



Research Paper

# Utilizing Kahoot in teaching Political Organisation at a Government College in Bangladesh

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*Interactive teaching-learning process can be more fruitful with the help of information and communication technology. Kahoot is an assessment tool for making quiz type questions in class. It is helpful to increase students engagement as well as tracking progress.*

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## I. Introduction

Our previous idea was that the teaching-learning process would include pens, paper, blackboards and classrooms. But now this idea has changed radically. We now have many technologies that have changed the very concept of teaching-learning. How to make education attractive, how to make education more effective and how to have a greater impact on learners has become the main topic of discussion (Bokhari, Ahmad, Alam, Masoodi, & Science, 2011). E-learning tools and technologies are a blessing for third world countries. The use of game-based technology to increase students' engagement and motivation in the classroom continues to grow. Taking game-based student feedback not only enhances student engagement but also enhances the learning experience (Licorish, Owen, Daniel, & George, 2018). This research paper shows how the teachers of the course 'political organization' can use game-based tools like Kahoot to teach the course to increase student engagement and how to make education more productive by increasing students' thinking. In 2015, Jamie Brooker and Johan brand designed Kahoot. It is a personal feedback system through which quizzes, discussions, surveys etc. can be conducted. It is a game-based system that is run in real time. Kahoot is very suitable for large classrooms. Because the interaction between teacher and student in big class is very difficult. For science and social sciences, Kahoot is very important for taking immediate feedback in class, increasing participation and increasing engagement (Kapp, 2018). Wang et al. conducted a research project in 2016 at the Norwegian University of Science and Technology (NTNU). There he wanted to see which of the traditional non-gamified response system clickers in higher education, the game-based response system Kahoot and the structural assessment of paper form quizzes attracted more students. In this test, the students were more inclined towards Kahoot (Tan, Lin, Ganapathy, & Kaur, 2018). Rosas et al. (2013) in his K-12 survey showed that games in higher education improve classroom dynamics, motivation, and academic achievement. Sharpels (2000) also speaks of a similar reaction to games in higher education. Similar results have been obtained in studies by Miller, Schwingruber, Oliver, Janice and Smith (2002), and Liao, Chen, Cheng, Chent and Chan (2011) (Tan et al., 2018).

### 1.1 Rationale of the Study

The use of electronic devices to increase assessment in classroom teaching, to increase student engagement, to increase motivation and learning is increasing day by day. Technology is also being used to make difficult topics more interesting and fun (Prensky, 2001). The use of game-based student response systems from student response systems such as "Clickers" and "Jappers" has increased to make such activities a reality (Wang & Lieberoth, 2016). GSRs is a system where teachers design interactive quizzes so that students can respond to questions using a web browser. The quizzes are made more interesting by adding pictures, videos, etc. and points are given for the correct response. The points obtained by the students are displayed on the screen (Licorish, George, Owen, & Daniel, 2017). Studies have shown that integrating GSRs (e.g., Kahoot!) into regular lectures improves student engagement (Wang & Lieberoth, 2016). Such tools play an important role in improving the learning environment for students to be actively involved in information science lectures. Lin, Ganapathy, & Kaur, (2018) suggests that in addition to increasing positive classroom mobility, it also plays a role in increasing peer interaction with students (Lin et al., 2018). Kahoot is also very useful for students who

are generally reluctant to participate in classroom discussions (Wang & Lieberoth, 2016). According to Cardwell (2007), Kahoot has played a role in personalizing learning as well as increasing attendance. The job of teachers in political science classes is to teach students to think (Cardwell, 2007). It is generally assumed that students are able to think at higher levels when they go to higher level lessons. But this skill of thinking needs to be practiced at the beginning of any new lesson in the undergraduate course and it should be continued throughout the course (Damron & Mott, 2005). Learning usually becomes one-sided when students just listen to the speech and take notes. Using Kahoot, professors can engage all students in critical thinking. Even if the classroom size is large, it is possible to engage all students in critical thinking, problem solving, and increase collaboration with peers (Steinert & Snell, 1999)

## **II. Context of Bangladesh**

This chapter describes the need for active learning in Bangladesh, the current situation as well as the current teaching methods in this government college and the importance of introducing a student-centred teaching system.

### **2.1 Institutional Context**

This college is located in Mathbariaupazila of Pirojpur district in the southern part of Bangladesh. It is the only government college in Mathbariaupazila. Mathbaria is located at 22.2869 N 89.9667 ° E. There are 48,139 families and a total area of 353.25 km<sup>2</sup>. As of 2011 India census, Mathbaria had a population of 262,244. Males 59.0%, and females 51.0%. Here is the literacy rate of BOP / YAM. MathbariaUpazila is divided into Mathbaria Municipality and 11 Union Parishads. The Union Parishads are divided into 67 mouzas and 93 villages. Mathbaria municipality is divided into 9 wards and 111 mahallas (“District Statistics 2011: Pirojpur,” n.d.; “Mathbaria Upazila - Wikipedia,” n.d.; Rahman, 2012).

