

Mobile Application Evaluation Project: Quizlet and Kahoot

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Introduction

The rise of importance relating to educational technology, particularly distance learning modalities, in today's socially distanced environment cannot be underestimated. The global COVID-19 Pandemic has interrupted classic synchronous instructional methods and has given way to the rapid evolution of asynchronous distance learning platforms such as websites, mobile applications, and computer-based learning management systems. Students across the globe are venturing into distance learning realms on a daily basis. Further, these same students are now reliant upon the efficacy and accessibility of these platforms to ensure continued education.

Study methods have been tracking towards asynchronous environments for years with the growing popularity and technological capability of mobile devices such as cellular phones, tablets, and laptop computers. Social networking and conferencing technology, such as Facebook, Zoom, Google Duo, Adobe Connect, and Microsoft Teams has also aided in the development and elevated use of distanced studying regarding study groups and instructor led study sessions. Further, the development of countless mobile applications focused on serving as repositories of study material spanning endless subjects has provided students with the opportunity to study nearly any subject, at any time, from anywhere.

The mobile applications of interest for this writing are Quizlet and Kahoot, two of the more popular study applications on the market today. Quizlet and Kahoot, both available on Android and IOS systems, are user-contribution based repositories of study tools. Quizlet contains tools including quizzes, flashcards, write-in answers, matching, and multiple answer study sets. Kahoot features polls, study sets, and individual or cooperative competitive study games. Both applications contain databases of information that span countless study topics. Further, users of Kahoot and Quizlet have the ability to search by inputting a specific topic or

term and the application will return study materials and tools based on the searched topic.

Lastly, Quizlet and Kahoot users can create their own study material and tools for storage and later retrieval or sharing across the application for other users to access. This function allows educators to create study material that students can access from their mobile devices. More information on Quizlet can be found at <https://quizlet.com/> with Kahoot information available at <https://kahoot.com/>. As both of these applications contain information on countless topics, the study topic of Instructional Design will be used for the purposes of this writing.

Mobile Application Rubric Modification

The evaluations used in this writing were derived from Dr. Tom Reeves “Web Site Rating Form” (1998). This writer manipulated Dr. Reeves’ rubric to serve the purpose of mobile application evaluation by adjusting verbiage and tailoring the evaluation questions to best analyze the Quizlet and Kahoot applications. Further, this writer utilized Cherner, Lee, Fegely, and Santaniello’s “A Detailed Rubric for Assessing the Quality of Teacher Resource Apps” article published in Volume 15 of the *Journal of Information Technology Education: Innovation in Practice* (2016) to gain understanding of mobile application evaluation as it pertains to teaching.

The rubrics utilized in this writing to evaluate, compare, and contrast the two self-study mobile applications of Kahoot and Quizlet have been altered from Dr. Reeves’ format in the following ways. The writer adjusted the evaluative questions to focus on the study topic of interest, Instructional Design. Further, the writer added several questions focused on application capabilities, the relevance, reliability, and review processes of included study content, and opportunities for user-to-user interaction within the evaluated mobile study applications. Lastly, expanded scoring criteria, from five to seven possible ratings, is applied for better differentiation.

