



THE EFFICACY OF EDTECH TOOLS IN HIGHER EDUCATION ONLINE FOR THE PROVISION OF QUALITY EDUCATION IN INDIA DURING COVID-19 PANDEMIC

Venkata Ramana Manipatruni¹, Dr. Nannapaneni Siva Kumar²

¹*Assistant Professor of English, Sri Vasavi Engineering College, Tadepalligudem, West Godavari, Andhra Pradesh*

²*Associate Professor, Department of English, K L University, Vaddeswaram, Andhra Pradesh,*

ABSTRACT

With an uninvited and unexpected intrusion of COVID-19 into the world of education, online teaching and learning suddenly came as a massive shock for many teachers and learners and as a result quality education was at stake. This crisis-hit situation compelled educators to have thought of alternatives to the traditional classroom. Setting a hospitable classroom environment to keep learners engaged online became a herculean task for the teachers, after the pandemic had shut down educational institutions. At this juncture, the intervention of tools of Educational Technology indubitably complemented online teaching and learning and assured the learners of the quality education which many learners might have been afraid of losing. Though the realm of education has known the Edtech tools very well even earlier, this pandemic broadened access to the use of these Edtech tools in higher education in India and multiplied the opportunities to explore them big time. It cannot be hyperbole when we say that the reliability of edtech tools to ensure quality education in higher educational institutions just went uphill during this pandemic. Our Paper discusses how various Edtech tools such as Kahoot, Padlet, Edpuzzle and Flipgrid helped ensure quality education in higher education in India and how well these Edtech tools keep learners engaged in learning online during this COVID-19 pandemic.

KEYWORDS: *Efficacy of Edtech tools, Higher Education, COVID-19, quality education.*

Teaching was a cakewalk for many teachers and learning was not brain surgery for many learners prior to the pandemic COVID-19. It was all evident in the traditional classroom with all the resources for teaching and learning fully optimized for the purpose wanted. Everything was going on its way and the focus of both knowledge implementers and knowledge producers was just to impart knowledge to the learners with all the sources available. It was all just past history. It is the intrusion of COVID-19 that challenged the world of education in such a way that the quality education everywhere became simply questionable and the takeaways of education were at stake, as educational institutions were unwittingly shut down and there was not even anyone's consent required for this accident. Naturally the ability of a country's economy is more or less proportional to considerable growth in educational institutions, provision of quality education and subsequent employment. As the economy drastically dwindled in the country due to this pandemic, it would certainly affect more on

education as well. At this juncture, the intrusion of various Edtech tools such as Kahoot, Padlet, Edpuzzle and Flipgrid into higher education is worth considering. This paper discusses how these Edtech tools keep learners engaged and entertained online and thus ensure quality education in higher education in India.

LITERATURE REVIEW

Kahoot is a play-based response system. It enhances students' performance and motivation. It enables students to acquire cooperative winning philosophy. (Bicen & Kocakoyun[4], 2017). Kahoot eliminates the need for handheld clickers. Teachers can create online quizzes or surveys on the big screen of Kahoot. (Cutri & Marim[6], 2016).

Kahoot is an online quiz platform that comprises an instant feedback system for the teachers to create a fun competitive-gaming environment. (Kuo [10], 2018).

Kahoot will help teachers focus on the progress of each student in terms of their learning goals, recognizing strengths



and weaknesses and identifying areas where students benefit from more than one teaching. (Masruroh[11], 2019).

Kahoot has the best feature of engaging students in free learning platform-based games. Learning through Kahoot becomes very fun and it also turns a boring lesson into an exciting one. (Putri [17], 2019).

Padlet is an online multimedia-friendly notice board, used by students to post notes on a common page and by teachers to encourage real-time participation and assessment. (Fuchs [8], 2014).

Padlet helps improve academic writing and equips students with writing skills which help them to cope with academic demands. (Awaludin & Karim [3], 2017).

