

## APPENDIX A

### *Evaluation Rubric for Educational Apps*

A. Instruction: The following dimensions are used to measure an app’s educational value.

**A1. Rigor:** Which level of Webb’s Depth of Knowledge must students engage to meet the app’s learning objective?

5	4	3	2	1	NA
The app’s content best aligns to Level Four "Extended Thinking" skills.	The app’s content best aligns to Level Three "Strategic Thinking" skills.	The app’s content best aligns to Level Two "Skill/Concept" thinking skills.	The app’s content best aligns to Level One "Recall Reproduction" thinking skills.	The app does not align to Webb’s Depth of Knowledge because it is geared more toward entertaining students than educating them.	Not Applicable

**A2. 21<sup>st</sup> Century Skills:** Does the app require users to engage "21<sup>st</sup> Century" skills, which includes the ability to collaborate, make data-driven decisions, and solve complex problems?

5	4	3	2	1	NA
The app frequently requires users to engage 21 <sup>st</sup> Century skills.	The app sometimes requires users to engage 21 <sup>st</sup> Century skills.	The app rarely requires users to engage 21 <sup>st</sup> Century skills.	The app does not require users to engage 21 <sup>st</sup> Century skills.	The app promotes rote memorization skills.	Not Applicable

**A3. Connections to Future Learning:** Does the app’s content build users’ literacy or numeracy skills so they are more prepared to engage future content area learning and are on track to become “college and career” ready?

5	4	3	2	1	NA

The app's content targets and teaches specific literacy or numeracy skills to better prepare users for future content area learning, which promotes "college and career" readiness.	The app's content targets and teaches general literacy or numeracy skills to better prepare users for future content area learning, which promotes "college and career" readiness.	The app's content targets and reinforces specific literacy or numeracy skills to better prepare users for future content area learning, which aligns to "college and career" readiness.	The app's content targets and reinforces general literacy or numeracy skills to better prepare users for future content area learning, which aligns to "college and career" readiness.	The app's content does not connect literacy and numeracy skills with future content area learning and "college and career" readiness is not promoted.	Not Applicable
<b>A4. Value of Errors:</b> If users answer a question incorrectly, does the app use the incorrect answer to advance learning?					
5	4	3	2	1	NA
The app offers users an explanation for their incorrect answer, allows users to review the material related to the question, and then gives them an opportunity to answer the question again.	The app offers users either an explanation for their incorrect answer or directs them to the material related to the question before giving users an opportunity to answer the question again.	The app offers users an explanation for why their answer was incorrect, but the app does not give them an opportunity to answer the question again.	The app offers users an opportunity to answer the question again, but the app does not provide information to explain why their answer was incorrect the first time.	The app does not give users an opportunity to answer the question again or provide information about why their answer was incorrect.	Not Applicable
<b>A5. Feedback to Teacher:</b> How does the app allow teachers to monitor their students' progress?					
5	4	3	2	1	NA

The app tracks students' academic growth, achievements, and progress made while using the app. Teachers can access the reports either through email or by visiting the app's website.	The app tracks students' achievements or progress made when using the app, but it does not track students' growth. Teachers can access the reports using email or by visiting the app's website.	The app tracks students' achievements or progress made when using the app, but it does not track students' growth. Also, student progress can only be seen in the app and not by using email or a website.	The app only tracks students' achievements or progress when they are using the app. Once the app is exited, progress is not saved, and teachers do not have any way to access it.	The app does not track students' academic growth, achievements, or progress made.	Not Applicable
<b>A6. Level of Material:</b> Is the app's content for specific grade-levels appropriate for its target audience?					
5	4	3	2	1	NA
The app's content for specific grade-levels is always matched appropriately for its target audience.	The app's content for specific grade-levels is usually matched appropriately for its target audience.	The app's content for specific grade-levels is rarely matched appropriately for its target audience.	The app's content for specific grade-levels is not matched appropriately for its target audience.	The app's content is inappropriate for educational purposes.	Not Applicable
<b>A7. Cooperative Learning:</b> Does the app allow users to communicate (e.g. send/receive messages and post to message boards), share learning artifacts (e.g. images, recordings, and documents), and collaborate (e.g. create presentations and larger projects) with other users?					
5	4	3	2	1	NA

The app features an online community where users can communicate freely with other users, share learning artifacts, and collaborate on projects.	The app features an online community where users may be able to communicate with other users, share learning artifacts, or collaborate on projects.	The app features an online community where users can communicate freely with other users, but they are not able to share learning artifacts or collaborate on projects.	The app includes an online community, but users have little or no control over how they communicate with other users. Also, the ability to share learning artifacts or collaborate on projects is not available.	The app does not allow users to communicate or interact with other users.	Not Applicable
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**A8. Accommodation of Individual Differences:** Does the presentation of the app’s content recognize that users learn in uniquely different ways (e.g. visual, auditory, and/or kinesthetic)?