The nature of instruction typically provided in this institution is not student centred and have no scope of assessment in the class. Teaching is done in department of Political Science of this college using traditional method. Students are not monitored for full concentration during lectures. This problem is more pronounced due to the large size of the classroom. Student engagement is much lower here. Although there are several summative assessments per year, there is no provision for continuous evaluation through formative assessments.

Ensuring the technology involved in student-centred learning is the focus of modern learning for the expected behavioural change in students (McMahon, 2005). In order to achieve the vision of becoming a developed country by 2041, it is very important for Bangladesh to adopt a student-centred teaching method to produce world class graduates (“Ministry of Education, 2010, National Education Policy, Dhaka: Government of Bangladesh,” n.d.). In this populous country, there is immense potential for education. About 200 million people are going to enter the job market in a short time. These 200 million people are facing challenges in entering the job market due to the quality of their education. This is because they are being educated in a conventional education system and teachers and trainers are all interested in coaching centres outside of conventional classrooms (“Ministry of Education, 2010, National Education Policy, Dhaka: Government of Bangladesh,” n.d.). However, the country's constitution emphasizes universal, compulsory and people-oriented education (Constituteproject.org, 2016). Observations from the academic community have revealed that the only reason for this backwardness is the lack of student-centred education and the improper use of technology behind this problem (Haque, Jakir, Faruki, & Islam, 2019). Considering this serious situation, there is a need for in-depth investigation into the learning environment and social status at the college level in Bangladesh. Researchers at home and abroad have called for adopting more effective education methods to make quality education more effective (Haque et al., 2019). Modern technology has made education student friendly and necessary knowledge as well as purpose oriented and skill oriented. The role and challenge of using technology in educational institutions of this country is very big (Haque et al., 2019). The Government of Bangladesh has set 30 targets in its current education policy, emphasizing the involvement of technology in education, learning through exploration and creativity, and learning through encouragement and motivation (“Ministry of Education, 2010, National Education Policy, Dhaka: Government of Bangladesh,” n.d.). Across the country, including this college, education is one-way, with teachers imparting knowledge and motivating students to memorize information for the future, while the content of the study is always irrelevant and gradually they become indifferent to education (Haque et al., 2019). Traditional lectures are a non-democratic system where a teacher controls the learning situation and is the source of information. Here, teachers continue to impart knowledge in empty containers (Haque et al., 2019).

### **2.2 Traditional and Interactive Lectures**

Nature of instruction in this college is mostly lecture oriented and not interactive. Use of Kahoot can make it interactive. Lecture is a time-tested teaching skill used in higher education around the world (Lambert & Saville, 2012). It is a traditional technique where students sit passively and occasionally break away from the

lecture to do other tasks such as Facebooking, text messaging or other homework (Millis, 2009). According to Bligh (2000), the lecture method is a relatively low quality teaching method (Bligh, 2000). According to Orford, Dorling, & Harris (1998), student concentrations are 10/15 minutes after the start of the lecture. Shawn began to decline (Orford et al., 1998).

The traditional lecture method is often the opposite of the interactive method. When the learning becomes interactive, the instructor spends most of his time behind students' understanding and skill development and spends relatively little time transmitting information (Chowdhury, 2016). In contrast to the conventional lecture method, the instructor gives lectures with periodic breaks, occasionally asking questions that remove misunderstandings and confusion from students in responding to questions. Student comprehension levels are monitored continuously. For this reason, Kahoot will be very helpful to in teaching political organisation as there is ample scope of assessment which will help to understand better. For this monitoring the instructor resorted to small exercises and assessments (Chowdhury, 2016). Thus Kahoot makes the learning environment active and it is a process where students are involved in doing something and are helped to think about what they are doing (Bonwell & Eison, 1991). According to Bonwell & Eison (1991), active learning is a broad activity started in the classroom that motivates students to share their own thinking consciousness with their partner, small group or the whole classroom which enhances critical thinking and creative thinking. Huber (1997) suggested that learners need to be given the opportunity to learn what aspects of a particular educational field they want to learn. He also said that a learner will face challenges in applying his or her mental ability while learning (Huber, 1997). Four components of active learning which are: critical thinking, personal responsibility for learning, engaging in open learning activities and organizing learning activities by the teacher is absent in this college as Berry (2008) stated. Dewey (1966) emphasizes the "learning by doing" approach. He said students must be constantly engaged in an active search to learn new ideas and solve real-life problems (Dewey, 1966). Millis (2009) said that teacher encouraged instructors to guide rather than control students in order to learn a specific subject in student-centred learning and to achieve specific learning objectives (Millis, 2009). Bonwell & Eison (1991) has proven the effectiveness of active learning in various ways. He showed that the introduction of active learning in the classroom significantly improved students' recall of information (Bonwell & Eison, 1991). Nobel laureate physicist Carl-Weiman has shown that students taught by introducing active learning techniques perform relatively better than those taught by professors in traditional methods.

