

Unveiling the Impact: Survey-Based Analysis of Teacher Use of Educational Platforms

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ABSTRACT

This study examines the usage, preferences, and difficulties of educational platforms among currently employed instructors. To gain insights, the research surveyed 42 teachers through google form about their use and preferences for various platforms. The finding reveals that Quizizz was found to be the most preferred platform among the 42 teachers surveyed, with 55.5% adopting it because to its exceptional engagement and interactive features. The utilization rates for specialized educational gateways like PBS Learning Media, Hello English, and Kipin School are at 4.8%. Among the teachers polled, 2.4% implemented CK-12 and Meja Kita, while none used edX or Busuu. Remarkably, 59.5% of teachers employed YouTube, Google Classroom, and Canva, suggesting a customized approach to address the unique requirements of their courses. While rural areas stress offline and regional educational resources, urban environments usually use gamified and interactive technologies. The COVID-19 outbreak has accelerated the general adoption of digital tools, causing continuous transformation in mixed learning. Improvements in technical resilience, adaptability, user interfaces, and complex interactive features should define emerging systems of the future. To enhance quality and achieve better results, educational platforms should focus on addressing these specific areas of teaching demands.

Keywords: E-learning platforms, Quizizz, digital resources, instructional challenges, platform suggestions

INTRODUCTION

Emerging technologies are swiftly transforming several sectors, including the field of education. Innovative digital platforms have enhanced the adaptability, personalization, and interactivity of conventional teaching approaches. Cutting-edge mobile applications and learning management systems (LMS) are indispensable in contemporary educational settings.

Recent research demonstrates the immense efficacy of these instructional devices. Chou and Chen (2024) argue that modern e-learning systems enhance student engagement and learning outcomes by offering interactive and modular learning experiences. In addition, Hernandez and Garcia (2024) investigate the integration of adaptive learning technology in classroom teaching, which customizes content to suit the specific requirements of pupils.

Furthermore, Smith and Lee (2024) emphasize that artificial intelligence in educational systems facilitates immediate feedback and personalized learning paths, therefore transforming

conventional teaching methods. Hernandez and Garcia, 2024, also researched the use of adaptive learning technology in classroom instruction, which dynamically changes content based on student needs.

Understanding how these systems are affecting instructional programs becomes critical as they continue to evolve. The following examines recent survey data on teacher usage habits to identify the effects of various instructional tools. This study aims to uncover how teachers use emerging platforms to actively involve students, impart curriculum, and assess learning, therefore exposing the ongoing development of education.

In response to recent efforts aimed at enhancing digital literacy and educational standards, Indonesian schools have embraced digital platforms at an accelerated pace (Khan, 2023). This evolution also fits a worldwide trend emphasizing the need to include technology in education (Johnson & Adams Becker, 2021). The efficiency and acceptance of such systems depend on elements connected to geography, the qualification of teachers, and technological knowledge (Smith et al., 2022).

A recent study by Miller and McLean (2023) has shown that while digital platforms improve the availability of materials and enable interactive learning, their effects vary according to the particular conditions. The efficacy of these platforms is partly determined by the level of digital literacy among teachers and pupils, as well as the technological infrastructure (Lee & Choi, 2024). Adopting the use of educational platforms that vary for the English classroom is needed. Further, free websites offer the most effective tools for teaching English as a foreign language, making them easily accessible to English teachers (Sembiring & Katemba, 2023)

Full awareness of Indonesian teachers using digital tools is absolutely essential; today's education is much influenced by this sector. English teachers have begun to use computer technology to catch students' attention and boost their interest in learning English (Katemba 2022). In this study, the utilisation, benefits, and drawbacks of digital platforms among Indonesian educators are examined. Implementing this set of criteria can help stakeholders understand the dynamics of digital platform usage and improve rollout optimization. Improved technology integration in education can enhance teaching and learning through the acquisition of knowledge (Patel & Reddy, 2023).

The study aims to research how digital platforms are being utilised in the educational sector. This questionnaire seeks to determine the following:

1. Research and organize the most often used internet platforms, tell about main teaching strategies and their effects on learning.
2. Teachers make more use of platforms since they depend on them for evaluation, content dissemination, and communication.
3. Teachers are aware of possible issues such as technology constraints, lack of preparation, and aversion to novelty at the same time they also grasp how such platforms might improve learning.
4. This study therefore explores the trends of usage divergence across educational institutions and geographies to portray how such adoption of digital platforms takes place based on institutional and regional variables.

