

TAMI

Test Accessibility and Modification Inventory™

Purpose

The purpose of the TAMI™ Accessibility Rating Matrix (ARM) is to facilitate a comprehensive analysis of individual test items with regard to their accessibility for all test-takers.

Definition

Test accessibility is defined as the extent to which a test and its constituent item set permits the test-taker to demonstrate knowledge of the target construct. Accessibility involves an interaction between the test and individual test-taker characteristics.

Instructions

1. **Write** the item's ID number on the ARM Record Form.
2. **Analyze** the item using the Item Analysis rubric of the ARM to determine accessibility levels (1-4) for each of the five essential elements of the item (i.e., Passage/Stimulus*, Item Stem, Visuals, Answer Choices, Page/Item Layout). **Record** these accessibility levels on the ARM Record Form. *If the item contains both a passage and a separate stimulus, rate each individually.
3. **Select** modifications from the Modification Guide on the ARM Record Form that are likely to improve the accessibility of the item.
4. **Record** an Overall Accessibility Rating (1-4) for the item after reviewing your analytical ratings and using the Overall Analysis rubric of the ARM.

Overall Analysis

4

Maximally Accessible for Nearly All Test-Takers

- Item contains only content (words, visuals) that is essential for responding to the item.
- All item text is minimal in length and written as plainly as possible.
- Item stem is positively worded, written in the active voice, and the target construct is evident.
- Any included visuals are necessary and clearly depict the intended image(s).
- All answer choices are necessary, plausible, and balanced with regard to length, content, and order.
- Entire item and all information essential for responding is presented together on one page/screen in a manner that facilitates responding.

3

Maximally Accessible for Most Test-Takers

- Item contains some content that is not essential for responding to the item.
- Stem is positively worded, written in the active voice, and the target construct is evident.
- Included visuals are not as simple or clear as possible.
- Visuals are not integrated with the other item elements.
- One or more distractors is unnecessary and/or answer choices are unnecessarily complex or unbalanced with regard to length, content, and order. Only **one** option is correct.
- Item layout is somewhat cluttered, or test-taker must turn the page to respond to the item.

2

Maximally Accessible for Some Test-Takers

- Item contains content that is not essential for responding to the item, to the extent that it may be distracting or confusing to the test-taker.
- The wording of the item stem may cause some confusion as to what is required.
- Included visuals are unnecessary **and** potential distract the test-takers from essential item elements, **or** visuals are do not clearly depict the intended images or are unnecessarily complex.
- One or more distractors is implausible or absurd.
- Answer choices are unnecessarily complex or unbalanced with regard to length, content, and order.
- Rationale could be made for more than one correct response.
- Nonessential item elements in the page layout may draw test-taker attention away from essential content, or the test-taker must turn the page 2 or more times to respond to the item.

1

Inaccessible for Many Test-Takers

- The item contains a large amount of content that is not essential for responding to the item, to the extent that it is likely to confuse the test-taker.
- Stem is negatively worded, in passive voice, and/or it is not evident what is required.
- Included visuals are irrelevant and may cue test-taker to an incorrect response, **or** included visuals are likely to confuse the test-taker due to complexity or lack of clarity.
- Answer choices are unbalanced in a manner that may cue an incorrect response, contain more than one correct answer, and/or are implausible/absurd.
- Nonessential item elements in the page layout are likely to draw attention from essential information, or a large amount of essential information is presented across multiple pages/screens.

Item Analysis

Level 1 Inaccessible for Many Test-Takers

Level 2 Maximally Accessible for Some Test-Takers

Level 3 Maximally Accessible for Most Test-Takers

Level 4 Maximally Accessible for Nearly All Test-Takers

Passage /
Item
Stimulus

- Contains many words that are not essential for responding to the item(s).
- The majority of text is likely to be difficult to understand for some test-takers.
- Vocabulary and sentence structure are not grade-appropriate.
- Directions / pre-reading text highly complex, very confusing.

- Contains some words that are not essential for responding to the item(s).
- A large portion of text is likely to be difficult to understand for test-takers.
- Vocabulary and sentence structure are mostly grade-appropriate.
- Directions / pre-reading text overly complex, confusing.

- Contains a few words that are not essential for responding to the item(s).
- Some text is likely to be difficult to understand for test-takers.
- Vocabulary and sentence structure are mostly grade-appropriate.
- Directions or pre-reading text not as clear as possible.

- Contains only words that are essential for responding to the item(s).
- Text is minimal in length and written as plainly as possible.
- Vocabulary and sentence structure are grade-appropriate.
- Directions / pre-reading text clear, minimal in length.

Item
Stem

- The entirety of the stem is overly complex.
- Does not reflect intended content standard(s) and/or objective(s).
- Stem directive or question is very confusing.
- Uses **not** or **except**.
- Written in the passive voice.