Padlet gives the ability to view a variety of responses with many opportunities for peer learning and self-assessment, as students can immediately access a spectrum of responses from their classmates. It also improves the teacher student relationship. It increases motivation and self-esteem and provides teachers with an alternative mode of communicating with students beyond the classroom. (Rashid [18], 2015).

The most amazing feature of Padlet is that users need not register beforehand. They can directly access this site and create a wall to immediately start posting. Padlet is considered a good online tool for real-time collaboration in a virtual environment. (Algraini [7], 2014) Padlet is a great place for gathering ideas, sharing them, and modifying them later. It offers a good venue for students to share their thoughts on one common page. Users can highlight their favourite quotes, ask questions and discuss characters and the like. This is a great wall for teaching students how to write their opinions and pieces of persuasive essays. This is the platform where students can access "questions" board 24/7 and post questions and the teacher can read and answer the questions each day (S.Sangeetha [19], 2016).

Edpuzzle has an easy user interface and a video platform, with an aim to help teachers to enhance the engagement of students and foster their learning through video lessons (Tabassum [2], 2020).

EdPuzzle helps teachers make video lessons in the classroom. Importing any video from the available sources is its best feature. Users can easily upload their videos to YouTube and then import them into EdPuzzle (Polovin [16], 2019).

Edpuzzle creates a hospitable environment for students to foster their self-regulated learning skills(Silverajah & Govindaraj [9], 2018).

Edpuzzle is an exceptional tool to introduce collaboration and participation, engaging students in the process. Teachers can see how much a student watched the video and how many did not watch. Teachers can gather the responses from their students (Norman [14], 2017). The best feature of Edpuzzle is the ability to embed questions either open-ended or multiple-choice in the video. Teachers can keep their students engaged and entertained while they are watching

video lessons(Michael Brand [12], 2015).

Flipgrid, a free video discussion tool, increases students' perceptions in the online classroom. Video discussion forums embedded in an online course, used in many ways to connect instructors to students, and students to their peers.(Bartlett [13], 2018).

Flipgrid has several uses and college students have positive perceptions of the video response platform. Thus, professionals teaching in Kinesiology demonstrate use of technology, such as Flipgrid to prepare future professionals.(Taylor, Carrie; Shawver, Sandy; Miller, Stacia [20], 2019).

By using Flipgrid, students can record their video by using their web or phone camera and once they finish recording, the video will appear on the website after it gets the approval from the instructors. (Nadjwa Miskam, Aminabibi, Saidalvi [15] , 2019).

Flipgrid is a video discussion platform in which the instructor creates a grid in discussion boards. The instructor can specify what topic students need to discuss and how long the video lasts.(Agan, Tia; Anderson, Dara; Atwood, Ashley; Casarez, Lesley; Heron, Audrey [1], 2019). Flipgrid is utilized for course introductions, group discussions, content review. Course introductions are interactive and provide connections between the students and their teacher. (Carrie Taylor, Timothy Hinchman [5], 2020).

ANALYSIS

The uninvited intrusion of COVID-19 into the world and especially the world of education badly affected the very teaching and learning process in higher education in India. With the sudden closure of educational institutions, the realm of teaching and learning was pressured into thinking of alternatives to traditional teaching and learning which teachers and learners mostly got used to. Teachers who got used to traditional teaching found it a bit difficult to cope with this accident. When the teachers and learners were flabbergasted by the unexpected occurrence of the closure of educational institutions due to COVID-19 pandemic, the intervention of various edtech tools such as Kahoot, Padlet, Edpuzzle, Flipgrid and Socrative into the world of education ensured the provision of quality education. Therefore the edtech tools function not only to keep students engaged and entertained online, but also to make sure that the learners are provided with quality education without missing the very purpose of it.

In higher education in India, these edtech tools simply came to the rescue of teachers and learners during this crisis-hit situation. Though there have been a myriad of edtech tools

available on market even prior to the pandemic, this pandemic furthered the opportunities of exploring them big time.



