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# Edpuzzle: A Dynamic Tool for Pedagogical Practice

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## Abstract

*Traditional in-person teaching and printed materials in education has replaced with technology-enhanced learning. Internet and different digital tools are started incorporating in education setting and particularly after the COVID-19 pandemic, online resources, digital platforms become essential components of modern pedagogic practices. NEP 2020 promotes this transition to foster student inclusivity, engagement and learning outcomes, by providing support to technology-enabled education and encouraging the use of virtual labs, digital materials, blended learning approaches and interactive platforms. Edpuzzle is a digital educational platform that allows teachers to make a video an interactive lesson by embedding quizzes, questions and notes while tracking responses and progress to make learning engaging and active. This paper explores the advantages of incorporating Edpuzzle as pedagogical tool in the classrooms; it also explores the challenges regarding the integration of Edpuzzle in classroom. For the present study, the investigator employed an exploratory approach to gather information or data from the existing research. To locate relevant articles, scholarly reports and conference papers the investigator has used academic databases such as Scopus, ERIC, Google Scholar and JSTOR etc. Findings indicate that while Edpuzzle supports active learning, critical thinking, and improved student performance, its adoption is hindered by issues such as limited access to technology and internet connectivity, time-intensive content preparation, the learning curve for teachers, and potential student resistance. The study further suggests measures to overcome these barriers in the discussion part.*

***Keywords:*** *Edpuzzle, Pedagogical Practice, Technology-Enhanced, Digital platforms.*

## Introduction

In recent years a significant transformation has been seen in educational landscape largely due to technological advancements and the massive disruptions caused by the COVID-19 epidemic. During the time of pandemic all educational institutions around the world had to make the shift to online mode of teaching-learning. The conventional modes of teaching were replaced and complemented by digital alternatives (**Tadesse & Muluye, 2020**). This worldwide transition highlighted the shortcomings of traditional way of teaching as well as emphasized the critical need for flexible, adaptive and pupil-centered paradigm in educational sector (**Alam et al., 2022**). Consequently, digital education emerged as a crucial aspect of the contemporary educational experience rather than an optional aid.

After the pandemic, the importance of digital tools has increased dramatically. The educational institution and educators have started acknowledging the potentialities of educational technologies to facilitate accessibility

enhance pedagogical efficiency and improve personalized education (**Joshi, 2026**). In this shift, different digital applications and platforms have played important role as they enabled educational institutions to keep instructional continuity, observe learning outcomes and reinforces student motivation and participation remotely. To address the changing needs of both teachers and students, tools such as Google Classroom, Kahoot, Zoom, Edpuzzle, Nearpod etc have incorporated in pedagogical practices. These tools have enriched the teaching-learning process in a novel and innovative way that not only includes delivery of contents but at the same time collaboration, active engagement, interactive participation of students, formative evaluation and providing feedbacks also. The **National Education Policy (NEP) 2020** of India has strongly emphasized on incorporating digital platforms in Indian educational settings. To ensure the accessibility, equity and readiness for future, **NEP 2020** advocates the utilization and production of virtual labs, high-quality digital content, online assessment tools and e-learning platforms (**K-12 School Education, 2020**).

Edpuzzle is one of these platforms that have drawn a lot of attention in higher education sector for its unique feature of turning passive video consumption into an engaging and active learning experience. It facilitates a more student-centered approach to education that enables teachers to track student progress, provide real time feedback and tailor instruction based on performance etc. Edpuzzle promotes competency-based education and inclusivity in teaching-learning process by allowing learners to learn at their own pace, providing immediate feedbacks and revisiting contents again as needed.

