

## ***TechMatters: Getting into Kahoot!(s): Exploring a Game-Based Learning System to Enhance Student Learning***

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**G**ame-based learning involves the use of games and gaming principles in the classroom in order to engage students and enhance learning. Although far from a new concept in education, the integration of gameplay in general, and digital games in particular, into our instructional encounters with students is one that has been trending for several years. In fact, the 2014 NMC Horizon Reports (<http://www.nmc.org/nmc-horizon/>) for both K-12 and Higher Education identified “games and gamification” as significant developments in technology for schools.

“Sounds great!”, you might be thinking, “but, is there an easy way to get started?” Enter “Kahoot!” (<https://getkahoot.com/>). Kahoot! is a free online classroom response system designed to allow instructors to quickly and easily create question-based learning games that can be used to assess student learning, review concepts, teach new material, and/or facilitate classroom discussions.

### **Getting Started**

As an instructor, you will need to setup a free account in order to create new kahoots (what Kahoot! calls its learning games). To do so, navigate to the site and select the “Sign up for free!” button. To register, provide your “role” (most likely teacher), the name of your organization, and your desired account details (username, email, and password).

Once logged in, you will be taken to your personal “Create a new Kahoot!” home page. This page contains many links to a variety of resources designed to introduce you to the system and help you learn how to develop high quality games.

### **Playing Your First kahoot**

To get the full Kahoot experience, you may want to try it out with a friend or two (or more), but you can still get a sense of how it works by playing solo. Either way, you will need access to two or more screens (or devices) to play. One screen will be used by the “teacher” to display the questions and answers (during an actual class, this screen is projected so everyone can see it), and the other(s) will display the responses for “student(s)” to choose.

The first step is to launch a kahoot from within your instructor account. You will find a link to the already-created “Kahoot! Intro Quiz” in the “My Recent Results” section in the lower right corner of the home page; this quiz is a good way give you a sense of how Kahoot can be used. Alternately, you can navigate to “Public Kahoots” and search for one on a topic you find interesting (Boolean operators, perhaps?). Once you have selected a kahoot, launch the game by clicking on the purple “Play” button. At this point, you will be prompted to indicate whether you want to play the game in “classic” (each player uses their own device) or “team” (teams of players share devices) mode. You can also set a variety of game options such as randomizing question order or automatically moving through questions.

Upon picking the game mode, you will be taken to the game page where a pin number will be displayed. Players (i.e., students) see from this screen that they need to navigate to <http://kahoot.it> on their game device(s) or screen(s), where they will enter the game pin and provide a player “nickname” for themselves. As players join the game, their nicknames will appear on the game screen. When all of your players have joined, press the “Start” button to begin the kahoot.

As you operate as the game “host” and the students play, the questions and possible answers will be displayed on the “teacher” screen, along with a countdown timer showing the time remaining to answer (see Figure 1). On the player device, students will be presented with four color-coded panels (see Figure 2); these panels correspond with the possible answers displayed on the question screen. The player’s goal is to select the correct answer as quickly as possible. The faster a correct answer is given, the more points the player receives for that round. Following each question, as well as at the end of the game, a leader board appears showing the top five players; the results can be downloaded to Excel by the instructor. Also at the very end, players have the opportunity to “rate this kahoot” using a star-system, as well as a thumbs up or down regarding “Did you learning something?” and “Do you recommend it?”. Teachers can retrieve this feedback, if desired.

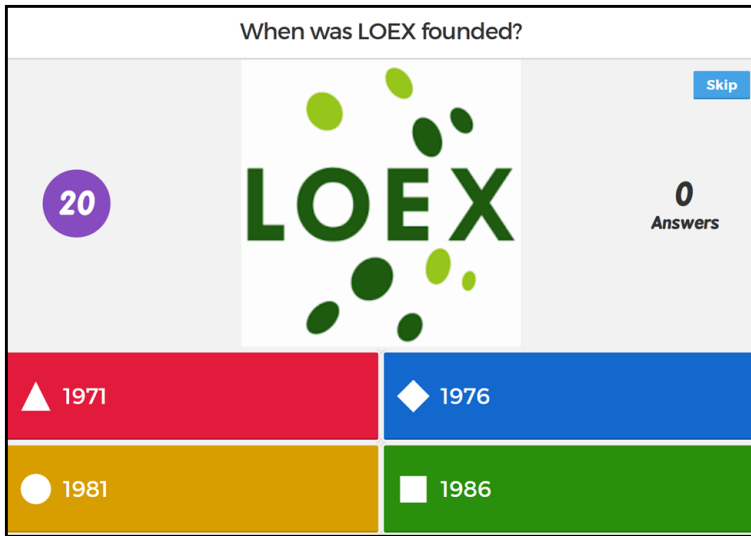
### **Creating a New kahoot**

After you play a few pre-made “kahoots” to get a sense of how the game works, you will likely want to try creating one of your own. To do so, return to your teacher account home page and click on the purple “New K!” button. This will take you back to your account landing page where you will have the option to “Create a new Kahoot!” by selecting one of the three types: quiz, discussion, or survey.