5	4	3	2	1	NA
All of the app’s content recognizes that users learn in different ways and caters to differentiated instructional practices.	Most of the app’s content recognizes that users learn in different ways and caters to differentiated instructional practices.	Some of the app’s content recognizes that users learn in different ways and caters to differentiated instructional practices.	Very little of the app’s content recognizes that users learn in different ways and caters to differentiated instructional practices.	The app’s content is presented in a format that assumes all users learn in the same way.	Not Applicable

B. Design: The following dimensions are used to evaluate an app’s overall functionality.

**B1: Ability to Save Progress:** Does the app allow users to return to the content they were last engaging after exiting the app?

5	4	3	2	1	NA

After exiting an app, users can reopen the app and automatically return to the content they were last engaging when they logged off.	After exiting an app, users can reopen the app and resume engaging it automatically in close proximity to where they were when they logged off.	After exiting an app, users can reopen the app and manually select the content they were last engaging when they logged off.	After exiting an app, users can reopen it and manually select the content they were last engaging when they logged off, but the content may be different.	After exiting an app, users must begin on the first level when returning to the app.	Not Applicable
<b>B2. Integration:</b> Is the app enhanced by how it connects to (1) other apps, (2) online communities, (3) independent websites, and (4) users' email?					
5	4	3	2	1	NA
The app is enhanced with how it integrates with all four of the listed connections.	The app is enhanced with how it integrates with three of the listed connections.	The app is enhanced with how it integrates with two of the listed connections.	The app is enhanced with how it integrates with only one of the listed connections.	The app does not integrate with any of the listed connections.	Not Applicable
<b>B3. Screen Design:</b> Is the app's text, graphics, videos, sound, and speech well-organized?					
5	4	3	2	1	NA
The app's text, graphics, videos, sound, and speech are always organized in a way that enhances the app's content.	The app's text, graphics, videos, sound, and speech are usually organized in a way that complements the app's content.	The app's text, graphics, videos, sound, and speech are organized in a way that does not enhance or detract from the app's content.	The app's text, graphics, videos, sound, and speech are not well organized and may detract from the app's content.	The app's text, graphics, videos, sound, and speech are cluttered and confusing, which detracts from the app's content.	Not Applicable
<b>B4. Ease of Use:</b> Is the app intuitive and are users able to engage it with minimal guidance?					

5	4	3	2	1	NA
Users are able to engage the app immediately with no guidance.	Users are able to engage the app immediately with minimal guidance.	Users are able to engage the app, but only after some guidance.	Users are able to engage the app, but only after substantial guidance.	Users are able to engage the app, but training materials are continually needed to do so.	Not Applicable
<b>B5. Navigation:</b> How easily can users move through the app's content and options?					
5	4	3	2	1	NA
Users can move through the app's content and options fluidly.	Users need to put forth some effort to move through the app's content and options.	Users need to make multiple clicks and/or swipes to move through the app's content and options.	Users are somewhat impeded from moving fluidly through the app's content and options because of its organization.	Users encounter substantial challenges when trying to move through the app's content and options because of its disjointed organization.	Not Applicable
<b>B6. Goal Orientation:</b> Does each component of the app contribute to users learning the intended objective?					
5	4	3	2	1	NA
All components of the app contribute to users learning the objective.	Most components of the app contribute to users learning the objective.	Some components of the app contribute to users learning the objective.	Few components of the app contribute to users learning the objective.	None of the app's components contribute to users learning the objective.	Not Applicable

<b>B7. Information Presentation:</b> Is the app's content presented in a logical manner? (e.g. the app's content grows increasingly rigorous as users experience success, the app activates users' background knowledge before presenting them new information, and/or the app provides an overview of its content before users engage specific tutorials or activities.)					
5	4	3	2	1	NA
The app's content is presented in a logical manner.	The app's content is presented in a manner that is mostly logical.	The app's content is presented in a manner that is somewhat logical.	The app's content is presented in a manner that is somewhat illogical.	The app's content is presented in an illogical manner.	Not Applicable
<b>B8. Media Integration:</b> Are the app's texts, graphics, videos, sounds, and speech integrated effectively so each of the app's media components complements each other and forms a cohesive program?					
5	4	3	2	1	NA
The app's text, graphics, videos, sounds, and speech are integrated seamlessly to form a cohesive program.	The app's text, graphics, videos, sounds, and speech are integrated adequately to form a cohesive program.	The app's text, graphics, videos, sounds, and speech are integrated poorly, but they still form a mostly cohesive program.	The app's text, graphics, videos, sound, and speech are mismatched to the app's content, but they still form a somewhat cohesive program.	The app's text, graphics, videos, sound, and speech are mismatched to the app's content, and it does not form a cohesive program.	Not Applicable
<b>B9. Cultural Sensitivity:</b> Does the app use culturally responsive teaching methods to represent diverse populations?					
5	4	3	2	1	NA
The app allows users to connect to and share ideas with people from diverse	The app allows users to explore diverse cultures from across the globe using	The app makes general references to one or more cultures.	The app makes reference to diverse cultures, but the	The app presents stereotypical images and	Not Applicable

