Technology Skills Checklist for Online Assessment

Background Information

The Office of Special Education Programs, US Department of Education, awarded the University of Kentucky, in collaboration with CAST, a Directed Research Project grant entitled *Universal Design of Assessment: Applications of Technology*. This three-year project is examining the role of computers in increasing access to large-scale assessments for students with disabilities. One of the research activities of this project is to identify the prerequisite skills for students to successfully access and use a computer-based assessment, more specifically, Kentucky's CATS (Commonwealth Accountability Testing System) Online.

Purpose

The resulting *Technology Skills Checklist for Online Assessment* is intended for use by school staff in Kentucky and elsewhere in preparation for and in administration of electronic accessible assessments. This checklist provides a tool with which to: 1) analyze a specific online assessment to determine what skills are necessary for all students; and 2) assess each student who will be taking the online assessment to determine what skills the student demonstrates and what skills the student needs to acquire prior to taking the assessment. The skills are divided into five areas: Basic Computer, Keyboarding, Word Processing, Text-Reader/Screen-Reader, and Interaction with Online Assessment.

Instructions for Use

Analyze Skill Requirements of A Specific Online Assessment

N   *Skills Needed for a Specific Online Assessment.* Identify each skill that is required of all students taking a specific online assessment. Check the box in this column if students need that skill in order to take the assessment.

◈   *Additional Skills for Specific Online Assessment.* Since each online assessment has unique characteristics, additional skills may be needed on the checklist. In each of the five areas, space has been provided to add skills for the specific assessment that the student will be taking.

Determine Prerequisite Skills of An Individual Student

+   *Skills Demonstrated by Individual Student.* For each skill checked in the **"N"** column, check the box in this column if the student currently demonstrates the skill.

—   *Skills To Be Acquired by Individual Student.* For each skill checked in the **"N"** column, check the box in this column if an individual student does not demonstrate the skill. The checked skills in this column represent those the student needs to acquire prior to taking the online assessment.

Check Hardware, Software, Environment

In addition to student prerequisite skills, areas that require attention prior to and during administration of an online assessment include: Hardware/Software Operation, Screen-Reader/Text-Reader Features, LEP Considerations, and Environmental Concerns. For items in these areas, follow the above procedures for: 1) determining if the item needs to be checked, 2) if it is operational, and 3) if it needs additional attention prior to and/or during the assessment.

Technology Skills Checklist for Online Assessment

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Student _____   **Date** _____

School _____   **Grade Level** _____

Teacher _____   **Assessment** _____

Skills Needed by Student for Online Assessment

N *Check in this column each skill that is **needed** for the **specific assessment** that the student will be taking.*

+ *Check in this column each skill that the student currently **demonstrates**.*

– *Check in this column each skill that the student **needs to acquire** before taking the assessment.*

◈ *Write in **additional skills** that are specific to the assessment that the student will be taking.*

Basic Computer Skills	N	+	-
1. Demonstrate correct use of computer (clean hands, no food/drinks, press keys gently, no magnets, etc.)	☐	☐	☐
2. Identify parts of a computer system (e.g. monitor, keyboard, mouse and/or trackball, printer, headset and/or speakers, CD-ROM drive, disk drive, etc.)	☐	☐	☐
3. Identify storage media (e.g., floppy disk, CD-ROM)	☐	☐	☐
4. Start up computer	☐	☐	☐
5. Shut down computer	☐	☐	☐
6. Move mouse pointer on screen (i.e., demonstrate pointing accuracy)	☐	☐	☐
7. Use a mouse to single-click	☐	☐	☐
8. Use a mouse to double-click	☐	☐	☐
9. Use a mouse to right-click	☐	☐	☐
10. Use a mouse to highlight text on a screen	☐	☐	☐
11. Use a mouse to click and drag	☐	☐	☐
12. Start a program from the Program Menu	☐	☐	☐
13. Start a program by activating an icon on the desktop	☐	☐	☐
14. Exit a program	☐	☐	☐
15. Close a file	☐	☐	☐
16. Switch between two open programs	☐	☐	☐
17. When working in a program, return to program menu and/or main menu (specific to on-line assessment)	☐	☐	☐
18. Open a window (dialogue box) in a program	☐	☐	☐
19. Close a window (dialogue box) in a program	☐	☐	☐
20. Save file to the desktop	☐	☐	☐
21. Save file to a folder on the computer hard drive	☐	☐	☐
22. Print a document	☐	☐	☐
23. Use a word processor to create a document *(see word processing section for more specific items)*	☐	☐	☐

Basic Computer Skills - Continued   N + -

		N	+	-
24.	Access information on-line – use a web browser *(see interaction with assessment section for more specific items)*	☐	☐	☐
25.	Use the scroll bar to move up and down on a screen	☐	☐	☐
26.	Use the scroll bar to move left and right on a screen	☐	☐	☐
◈		☐	☐	☐
◈		☐	☐	☐