The primary characteristics of Edpuzzle include:

i. **Interactive video integration:** Edpuzzle turns traditional video contents into an engaging educational tool. Teachers can incorporate numerous interactive elements directly into the video timeline such as Open-ended questions, Multiple-choice questions, comments and voice notes. These features promote active engagement as it restricts students from just consume content passively and prompted them to respond while watching that enhances their critical thinking.

ii. **Access to the Multiple Video Sources:** Various content providers can be merged with Edpuzzle. YouTube, National Geographic, Khan Academy, TED-Ed and other educational resources can be utilized by the teacher. In addition, teacher can modify existing videos or can upload their own. This helps in customizing lessons as per the specific learning objectives that ensures flexibility in content selection.

iii. **Skipping Prevention:** Edpuzzle offers a "prevent skipping" feature that ensures students watch whole video content without skipping forward. When teacher will enable this setting, students have to watch each part of the video and will be unable to move forward. This encourages accountability and active engagement with the material as intended.

iv. **Real-Time feedback:** Edpuzzle has feature to provide detailed analytics of students. Teacher can receive real time data about the engagement of students such as the time spent watching, number of replays, performance on embedded questions and video completion status. Such observation assists teachers to provide support to the students according to their needs and tailor their teaching accordingly.

v. **Self-Paced and Flexible learning:** Edpuzzle promotes asynchronous learning that allows students to go through videos at their own pace. For better comprehension of contents, students can pause, rewind and rewatch videos.

The purpose of this paper is to offer a comprehensive review analysis about the educational uses of Edpuzzle in higher education and challenges faces by teachers, students and educational institution regarding it. Based on variety of existing studies, the paper explores how Edpuzzle promotes active learning and differentiated learning, improves formative assessment procedure and make learning more engaging and interesting. The barriers to its

adoption and sustainability in diverse educational context are also critically analyzed. The insights offered in this paper are intended to guide teachers, policy makers and instructional designers to make a well-informed decision about integrating Edpuzzle as a significant part of digitally enriched higher education.

## Rationale of the Study

Educational landscape has changed after the rapid integration of technology in educational system. It transformed conventional teaching-learning process into more flexible, interactive and learner-centred. Nowadays, use of digital tools and platforms have become prominent to enhance teaching-learning experiences and for education to continue outside of the classroom. Edpuzzle is one of these educational platforms that stand out as an innovative tool. It assists teachers to create an interactive lesson with embedded questions, audio notes, quizzes, while tracking progress of the learners (**Jnaki & Surendran, 2022**). It emerged as a widely adopted tool as it closely aligns with contemporary pedagogical approach that promotes self-regulated learning, interactive learning, formative assessment and on-going feedbacks.

Edpuzzle has become one of the crucial tools in bridging the gap between virtual and face-to-face learning as education system around the world has started adopting flipped and blended learning models increasingly in contemporary classrooms. Despites numerous potential opportunities of Edpuzzle including self-regulated learning, enhancement of student engagement, improvement of students achievement and performance, increase students motivation and interest, promote active learning and development of critical thinking, the effective and successful integration of Edpuzzle in pedagogic practices may face some issues such as limited access to technology and internet connectivity, time-consuming preparation for teachers, learning curve and teacher training and student resistance and engagement issue. This study is significant since it offers through analysis of pedagogical application of Edpuzzle with underlying its possibilities and opportunities as well as issues related to its successful implementation in pedagogical practice. By providing practical solutions to address these issues the study adds to the academic discourse on technology enabled learning. This study has offered comprehensive evidence-based understanding about Edpuzzle as it is based on existing literatures and other forms secondary data sources that may guide teachers, institutions and policymakers regarding the successful incorporation of Edpuzzle in modern pedagogic practices.

## Objectives of the Study

i. To explore the possibilities and opportunities of Edpuzzle as pedagogical tool of education.
ii. To find out the challenges and solutions of incorporating Edpuzzle in classroom.

## Methodology

For the present study on Edpuzzle, the investigator employed an exploratory approach to gather information or data from the existing knowledge and research. To locate relevant articles, scholarly reports and conference papers the researcher has used academic databases such as Scopus, ERIC, Google Scholar and JSTOR etc.

In this study the main emphasis of the inclusion criteria on studies that specially investigated the integration of Edpuzzle in educational settings, evaluated experiences of student and teacher, addressed pedagogical practices and produced evidence-based findings. The existing research papers on Edpuzzle were reviewed and complied by the researcher that revealed recurring future possibilities and opportunities of Edpuzzle, challenges related to the incorporation of Edpuzzle in pedagogic practices and solutions to that.