On the other hand, in the case of student-centred learning or interactive learning, the needs, problems, interests, etc. of the students are given importance and it also acts as a helper and guide in the learning of the student and helps the student to take steps to acquire the learning experience. The principles of student-centred learning are active learning, increasing responsibility on students, increasing autonomy among students, increasing interdependence between teachers and students, and respect for each other (McCabe & O'Connor, 2014). Here the role of the student is active, self-reflected, autonomous and needs-based and relevant to the students. Learning is supportive, group activity oriented and participatory. Student-centred learning includes presentations, poster presentations, learning by doing, peer learning, exhibitions, site visits, group discussions, case studies, simulation games, role playing, individual assignments and group assignments. Here at all stages of learning a number of processes are followed such as memorization, comprehension and application, analysis, evaluation and creation. Students are on the one hand good listeners, punctual, diligent, inquisitive and responsible (McCabe & O'Connor, 2014). According to McLellan, in student-centred learning, students can take ownership of their own learning without relying on the teacher's instructions (Daniels, Elliott, Finley, & Chapman, 2019).

So, by using Kahoot, collaboration, critical thinking and interactivity can be developed in classes of political organisation. Kumar & Lightner (2007) also told it. They said that using activities and games in the classroom encourages active learning, collaboration, and interactivity (Kumar & Lightner, 2007). Participating in an activity requires the use of different materials by the student, applying what they learn.

### **III. Theoretical Ideas**

This chapter discusses in detail what Kahoot is, how Kahoot will be used in the classroom, how Kahoot can turn a classroom into an interactive classroom, and how it increases student engagement.

#### **3.1 Kahoot**

Kahoot is a system of student feedback that is created like a game. It instantly engages students in quizzes, discussions, surveys, etc (Bicen & Kocakoyun, 2018). Kahoot students do not need to have any account. To participate in the discussion, quiz and survey, the student has to go to the link <https://Kahoot.it/> and enter the PIN provided by the teacher. In this case, they can do it using any browser on the smartphone computer (Johns, 2015). To create Kahoot quiz, teachers must have a Kahoot account (Ismail & Mohammad, 2017).

To create the quiz, the teacher has to log in to his account. Then go to the Create New Kahoot option and click on the "Create New Kahoot" option. He has to choose an option from various options like Quiz, Discussion and

Survey. The quiz option is marked with a question mark. Selecting this option asks the teacher to provide a name for the quiz. Once the name is chosen, click on the "Go" option. The teacher is then asked to write the first question of the quiz. There are various options for writing questions like uploading videos, pictures, songs etc. so that students are encouraged to think and also participate in quizzes.

There are two options, drag and drop, for adding pictures. There is also a "Choose File" option for uploading images. YouTube videos can also be played by providing the URL address. In this case, time can be added to the video and it can be determined which part of the video will be broadcast.

Once the questions are combined, the teacher can combine four answers for the students to choose from. You have to decide which of the four answers is correct. More questions can be connected in the same way.

The teacher can determine how much time students have to answer each question. Usually 30 seconds for each question and 1000 points are pre-determined. Then click on the "Add Question" button to connect the next question in the same way. After attaching the last question, you have to complete the quiz by clicking on the "Save And Continue" button. With the quiz the teacher can also give a description and its level of difficulty.

Once the quiz is created, the teacher has to log in again to get the quizzes. At this time the teacher gets a pin code. This zip code is displayed on the screen. Students visit Kahoot, enter the pin code and participate in the quiz. Points are awarded based on how quickly students can answer the quiz. A student can earn a maximum of 1000 points in a question. The names of the top five students are displayed on the board.

According to Thomas, since Kahoot can be accessed very easily and quickly, it is equally beneficial for both teachers and students. Kahoot is very useful for various types of assessment such as formative assessment, research project evaluation etc.

