

***Assessing Language through Computer Technology  
(Cambridge Language Assessment Series)***

<b>Author:</b>	Carol A. Chapelle and Dan Douglas (2006)		
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Chapelle and Douglas's book is a clear example of an introduction to the most important concepts in CALT (Computer Assisted Language Testing). The book efficiently describes the main aspects that influence the design, production and implementation of CALT systems for language learning, putting special emphasis on CALT's future impact. The authors show straightforwardly and concisely the latest advances in the CALT field, innovations that can serve as support for creators and developers of specific language tests using computer tools.

**Overview**

Chapter 1 describes the agents (teachers, developers and administrators) and the elements, such as test development and classroom assessment, that affect directly the development of high- and low-stakes testing through computers. The authors state that their approach is open to new paradigms for developing new test content and new testing methods. This chapter introduces some general issues in the field of Computer Assisted Language Testing (CALT).

Chapter 2 gives a detailed description of the test methods, characteristics, and contents in CALT. This account is well illustrated and supported by a table where CALT's advantages and limitations are shown. This table and others are very helpful for readers, allowing them to get a clear idea of the new CALT test-developing programs.

CALT's potentiality is shown in chapter 3 through the study of several constraints

related to testing-validation techniques. The authors cover controversial issues such as test security levels, the limits to adaptive systems, and real control of automatic response scoring under suitable ratios.

CALT's implementation, chapter 4, is illustrated through authoring tools like WebCT. This program, created as a management tool for online courses on the web, includes a module for general test development (multiple choice, true and false, matching, short answer). Focusing on this module permits the authors to demonstrate WebCT's full potential for creating conventional tests managed and semi-designed by teachers.

A technical approach to CALT evaluation can be found in chapter 5. Chapelle and Douglas state that it is difficult to foresee the future potential of CALT, but they do point to two emerging issues to account for: (1) the argument-based structure for expressing aspects of evaluations and (2) the use-driven framework for demonstrating appropriate use for CALT validation. These points should probably have been addressed more carefully in this book.

## **Commentary**

First, I want to focus on the development and evolution of the visual ergonomics of the interfaces in various CALT models. Currently there are few evaluations on this subject that cover accessibility, i.e., the capability to access the test tool easily by all users no matter what operating system they may be using; usability, and functionality: all terms that have not been fully explored in this book. Neither has the book discussed the importance visual ergonomics could have in visualizing contents of computer-based language tests - and their subsequent implementation on an online platform like the web environment. User-oriented interfaces are a key element in creating a testing environment adapted to user-level needs.

In this book we find occasional references to concepts based on Fulcher (2003), such as "invisible interface" (p. 83), the latter term not clearly defined either from Fulcher or by Chapelle & Douglas in their book. Instead of this vague concept, it would probably have been better to state that interfaces should not interfere with assessment, particularly since there is little doubt that the interface has an effect on the test taker. For instance, the test taker may perform poorly on a test just because the taker does not like or feel comfortable with the interface (independently of whether the test content is appropriate for the given situation).

Clearly, the nature of an interface in any interactive format is determined by the level of communication intended to take place between the tool and the user. The importance of guiding the user becomes a basic premise for creating an interface adapted to CALT platforms, a mechanism that orients and guides the user toward completing tasks. Elements such as restricted forward and back arrows, help contents, the linearity of a guided interaction, etc. are essential to test-takers' comfort and ease in taking computer-aided tests. As such they should be studied as a matter of course, both by CALT developers and evaluators. It's also worth mentioning that in citing Fulcher and his guidelines on the design of a good interface (see table 5.2, p. 84), the authors overlook an earlier global model by Nielsen et al. more than a decade ago (Nielsen, 1993).

Secondly, we need to take into account the methods proposed in the book for evaluating both the visual design and content selection of CALT tests, summarised in Chapter 5, where the guidelines for developing and implementing tests via computer are mentioned. Diagram 5.1 shows the summary of points for evaluating CALT outlined by Noijons, a staff member at CITO, the Dutch National Exams Agency, and one of the coordinators of the EU-funded DIALANG project. The criteria include a series of questions to address during the content-creation and development phases of CALT tests. In table 5.3 Fulcher's criteria for CALT interface design are described, with special emphasis placed on the "usability test" phase.