KAHOOT ; A KEY DESIDERATUM FOR QUALITY EDUCATION

During pandemic, majorly Kahoot, the biggest norwegian tech application in the US, has gained prominence with around 3 billion users across the globe, over 100 million quizzes related to several areas of knowledge, all prepared by users of it. These statistics ensure the users' reliability. Thus this Edtech tool stands out from all the rest of edtech tools in terms of its reliability and affordability. The process of gamifying activities in the form of quizzes (such as multiple choice, true or false, open-ended questions and even images) and its ability to engage learners even outside the classroom are the bells and whistles of Kahoot. Kahoot helps learners to compete with their fellow learners with utmost speed and accuracy. It enables learners to gauge where they are, what they are behind with and what they need to improve on in their area of knowledge or discipline. It is also known for giving instant feedback to the learners about their performance with utmost accuracy.

Kahoot offers basic and paid versions and even its paid version is cheaper than almost any other Edtech tool available. It is easily understood and optimized by teachers and learners and its mobile compatibility is its added advantage. Of course it runs on a computer desktop as well. It can be utilized both in schools and higher education. One user of Kahoot can share his/ her prepared quizzes with other Kahoot users with utmost privacy management and it encourages collaborative learning. Kahoot is committed to supporting educators in facilitating distance and online learning during this pandemic. It also helped educators engage their students through self-paced games or host Kahoot through video conferencing. This way during the pandemic, Kahoot served the purpose for the provision of quality education.

PADLET FOR THE PROVISION OF QUALITY EDUCATION

Padlet is an online edtech tool, best considered a notice board which helps both teachers and students to write anything on it. It gives both collaborative learning and genuine feedback. As it consists of many features like links,images,videos,snaps, voice recording,drawing on screen and even uploading files, many teachers and learners mostly depended on it during this pandemic. The best advantage of Padlet is to display the whole content on one bulletin board. It helps all

other participants gain knowledge of a particular area and they themselves can get others'. It helps all the users or participants to give their fellow participants comments and get theirs in return. This way,the instant feedback of one's peers and teachers would help one develop learning. Padlet is used in over 250 countries across the globe which strengthens its reliability and accountability. Padlet is also affordable and comparatively cheaper than many other edtech tools.

Padlet is available in a couple of versions; basic and paid. Basic version gives just 4 notice boards or bookmarks with all features. It provides notice boards with different background themes that attract the learners. We can invite other participants to join our Padlet with the URL link or QR code scan. In Padlet, videos can be taken from YouTube and given on the screen as material or assignment for the learners. Padlet doesn't contain ready-made material, but it provides with the help of its connectivity with google which contains images,videos, GIFS,Audios and Web as well. A user can choose any of the above-mentioned for their teaching and learning. Padlet is a user-friendly mobile and desktop application which works under utmost privacy. Assignments on Padlet can be given using images taken by camera,URL, videos,voice,drawing and such like. As Padlet consists of all these key features, it could assure learners in higher education of quality education.

EDPUZZLE; MAKE ANY VIDEO YOUR LESSON

Edpuzzle is an assessment-based edtech tool that helps teachers and students to get involved in interactive and collaborative learning. It helps teachers and students to make video lessons for learning by giving either open-ended or multiple choice questions. It mainly has a number of websites,YouTube videos,TED talks of inspiration, National geographic videos and many such to enhance students' learning. Edpuzzle allows the users to pick either already embedded videos from its content or to choose a video from other resources and prepare questions during the video. Thus the learners can develop their understanding of that particular video by answering the questions that appear while watching that video. Edpuzzle videos assess students better than any other tool,as it's particularly made for video assessment. The users can also embed the prepared video on their LMS(Learning Management System) and can share their videos with their colleagues as well. The same video can be assessed on Google classroom or by any other such means by copying the link of that video.

The best thing in Edpuzzle is its content that gives both the teachers and learners a lot of scope to explore learning. While making a video on Edpuzzle, the users can cut the unnecessary part of the video, give their voiceover wherever necessary and also add relevant questions to it. Any video taken from the other sources and kept ready for use is available in 'My Content' of Edpuzzle. This way any video can be edited, duplicated or assigned as per the need of the user. Edpuzzle can be created just using an email id with both mobile and desktop compatibility.