5. With all these in mind, recommendations in this paper are made to educators, policymakers, and educational technology providers on how to increase and extend their influence and integration through digital platforms for educational purposes.

LITERATURE REVIEW

It holds in itself a very comprehensive review of current research in respect of the use and impact of educational platforms within the teaching profession. "Unveiling the Impact: Survey-Based Analysis of Teacher Use of Educational Platforms", The innovative studies and reviews carried out from 2019 through 2024 give a very firm grounding for understanding educational technology and how it affects teaching strategies.

Evaluating the Efficacy of Educational Technology

Recent studies provide evidence of the use of educational platforms in teaching methods and their beneficial influence on student learning. Using a meta-analysis, Cheung and Slavin (2020) investigated the application of technology in K-12 mathematics education. Their results indicate that many digital platforms have the potential to enhance student achievements, but the specific implementation and environment are crucial factors. This research is crucial for comprehending the impact of Quizizz and other social media platforms on student academic achievement.

Challenges and Perceptions of Teachers

Ertmer and Ottenbreit-Leftwich's study from 2021 looked into how teacher knowledge, confidence, beliefs, and culture affected the adoption of technology. This study highlights the difficulty of incorporating educational platforms into teaching methods and underscores the significance of teacher viewpoints and support in achieving technological success. Based on our poll, Quizizz consumers express satisfaction but encounter technical difficulties.

Adoption and Integration of Technology

In 2022, Davis and Tearle conducted an intensive review regarding the effect that educational technology is having upon academic instruction and learning. Their findings indicate that although many platforms do indeed boast the valuable functionality, their actual application is oftentimes impeded by a lack of technical viability and requirements for very extensive training. This corroborates our survey results that technical difficulties were a significant problem across all platforms.

Motivating tools and involvement

In order to maximize the learning platform in raising student motivation, Keller in 2023 investigated the ARCS paradigm of motivational design. Quizizz is an interesting and participatory tool, hence Keller's ideas help to explain why both teachers and students approach it with great excitement. This research really clarifies the great degree of satisfaction in our line of work.

Trends in Educational Technology State-wide

Furthermore underlined in the new literature are what are current and trending in the field of learning technology right now. For instance, Hirschberg offered a critical analysis of modern e-learning technologies and approaches for 2024. His ending had noted that learning settings

are always changing and that they mostly depend on digital tools to satisfy the needs of various types of students.

Changes in the patterns of social class

Bebell and O'Dwyer's 2019 study looked at how instructional technology affects relationships in the classroom and how well students do in school. In addition to problems that didn't go away, the data showed progress in support and implementation strategies. Further, during the COVID-19 epidemic, online language learning gained popularity for teaching and learning English as a Foreign Language (EFL) (Katemba & Sinuhaji 2021). This review says that our results on sites like Quizizz are quite useful and useful, even though they are limited in their effects because of technical issues and a lack of training.

In conclusion, the literature reviewed explains the use of education platforms and the consequences of this use for the teaching and learning process. Recent studies show how various technologies are proving to be effective, how instructor opinions and support are crucial, and how such tools are challenging to assimilate into classroom approaches. Presenting our survey results inside this framework gives us to acquire a better grasp of the intricacies and dynamics of modern educational platforms.

METHODS

Research Design

This work investigates the impact of educational platforms on teaching methods via analysis of a cross-sectional survey. This methodology enables the collection of quantifiable data on the experiences and perceptions of teachers regarding educational platforms.

Participants

This section provides a comprehensive demographic breakdown of the survey participants. Comprehending the demographic profile is necessary for contextualizing survey results and analysing the various factors that could influence respondents' experiences and opinions about educational platforms. It documents age, gender, education level, teaching experience, and additional factors. These demographic facts will enable us to assess the homogeneity in this sample and how such homogeneity could affect the outcome of this survey.

Although the study aimed for a robust sample size through power analysis, the final sample consisted of 42 respondents. This includes: 5 university lecturers, 17 high school teachers, 5 junior high school teachers, 15 elementary school teachers, Participants from various regions and cities

Data Collection

Survey Instrument

- **Questionnaire Instrument Design:** is a structured questionnaire instrument comprising multiple-choice questions, rating scales, and open-ended questions. The

following would be the main emphasis of data collecting for the survey: Classification and use of learning environments, The efficiency and simplicity of the platforms, Concerning pedagogy and student involvement, Help to go beyond challenges.