- Much of the stem language is overly complex.
- Reflects intended content standard(s) and/or objective(s).
- Stem directive or question is somewhat confusing.
- Uses **not** or **except**.
- Written in the active voice.

- Contains some text that could be simplified.
- Reflects intended content standard(s) and/or objectives.
- Target construct is evident.
- Positively worded, written in the active voice.

- Text is minimal in length, written as plainly as possible.
- Reflects intended content standard(s) and/or objective(s).
- Target construct is evident.
- Positively worded, uses active voice.

Visuals

(applies only to items with pictures, charts, tables, or figures)

- Included visuals are irrelevant, unnecessary, and may cue the test-taker to an incorrect response, **or**
- Included visual(s) are necessary but poorly depict the intended image(s).
- Visuals contain a large amount of unnecessary complexity and text.
- Visual(s) likely will cause confusion for test-takers, possibly cueing to an incorrect response.

- Included visuals are irrelevant and unnecessary, possibly distracting some test-takers from attending to essential item content, **or**
- Included visual(s) are necessary but do not clearly depict the intended image(s) or
- Visual(s) contain some extraneous complexity or text that may be distracting for some test-takers.

- Visual(s) are necessary for responding to the item.
- Visual(s) clearly depict the intended image(s), but not as plainly as possible.
- Visual(s) contain some nonessential words.
- Visual(s) may distract a few test-takers.

- Included visual(s) are necessary for responding to the item.
- Visual(s) clearly depict the intended image(s) and are as simple as possible.
- Visual(s) contain only text that is necessary for responding.
- Visual(s) are unlikely to distract test-takers.

Answer
Choices

(applies only to multiple-choice items)

- Contains many nonessential words.
- Answer choices are overly complex.
- Key and distractors are unbalanced with regard to order, length, or content in a manner that is likely to cue test-takers to an incorrect response.
- One or more distractors is implausible.
- More than one answer choice may be correct.

- Contains some nonessential words.
- Answer choices could be simplified.
- Rationale could be made for multiple correct responses.
- Key and distractors are unbalanced with regard to order, length, or content in a manner that may cue a response.
- One or more distractors is implausible.

- Contains one or more nonessential words.
- Answer choices are written plainly.
- Key and distractors are unbalanced with regard to length, order, or content.
- All distractors are plausible.
- Only **one** answer is correct.

- Answer choices are minimal in length, written as plainly as possible.
- Key and distractors are balanced with regard to length, order, and content.
- All distractors are plausible.
- Only **one** answer is correct.

Page / Item
Layout

- A large amount of information is spread across multiple pages/screens.
- Page and/or item layout appears very cluttered and confusing; font sizes are too small.
- Nonessential page elements are distracting, draw attention from item elements that are necessary for responding.
- Visuals are not integrated with the item stimulus and stem.

- Item requires the test-taker to turn the page 2 or more times to respond to the item.
- Page and/or item layout appears cluttered.
- Font sizes and/or item elements not sized properly to facilitate responding.
- White space is insufficient for facilitating comprehension of necessary item elements.
- Visuals are not integrated with the item stimulus and stem.

- Item requires the test-taker to turn the page to respond to the item.
- Page/item layout appears mostly clean and uncluttered, but not as well-organized as possible.
- White space is mostly sufficient for facilitating access to necessary item elements.
- Text and item elements are large and readable.
- Visuals are not integrated with the stimulus and stem.

- Entire item and all necessary information for responding is presented on one page/screen, with visuals integrated with the item stem.
- Page/item layout is well-organized and presented in a manner that facilitates responding.
- White space is sufficient to facilitate comprehension of necessary item elements.
- Text and item elements are large and readable.