## Possibilities and Opportunities of integrating Edpuzzle as pedagogical tool

Possibilities and opportunities of using Edpuzzle as pedagogical tool are-

i. **Self-regulated Learning:**

Edpuzzle helps in developing self-regulated learning skills as it fosters flexible environment for students **(Silverfish & Govindaraj, 2018)**. It enables students to pause, rewind, rewatch a particular part of their content they find challenging to understand. Students can monitor their own progress through embedded question responses, video completion data and have control over the pace of their own learning that make them more reflective, goal-oriented and autonomous.

ii. **Enhancement of Student Engagement:**

Edpuzzle makes teaching-learning an interactive process as it allows teachers to transform passive video into interactive e experience through comments, audio notes and embedded quizzes within videos. The students must respond quickly to those, apply whatever they have learned and reflect on content that constant interaction remain students engaged mentally throughout the lesson. This platform keeps students as active participants through its interactive features and fosters student engagement (**Ramasany et.al., 2022)**

iii. **Improvement of student Achievement and Performance:**

Edpuzzle allows teacher to identify understanding gaps early and provide specific remedies through integrating continuous formative assessments into videos. The feedback process of Edpuzzle improves understanding that leads to better knowledge retention and higher academic achievement and performance. The students will always benefit from individualized support that can have positive influence of their overall achievement level and course grades **(Sachin et.al., 2022)**.

iv. **Increase Student Motivation and Interest:**

Interactive prompts, multimedia resources and immediate feedback within Edpuzzle, kept learners highly motivated throughout the class **(Alvarez et.al., 2021**). Instructional videos become more interesting and relatable if it is linked with real-world application and tailored them as academic goals of students. The relevance motivated students to actively participate and keep their interest in the content.

v. **Active Learning Environment:**

Edpuzzle promotes active learning **(Janaki & Surendran, 2022)**. It encourages learners to engage with lessons through application-based questions, reflection and decision making. Students involved with the material instead of passively absorbing it that increases better long-term retention. These features of Edpuzzle align with the constructivist approach of teaching, wherein students actively create knowledge by their own instead of simply receiving it by others.

vi. **Development of Critical Thinking Skills:**

Critical thinking skill is essential as it enables a person to make informed decision making, enhance problem solving ability and improve self-reflection that helps students to make effective career decisions, to find out innovative solutions to their problems and deeper self-understanding. Edpuzzle helps students in developing critical thinking **(Amaliah, 2020)**. Video with embedded open-ended questions and case-based prompts facilitates higher order thinking skills in students through enabling them to assess analyse and synthesize information.

## Challenges of incorporating Edpuzzle in classroom

Challenges related to Edpuzzle Integration in classroom are as follows:

i. **Limited Access to technology and internet connectivity:**

One of the most prominent challenges of integrating Edpuzzle in classroom is inability of students to access stable internet connectivity and lack of sufficient device, specifically in areas with digital divide issues. Edpuzzle is a web-based platform that requires reliable connectivity and compatible devices for both students and teachers. It makes challenging to guarantee equal participation of all users.

ii. **Time-consuming Preparation for teachers:**

Teacher may find it time consuming to create and customize videos with embedded questions and feedback in Edpuzzle, even though it has useful interactive features. This preparation task load could be challenge for teachers managing multiple subjects or large classes, specifically without institutional assistance or collaborative resource sharing.

iii. **Learning Curve and Teacher Training:**

Teachers with lack of proper knowledge of digital tools may find it difficult in navigating the platform, incorporating it with existing Learning Management Systems (LMS) or creating interactive videos. Full pedagogical potential of Edpuzzle may not be realized without providing appropriate training to teachers.

iv. **Student Resistance and Engagement Issue:**

Some students can view interactive videos as additional work or more effort as compared to the conventional classes that could lower their level of motivation or compliance. Some students may concentrate on giving answers quickly for to complete the assignment rather than getting deeply engaged in the content.