- The questionnaire was designed to collect thorough data by includes sections for demographic information such as age, gender, educational background, and professional experience. It also looked at how teachers used computer-based training management systems and interactive technology. The questionnaire sought to assess the influence of these systems on instructional techniques, student engagement, and learning outcomes, as well as to identify the resources needed and the obstacles they pose. To guarantee the questions' clarity and effectiveness, a preliminary validation was performed with a small group of teachers who provided helpful feedback and explanations.

Approach to Data Collection

Data collection in this study is done via an online questionnaire through the use of Google Forms. Potential respondents was asked to answer the questionnaire from August 7th, 2024, until August 13th, 2024. Since the online survey was open for a very short period, no need existed to design follow-up questions. Several teaser questions were given in order to increase participation and improve response rates.

Analysis of data

This study used descriptive data to describe the demographics and usage patterns of the platforms. Besides that, the non-parametric statistics is used in the computation of the data. To validate the accuracy of the content of the instruments, the expert evaluated it and the pilot testing was done to construct validity is established by assessing if they survey accurately measures the intended concepts and was administered to students in the Edtech summer class of 2024. This study considers the research ethic for the of the study and the assurance of confidentiality as essential components in obtaining informed consent. Also, strictly preserve confidentiality by anonymizing and safeguarding responses. Utilise data solely for research purposes. This study is limited to identify biases in self-reporting and sample size distribution, and evaluating the extent to which the results can be applied to other educational settings and geographical areas.

PROFILE OF THE RESPONDENT

1. Demographics Profile

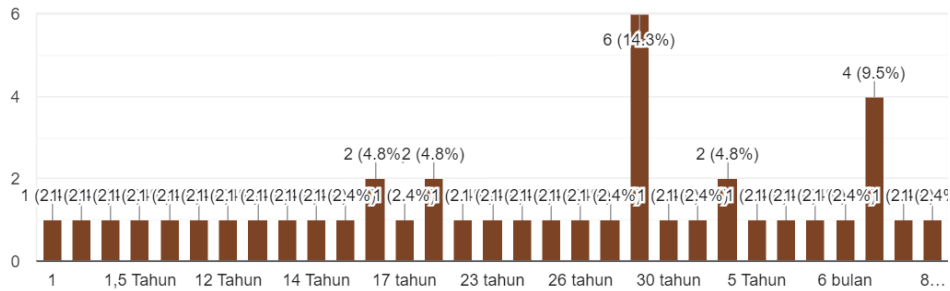
This part gives a detailed look at the demographics of the people who filled out the poll. Demographics were a big part of setting the survey's results and looking at the different things that could affect people's experiences and thoughts about education platforms. The demographic profile has details about the person's age, gender, level of schooling, and teaching experience. This part on demographics will help you understand how diverse the sample is and how that might have affected the survey results.