### **3.2 Kahoot for Students' Engagement**

Training experts say that the most important thing for learning is to attract students. Kahoot's text, words, pictures, music and videos can create excitement among students. Game-like features like Kahoot have been able to add 10 million users to the classroom (Plump & LaRosa, 2017a). Burguillo (2010) in Kapp (2018) states that students need competitive learning to gain strong motivation and increase their performance (Kapp, 2018). Gagne & Driscoll (1988) have shown that stimulant recovery education by informing students about the purpose of the lesson enhances their short-term memory recovery and meta-cognitive ability (Gagne & Driscoll, 1988). According to Kapp (2018), for an educational game to be successful, it needs to be used in the right context, with the right cognitive activities, meaningful challenges and feedback. Kahoot! K can also be used to get students to respond to opinions or beliefs (Kapp, 2018). In this case, they will not give any right or wrong answer, they will just express their opinion. Conducting surveys in the classroom using Kahoot allows students to express their public opinion without revealing their names, which adds more energy to the classroom and helps to start a new thoughtful dialogue in the classroom (Plump & LaRosa, 2017).

### **3.3 Kahoot for Active Learning**

Licorish et al. (2018) showed that they had a positive experience using Kahoot and that it contributed to the learning environment for all types of extrovert and introvert learners (Licorish et al., 2018). Bicen & Kocakoyun (2018) state that Kahoot promotes learning by attracting students to learning. Because learning is better if everyone is inspired. The importance of students' immediate response is invaluable. Results about what students know and what they know often contradict teachers' perceptions and help teachers provide additional explanations on a subject. What students discuss among themselves serves as additional input into the class. At one point it was seen that students felt comfortable raising more and more questions (Bicen & Kocakoyun, 2018). Kahoot creates a fun platform to create lectures, peers and a chance to get more involved with classmates. In addition to increasing classroom mobility, it enhances mutual interaction and paves the way for constructive discussion (Martins, Gerald, Afonseca, & Gouveia, 2019). Although sometimes it creates excessive competition and it has a negative impact (Licorish et al., 2017).

## **IV. Critical Reflection**

This chapter discusses how Kahoot can be used in this college, the potential challenges and the benefits of implementation.

### **4.1 My Current Practice**

It has discussed already that the learning process of this college is lecture depended and not interactive. Though, all learning processes are interactive in the sense that students interact with learning topics, assignments, and problem solving. Interactive learning refers to a process where the learning process involves some form of digital mediation between the teacher or the designer and the student. So in this sense the presence of digital devices and students is essential in the interactive learning system (Seabrook, 2008). But it is

a matter of sorrow that any use of digital device in classroom has not been introduced in learning courses of political organisation yet.

There has been much controversy over the meaning of the term interactivity (Marra & Bogue, 2006), especially the prediction that by the year 2000, intelligent tutoring systems will govern education and training (Lajoie, 2020). According to Thomas C. Reeves, how interactive the learning system is depends on how much students are involved in the work (Reeves, Herrington, & Oliver, 2002). The type and extent of interactivity depends on different aspects of the interactive learning system. But the biggest issue is how diligent the student is in performing or solving his or her task. Interactive learning enables students in the teaching and learning process and enables students to search for new knowledge. According to the UNESCO Institute for Information Technologies in Education (2006), the use of ICT in class helps students to engage, participate and learn effectively. Talking about the importance of information technology and computers in interactive learning, Selinger said that computers can present information in a way that teachers are unable to do. Computers present information in a variety of multimedia formats where students can combine different ideas by looking at text, graphics, sound and video (Cornu, 2011).

Numerous studies have shown that interactive learning through multimedia takes less time, makes learning enjoyable and increases the amount of learning (Najjar, 1996). When information is presented in computer-based multimedia, the level of learning is higher than in traditional lectures. Both teachers and students benefit from interactive learning in terms of learning, training and services. According to him, interactive learning increases students' classroom attendance and motivates them to prepare before taking part in lessons. By actively participating in the class the students can understand everything clearly and here peer or associate training increases. As a result, students' satisfaction with the class increases. The second goal of interactive learning is to make teaching effective by taking feedback from students and receiving immediate feedback. The teacher can also decide from this feedback what changes, refinements, corrections or deletions need to be made in any part of his lecture. Birdsall (2002) states that without an interactive lecture system it is impossible to receive feedback and ensure student participation in large classes. Even in many small classes, many students are reluctant to participate. The participation of the whole class can be ensured in the interactive system without revealing the name. Birdsall (2002) stated that students began to think and talk to each other about the materials presented to them in the interactive method. According to him, in this way students are involved in informal study groups (Birdsall, 2002). According to Mazur & Somers (1999), one of the strategies to make the class interactive is to give students the opportunity to discuss their answer before giving it. He also urged students to defend and answer the answer. Judson & Sawada (2001) commented that the use of multimedia during teaching improves students' perceptions and exposes misconceptions. Woods & Chiu (2003) confirmed that if most students' answers were correct, those who answered incorrectly would be motivated to read and think more.