Mobile Application Rubric Evaluation: Quizlet

Mobile Application Evaluation Rubric Adapted from Harmon & Reeves © 1998							
Mobile Application Evaluated: Quizlet (Instructional Design)							
Directions: This instrument is designed for use by teachers (preservice or in-service) to evaluate mobile applications that they might use for teaching and learning purposes with their students. Read the questions and sub-questions carefully before reviewing an application. After spending time with the application, go back through each question and rate it using the seven-point scale. The intent of the listed sub-questions is to assist in thinking about the major questions.							
1. The Instructional Design focused information contained in this application is accurate. Sub-questions to ask yourself: a. Does the information appear consistent with what you already know about the topic? b. Does the application provide evidence that it comes from reputable sources? c. Does the application contain any obvious biases, or is it maintained by an organization likely to have strong biases? d. Does the application contain advertising that might limit the nature of the content?							
Not Applicable (N/A) ☐	Strongly Disagree (-3) ☐	Disagree (-2) ☐	Somewhat Disagree (-1) ☐	Neither Agree or Disagree (0) ☐	Somewhat Agree (1) ☐	Agree (2) ☒	Strongly Agree (3) ☐
Additional Comments: -Most of the reviewed information is correct, but requires some interpretation. -Some information may not be understandable from a new ID student perspective.							
2. The Instructional Design focused information in this application is current. Sub-questions to ask yourself: a. Is the information subject to change or is the content relatively stable? b. If subject to change, how often is the application updated? c. Does the information on Instructional Design appear up-to-date?							
Not Applicable (N/A) ☐	Strongly Disagree (-3) ☐	Disagree (-2) ☐	Somewhat Disagree (-1) ☐	Neither Agree or Disagree (0) ☐	Somewhat Agree (1) ☒	Agree (2) ☐	Strongly Agree (3) ☐
Additional Comments: -The ID study information does provide relevant resources for ID understanding. -While the reviewed information is up-to-date, some collateral study sets appear to be irrelevant to ID practices.							

3. This application's information relating to Instructional Design is sufficient in scope.

Sub-questions to ask yourself:

- a. Does this application contain sufficient breadth and depth of information related to your needs?
- b. Does this application contain sufficient breadth and depth of information related to the topic of Instructional Design?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☐	☐	☐	☒	☐

Additional Comments:

-While there are valuable study sets that contain deep and meaningful information, there are also study sets that seem to have been placed under the ID topic by mistake, as they have little to no relevance regarding ID.

-The study sets on the application do seem to provide value to casual and professional learners and span from simple concept explanation text to terminology and theorist flash card study modalities.

4. The level of information in this application is appropriate for students of Instructional Design.

Sub-questions to ask yourself:

- a. Does the application contain information appropriate for Instructional Design students with respect to their maturity?
- b. Does the application contain information appropriate for Instructional Design students with respect to their cognitive abilities?
- c. Does the application contain information appropriate for Instructional Design students with respect to their prior knowledge of the topic?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☐	☐	☐	☒	☐

Additional Comments:

-The application maintains countless study sets pertaining to ID, some of which are irrelevant to ID, but most study sets do present ID concepts and material.

-Study sets do range from basic terminology through ID conceptualization and practice.

- Regarding cognitive ability, maturity, and prior knowledge, it seems as though this application contains substantial information for all levels.

-While the study sets and materials are relevant and span across the ID educational domain from undergraduate through graduate levels of ID thought, locating proper study sets can be troublesome. There is no differentiation regarding the learning levels of study sets other than the descriptive title entered by the contributor resulting in some user frustration.

5. The information in this application is presented clearly.

Sub-questions to ask yourself:

- Is the information arranged in an orderly fashion?
- Is the information presented clearly?
- Is the information on Instructional Design easily retrieved through the applications search function?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☐	☐	☒	☐	☐

Additional Comments:

-There seems to be no methodology to the arrangement of study sets other than that they all pertain to ID in some capacity.

6. Navigation in this application is user-friendly.

Sub-questions to ask yourself:

- How easy is it to find information in this application?
- How easy is it to move around in this application without getting lost?
- Does the application provide multiple ways of accessing the same information (e.g., does the application have a built-in search capability)?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☐	☐	☐	☒	☐

Additional Comments:

-The application search feature allows users to search a term and return study sets that match.
 -Searches are retained under “recent searches” for ease of reentry to the topic.

7. Media is integrated effectively in this application.

Sub-questions to ask yourself:

- Does the application make good use of graphics? Audio? Animation? Video?
- Is the media used effectively in conveying the content?
- Is the information in the application enhanced by the media in it?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☐	☐	☒	☐	☐

Additional Comments:

-Other than the flashcard flip animation, no notable media exists in the ID study sets reviewed.

8. This application provides maps that clarify the application contents.

Sub-questions to ask yourself:

- a. Does the application provide a clear overview of what it does contain?
- b. Is it obvious what the application does not contain?
- c. Does the application contain a map or table of contents that allows you to see what you have seen and not seen?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☐	☐	☐	☐	☒

Additional Comments:

-The home page provides a generic listing of study topics including an “other” tab that allows you to search topics that are more specific to user needs.