2. Length of Teaching Service

Berapa lama menjadi guru



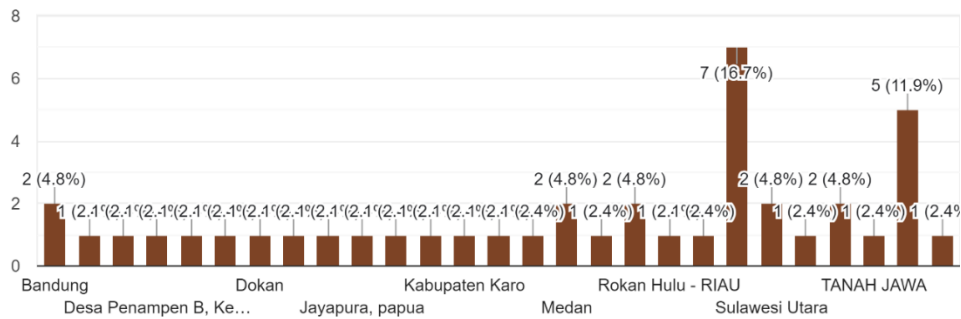
42 responses



3. Teaching Service Location

Daerah Mengajar

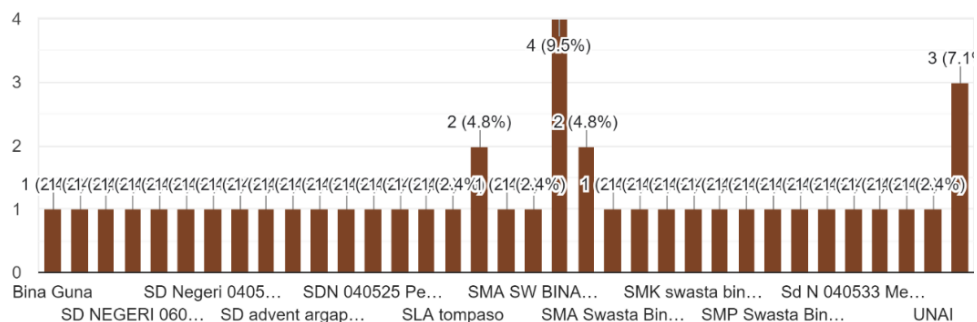
42 responses



4. Name of Institution Where Teaching Takes Place

Nama Sekolah

42 responses



RESULTS

Presented below are the findings of our survey on academic platform usage by teachers currently teaching. The findings reveal the present usage trends, preferences, and challenges associated with different technologies. The presented data illustrates patterns and the utilization

of various platforms in the field of education. At 59.5% usage, Quizizz emerged as the most widely used platform. PBS Learning Media, Hello English, and Kipin School had usage percentages of 4.8%, while the remaining applications accounted for 59.5% of total usage. These findings provide a foundation for identifying platform preferences and guiding prospective enhancements.

What are the most popular instructional platforms among teachers, and how do their utilization rates vary across educational levels: elementary, middle, high school, and higher education?

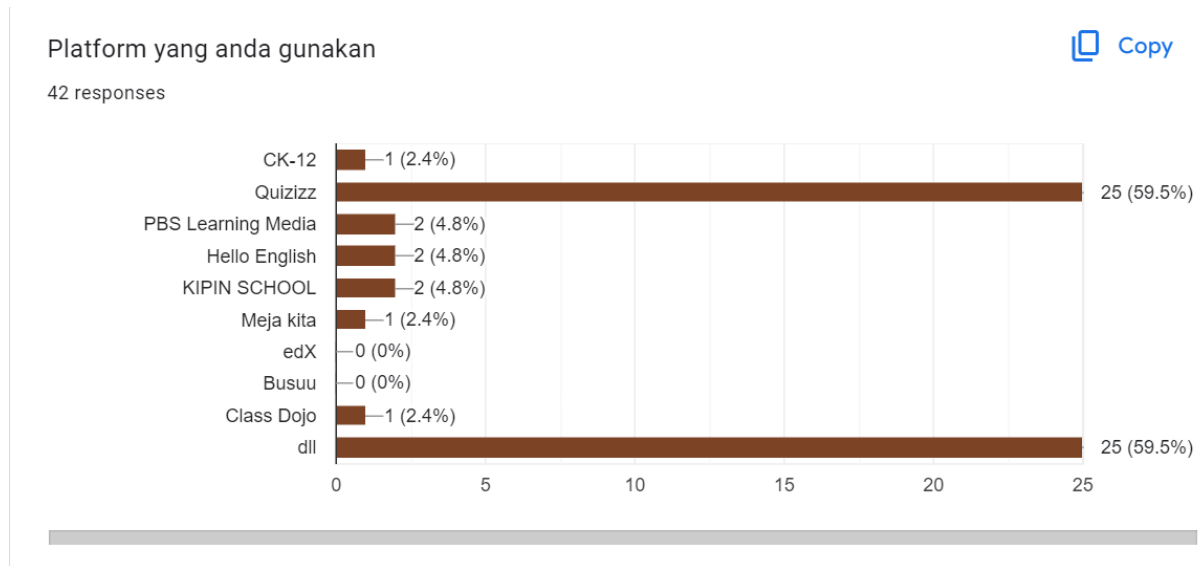


Figure 1: Platforms used by the teachers

Figure 1 depicts many important trends from a survey of 42 educators' use of teaching platforms in the classroom. These trends indicate how many different tools teachers use and how many options are available. Quizizz is utilized by many people, including 59.5% of teachers, making it the most popular learning tool. This large percentage demonstrates the widespread use of Quizizz in educational institutions. Teachers loved the engaging nature of Quizizz's questions, as well as the fact that it provided live resources during assessments and review sessions.

A. Dominance of Quizizz:

Quizizz is utilized by many people, including **59.5%** of teachers, making it the most popular learning tool. This large percentage demonstrates the widespread use of Quizizz in educational institutions. Teachers loved the engaging nature of Quizizz's questions, as well as the fact that it provided live resources during assessments and review sessions.