#### **4.2 Evaluation of My Current Practice**

The methods currently taught in political organization classes have failed to make the classes participatory and interactive. One of the reasons for this is the absence of use of digital devices and the absence of quizzes, small assessments in the classroom. Therefore, in order to overcome this situation, it is necessary to start using Kahoot in class as well as the use of digital devices.

There are also some hurdles in introducing a student-centred education system. Martins et al. (2019) showed that it is not suitable in developing countries where resources are scarce. And weak students can be severely affected. There are some students who want to take credit without doing anything. This requires motivation and technical motivation. First, they need to understand that the Kahoot game is not a test or a game but rather it will bring success in their lives.

### **V. Action Plan**

This section discusses how to introduce Kahoot in political organization classes in this college and at the same time the challenges of introducing it.

#### **5.1 Implementation**

From the above discussion we can conclude that we need a paradigm shift in education. Student-centred education needs to be introduced. The current traditional education system needs to be transformed into a student-centred education system through the internalization of new values. If we want to develop the education system of the society, we also need to change the social structure. It is not possible to change the education system based on notes, guides and coaching without changing the social settings. That is why we need to change the values associated with education and inculcate in the minds of the students that the purpose of education is not just to get good grades and certificates (Haque et al., 2019).

Since the classes in this college are conducted in the traditional lecture system, it is not easy to suddenly introduce a game-based assessment system like Kahoot. The first requirement is to make the college principals and senior teachers aware of the importance of student-centred learning and how having an assessment in the classroom helps students to increase their focus and understand a subject in depth. Assessment by Kahoot in each class will be possible if positive response is received from the principal and senior teachers. A big problem in this case is that in order for students to participate in quizzes, discussions, surveys, etc. created by Kahoot, everyone has to have a device like mobile, laptop, smartphone, etc., as well as an internet connection.

Implementing our strategy requires administrative permission, opportunities and teacher training. But Bangladesh is a developing country and this college is located in a remote area of the country so most of the students here are poor and not everyone has laptops, smartphones etc. And these are essential for participating in Kahoot's quiz. Therefore, although not everyone is able to participate in Kahoot individually, group participation can be done.

Each teacher will use Kahoot to verify that students have prior knowledge of the subject before moving on to a new lesson in their political organization class, and will test how much they have understood through a brief assessment at the end of the class. Try to keep the students interested by using pictures or videos associated with the political organization course in the quiz used in Kahoot. The point system of Kahoot gaming system will increase the interest and participation of students in learning.

Strategies will include giving students as much autonomy as possible, motivating them to acquire knowledge, making them aware of what they are learning and why they are learning, and encouraging them to become interactive with peers (Haque et al., 2019).

## **5.2 Challenges**

The existing mobile phone infrastructure is good for Bangladesh and the world when it comes to using internet technology in education (Grönlund & Islam, 2010). According to the World Bank, 77% of the world's population has a mobile phone network. In Bangladesh 97% population are under mobile network and the development of this network will continue (Kenny & Keremane, 2007). So, to make the classroom interactive using technology, one has to take the help of mobile network.

There are many benefits to using Kahoot experimentally in a political organization. As well as positive changes in classroom mobility, students' communication with lectures has increased. At the same time, there is a growing tendency to have constructive discussions with peers on specific issues (Tan et al., 2018). In order to perform well in Kahoot, students always have to be attentive which multiplies their engagement in the class (Kiili, 2005). In addition, the use of Kahoot in the class breaks for a while, this break also helps them to break the monotony and pay new attention (Papastergiou, 2009)

## **VI. Conclusion**

Games like Kahoot are a favourite of many college students. Learning tools like access to mobile devices and computer games add positive energy to students (Kapp, 2018). Such fun learning increases their comprehension and motivation to learn. All in all, Kahoot creates a supportive, competitive learning environment. Above all, the use of Kahoot has transformed the teaching of the political organization course from teacher-centred to student-centred teaching-learning. Stopping the one-way transmission of knowledge has increased the application and realization of knowledge. This type of active learning certainly plays a role in reducing absences, creating a quality and efficient manpower. According to Clark & Mayer (2012), in recent years instructors have been experiencing a technological training revolution where they have to give instructions using technology. Inspiring students to use technology has been well-received at all levels of education. The problem, however, is that many professors still lack the experience, understanding, and opportunity to make full use of digital games in the classroom (Becker, 2001). Becker (2001) states that the potential of games cannot be expected if they are not used properly. Kahoot is a game that is easy to use and free of cost.

Therefore, it would be very fruitful to introduce the use of Kahoot in the corpses of political organizations as per the action plan given above. If students and teachers are accustomed to using Kahoot, it is hoped that the challenges of its use will gradually be overcome.

