Checklist: Evaluative Criteria for Computer-Delivered Language Learning Systems
compiled during the Invitational Symposium on Assessing and Advancing Technology Options in Language Learning (AATOLL) February 1998

General description of the program

Name/version ___________________________________________

Intended users

age

- children
- high school
- college
- learners with special interests (tourists, businessmen, etc.)

ability level

- beginning
- intermediate
- advanced

Intended use

- self-instruction
- textbook/classroom supplement
- combination of above

Content

- content likely to be of interest to intended users
- instructional units logically sequenced
- lessons build on material presented earlier

Program goals

- goals and objectives of the program clearly described
- program capable of meeting the stated goals

Scope

number of lessons or instructional units _________________________________
equivalence in terms of hours, semesters, years of instruction _____________________

Documentation

- discussion of program’s goals, design, and contents
- tutorial on program’s operation
- demonstration lesson included
- lesson plans for use in a course or guidance for individual use
- research results on effectiveness of the program available
- information about independent reviews of the program

Customization

- choices depending on user level
- users can customize the operation of the program
- variety of options to support different types of learners

Installation/operation

- installation instructions clear
- program easy to install/uninstall

How often does the system crash? ________________________________

Is there a particular action that causes regular crashes? ________________________________

Hardware requirements

- type of computer ________________________________
- version of operating system ________________________________
- memory (RAM) ________________________________
- disk space ________________________________
- CD-ROM drive/DVD-ROM drive ________________________________
- speakers ________________________________
- microphone ________________________________
- monitor ________________________________
- sound card/video card ________________________________
- network/browser requirements ________________________________
- other ________________________________

Media

- graphics, video and audio help users to concentrate on content
- text easy to read
- audio clear
- colors and graphics crisp and clear
- video runs smoothly
- hypertext links work well
- animation serves a pedagogical purpose
Feedback
- users receive quick feedback to responses
- level of feedback language appropriate for intended users
- availability of feedback (e.g., item-by-item, logical content break, end-of-unit or session, learner-controlled)

Type of feedback is available
- indication as to whether response is correct or incorrect
- invitation to try again
- hint leading to correct response
- explanation as to why a particular response is incorrect
- a "give-up" option
- directions to relevant part of program for review
- intelligent feedback depending on learner response history

Evaluation/tests
- frequency of the tests
- type of scores is made available to users
- explanation of test scores
- cumulative log of scores to track progress
- recommendations for remedial action given
- tests and/or test scores can be printed out

Special features:
- speech recognition
- system requires initial training

What do users need to do to train the system? ________________________________

How frequently does the system recognize a range of native speech? ________________
How does the system react to nonnative speech? ________________________________

How extensively is speech recognition/processing utilized in each unit of the program?

Function of speech recognition/processing in this program
- voice navigation
- pronunciation instruction
- speaking practice
Developer/distributor
name _______________________________________________________
street address __________________________________________________________
telephone ________________________________________________________________
fax _________________________
e-mail ___________________ URL ____________________________________________

Price
individual _____________________________________________________________
institutional _____________________________________________________________
☑ users likely to get their money’s worth

Checklist for listening software

Listening input
audio
☐ conditions against which the audio is played authentic
☐ tempo of the sound track natural
☐ variety of voices and dialects
☐ sound track supported by video or graphics

listening passages
☐ passages authentic
☐ topics of interest to intended users
☐ variety of topics
☐ users can choose among several passages on the same topic
☐ variety of genres
☐ passages of an appropriate length for intended users
☐ vocabulary appropriate for the intended level
☐ syntax appropriate for the intended level

Listening activities
pre-listening activities
☑ program adapts to different levels of users’ prior knowledge
☐ pre-listening activities that activate prior knowledge

listening activities
☐ listening activities emphasize comprehension of the passage
☐ listening activities authentic
☐ variety of listening activities
☐ users have a choice of listening activities
☐ activities motivate learners to keep listening
post-listening activities
- post-listening activities based on selected features of passages
- features selected for special attention well chosen
- post-listening activities promote acquisition of vocabulary

Listening strategy instruction
- explanation about the benefits of using listening strategies
- systematic practice in the use of listening strategies
- users can see that certain tasks are more easily accomplished when strategies are used
- choice of listening strategies depending on learning style
- feedback on the effectiveness of strategy use

Listening tools
- links to the written version of passage
  - the whole passage
  - sentence-by-sentence
  - phrase-by-phrase
  - word-by-word
- spoken glosses
  - monolingual
  - bilingual
  - hint-type
- written glosses
  - monolingual
  - bilingual
  - hint-type
- visual glosses
  - images
  - graphics
  - videos
- additional resources available
  - online talking dictionary
  - online written dictionary
  - online reference grammar
  - background information
  - cultural notes