-Two main buttons allow you to search study sets or create study sets.

-The availability of the search function allows users to search for endless topics of study.

-Regarding ID, it is not apparent what the application does not contain, as there are countless study sets that may or may not contain the information sought by the user.

-Selecting the search option directs the user to a page with a search bar and contains a listing of all previous searches, enhancing recall and ease of use.

9. This application exemplifies good design.

Sub-questions to ask yourself:

- a. Is it obvious how to interact with this application?
- b. If needed, does the application contain a useful help section?
- c. Are all the possible interactions on a page obvious?
- d. Is the page aesthetically appealing?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☐	☐	☐	☒	☐

Additional Comments:

-This application is easy to navigate, even for the new user.

-All possible function on the pages are obvious and easily accessed.

-There is a help section with FAQs and a resource to send a message to site administrators.

-The help section is located under the user profile button and was a bit difficult to locate at first.

-The application design is aesthetically pleasant and utilizes good contrast between dark and light colors.

-Due to limited buttons and linking objects on the primary pages of the application, it seems to be quite difficult to get lost when trying to navigate the application.

-Features of the application are obvious, apparent on all screens, and carry over on all pages.

10. This application is a reliable source of information.

Sub-questions to ask yourself:

- a. How often is the application down when you try to access it?
- b. How long does it take for the pages of the application to come up at the time of day you most likely will use it?
- c. Is the application likely to remain on the IOS and Android application stores?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☐	☐	☐	☒	☐

Additional Comments:

- The application was very reliable throughout all examinations and provided a suitable and user-friendly navigation experience.
- The pages of the application are nearly instantaneous when selecting a navigation button.
- When exploring a study set, the selecting of answers immediately returns the correct answer.
- Incorrect answers often return feedback, but this is dependent on the author of the study set being viewed.
- Due to the popularity of the application, #12 in IOS in education applications, it seems this application will remain accessible for the foreseeable future.

11. The constraints of this application do not outweigh its value.

Sub-questions to ask yourself:

- a. Does the application require extensions that must be downloaded and may present difficulties?
- b. Does the application require one specific platform (e.g., IOS, Google Play, Android)?
- c. Does the application require hardware features that you may not have (e.g., Oculus Viewer, specialized headsets)?
- d. Does the application contain features that require internet connectivity (e.g. cell data, Wi-Fi)?
- e. Are any fees associated with using the application?
- f. If costs are involved, do they greatly expand the use of the application?
- g. Are interfacing capabilities with other application users easily managed?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☐	☐	☐	☐	☒

Additional Comments:

- The application is simple to download and requires nothing more than the integral device operating system.
- There are no fees or peripheral requirements associated with the use of this application.
- Interfacing with other users does not seem to be available on the application.

12. This application protects the confidentiality of the user. Sub-questions to ask yourself: a. Does the application require you to submit information about yourself or your school before granting access? If so, what does it do with this information? b. Does the application require "cookies" or other information about your system? c. Can user-contributed material be made available to the public? Anonymously?							
Not Applicable (N/A) ☐	Strongly Disagree (-3) ☐	Disagree (-2) ☐	Somewhat Disagree (-1) ☐	Neither Agree or Disagree (0) ☐	Somewhat Agree (1) ☐	Agree (2) ☐	Strongly Agree (3) ☒
Additional Comments: -The application requires no user information or cookies. -User contributed material requires creator information for security purposes.							
13. This application is entertaining for the targeted users. Sub-questions to ask yourself: a. Does the application offer gameplay interaction? b. Does the application allow users to compete with one another on study topics?							
Not Applicable (N/A) ☐	Strongly Disagree (-3) ☐	Disagree (-2) ☐	Somewhat Disagree (-1) ☐	Neither Agree or Disagree (0) ☒	Somewhat Agree (1) ☐	Agree (2) ☐	Strongly Agree (3) ☐
Additional Comments: -The application does not include traditional "game play" features or competitive engagement.							
14. This application's study material is vetted and reliable. Sub-questions to ask yourself: a. Does the application require user-contributed material to be reviewed prior to release? b. Does the application contain a user-rating feature of material? c. Does the application periodically remove unreliable material? d. Does the application contain a "report" feature that allows users to submit complaints to application managers regarding misleading, inappropriate, or erroneous content?							
Not Applicable (N/A) ☐	Strongly Disagree (-3) ☐	Disagree (-2) ☐	Somewhat Disagree (-1) ☐	Neither Agree or Disagree (0) ☐	Somewhat Agree (1) ☐	Agree (2) ☒	Strongly Agree (3) ☐
Additional Comments: -The material seems reliable, but presents opportunities for cheating as real-world assessment answers are often included in study sets.							