## Reference

- [1]. Becker, M. C. (2001). Managing Dispersed Knowledge: Organizational Problems, Managerial Strategies, and Their Effectiveness. *Journal of Management Studies*, 38(7), 1037–1051. <https://doi.org/10.1111/1467-6486.00271>
- [2]. Berry, W. (2008). Surviving Lecture: A Pedagogical Alternative. *College Teaching*, 56(3), 149–153. <https://doi.org/10.3200/CTCH.56.3.149-153>
- [3]. Bicen, H., & Kocakoyun, S. (2018). Perceptions of students for gamification approach: Kahoot as a case study. *International Journal of Emerging Technologies in Learning*, 13(2), 72–93. <https://doi.org/10.3991/ijet.v13i02.7467>
- [4]. Birdsall, S. (2002). Assessment and Student Response Systems. *Foundations*, 1(Sept).
- [5]. Bligh, D. A. (2000). What's the point in discussion?
- [6]. Bokhari, M. U., Ahmad, S., Alam, S., Masoodi, F., & Science, C. (2011). Modern Tools and Technologies for Interactive Learning. *Digital Signal Processing*, 5–8.
- [7]. Bonwell, C. C., & Eison, J. A. (1991). Active Learning: Creating Excitement in the Classroom. *ERIC Digest. Higher Education*, (ED340272 1991-09-00), 1–6. Retrieved from <https://eric.ed.gov/?id=ED340272>
- [8]. Cardwell, S. (2007). Literature on the small screen: Television adaptations. In *The Cambridge Companion to Literature on Screen* (pp. 181–196). <https://doi.org/10.1017/CCOL0521849624.013>
- [9]. Chowdhury, F. (2016). Employment of Active Learning at HEIs in Bangladesh to Improve Education Quality. *International Education Studies*, 9(10), 47. <https://doi.org/10.5539/ies.v9n10p47>
- [10]. Clark, R. C., & Mayer, R. E. (2012). e-Learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning: Third Edition. In *e-Learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning: Third Edition*. <https://doi.org/10.1002/9781118255971>
- [11]. Constituteproject.org. (2016). Bangladesh's Constitution of 1972, Reinstated in 1986, with Amendments through 2014. Retrieved from <http://extwprlegs1.fao.org/docs/pdf/bgd117108E.pdf>
- [12]. Cornu, B. (2011). UNESCO Institute for Information Technologies in Education CONTENTS. In UNESCO Institute for Information Technologies in Education. Retrieved from [http://cyberlearn.hes-so.ch/pluginfile.php/663262/mod\\_resource/content/2/RapportUnesco\\_E.pdf](http://cyberlearn.hes-so.ch/pluginfile.php/663262/mod_resource/content/2/RapportUnesco_E.pdf)
- [13]. Damron, D., & Mott, J. (2005). Creating an interactive classroom: Enhancing student engagement and learning in political science courses. *Journal of Political Science Education*, 1(3), 367–383. <https://doi.org/10.1080/15512160500261228>
- [14]. Daniels, K., Elliott, C., Finley, S., & Chapman, C. (2019). Learning and Teaching in Higher Education. In *Learning and Teaching in Higher Education*. <https://doi.org/10.4337/9781788975087>
- [15]. Dewey, J. (1966). *Democracy and education* (1916). Jo Ann Boydston (Ed.). *The Middle Works of John Dewey*, 9, 1899–1924. <https://doi.org/http://www.ilt.columbia.edu/publications/dewey.html>
- [16]. District Statistics 2011: Pirojpur. (n.d.). Bangladesh Bureau of Statistics. Retrieved from [http://www.bbs.gov.bd/WebTestApplication/userfiles/Image/District Statistics/Pirojpur.pdf](http://www.bbs.gov.bd/WebTestApplication/userfiles/Image/District%20Statistics/Pirojpur.pdf)
- [17]. Gagne, & Driscoll, M. (1988). *Essentials Of Learning For Instruction*. PrenticeHall.
- [18]. Grönlund, Å., & Islam, Y. M. (2010). A mobile e-learning environment for developing countries: The Bangladesh Virtual Interactive Classroom. *Information Technology for Development*, 16(4), 244–259. <https://doi.org/10.1080/02681101003746490>
- [19]. Haque, M. A., Jakir, M., Faruki, A., & Islam, M. M. (2019). Student-Centered Learning and Current Practice in Bangladeshi College Education. *Journal of Education and Practice*, 10(13). <https://doi.org/10.7176/jep/10-13-11>