TAMI

Test Accessibility and Modification Inventory™

Accessibility Rating Matrix

Test Name

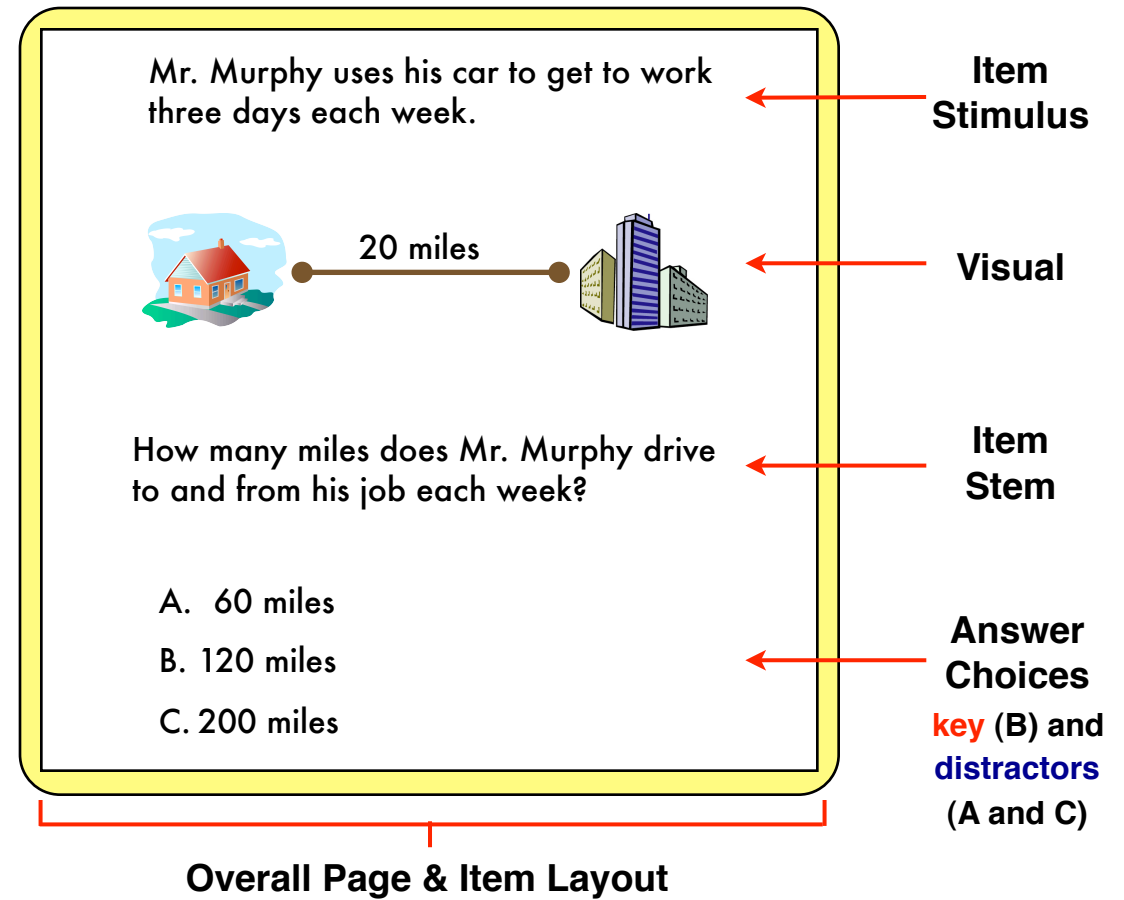
Content Area / Grade Level

Item Numbers

Rater ID

Comments

Anatomy of an Item



Item Accessibility Levels

- 4** Maximally Accessible for Nearly All Test-Takers
- 3** Maximally Accessible for Most Test-Takers
- 2** Maximally Accessible for Some Test-Takers
- 1** Inaccessible for Many Test-Takers

ARM Record Form

Modification Guide

Item:	Item:	Item:	Item:	Item:	Item:	Item:	Item:	Item:	Item:	Item:
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<p>A = Add a passage or item stimulus. E = Eliminate passage or item stimulus. S = Simplify / shorten text. R = Reorganize information. D = Modify the directions. F = Change text formatting (bold, etc.) Note: Write X in the Rating Box if the item has no passage or stimulus.</p>	Pass.	Stim.	Pass.	Stim.	Pass.	Stim.	Pass.	Stim.	Pass.	Stim.	Pass.	Stim.	Pass.	Stim.	Pass.	Stim.	Pass.	Stim.	Pass.	Stim.	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	A: ___	A: ___	A: ___	A: ___	A: ___	A: ___	A: ___	A: ___	A: ___	A: ___	A: ___	A: ___	A: ___	A: ___	A: ___	A: ___	A: ___	A: ___	A: ___	A: ___	A: ___
	E: ___	E: ___	E: ___	E: ___	E: ___	E: ___	E: ___	E: ___	E: ___	E: ___	E: ___	E: ___	E: ___	E: ___	E: ___	E: ___	E: ___	E: ___	E: ___	E: ___	E: ___
	S: ___	S: ___	S: ___	S: ___	S: ___	S: ___	S: ___	S: ___	S: ___	S: ___	S: ___	S: ___	S: ___	S: ___	S: ___	S: ___	S: ___	S: ___	S: ___	S: ___	S: ___
	R: ___	R: ___	R: ___	R: ___	R: ___	R: ___	R: ___	R: ___	R: ___	R: ___	R: ___	R: ___	R: ___	R: ___	R: ___	R: ___	R: ___	R: ___	R: ___	R: ___	R: ___