communities across the globe.	authentic pictures, images, and/or texts.		information contains some cultural biases.	information about cultures.	
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C. Engagement: The following dimensions are used to evaluate an app’s motivational potential.

**C1. Learner Control:** Does the app allow users to select the level (e.g. grade level, age level, or difficulty level) where they will begin engaging content?

5	4	3	2	1	NA
The app allows users complete control related to the level at which they begin engaging its content.	The app allows users significant control related to the level at which they begin engaging its content.	The app allows users some control related to the level at which they begin engaging its content.	The app allows users little control related to the level at which they begin engaging its content.	The app allows users no control related to the level at which they begin engaging its content.	Not Applicable

**C2. Interactivity:** Does the app only present content to users, or does the app allow users to make decisions, answer questions, or actively engage it in some other manner?

5	4	3	2	1	NA
The app frequently requires users to engage its content by making decisions, answering questions, or actively engaging it in some other manner.	The app often requires users to engage its content by making decisions, answering questions, or actively engaging it in some other manner.	The app occasionally requires users to engage its content by making decisions, answering questions, or actively engaging it in some other manner.	The app only allows users to interact with it by searching for specific content (e.g. looking up a word in a dictionary app or researching terms	The app only presents content to users. Users are never asked to make decisions, answer questions, or actively engage	Not Applicable



			using a search engine app).	it in some other manner.	
<b>C3. Pace:</b> Does the app allow users to control the rate at which they are presented content? If the app does not allow users to control the rate at which they move through the content, does the app present the content at an appropriate rate for its target audience?					
5	4	3	2	1	NA
The app allows users to completely control the rate at which they move through the app's content.	The app allows users to mostly control the rate at which they move through the app's content.	The app does not allow users to control the rate at which they move through the app's content, but the content is presented at an appropriate rate for its target audience.	The app does not allow users to control the rate at which they move through the app's content, but the content is presented at a mostly appropriate rate for its target audience.	The app does not allow users to control the rate at which they move through the app's content, and the content is presented at an inappropriate rate for its target audience.	Not Applicable
<b>C4. Flexibility:</b> Can users personalize the app by setting individual preferences (e.g. background music, images, avatars) easily?					
5	4	3	2	1	NA
Users can personalize four or more features of the app.	Users can personalize three features of the app.	Users can personalize two features of the app.	Users can personalize one feature of the app.	Users cannot personalize the app.	Not Applicable
<b>C5. Interest:</b> Will the app's content likely appeal to its targeted audience?					

5	4	3	2	1	NA
The app's content will most likely appeal to its targeted audience.	The app's content will likely appeal to its targeted audience.	The app's content might appeal to its targeted audience.	The app's content might not appeal to its targeted audience.	The app's content most likely will not appeal to its targeted audience.	Not Applicable
<b>C6. Aesthetics:</b> Will the app's graphics and interface likely motivate users to engage it?					
5	4	3	2	1	NA
The app's graphics and interface will most likely motivate users to engage it.	The app's graphics and interface may motivate users to engage it.	The app's graphics and interface may possibly motivate users to engage it.	The app's graphics and interface will likely have no impact on whether or not users are motivated to engage it.	The app's graphics and interface will likely deter users from engaging it.	Not Applicable
<b>C7. Utility:</b> Will users be motivated to engage the app because they see it as being valuable to their academic, professional, and personal lives?					
5	4	3	2	1	NA
Users will most likely connect the app's content to their academic, professional, and/or personal lives. This connection will result in them being	Users are likely to connect the app's content to their academic, professional, and/or personal lives. This connection may result in them being	Users may connect the app's content to their academic, professional, and/or personal lives, but that connection will not likely result in them being motivated to use the app.	Users will most likely not be able to connect the app's content to their academic, professional, and/or personal lives, and they will likely not	Users will most likely see no value in the app's content over the course of their academic, professional, and/or personal lives, and they will likely not	Not Applicable

motivated to use the app.	motivated to use the app.		be motivated to use the app.	be motivated to use the app.	
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