15. This application allows user interaction. Sub-questions to ask yourself: - Does the application include a chat feature where users can submit message to other users and contributors, such as teachers? - Does the application include feature that allow real-time gameplay or competition between users? - Does the application promote safe and courteous interaction and punish inappropriate behavior or bullying (e.g., suspension, account disablement)?							
Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☒	☒	☐	☐	☐	☐
Additional Comments: -No interaction with contributors or users seems to be available on the application. -Users can report irrelevant and misleading study material to application administrators for review.							

Synopsis of Quizlet Evaluation

The evaluation of the Quizlet self-study mobile application resulted in a cumulative score of 24 of 45 possible points with a 1.60 average score, per evaluative measure, graded on a scale ranging from -3 to 3 possible points. The 1.60 average measure score equates to an average rating falling between “Somewhat Agree” and “Agree”. Further, the highest ratings for the Quizlet application, “Strongly Agree” (3 points), were earned in the evaluation elements titled “The constraints of this application do not outweigh its value” and “This application protects the confidentiality of the user”, measures 11 and 12 respectively. The lowest rating for Quizlet occurred within the element titled “This application allows user interaction”, measure 15, where it received a rating of “Disagree” (-2 points). Ultimately, this evaluative method displayed that Quizlet is an adequate self-study application that provides a good value when compared to its constraints, but lacks entertaining actions and user-to-user interactions.

Mobile Application Rubric Evaluation: Kahoot

Mobile Application Evaluation Rubric Adapted from Harmon & Reeves © 1998							
Mobile Application Evaluated: Quizlet (Instructional Design)							
Directions: This instrument is designed for use by teachers (preservice or in-service) to evaluate mobile applications that they might use for teaching and learning purposes with their students. Read the questions and sub-questions carefully before reviewing an application. After spending time with the application, go back through each question and rate it using the seven-point scale. The intent of the listed sub-questions is to assist in thinking about the major questions.							
1. The Instructional Design focused information contained in this application is accurate. Sub-questions to ask yourself: a. Does the information appear consistent with what you already know about the topic? b. Does the application provide evidence that it comes from reputable sources? c. Does the application contain any obvious biases, or is it maintained by an organization likely to have strong biases? d. Does the application contain advertising that might limit the nature of the content?							
Not Applicable (N/A) ☐	Strongly Disagree (-3) ☐	Disagree (-2) ☐	Somewhat Disagree (-1) ☐	Neither Agree or Disagree (0) ☐	Somewhat Agree (1) ☐	Agree (2) ☒	Strongly Agree (3) ☐
Additional Comments: -The ID information reviewed during this application evaluation seems appropriate, accurate, and relevant. -The content is user-contributed, which may contribute to some biases.							
2. The Instructional Design focused information in this application is current. Sub-questions to ask yourself: a. Is the information subject to change or is the content relatively stable? b. If subject to change, how often is the application updated? c. Does the information on Instructional Design appear up-to-date?							
Not Applicable (N/A) ☐	Strongly Disagree (-3) ☐	Disagree (-2) ☐	Somewhat Disagree (-1) ☐	Neither Agree or Disagree (0) ☐	Somewhat Agree (1) ☐	Agree (2) ☒	Strongly Agree (3) ☐
Additional Comments: -The currency of the reviewed information seems up-to-date. -A large quantity of study sets and real-time user updating enhance currency and relevancy.							

