideas become more value as others lose their value. We judge the quality of an idea by how meaningful it is. The most effective communication makes ideas explicit. We may take one idea and pit it against another. We may seek the evidence behind an idea or the consequences pursuing it. We may enrich an idea with our feelings about it. Whatever strategy we adopt, our purpose in communicating is to create and share ideas.

1.Devillar,R.,&Faltis,C.(1991).Computers & Cultural diversity: Restructuring for school success. Albany, NY: State University of New York Press.

Emmer, E.t.,&Stough, L.M.(2001).Classroom management:A critical part of educational psychology,with implications for teacher education.Educational Psychologist,36(2),103-112.

3.Gilster,Paul.(1997).*Digital Literacy*. New York. JohnWiley& Sons.

4.Golub,J.N.(1999). Thought worth thinking about :Reflections, connections, projections. *Virginia English Bulletin*,Fall 1999, 52-54

5.Mishra,Jitendra, AbidiNasram,Sharma,Rahul.(2008). Indian Higher Education:Global Challenges &Local Issues. JBS Working Paper Press.

6.Otto, S.K, &Pusack, J.P.(1996).Technological choices to meet the challenges.*In Foreign Language for all*.(pp.141-186). Northeastern conference reports. Lincolnwood, IL: National Textbook Company.