B. Other Notable Platforms:

Teachers used a variety of other platforms, but utilization was not common. Finally, **4.8%** of people who responded did so through all three channels: **PBS Learning Media, Hello English, and Kipin School**. With the help of Hello English, PBS Learning Media, and Kipin School, these sites have a lot of multimedia resources. They also have

learning tools for language. They didn't have as much fame as Quizizz, but they did have some very useful training materials and tools.

C. Certain platforms may be underutilized:

Small number of respondents or none reported using several platforms. The utilization of **Meja Kita** and **CK-12** by instructors was **2.4%**. The CK-12 platform provides customised educational resources, whereas Meja Kita offers specialised tools. Their influence was somewhat lesser than that of more widely used platforms.

D. Absence of Certain Platforms:

The absence of any reference to **edX** or **Busuu** in our analysis suggests that the teachers involved do not utilise these platforms. Such absence may suggest that these platforms, designed for higher education and language learning, are not fulfilling the requirements of teachers.

E. Diversity of Platforms:

Apart from the three most known platforms, 59.5% of the respondents also used "Etc." This choice pretty obviously shows the great range of equipment and supplies teachers use. The diversity in this answer even further reflects how each teacher uses particular teaching tools and other resources to match their needs in their classes. Each of the three platforms mentioned below listed in 28 responses and had great similarities:

1. **YouTube** - Used for video content and tutorials.
2. **Co-Learn** - A platform offering collaborative learning opportunities.
3. **Laptop** - General use of personal computers for various educational activities.
4. **Scola** - A tool for educational management and resources.
5. **Google Classroom** - Facilitates classroom management and assignment distribution.
6. **PMM (Platform Merdeka Mengajar)** - A platform supporting curriculum and teaching resources.
7. **Ruangguru** - Provides educational videos and tutoring services.
8. **Canva** - Utilized for creating educational materials and visual aids.
9. **Buku Paket** - Access to digital textbooks and learning resources.
10. **University's Web** - Institutional websites offering academic resources.
11. **Padlet** - An interactive tool for creating collaborative boards and discussions.
12. **Kahoot!** - Engages students with quizzes and interactive learning games.
13. **Powtoon** - Used for creating animated videos and presentations.
14. **Wordwall** - Provides interactive activities and games for classroom use.
15. **Liveworksheet** - Allows for interactive worksheets and assessments.
16. **Google Workspace for Education** - A suite of tools for classroom collaboration and management.
17. **Moodle** - An open-source learning platform for managing courses and content.

Furthermore, it showcases teachers' inventive approaches to improving learning across a wide range of platforms. Teachers use a variety of technology to improve the learning process and provide variants to fit different educational needs.

F. Diverse applications usage:

Class Dojo is used by just **2.4%** of teachers, hence it is among the least used tools for controlling class behavior and communication. Since Class Dojo emphasizes motivating excellent behavior and strong communication between teachers and students and parents, it gives a different component to the pool of classroom tools.

Although a quite large proportion of the faculty members use different platforms to fit their individual teaching needs, these numbers reflect the reality that most of them choose Quizizz. One example of the rich educational technology terrain where teachers employ many platforms depending on requirements and preferences is other less-used platforms and a spectrum of diverse tools. Many of the most often used platforms have limited utilization, which indicates that they might be investigated and embraced to satisfy evolving demands for teachers.

DISCUSSION

Based on the data gathered from the teachers, we can focus on several significant areas for discussion. The comments indicate relevant trends and patterns in educational platform utilization, offering light on educators' preferences as well as obstacles. Examining these findings can help us better understand how different technologies affect teaching approaches, student engagement, and overall learning outcomes. Let us take insights from the point of view from the following:

1. Trends Observed

The use patterns of educational platforms by current teachers are investigated in this part. Based on survey data analysis, we try to spot important trends and changes concerning the integration of these platforms into educational approaches. Our analysis revealed significant patterns in the adoption, utilization, and preferences of educator platforms. Furthermore, we address challenges in educational technology and explore potential future paths. Educational professionals, policymakers, and platform developers must comprehend these trends to enhance the use and effectiveness of classroom technology.

2. Platform Preferences Among Specific Demographics

Specific educational platforms in Indonesia are favoured by certain demographics because of their suitable user requirements and the availability of resources.

➤ Metropolitan vs. Rural Preferences:

- *Urban Areas:* Urban areas offer optimal internet connectivity and convenient access to cutting-edge technology, making Quizizz and edX the preferred choices. Quizizz appeals to younger students at technologically advanced places of employment through game-based learning, while edX appeals to older students and professionals in need of advanced courses and academic credentials.