3. This application's information relating to Instructional Design is sufficient in scope.

Sub-questions to ask yourself:

- a. Does this application contain sufficient breadth and depth of information related to your needs?
- b. Does this application contain sufficient breadth and depth of information related to the topic of Instructional Design?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☐	☐	☐	☐	☒

Additional Comments:

-The quizzes, games, and study sets available present a wide array of ID specific topics, theories, practices, and information.

-This application's search function returned countless modules of study material relating to ID including but not limited to basic ID terminology, the ADDIE process, theorists, and concepts and practices.

-The breadth and depth of the application content are only limited by the contributors who design the study set and materials.

4. The level of information in this application is appropriate for students of Instructional Design.

Sub-questions to ask yourself:

- a. Does the application contain information appropriate for Instructional Design students with respect to their maturity?
- b. Does the application contain information appropriate for Instructional Design students with respect to their cognitive abilities?
- c. Does the application contain information appropriate for Instructional Design students with respect to their prior knowledge of the topic?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☐	☐	☐	☒	☐

Additional Comments:

-This application is a game-based study platform which includes animation, bright colors, and sound effects, but does not cross the line into immaturity or childish.

-The quiz format of the applications gameplay provides rigor based on the study set creator's input to the set design. The result is a platform that can be tailored to the target audience's maturity levels and cognitive abilities.

-The study sets included in the application span levels of knowledge and are applicable to ID students from undergraduate to terminal degree students.

5. The information in this application is presented clearly.

Sub-questions to ask yourself:

- Is the information arranged in an orderly fashion?
- Is the information presented clearly?
- Is the information on Instructional Design easily retrieved through the applications search function?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☐	☐	☒	☐	☐

Additional Comments:

-The information first presents as a bit disorderly, but with familiarization and practice, this application becomes clear and easy to use.

6. Navigation in this application is user-friendly.

Sub-questions to ask yourself:

- How easy is it to find information in this application?
- How easy is it to move around in this application without getting lost?
- Does the application provide multiple ways of accessing the same information (e.g., does the application have a built-in search capability)?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☐	☐	☒	☐	☐

Additional Comments:

-The interface requires some acclimation, where inexperienced users could get frustrated.

7. Media is integrated effectively in this application.

Sub-questions to ask yourself:

- Does the application make good use of graphics? Audio? Animation? Video?
- Is the media used effectively in conveying the content?
- Is the information in the application enhanced by the media in it?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☐	☐	☐	☐	☒

Additional Comments:

-The exciting gameplay format utilizes sounds, animations, images, and video in a constructive way.

8. This application provides maps that clarify the application contents.

Sub-questions to ask yourself:

- a. Does the application provide a clear overview of what it does contain?
- b. Is it obvious what the application does not contain?
- c. Does the application contain a map or table of contents that allows you to see what you have seen and not seen?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☒	☐	☐	☐	☐

Additional Comments:

-Users expecting a straightforward study application with terms and flashcards will require some acclimation to understand this applications intent and usage principals.

9. This application exemplifies good design.

Sub-questions to ask yourself:

- a. Is it obvious how to interact with this application?
- b. If needed, does the application contain a useful help section?
- c. Are all the possible interactions on a page obvious?
- d. Is the page aesthetically appealing?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☐	☐	☐	☒	☐

Additional Comments:

-The application is well designed with navigation buttons and links; visually appealing.

10. This application is a reliable source of information.

Sub-questions to ask yourself:

- a. How often is the application down when you try to access it?
- b. How long does it take for the pages of the application to come up at the time of day you most likely will use it?
- c. Is the application likely to remain on the IOS and Android application stores?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☐	☐	☐	☐	☒

Additional Comments:

-Kahoot is ranked #7 on IOS; therefore, its reliability is likely quite high. The application seems to be very reliable.