<p>S = Simplify / shorten stem. C = Clarify question or directive. Q = Change stem to a question. A = Use active voice. N = Eliminate negative stem. F = Change text formatting (bold, etc.) Note: Write X in the Rating Box if the item does not have a stem.</p>	S: ___	<input type="checkbox"/>	S: ___	<input type="checkbox"/>	S: ___	<input type="checkbox"/>	S: ___	<input type="checkbox"/>	S: ___	<input type="checkbox"/>	S: ___	<input type="checkbox"/>	S: ___	<input type="checkbox"/>	S: ___	<input type="checkbox"/>	S: ___	<input type="checkbox"/>	S: ___	<input type="checkbox"/>	
	C: ___		C: ___		C: ___		C: ___		C: ___		C: ___		C: ___		C: ___		C: ___		C: ___		C: ___
	Q: ___		Q: ___		Q: ___		Q: ___		Q: ___		Q: ___		Q: ___		Q: ___		Q: ___		Q: ___		Q: ___
	A: ___		A: ___		A: ___		A: ___		A: ___		A: ___		A: ___		A: ___		A: ___		A: ___		A: ___
	N: ___		N: ___		N: ___		N: ___		N: ___		N: ___		N: ___		N: ___		N: ___		N: ___		N: ___
	F: ___		F: ___		F: ___		F: ___		F: ___		F: ___		F: ___		F: ___		F: ___		F: ___		F: ___

<p>A = Add a visual. E = Eliminate visual(s). M = Move visual(s). S = Simplify visual(s). Note: Write X in the Rating Box if the item does not have a picture, chart, table, or figure.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	A: ___		A: ___		A: ___		A: ___		A: ___		A: ___		A: ___		A: ___		A: ___		A: ___		A: ___
	E: ___		E: ___		E: ___		E: ___		E: ___		E: ___		E: ___		E: ___		E: ___		E: ___		E: ___
	M: ___		M: ___		M: ___		M: ___		M: ___		M: ___		M: ___		M: ___		M: ___		M: ___		M: ___
	S: ___		S: ___		S: ___		S: ___		S: ___		S: ___		S: ___		S: ___		S: ___		S: ___		S: ___

<p>S = Simplify / shorten text. R = Revise answer choices. E = Eliminate distractor(s). O = Change the order of choices. B = Balance issues. M = More than one correct response. Note: Write X in the Rating Box if the item is not a multiple-choice item.</p>	S: ___	<input type="checkbox"/>	S: ___	<input type="checkbox"/>	S: ___	<input type="checkbox"/>	S: ___	<input type="checkbox"/>	S: ___	<input type="checkbox"/>	S: ___	<input type="checkbox"/>	S: ___	<input type="checkbox"/>	S: ___	<input type="checkbox"/>	S: ___	<input type="checkbox"/>	S: ___	<input type="checkbox"/>	
	R: ___		R: ___		R: ___		R: ___		R: ___		R: ___		R: ___		R: ___		R: ___		R: ___		R: ___
	E: ___		E: ___		E: ___		E: ___		E: ___		E: ___		E: ___		E: ___		E: ___		E: ___		E: ___
	O: ___		O: ___		O: ___		O: ___		O: ___		O: ___		O: ___		O: ___		O: ___		O: ___		O: ___
	B: ___		B: ___		B: ___		B: ___		B: ___		B: ___		B: ___		B: ___		B: ___		B: ___		B: ___
	M: ___		M: ___		M: ___		M: ___		M: ___		M: ___		M: ___		M: ___		M: ___		M: ___		M: ___

<p>E = Embed item in passage. W = Increase white space. S = Change size of item elements. F = Change font size. M = Move item / change item order. R = Reduce spread of information across multiple pages/screens.</p>	E: ___	<input type="checkbox"/>	E: ___	<input type="checkbox"/>	E: ___	<input type="checkbox"/>	E: ___	<input type="checkbox"/>	E: ___	<input type="checkbox"/>	E: ___	<input type="checkbox"/>	E: ___	<input type="checkbox"/>	E: ___	<input type="checkbox"/>	E: ___	<input type="checkbox"/>	E: ___	<input type="checkbox"/>	
	W: ___		W: ___		W: ___		W: ___		W: ___		W: ___		W: ___		W: ___		W: ___		W: ___		W: ___
	S: ___		S: ___		S: ___		S: ___		S: ___		S: ___		S: ___		S: ___		S: ___		S: ___		S: ___
	F: ___		F: ___		F: ___		F: ___		F: ___		F: ___		F: ___		F: ___		F: ___		F: ___		F: ___
	M: ___		M: ___		M: ___		M: ___		M: ___		M: ___		M: ___		M: ___		M: ___		M: ___		M: ___
	R: ___		R: ___		R: ___		R: ___		R: ___		R: ___		R: ___		R: ___		R: ___		R: ___		R: ___

Other codes:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Passage / Item Stimulus

Item Stem

Visuals

Answer Choices

Page / Item Layout

Overall