Edpuzzle offers certifications to both teachers and students. Teachers can make use of them at their own pace and get certified in topics like project-based learning,gamification,tech integration and in personality development as well. Teachers can also educate their students



on topics like emotional intelligence, building character, health and the like. This way the teachers can copy the course modules available in certifications and transform them to their students' needs. Edpuzzle analytics helps the teachers and learners get the proof of completion of their course. Thus using Edpuzzle, one can make one's video lessons thoroughly and keep their students fully engaged and entertained in learning any area of knowledge required. Thus Edpuzzle reinforces accountability, engages students and saves time. This way Edpuzzle holds a fascination for many learners and assures them of quality education in their higher education especially during this pandemic.

FLIPGRID; EMPOWER YOUR VOICE

Flipgrid is a website or an application that allows teachers to create 'grids' to encourage video discussions. Each grid is like a message board where teachers can pose questions in the name of topics and the students can post video responses that appear in a grid display. Grids can be shared with Google Classroom or any other group of users interested in learning. Each grid can hold an unlimited number of topics and each topic can hold an unlimited number of responses. Topics can be text-based or a resource such as an image, video or an attachment. Flipgrid is secure and helps protect student's privacy. Students can respond using Flipgrid app or its website with any camera-enabled device. Responses can be 15 seconds to 10 minutes, and a maximum recording

time can be set. Teachers can also allow students to record replies to classmates' responses. It provides a variety of moderation features that teachers can turn on and off according to the topic.

Flipgrid allows teachers to give prompts to the topic with closed captions in more than 10 national and international languages. To give prompts, teachers can use media resources like YouTube video links, images, emojis, Kahoot, Google, Microsoft, Newsela, Adobe Spark, Nearpod, Wonderopolis, Wakelet and Buncee. In Flipgrid teachers can upload or record a video as a prompt as well. Topic moderation helps teachers to hide comments and new videos from their students and can show them as well whenever they want. Flipgrid has a couple of access control options; Private and Public. In private, students cannot get to know each other's responses, while Public allows everyone to respond to the other. Flipgrid is used for self-introductions, Group Discussions, responses to the videos, Listening and speaking activities, Just A Minute sessions, Mock interviews and the like. Thus it ensures the very quality education for the learners in higher education.

CONCLUSION

COVID-19 pandemic, as discussed above, just broadened opportunities to explore many new possibilities for teaching and learning online very effectively and efficiently. The intervention of edtech tools like Kahoot, Padlet, Edpuzzle and Flipgrid made

teaching and learning more interactive and collaborative and thus ensured quality education. The reliability, accountability and affordability of these edtech tools made teacher's job easier than ever before. Kahoot and Padlet are affordable and peerless to each other, whereas Edpuzzle and Flipgrid are used fully cost-free. Though these tools have been used even before COVID-19 pandemic, this pandemic helped more teachers and learners optimize these edtech tools and also helped teachers engage students even outside the classroom as well. This way, these edtech tools turned up as the desiderata for quality education in higher educational institutions.