Listening interface
- ease of navigation
- navigation between audio, activities, glosses, and tools simple
- navigation between screens fast
playback control
- users can control the speed of audio playback
playback can be stopped
- after each phrase
- after each sentence
timing
- enough time to complete activities
archiving
- users’ work can be saved
- users’ work can be printed out

Checklist for reading software

Reading input
How authentic is the appearance of the passage?
- layout
- fonts
- illustrations
- colors
content of the reading passages
- reading passages authentic
- topics of interest to intended users
- variety of topics
- topics not likely to become outdated
- variety of genres
- users can choose among several passages on the same topic
- length appropriate for intended users
- vocabulary appropriate for intended users
- syntax appropriate for intended users

Reading activities
pre-reading activities
- program adapts to different levels of users’ prior knowledge
- pre-reading activities that activate prior knowledge
reading activities
- reading activities emphasize comprehension of the passage
- reading activities authentic
- variety of reading activities
- users have a choice of reading activities
- activities motivate learners to keep reading
post-reading activities
- post-reading activities based on selected features of the passages
- features selected for special attention well chosen
- post-listening activities promote acquisition of vocabulary

Reading strategy instruction
- explanation about the benefits of using reading strategies
- systematic practice in the use of reading strategies
- users can see that certain tasks are more easily accomplished with strategy use
- choice of reading strategies depending on learning style
- feedback on the effectiveness of strategy use

Reading tools
- links available to the spoken version of the passage
  - the whole passage
  - sentence-by-sentence
  - phrase-by-phrase
  - word-by-word
- written glosses available
  - monolingual
  - bilingual
  - hint-type
- spoken glosses available
  - monolingual
  - bilingual
  - hint-type
- visual glosses available
  - images
  - graphics
  - videos
- additional resources available
  - topical glossaries
  - background information
  - cultural information
  - online dictionary
  - online reference grammar

Reading interface
- ease of navigation
  - navigation between text, activities, glosses, and tools simple
  - navigation between screens fast
appearance of the text
- texts preserve their original format
- texts presented in a variety of fonts and typefaces
- fonts and typefaces attractive and easy to read
- illustrations and graphics aid in text comprehension

glosses
- equal access to different types of glosses
- glossed items marked unobtrusively
- glosses cover up text or make it disappear
- different types of glosses can be customized by users

timing
- enough time to complete activities

archiving
- users’ work can be saved
- users’ work can be printed out

Checklist for speaking software

Speaking input
- general qualities of the input
  - authenticity
  - situational appropriateness
  - cultural appropriateness
  - interest to intended users

topics
- topics of interest to intended users
- variety of topics
- topics logically sequenced
- users have a choice of topics

vocabulary
- vocabulary appropriate for the intended level
- vocabulary organized into well-defined thematic units
- program focuses users’ attention on specific vocabulary
- vocabulary recycled throughout the program

grammar
- grammar appropriate for the intended level
- presentation of grammar logically sequenced
- program focuses users’ attention on specific structures
- grammar recycled throughout the program
- grammatical explanations clear
**Speaking activities**
- speaking activities simulate real-world interactions
- activities challenging and fun
- activities progress from mechanical drills to open-ended responses
- activities require integration of linguistic, sociolinguistic, and pragmatic skills
- speaking activities contextualized
- variety of activities
- users have a choice of activities

What is the quality of the speaking prompts? ________________________________
- examples for the activities to be performed
- responses allowed
  - only one
  - more than one

**Speaking strategy instruction**
- program explains why the use of communication strategies can be helpful
- systematic practice in the use of communication strategies
- users can see that a task is more easily accomplished when a particular communication strategy is used
- choice of communication strategies depending on learning style
- feedback on effectiveness of strategy use

**Speaking tools**
- online tools are available
  - reference grammar
  - monolingual dictionary
  - bilingual dictionary
  - talking dictionary
  - thesaurus
  - sociolinguistic and cultural notes

**Speech interface**
- speech interface user-friendly
- speech recognition (SR)
  - pedagogical goals of the program could be achieved without SR
  - tasks associated with SR
    - creating a sentence with audio and/or visual cues
    - conversing with the system (conversation changes depending on response)
- Feedback from SR
  - Is the feedback from SR correlated with how well something was said
  - feedback relies only on learners’ own assessment
  - users can record and compare their responses with correct models
SR program provides feedback on accuracy
- in responses chosen from a closed set
- in open-ended responses

Archiving
- users’ work can be recorded and saved

Checklist for writing software

**Input for writing activities**
- input provided in order to contextualize writing tasks
  - written texts
  - listening passages
  - videos
  - input at the appropriate level of difficulty
  - variety of input
  - users have a choice of type of input

**Writing activities**
- writing tasks have counterparts in the real world
- tasks at the appropriate level of difficulty
- tasks culturally appropriate
- writing prompts clearly and concisely worded

writing prompts specify
- an audience
- a function
- a motivation for writing
- choice of writing tasks