## Discussion

The review indicates that **Edpuzzle** has strong potential to enrich classroom pedagogy by fostering active learning, self-regulation, and student engagement, yet its integration faces interconnected challenges that must be addressed for effective use. A key barrier is limited access to technology and internet connectivity, particularly in under-resourced areas, which restricts both teachers and students from fully utilizing the platform; providing offline access, enhancing institutional infrastructure, and promoting digital inclusion initiatives can help bridge this gap. Even when access is available, time-consuming preparation for teachers remains a concern, as creating interactive videos demands significant effort; collaborative content sharing, the use of pre-designed Edpuzzle templates, and institutional support in lesson design can ease this workload. The learning curve and training needs further influence adoption, as many educators require skill-building to use Edpuzzle effectively, which can be addressed through structured professional development, hands-on workshops, and ongoing technical assistance. Finally, student resistance and engagement issues may arise when new digital approaches are introduced, but these can be mitigated through gradual integration, designing interactive and relevant activities, and clearly communicating the learning benefits. Addressing these challenges in a connected manner, starting from improving access, supporting teachers, building skills, and engaging students will ensure Edpuzzle's pedagogical value is fully realized in higher education classrooms.

## Conclusion

This study highlights that Edpuzzle offers significant pedagogical benefits in higher education by promoting active learning, student engagement, self-regulation, and improved learning outcomes, yet its effectiveness depends on addressing the practical challenges identified. Ensuring equitable access to technology and internet connectivity, reducing the preparation burden on teachers through collaborative and ready-to-use

resources, providing targeted training to overcome the learning curve, and adopting strategies to overcome student resistance are essential steps toward successful integration.

By implementing these measures, institutions can create a supportive environment where Edpuzzle is not only a supplementary tool but an integral part of teaching and learning, ultimately enhancing the quality and inclusivity of higher education.

## References


[1]. Alam, M., Al-Mamun, M., Pramanik, M. N. H., Jahan, I., Khan, M. R., Dishi, T. T., Akter, S. H., Jothi, Y. M., Shanta, T. A., & Hossain, M. J. (2022). Paradigm shifting of education system during COVID-19 pandemic: A qualitative study on education components. Heliyon, 8(12), e11927. https://doi.org/10.1016/j.heliyon.2022.e11927

[2]. Alvarez, J., Del Angel, D., & Martinez, M. (2021). Edpuzzle and Canvas as distance learning tools during the lockdown. Edpuzzle and Canvas as Distance Learning Tools During the Lockdown, 1–6. https://doi.org/10.1109/icev52951.2021.9632628

[3]. Amaliah, A. (2020). IMPLEMENTATION OF EDPUZZLE TO IMPROVE STUDENTS' ANALYTICAL THINKING SKILL IN NARRATIVE TEXT. Prosodi, 14(1), 35–44. https://doi.org/10.21107/prosodi.v14i1.7192

[4]. Janaki, B., & Surendran, K. R. (2022). Effectiveness of Using EDPuzzle – A Study in Velammal College of Engineering & Technology. Journal of Hunan University Natural Sciences, 49(12), 171–178. https://doi.org/10.55463/issn.1674-2974.49.12.17

[5]. Joshi, S. (2026, January 23). The role of technology in education, post pandemic. eLearning Industry. https://elearningindustry.com/the-role-of-technology-in-education-post-pandemic

[6]. K-12 School Education. (2020, October 1). Digital Technologies in Teaching Learning from School to HEIs NEP 2020 Recommendation [Video]. YouTube. https://www.youtube.com/watch?v=LMivjZY9DT4

[7]. Ramasany, V., Noor, N. M., & Zaid, N. M. (2022). Effects of learning using EDPUZZLE interactive video application on students' interest, engagement and achievement in science subjects. Innovative Teaching and Learning Journal, 6(2), 59–72. https://doi.org/10.11113/itlj.v6.111

[8]. Silverajah, V. S. G., & Govindaraj, A. (2018, October 26). The use of Edpuzzle to support low-achiever's development of self-regulated learning and their learning of chemistry. https://doi.org/10.1145/3290511.3290582

[9]. Tadesse, S., & Muluye, W. (2020). The Impact of COVID-19 Pandemic on education system in Developing Countries: A review. Open Journal of Social Sciences, 08(10), 159–170. https://doi.org/10.4236/jss.2020.810011


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