REFERENCES

1. Agan, Tia; Anderson, Dara; Atwood, Ashley; Casarez, Lesley; Heron, Audrey; FlipGrid to Enhance Communication in Distance Education (2019) et al. *Delta Kappa Gamma Bulletin; Austin Vol. 85, Iss. 4, : 35-37.*
2. Asiya Tabassum (2020). *Experimental Research on Using Flipped Classroom Approach in Writing Classroom Using Edpuzzle. International Journal of English: Literature, Language & Skills. Volume 9 Issue 2. ISSN 2278-0742.*
3. Awaludin, Karim & Mohd Saad. (2017). *PADLET: A DIGITAL COLLABORATIVE TOOL FOR ACADEMIC WRITING. Journal of Education and Social Sciences, Vol. 8, Issue 1, (October). ISSN 2289-1552*
4. Bicen, H. & Kocakoyun, S. (2017). *Determination of university students' most preferred mobile application for gamification. World Journal on Educational Technology: Current Issues. 9(1), 18-23.*
5. Carrie Taylor, Timothy Hinchman, (2020), *Strategies for Using Flipgrid in the Education, US-China Education Review B, January 2020, Vol. 10, No. 1, 26-31*
6. Cutri P.E. & Marim (2016). *Kahoot, A New and Cheap Way to Get Classroom-Response Instead of Using Clickers. American Society for Engineering Education: 123rd Annual Conference & Exposition. New Orleans, LA. June 26-29, 2016.*
7. Farah Algraini. (2014). *The Effect of Using Padlet on Enhancing EFL Writing Performance Riyadh -Saudi Arabia. Arab World English Journal. ISSN: 2229-9327*
8. Fuchs, Beth, "The Writing is on the Wall: Using Padlet for Whole-Class Engagement" (2014). *Library Faculty and Staff Publications. Number 4. 240.*
9. Gita Silverajah & Anandraj Govindaraj (2018). *The use of Edpuzzle to support low-achiever's development of self-regulated learning and their learning of chemistry. 10th International Conference on Education Technology and Computers. Association for Computing Machinery. Pg. No.259-263.*
10. Kuo CL, Chuang YH. [Kahoot: Applications and Effects in Education]. *Hu Li Za Zhi. 2018 Dec;65(6):13-19. Chinese. doi: 10.6224/JN.201812_65(6).03. PMID: 30488408.*
11. Masruroh. (2019). *TEACHING COMPLEX ENGLISH GRAMMAR BY USING KAHOOT APPS. Universitas Islam Darul 'Ulum Lamongane-ISSN: 2579-8960 p-ISSN: 2460-2167 Volume 4, No.2,*
12. Michael Brand (2015). *Edpuzzle: getting the most out of video in education, <https://eltlearningjourneys.com/2015/05/27/edpuzzle->*



getting-the-most-out-of-video-in-
education/#:~:text=What's%20EDpuzzle%3F&text=Indeed%2C
%20EDpuzzle%20allows%20teachers%2
Oto,at%20all%3A%20useful%20actionable%20data

13. Michelle Bartlett(2018),Using Flipgrid to Increase Students' Connectedness in an Online Class, Association for Computing Machinery, New York, NY, United States, eLearn, Article No.: 9,Volume 2018, Issue 12, <https://doi.org/10.1145/3302261.3236703>.
14. Norman Eng(2017). 5 Tech Tools Every Professor Should Use Now.City University of New York (CUNY) CUNY Academic Works.
15. Nuraqilah Nadjwa Miskam, Aminabibi, Saidalvi (2019), The Use of Flipgrid for Teaching Oral Presentation Skills to Engineering Students, Blue Eyes Intelligence Engineering Retrieval Number: A10880581C219 & Sciences Publication, ISSN: 2277-3878,Volume-8, Issue- 1C2.
16. Polovin S. M(2019). EdPuzzle is a powerful tool for a flipped classroom. <http://ea.donntu.edu.ua:8080/jspui/handle/123456789/31582>.
17. Putri NS. (2019). Kahoot Application in English Language Teaching (ELT) Context: An Alternative Learning Strategy. ELSYA: Journal of English Language Studies. Vol. 1, No. 1, February 2019, pp. 11-15
18. Rashid. (2015). Using Padlet for Collaborative Writing among ESL Learners. CE Vol. 10. No.3.
19. Sangeetha. (2016). Edmodo and Padlet as a collaborative online tool in Enriching Writing Skills in Language Learning and Teaching. I S S N 2454-5511IBI FACTOR: 2.9. Global English-Oriented Research Journal (G E O R J). Vol.1 Issue 4
20. Taylor, Carrie; Shawver, Sandy; Miller, Stacia (2019), Flipgrid Technology: Engaging Students in Kinesiology Higher Education, Journal of Exercise Physiology Online , Vol. 22 Issue 6, p19-19. 1p.