**Writing strategy instruction**
- explanation of the benefits of using writing strategies
- program offers systematic practice in the use of writing strategies
- users can see that certain writing tasks are more easily accomplished when strategies are used
- choice of writing strategies depending on learning style
- feedback on the effectiveness of strategy use

**Writing tools**
- macro-aides available
  - online templates for brainstorming writing tasks
  - online templates for organizing the writing tasks
  - online samples for imitation
micro-aides available
- online bilingual dictionary
- online thesaurus
- online grammar reference

editing aides available
- online spell checker
- online grammar checker

Writing interface
- enough time given for task completion
- program can save successive drafts of users’ work
- users’ work can be printed out
- program can keep track of user queries
- program includes a network component for group work or peer editing

Checklist for vocabulary learning software

Input for vocabulary learning
basis for the choice of vocabulary included in the program
- frequency
- association with a particular topic or topics
- association with a particular textbook

vocabulary appropriate for the intended users in terms of
- level of difficulty
- interest
- usefulness

Vocabulary learning activities
- activities challenging and fun
- users have choice of difficulty level
- activities relate new vocabulary to vocabulary previously introduced
- users have a choice of activities

vocabulary learning activities offered
- repetition of the word
- recognition/matching activities pairing the word with its native language equivalent
- pairing the word with its target language synonym
- pairing the word with its target language antonym
- finding the related word in a list
- pairing the word with a picture
- pairing a word with a video
- listening to the word being pronounced and finding it in a list
production activities
- giving the target language equivalent for a native language word
- finding the right word to describe a picture
- finding a target language synonym for a word
- finding a target language antonym for a word
- putting a word in the appropriate semantic group
- producing derivationally related words (e.g., noun from a verb)
- using the word in a sentence
- games

Vocabulary learning strategy instruction
- explanation of different kinds of mnemonic strategies
- explanation of why the use of certain strategies can improve retention of vocabulary
- systematic practice in the use of mnemonic strategies
- users can see that a task is more easily accomplished when a mnemonic strategy is used
- users offered a choice of mnemonic strategies depending on their learning style
- feedback on whether the use of a particular mnemonic strategy was effective or not

Vocabulary learning tools
- vocabulary search engine
glosses provided
- monolingual
- bilingual
- hint-type
- examples of usage
- visual
- audio
- video

Vocabulary learning interface
classification of different kinds of mnemonic strategies
- explanation of why the use of certain strategies can improve retention of vocabulary
- systematic practice in the use of mnemonic strategies
- users can see that a task is more easily accomplished when a mnemonic strategy is used
- users offered a choice of mnemonic strategies depending on their learning style
- feedback on whether the use of a particular mnemonic strategy was effective or not
Checklist for software to teach pronunciation

**Pronunciation input**
- words presented
  - in citation form only
  - in different contexts
- suprasegmental features included in the program
- intonation included in the program
- native-speaker models include a variety of voices and dialects

**Pronunciation activities**
- activities well-sequenced
- activities challenging and fun
- activities progress from easier to more complex
- users have control over selection of activities
- opportunities to review the material
- tasks associated with the use of speech recognition
  - reading one word at a time
  - filling in a blank in a sentence
  - reading from a selection of several words
  - reading one sentence at a time
  - reading from a selection of 2-5 sentences
  - reading from a selection of 6 or more sentences
  - creating a sentence with audio and/or visual cues

**Pronunciation interface**
- speech recognition system reaction to nonnative speech
  - recognizes despite mistakes
  - asks for repetition
  - does not recognize
- recognition system robust to various disfluencies
- recognition system sensitive to ambient noise
- feedback recognition system provides
  - correlates with how well something was said
  - relies only on learners’ own assessment
- users can record and compare their responses with correct models
- mistakes in learner responses are marked and displayed
  - accuracy of vowels and consonants
  - accuracy of speech rhythm and timing
  - accuracy of intonation contours
method by which visual pronunciation feedback presented
- speaker’s face
- vocal tract
- spectrum information
- speech waveforms

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### Checklist for software to teach script

#### Script input
- basis for selection of characters
  - frequency
  - topic association
  - textbook association
  - information about the history of the writing system
  - general description of the writing system and its distinguishing features

#### Script learning activities
- characters (or symbols) practiced
  - in isolation
  - in combinations
  - in meaningful sequences
  - from the more simple to the more complex
  - characters (or symbols) presented earlier are recycled throughout the program
- variety of activities
- users have control over choice of activities

#### Script strategy instruction
- program explains what techniques are helpful in learning to write the target language script
- program provides systematic practice in the use of these techniques

#### Script learning tools
- characters (or symbols) linked to their pronunciation
- links to glosses
  - monolingual
  - bilingual
  - images
  - video

#### Script learning interface
- program shows stroke order of the characters or symbols
- animation of how characters or symbols are written
- search engine