- [20]. Huber, G. L. (1997). Self-regulated learning by individual students.
- [21]. Ismail, M. A.-A., & Mohammad, J. A.-M. (2017). Kahoot: A Promising Tool for Formative Assessment in Medical Education. *Education in Medicine Journal*, 9(2), 19–26. <https://doi.org/10.21315/eimj2017.9.2.2>
- [22]. Johns, K. (2015). Engaging and Assessing Students with Technology: A Review of KahootDelta Kappa Gamma Bulletin, 81(4), 89. Retrieved from <http://search.proquest.com/openview/33d65e52a95d588daf56f7b5c6e8a406/1?pq-origsite=gscholar&cbl=47978>
- [23]. Judson, E., & Sawada, D. (2001). Tracking Transfer of Reform: Tracking Transfer of Reform Methodology from Science and Math College Courses to the Teaching Style of Beginning Teachers of Grades 5-12. Annual Meeting of the American Educational Research Association. Retrieved from <https://eric.ed.gov/?id=ED455208>
- [24]. Kapp, K. M. (2018). Improve student engagement and collaboration with kahoot. *TESOL Conference Journal*, 10, 1–16.
- [25]. Kenny, C., & Keremane, R. (2007). Toward universal telephone access: Market progress and progress beyond the market. *Telecommunications Policy*, 31(3–4), 155–163. <https://doi.org/10.1016/j.telpol.2007.01.005>
- [26]. Kiili, K. (2005). Digital game-based learning: Towards an experiential gaming model. *Internet and Higher Education*, 8(1), 13–24. <https://doi.org/10.1016/j.iheduc.2004.12.001>
- [27]. Kumar, R., & Lightner, R. (2007). Games as an Interactive Classroom Technique: Perceptions of Corporate Trainers, College Instructors and Students. *International Journal of Teaching and Learning in Higher Education*, 19(1), 53–63. Retrieved from <https://eric.ed.gov/?id=EJ901287>
- [28]. Lajoie, S. (2020). Computers as Cognitive Tools, Volume Two: No More Walls. In *Computers as Cognitive Tools, Volume Two: No More Walls*. <https://doi.org/10.1201/9781315045337>
- [29]. Lambert, T., & Saville, B. K. (2012, July 21). Interteaching and the Testing Effect: A Preliminary Analysis. *Teaching of Psychology*, Vol. 39, pp. 194–198. <https://doi.org/10.1177/0098628312450435>
- [30]. Licorish, S. A., George, J. L., Owen, H. E., & Daniel, B. (2017). “Go Kahoot” Enriching classroom engagement, motivation and learning experience with games. *Proceedings of the 25th International Conference on Computers in Education, ICCE 2017 - Main Conference Proceedings*, 755–764.
- [31]. Licorish, S. A., Owen, H. E., Daniel, B., & George, J. L. (2018). Students' perception of Kahoot's influence on teaching and learning. *Research and Practice in Technology Enhanced Learning*, 13(1). <https://doi.org/10.1186/s41039-018-0078-8>
- [32]. Lin, D. T. A., Ganapathy, M., & Kaur, M. (2018). Kahoot It: Gamification in higher education. *Pertanika Journal of Social Sciences and Humanities*, 26(1), 565–582. Retrieved from <http://www.pertanika.upm.edu.my/>
- [33]. Marra, R., & Bogue, B. (2006). A critical assessment of online survey tools. *Proceedings of the 2006 WEPAN Conference*, 1–11. Retrieved from <https://journals.psu.edu/wepan/article/download/58473/58161>
- [34]. Martins, E. R., Geraldes, W. B., Afonseca, U. R., & Gouveia, L. M. B. (2019). Using Kahoot as a Learning Tool. In *Lecture Notes in Information Systems and Organisation* (Vol. 31, pp. 161–169). [https://doi.org/10.1007/978-3-030-14850-8\\_11](https://doi.org/10.1007/978-3-030-14850-8_11)
- [35]. Mathbaria Upazila - Wikipedia. (n.d.). Retrieved May 19, 2020, from [https://en.wikipedia.org/wiki/Mathbaria\\_Upazila](https://en.wikipedia.org/wiki/Mathbaria_Upazila)
- [36]. Mazur, E., & Somers, M. D. (1999). Peer Instruction: A User's Manual. *American Journal of Physics*, 67(4), 359–360. <https://doi.org/10.1119/1.19265>
- [37]. McCabe, A., & O'Connor, U. (2014). Student-centred learning: The role and responsibility of the lecturer. *Teaching in Higher Education*, 19(4), 350–359. <https://doi.org/10.1080/13562517.2013.860111>