Keyboarding Skills   N + -

		N	+	-
27.	Identify, locate, and use letter, number, and punctuation keys to enter characters	☐	☐	☐
28.	Use enter/return key	☐	☐	☐
29.	Use space bar	☐	☐	☐
30.	Use delete key	☐	☐	☐
31.	Use backspace key	☐	☐	☐
32.	Use shift key	☐	☐	☐
33.	Use caps lock key	☐	☐	☐
34.	Use escape key	☐	☐	☐
35.	Use tab key	☐	☐	☐
36.	Use number pad	☐	☐	☐
37.	Use keyboard to type letters and numerals	☐	☐	☐
38.	Use keyboard to type first and last name	☐	☐	☐
39.	Enter characters with reasonable accuracy (i.e., 85%)	☐	☐	☐
40.	Enter characters with reasonable speed (i.e., 11-15 words per minute)	☐	☐	☐
41.	Use single-click function of the mouse	☐	☐	☐
42.	Use double-click function of the mouse	☐	☐	☐
43.	Use click and drag function of the mouse	☐	☐	☐
◈		☐	☐	☐
◈		☐	☐	☐

Word Processing Skills   N + -

		N	+	-
44.	Start a new word processing file	☐	☐	☐
45.	Open existing document from a specific location (e.g., desktop, folder on hard drive, floppy disk)	☐	☐	☐
46.	Use cursor (flashing I-beam) to type/insert text	☐	☐	☐
47.	Use keyboard to type words/sentences/stories	☐	☐	☐
48.	Locate and enter punctuation marks	☐	☐	☐
49.	Compose at the keyboard (i.e., create an open response without first writing on paper)	☐	☐	☐
50.	Insert letters, words, etc.	☐	☐	☐
51.	Delete letters/words, etc.	☐	☐	☐

Word Processing Skills - Continued | N | + | - |

		N	+	-
52.	Replace letters/words, etc.	☐	☐	☐
53.	Copy letters, words, etc.	☐	☐	☐
54.	Paste letters, words, etc.	☐	☐	☐
55.	Use the spacebar correctly to separate words	☐	☐	☐
56.	Use the shift key for capitalization	☐	☐	☐
57.	Revise a document (correct spelling, change, delete, move, insert, etc.)	☐	☐	☐
58.	Edit for spelling using the spell checker (i.e., identify misspelled words and choose appropriate correction)	☐	☐	☐
59.	Save a document to a specific location (e.g., desktop, folder on hard drive, floppy disk)	☐	☐	☐
60.	Print a file	☐	☐	☐
61.	Close a file	☐	☐	☐
62.	Exit a program	☐	☐	☐
63.	Undo last text entry, commands, etc.	☐	☐	☐
64.	Format text (e.g., font, font size, bold, italics, justification)	☐	☐	☐
◈		☐	☐	☐
◈		☐	☐	☐

Text-Reader or Screen-Reader Skills | N | + | - |

Text-Reader – Read and Write (Texthelp Systems)

		N	+	-
65.	Highlight text (single words, single sentences, entire item)	☐	☐	☐
66.	Read highlighted text (with text/screen reader)	☐	☐	☐
67.	Use word prediction feature	☐	☐	☐
68.	Use spell checker	☐	☐	☐
69.	Use dictionary	☐	☐	☐
70.	Review story	☐	☐	☐
71.	Change voice quality of text/screen reader (e.g., voice, speed, volume)	☐	☐	☐
72.	Understand mispronunciation of words by text/screen reader	☐	☐	☐
73.	Switch between online assessment and Microsoft Word	☐	☐	☐
74.	Cut and paste text from Microsoft Word into online assessment response box	☐	☐	☐
75.	Use word prediction for misspelled or unfinished words	☐	☐	☐
76.	Use thesaurus	☐	☐	☐
77.	Use word wizard to search for words	☐	☐	☐
78.	Use spell checker	☐	☐	☐
79.	Use text reader	☐	☐	☐
80.	Use screen reading options	☐	☐	☐
81.	Use speech options	☐	☐	☐
82.	Read selected text	☐	☐	☐

Text-Reader or Screen-Reader Skills - Continued	N	+	-
83. Read specific words	☐	☐	☐
84. Read specific sentences	☐	☐	☐
85. Read specific paragraphs	☐	☐	☐
86. Stop reading	☐	☐	☐
87. Pause reading	☐	☐	☐
88. Adjust system voice settings	☐	☐	☐
89. Choose character settings	☐	☐	☐
90. Activate link to graphic descriptions	☐	☐	☐
91. Navigate table	☐	☐	☐
92. Turn on/off screen reading function for alt text	☐	☐	☐
93. Turn on/off auto-read next block of text	☐	☐	☐
94. Turn on/off Web highlighting	☐	☐	☐
95. Adjust "speak as I type" for letter, word, sentence	☐	☐	☐
96. Open dictation tool	☐	☐	☐
97. Turn microphone on/off	☐	☐	☐
98. Set up microphone for dictation	☐	☐	☐
99. Dictate and make corrections to text	☐	☐	☐
100. Highlight text for copying into document	☐	☐	☐
◈	☐	☐	☐
◈	☐	☐	☐
Screen-Reader – JAWS (Freedom Scientific)			
101. Start JAWS	☐	☐	☐
102. Exit JAWS	☐	☐	☐
103. Start other applications (e.g., Microsoft Word)	☐	☐	☐
104. Use JAWS keystrokes for reading text	☐	☐	☐
105. Use JAWS keystrokes for working with text	☐	☐	☐
106. Use JAWS keystrokes for navigation in online test	☐	☐	☐
107. Modify voice settings (e.g., rate, pitch)	☐	☐	☐
◈	☐	☐	☐
◈	☐	☐	☐