11. The constraints of this application do not outweigh its value.

Sub-questions to ask yourself:

- a. Does the application require extensions that must be downloaded and may present difficulties?
- b. Does the application require one specific platform (e.g., IOS, Google Play, Android)?
- c. Does the application require hardware features that you may not have (e.g., Oculus Viewer, specialized headsets)?
- d. Does the application contain features that require internet connectivity (e.g. cell data, Wi-Fi)?
- e. Are any fees associated with using the application?
- f. If costs are involved, do they greatly expand the use of the application?
- g. Are interfacing capabilities with other application users easily managed?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☐	☐	☐	☐	☒

Additional Comments:

-The application does not require any third party extensions and is easy to download from IOS and Android application stores.

-There are no extra peripherals required to use this application.

-Provided the user has either a Wi-Fi or cellular data connection, the live form of the application works seamlessly.

-Users may also download study sets and games for use offline.

-There are no fees associated with the basic use of the application.

-Interfacing between users is simple as pin codes are generated for those wishing to compete with others during study sessions and easily sent using text or email protocols.

12. This application protects the confidentiality of the user.

Sub-questions to ask yourself:

- a. Does the application require you to submit information about yourself or your school before granting access? If so, what does it do with this information?
- b. Does the application require "cookies" or other information about your system?
- c. Can user-contributed material be made available to the public? Anonymously?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☐	☐	☐	☒	☐

Additional Comments:

-The application does require the establishment of a profile but does not make your information public.

-There is no cookie requirement to use this application.

13. This application is entertaining for the targeted users.

Sub-questions to ask yourself:

- a. Does the application offer gameplay interaction?
- b. Does the application allow users to compete with one another on study topics?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☐	☐	☐	☐	☒

Additional Comments:

-The gameplay format makes this application an entertaining way to study.
 -Competing with other users enhances the entertainment value of this application.
 -Users have the ability to either study a set of material on their own or to generate a pin code for the selected quiz game and send it to others who can join in on the quiz in a live format. Further, the quizzes are designed for rapid recall where the sooner you answer the question correctly the more points you are awarded.
 -After each question within the quiz, a leaderboard is displayed that allows players to see where they rank in that particular game.

14. This application's study material is vetted and reliable.

Sub-questions to ask yourself:

- a. Does the application require user-contributed material to be reviewed prior to release?
- b. Does the application contain a user-rating feature of material?
- c. Does the application periodically remove unreliable material?
- d. Does the application contain a "report" feature that allows users to submit complaints to application managers regarding misleading, inappropriate, or erroneous content?

Not Applicable	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
(N/A)	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)
☐	☐	☐	☐	☐	☐	☒	☐

Additional Comments:

-The quizzes and study sets included in this application are user-contributed and therefore are not immediately vetted by anyone.
 -Material within the application can be reviewed by users and reported to the application support staff for review.
 -Application technical support staff will address any concerns from users by thoroughly reviewing any complaints.
 -Unreliable or irrelevant material is removed from access.
 -Creators of material are notified of content suspension and are afforded the opportunity to revise the material for reactivation of their created study sets.
 -Erroneous and inappropriate content can be reported for removal.

15. This application allows user interaction. Sub-questions to ask yourself: - Does the application include a chat feature where users can submit message to other users and contributors, such as teachers? - Does the application include feature that allow real-time gameplay or competition between users? - Does the application promote safe and courteous interaction and punish inappropriate behavior or bullying (e.g., suspension, account disablement)?							
Not Applicable (N/A) ☐	Strongly Disagree (-3) ☐	Disagree (-2) ☐	Somewhat Disagree (-1) ☐	Neither Agree or Disagree (0) ☐	Somewhat Agree (1) ☐	Agree (2) ☐	Strongly Agree (3) ☒
Additional Comments: -The application does have a feedback feature where users can communicate concerns or positive affirmations to material contributors. -The application does have a significant level of user-to-user interaction capability. -The “report” feature allows user to notify application managers to inappropriate conduct by users on the application.							