- [38]. McMahon, P. (2005). Special education assistive technology: A phenomenological study of building administrator knowledge and practices. W&M ScholarWorks. Retrieved from <https://scholarworks.wm.edu/cgi/viewcontent.cgi?article=6712&context=etd>
- [39]. Millis, B. J. (2009). Active learning strategies in physics teaching. *Energy Education Science and Technology Part B: Social and Educational Studies*, 1(1), 27–50. Retrieved from <http://www.dl.ueb.vnu.edu.vn/handle/1247/10092>
- [40]. Ministry of Education, 2010, National Education Policy, Dhaka: Government of Bangladesh. (n.d.). Retrieved May 22, 2020, from [https://www.google.com/search?q=MOE+\(Ministry+of+Education\)%2C+2010%2C+National+Education+Policy%2C+Dhaka%3A+Government+of+Bangladesh.&rlz=1C1EJFC\\_enBD863BD863&oq=MOE+\(Ministry+of+Education\)%2C+2010%2C+National+Education+Policy%2C+Dhaka%3A+Government+of+B](https://www.google.com/search?q=MOE+(Ministry+of+Education)%2C+2010%2C+National+Education+Policy%2C+Dhaka%3A+Government+of+Bangladesh.&rlz=1C1EJFC_enBD863BD863&oq=MOE+(Ministry+of+Education)%2C+2010%2C+National+Education+Policy%2C+Dhaka%3A+Government+of+B)
- [41]. Najjar, L. J. (1996). Multimedia information and learning. *Journal of Educational Multimedia and Hypermedia*, 5, 129–150. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.118.1654>
- [42]. Orford, S., Dorling, D., & Harris, R. (1998). Review of Visualization in the Social Sciences: A State of the Art Survey and Report. Report for the Advisory Group on Computer Graphics. Retrieved from <http://www.agocg.ac.uk/train/review/review.pdf>
- [43]. Papastergiou, M. (2009). Digital Game-Based Learning in high school Computer Science education: Impact on educational effectiveness and student motivation. *Computers and Education*, 52(1), 1–12. <https://doi.org/10.1016/j.compedu.2008.06.004>
- [44]. Plump, C. M., & LaRosa, J. (2017a). Using Kahoot in the Classroom to Create Engagement and Active Learning: A Game-Based Technology Solution for eLearning Novices. *Management Teaching Review*, 2(2), 151–158. <https://doi.org/10.1177/2379298116689783>
- [45]. Plump, C. M., & LaRosa, J. (2017b). Using Kahoot in the Classroom to Create Engagement and Active Learning: A Game-Based Technology Solution for eLearning Novices. *Management Teaching Review*, 2(2), 151–158. <https://doi.org/10.1177/2379298116689783>
- [46]. Prensky, M. (2001). Digital Game-Based Learning From Digital Game-Based Learning (McGraw-Hill, 2001) Fun, Play and Games: What Makes Games Engaging. 1–31. Retrieved from [http://www.autzones.com/din6000/textes/semaine13/Prensky\(2001\).pdf](http://www.autzones.com/din6000/textes/semaine13/Prensky(2001).pdf)
- [47]. Rahman, M. M. (2012). Banglapedia: National Encyclopedia of Bangladesh (Second). Retrieved from [http://en.banglapedia.org/index.php?title=Mathbaria\\_Upazila](http://en.banglapedia.org/index.php?title=Mathbaria_Upazila)
- [48]. Reeves, T. C., Herrington, J., & Oliver, R. (2002). Authentic activities and online learning. *HERDSA*, 562–567. <https://doi.org/10.1017/CBO9781107415324.004>
- [49]. Seabrook, J. (2008). Interactive learning systems evaluation - By Thomas C Reeves & John G Hedberg. *British Journal of Educational Technology*, 39(6), 1141–1141. <https://doi.org/10.1111/j.1467-8535.2008.00908.13.x>
- [50]. Steinert, Y., & Snell, L. S. (1999). Interactive lecturing: Strategies for increasing participation in large group presentations. *Medical Teacher*, 21(1), 37–42. <https://doi.org/10.1080/01421599980011>
- [51]. Tan, D., Lin, A., Ganapathy, M., & Kaur, M. (2018). SOCIAL SCIENCES & HUMANITIES Kahoot It: Gamification in Higher Education. *Pertanika J. Soc. Sci. & Hum*, 26(1), 565–582. Retrieved from <http://www.pertanika.upm.edu.my/>
- [52]. Wang, A. I., & Lieberoth, A. (2016). The effect of points and audio on concentration, engagement, enjoyment, learning, motivation, and classroom dynamics using Kahoot In researchgate.net. Retrieved from <https://www.researchgate.net/publication/309292067>
- [53]. Woods, H. A., & Chiu, C. (2003). Wireless response technology in college classrooms. *The Technology Source*, 15–18. Retrieved from [http://technologysource.org/article/wireless\\_response\\_technology\\_in\\_college\\_classrooms/%5Cnhttp://ts.mivu.org/default.asp?show=article&id=1045](http://technologysource.org/article/wireless_response_technology_in_college_classrooms/%5Cnhttp://ts.mivu.org/default.asp?show=article&id=1045)