The above tests are generally applied in the more advanced phases of creating an interface, and serve as controlled feedback that helps to improve aspects of visual ergonomics and operation. Other evaluation methods, with various profiles, fall into two categories: those which provide a global viewpoint of the platform (the handling of the tool's environment and its interactivity); and those which assess a more specific viewpoint (the monitoring and handling of specific tasks, validation of those tasks, etc.).

Beyond Chapelle and Douglas's suggested means of evaluating CALT environments, we can mention two other methods for judging usability: (1) heuristic evaluation (Nielsen & Molich, 1990), in which specialists in test design evaluate whether each element of the interface follows the principles of usability related to navigability, flexibility, accessibility; and (2) cognitive walkthroughs (Lewis et al., 1990), a usability test method employed to generate early design evaluation by assigning a group of users the tasks that represent the environment interface.

The use of standardised tests should be evaluated in their own context and according to their specific use. For instance, it is questionable whether the TOEFL design would be acceptable in a low-stakes situation for Japanese primary students, when in fact it was designed as a high-stakes test for international students. A model of clear comparison among usability techniques is presented by Jeffries et al. (1991).

All of these methods are combinable and since they are used to create and develop any telematic environment, they are applicable to discovering CALT problems. Emphasizing accessibility when considering validating any web platform or telematic environment such as CALT has not been fully addressed in this book. Applying a usability test, as suggested initially by Nielsen, has led to international research consortiums establishing standards aimed at evaluating and implementing levels of usability and accessibility in web environments and applications.

The third point to consider is content in chapter 4, specifically authoring tools used in creating and managing training documents via educative virtual platforms, is the third point to consider. Such tools lend themselves to, amongst other functionalities, developing tests of varying kinds (simple questions, multiple, relational, etc.), and allow us to integrate multimedia elements such as static and dynamic images and sound. Such software allows users without advanced computer knowledge to manage information in a structured way, and, more importantly, classify and re-use content systematically, based on international content standards such as SCORM (Shareable Content Object Reference Model) and IMS (Learning Design).

But what is not covered on this topic is the role these tools play in an increasingly

crowded virtual realm: the concern for developing communication standards between educative virtual platforms. Sustainability criteria need to be always kept in mind; "media ecology" must be practiced. Why? Because the web is becoming saturated with non-reusable content. To that end, it is vital to emphasize that CALT-developed content offers to comply with recent IEE and SCORM standards that facilitate their integration and use validation on multiple platforms.

What Chapelle and Douglas provide in their book will no doubt be helpful, particularly to those new to CALT. It's what they overlook or don't treat comprehensively that are problematic about their book as a guide through the issues raised by CALT.

## References

Nielsen, J. (1993). *Usability engineering*. New York: Academic Press, Inc.

Nielsen, J., & Molich, R. (1990). Heuristic evaluation of user interfaces. *Proceedings of ACM CHI'90 Conference*, Seattle, pp. 249-256.

Lewis, C., Polson P., Wharton C., & Rieman J., (1990) Testing a walkthrough methodology for theory-based design of walk-up-and-use-interface. *Proceedings of HCI '90*, New York, pp. 235-242.

Jeffries, R., Millar, J.R., Wharton, C., & Uyeda, K.M. (1991). User interface evaluation in the real world: A comparison of four techniques. *Proceedings ACM CHI '91*, New Orleans, pp. 119-124.

IMS (Learning Design).IMS Global Learning, Inc. Retrieved December 1, 2006, from <http://www.imsglobal.org/learningdesign/>.

SCORM (Shareable Content Object Reference Model). (Advanced) Distributed Learning. Retrieved December 1, 2006, from <http://www.adlnet.gov/scorm/index.cfm>.

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