Synopsis of Kahoot Evaluation

The evaluation of the Kahoot self-study mobile application resulted an cumulative score of 31 of 45 possible points with a 2.06 average score, per evaluative measure, graded on a scale ranging from -3 to 3 possible points. The 2.06 average measure score equates to an average rating slightly exceeding the “Agree” rating. Further, the highest ratings for the Kahoot application, “Strongly Agree” (3 points), were earned in the evaluation elements titled “This application’s information relating to Instructional Design is sufficient in scope”, “Media is integrated effectively in this application”, “This application is a reliable source of information”, “The constraints of this application do not outweigh its value”, “This application is entertaining for the targeted users”, and “This application allows user interaction”, measures 3, 7, 8, 10, 11, 13, and 15 respectively. The lowest rating for Kahoot occurred within the element titled “This application provides maps that clarify the application contents”, measure 8, where it received a

rating of “Somewhat Disagree” (-1 points). Ultimately, this evaluative method displayed that Kahoot is a good self-study application that provides excellent entertainment value and high-quality user-to-user interactions in a game-play style format, but could benefit from some site content management to provide ease of use to the user.

Summary

The Quizlet and Kahoot self-study mobile applications both provide quality resources for studying various educational topics. While different in presentation, interaction, and user interface, these applications allow users to study selected material in convenient ways while offering educators the ability to customize study sets based on curriculum requirements. Ultimately, these applications offer different modalities for study, seeming to target alternative demographics of students regarding study preferences.

Compare and Contrast

Quizlet is a straightforward study application that provides users with traditional study methods such as flashcards, multiple choice, and write-in answer formats. In contrast, Kahoot is a more dynamic study platform that offers instructor-paced quiz games that allow users to enhance their rapid recall of studied information in a more entertaining environment than Quizlet. Further, both applications are well curated in content, reliability, relevance, and quantity of study material. Both applications provide educator control in the creation and management of specific study sets as well. Lastly, both applications are quite popular when accounting for user reviews and download ratings on both IOS and Android systems.

Justification

The applied rubrics presented many evaluative perspectives focused on differing attributes pertaining to mobile applications. These rubrics, derived from established and reliable

evaluative tools and rating methods, produced a quality evaluation of both applications while highlighting strengths and shining a spotlight on the weaknesses of these mobile applications. Ultimately, both applications received cumulative and average ratings indicating above average overall scores. This writer provides detailed rating in the Synopsis sections following each rubric evaluation above. The Synopsis sections display the differentiating factors between these applications as well as scoring methodology, and the strengths and weaknesses of each application.

Reasoning for Application Comparison

Kahoot and Quizlet are widely used and popular self-study applications that have become valuable tools for educators and students. Both applications are well known within student populations ranging from elementary to graduate study students. This writer selected these applications to gain a better understanding of their potential uses, as study platforms, in preparation for a career as an educator. Further, due to previous use of both applications, this writer was somewhat familiar with the capabilities and reliability of the content contained within these applications. Lastly, the Quizlet and Kahoot applications are easily accessed from popular content stores, serving both IOS and Android systems, simply by searching the term “study” or, more precisely, by using the application name as a search term.

Conclusion

In conclusion, Quizlet and Kahoot are both valuable study tools that offer different studying modalities. With student populations of varying educational and social maturity levels, each of these applications seek to target particular demographics. Quizlet seems to focus on students and educators that desire to present and utilize straightforward study material that can be designed to replicate traditional classroom assessment formats. The focus of the Kahoot

application as a study tool seems to lean closer towards a gaming application that engages younger minds, in a creative and competitive way, while still maintaining a rich source of educational material. In the opinion of this writer, both applications serve the purpose of self-study, but Quizlet is tailored more closely to professional students while Kahoot's design aligns better with K-12 demographics. Regardless, both of these applications enhance the presentation of study material while allowing ease of access, educator input, and the ultimate goal, retention of valuable educational knowledge.

References

- Cherner, T., Lee, C-Y., Fegely, A., & Santaniello, L. (2016). A detailed rubric for assessing the quality of teacher resource apps. *Journal of Information Technology Education: Innovations in Practice*, 15, 117-143. Retrieved from <http://www.informingscience.org/Publications/3527>
- Harmon, S., & Reeves, T. (1998) Educational WWW Sites Evaluation Instrument. Retrieved from <http://treeves.coe.uga.edu/edit8350/wwweval.html>