Interaction with Online Assessment Skills (CATS Online)	N	+	-
108. Click in text box	☐	☐	☐
109. Type in assessment URL	☐	☐	☐
110. Enter Student login ID	☐	☐	☐
111. Type in login password (Enter test session password)	☐	☐	☐
112. Click button to enter password	☐	☐	☐

Interaction with Online Assessment Skills (CATS Online) - Continued	N	+	▪
113. Select link to Set Preferences	☐	☐	☐
114. Change preferences (font size, style, color)	☐	☐	☐
115. Enter Practice Area	☐	☐	☐
116. Enter lithocode and bar code from front of printed test booklet	☐	☐	☐
117. Mark open response questions to be answered offline	☐	☐	☐
118. For open response questions answered offline, find correct page in printed test booklet	☐	☐	☐
119. Scroll to view complete question	☐	☐	☐
120. Scroll to navigate to a response section	☐	☐	☐
121. Click on *answer preview* button to view response in text box	☐	☐	☐
122. Click on *save answer* button	☐	☐	☐
123. Resize windows in a split screen	☐	☐	☐
124. Scroll within each box of a split screen	☐	☐	☐
125. Read question	☐	☐	☐
126. Locate response	☐	☐	☐
127. Click button to indicate correct answer	☐	☐	☐
128. Click right and left arrow keys to move through questions	☐	☐	☐
129. Close a dialogue box	☐	☐	☐
130. Click on underlined text to activate a text link	☐	☐	☐
131. Review questions	☐	☐	☐
132. Enter text by typing directly into text response box	☐	☐	☐
133. Enter text by typing response into Microsoft Word, printing document, attaching to response booklet	☐	☐	☐
134. Enter text by typing response into Microsoft Word, copying text, pasting into online response text response box	☐	☐	☐
135. Review text passage to answer a question	☐	☐	☐
136. Graph data on paper/response booklet	☐	☐	☐
137. Wait for responses to be recorded, or "clicks" to activate	☐	☐	☐
138. Mark question to be reviewed later	☐	☐	☐
139. Navigate through questions answered, unanswered, and marked to review (bottom right boxes)	☐	☐	☐
◈	☐	☐	☐
◈	☐	☐	☐

Items to Check Before and During the Online Assessment

N   *Mark this column if an item needs to be checked prior to student interaction with the specific assessment.*

+   *Mark in this column each item that is operating properly and ready to be used in the specific assessment.*

−   *Mark in this column each item that needs additional attention prior to the assessment.*

◈   *Write in **additional items** that are specific to the assessment that the student will be taking.*

Hardware/Software Operation Check	N	+	-
140. Headphones	☐	☐	☐
141. Keyboard (standard or alternative)	☐	☐	☐
142. Mouse (or trackball)	☐	☐	☐
143. Screen-reader, text-reader, screen magnification software	☐	☐	☐
144. Word processing software	☐	☐	☐
145. Printer	☐	☐	☐
146. Computer system (CPU, monitor)	☐	☐	☐
147. Internet connection	☐	☐	☐
148. Web Browser	☐	☐	☐
◈	☐	☐	☐
◈	☐	☐	☐

Environmental Check	N	+	-
154. Chair	☐	☐	☐
155. Workstation	☐	☐	☐
156. Monitor height	☐	☐	☐
157. Table height	☐	☐	☐
158. Lighting	☐	☐	☐
159. Noise reduction	☐	☐	☐
160. Glare reduction	☐	☐	☐
161. Keyboard position	☐	☐	☐
162. Stagger proximity of students to avoid visual access by students taking same test form	☐	☐	☐
◈	☐	☐	☐
◈	☐	☐	☐

Screen-Reader/Text-Reader Check	N	+	-
149. Set image text (e.g., color, size, contrast)	☐	☐	☐
150. Set screen color and contrast	☐	☐	☐
151. Set voice quality of screen reader (e.g., voice, speed, volume)	☐	☐	☐
◈	☐	☐	☐
◈	☐	☐	☐

During Assessment Check	N	+	-
163. Log students into test/out of test	☐	☐	☐
164. Check case-sensitive password	☐	☐	☐
165. Check students' login for correct name at Main Menu	☐	☐	☐
166. Verify entry of lithocode and bar code that matches individual test booklet	☐	☐	☐
167. Verify that open response answers are inserted in test booklet in proper location	☐	☐	☐
168. Check/adjust volume of headphones	☐	☐	☐
◈	☐	☐	☐
◈	☐	☐	☐

LEP	N	+	-
152. Open/close translator tool	☐	☐	☐
153. Highlight individual words for translation	☐	☐	☐
◈	☐	☐	☐
◈	☐	☐	☐