Quiz is the most common type of kahoot, where players answer timed questions as quickly as possible in order to earn points that are used to generate a leaderboard of top scorers between each question. Discussion kahoots consist of only one question with no right or wrong answer and no points assigned; results are displayed at the end of the timed answer period and can be used to spur dialog and debate. Similarly, survey kahoots do not have right or wrong answers or assign points, however, they may include any number of questions.

Select the type of kahoot you want to create, and you will be taken to the initial screen in the “Kahoot Creator!”. At this point, you are required to provide a title and brief description for your kahoot, as well as indicate the intended audience (e.g., school, university, training, etc.). Additionally, you can determine whether the kahoot will be visible to all users (recommended) or only to you. Finally, you have the options to provide a “cover image”, a link to an intro video, and/or credit any resources you used in developing your content.

Figure 1: A Kahoot! quiz question “teacher” screen



After completing the initial setup, you will begin adding questions to your kahoot (see Figure 3). For each question that you add, you must provide between two and four possible answers, indicate which is/are correct, and select the time limit that players will have to respond. Assuming that you are creating a “quiz”, the default is to award points for each question. However, you may disable points on a question by question basis if you want to include a question that won’t impact student scores. Finally, you can (and are encouraged to) include an image or video with each question in order to increase student engagement. Once created, questions can be reordered and edited.

When your kahoot is complete, you can choose to “Play it” or “Preview it” (a really nice option that allows you to see how it will appear both from teacher and the student perspective, side-by-side ). You also have the option to “Share it” with other Kahoot users, a useful option if you want to develop your kahoot collaboratively.

**Building a Better Kahoot!**

Because the interface for building new kahoots is so user-friendly and intuitive, instructors can easily be lulled into a

Figure 3: User interface for adding a question to a kahoot

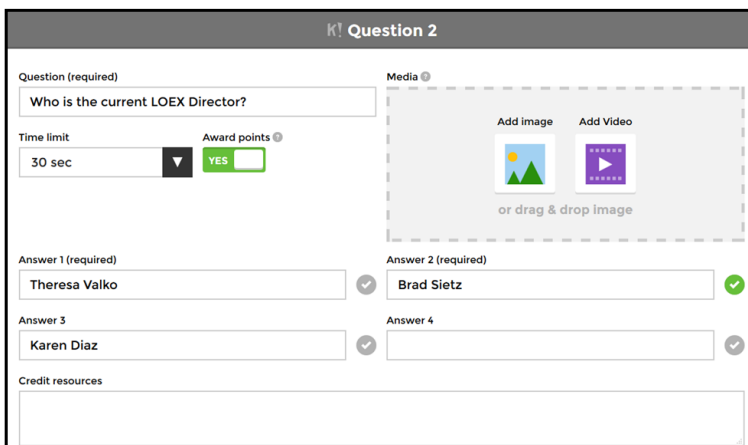
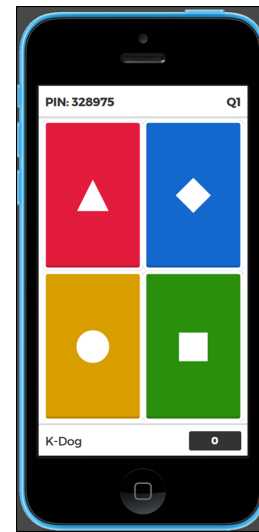


Figure 2: Response view displayed on a student device



false sense of confidence regarding the quality of the learning game(s) they have developed. Keep in mind that all kahoots are not created equal. In order to develop a truly impactful learning experience for students, instructors still need to think carefully about outcomes and structure their questions and answers to support those goals.

Fortunately, the folks at Kahoot! have developed a variety of resources to help teachers make their kahoots “awesome” (see <https://getkahoot.com/blog/5-ways-to-make-a-kahoot-awesome>). Particularly useful is “The Kahoot! Guide to Creating & Playing Learning Games” (pdf) which includes a great section describing a variety of “inspiring ways to play Kahoot!”

In addition, Kahoot! has a vibrant user community of instructors willing to share their experiences. Check out the “Kahoot! Journal” to find a variety of “hacks, tips on getting started, free learning games to try, and inspiring ways to play Kahoot!” (<http://blog.getkahoot.com/>) from these users.

Outside of Kahoot!, there is growing body of literature on the efficacy of game-based learning, along with potential pitfalls along the way. From books such as *Gamify Your Classroom: A Field Guide to Game-Based Learning* (2014) by Farber to articles like “Digital game-based learning: Impact of instructions and feedback on motivation and learning effectiveness” (2013) by Erhel and Jamet (to name just two of literally hundreds), be sure to review and integrate the best research before creating your game-based quizzes.

**Conclusion**

When thoughtfully designed, games in the classroom increase student motivation and engagement, and ultimately improve learning. With it’s simple and intuitive game development tool, the Kahoot! platform allows instructors to skip the technical hurdle they might otherwise encounter in developing a digital game and focus instead on instructional outcomes. Give it a try, and I predict you’ll be “in kahoots” with your students in no time at all!