- *Rural Areas:* Kipin School and Meja Kita enjoy more popularity in rural areas. The offline access provided by Kipin School is suitable for regions with limited internet availability, whilst Meja Kita's peer collaboration platforms are beneficial for community-based learning.
- Age and Grade-Level Preferences:
 - **Primary Education:** The behavior management and straightforward communication capabilities of ClassDojo make it highly attractive to both primary school instructors and parents. The user interface of the platform is designed to engage and inspire younger children.
 - **Secondary Education:** CK-12 and PBS Learning Media are widely used in science and mathematics classrooms. Instructors at higher grade levels have the option to utilize CK-12's customizable FlexBooks, while PBS Learning Media offers a variety of multimedia resources that align with secondary teaching standards.
 - **Higher Education:** University students and adult learners predominantly utilize edX and Busuu platforms. edX offers advanced courses from prestigious universities, whereas Busuu is renowned for comprehensive language education, particularly catering to international students.
- Language and Cultural Preferences:
 - For non-native English speakers in Indonesia, particularly in areas where English is taught, Hello English is the preferred choice. The cultural neutrality of its content and the organized teaching methods make it highly accessible to a wide audience.
 - Kipin School is highly suitable for educators and learners seeking resources aligned with national educational standards due to its specialized content tailored to the Indonesian curriculum.

3. Evolution of E-Platform Utilisation

Technological advancements, evolving educational requirements, and global events have transformed the use of Indonesian educational platforms:

➤ COVID-19 Induced Growth:

Within Indonesia, the COVID-19 epidemic accelerated the implementation of e-platforms across all educational levels. Online learning platforms Google Classroom and Zoom have become essential tools for remote learning. Both educators and learners rapidly acquired proficiency in digital tools, hence increasing the popularity of e-learning.

The post-pandemic utilization of Quizizz and Kipin School indicates a sustained transition towards blended learning methods, in which digital resources complement traditional classroom instruction.

➤ Heightened Focus on Interactive Technologies:

- In recent years, interactive and gamified learning tools have become increasingly popular. Quiz and Kahoot! Now gaining popularity as educators strive to enhance the engagement of online learning. These platforms are widely used in urban schools with technologically adept students.
- Expanding offline accessibility and market demand for localized content:

Due to restricted internet capacity in certain regions of Indonesia, there has been an increase in the need for offline platforms. With capabilities enabling students to download materials and engage in offline study, KIPIN SCHOOL and MejaKita ensure uninterrupted education even in situations of limited connectivity.

The popularity of portals such as KIPIN SCHOOL for localized information can be attributed to its alignment with the Indonesian curriculum. This indicates an increasing recognition of culturally appropriate and applicable teaching materials

- Adoption of Lifelong Learning Platform:

Adult learners and professionals in Indonesia are progressively adopting edX and Busuu as platforms for continuous education throughout their lives. The current trend underscores the need for continuous education and skill development, particularly in a very competitive job market.

With Indonesia's integration into the global economy, the importance of English proficiency increases, leading to the proliferation of Busuu as a widely used language learning application.

4. Impact Study: Upcoming Platforms for Education

The found patterns lead to the following consequences for next learning environments:

- To meet the various needs of rural and urban consumers, it is critical to provide both modern technology solutions and offline access. Gamification and interactive components are critical for effectively retaining student attention throughout online and hybrid learning sessions. Furthermore, providing culturally relevant content that is aligned with national curriculum might improve the success and adoption of educational platforms in many countries. Furthermore, platforms that provide advanced courses and language learning tools designed specifically for adults can better address the growing demand for lifetime learning.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The data obtained from surveys and qualitative responses from educators who use CK-12, Quizizz, PBS Learning Media, Hello English, KIPIN SCHOOL, MejaKita, edX, Busuu, and ClassDojo offer valuable insights into digital educational technology. Furthermore, these platforms are enhancing the process of teaching and learning, particularly in varied and distant environments.

Key findings include:

1. The platforms are highly regarded by educators for their ability to enhance and facilitate their teaching, particularly through the inclusion of interactive elements, high-quality material, and user-friendly interfaces.
2. Game-like interfaces, quizzes, and real-time feedback are widely regarded as effective means of creating motivation and fostering interaction among students.
3. Flexibility and Customization: Although certain platforms still require enhancement in this aspect, it is noteworthy that information may be modified to suit the diverse requirements and preferences of learners, and that teaching strategies can be adapted to meet these differences.
4. Typical criticisms include technological issues, outdated or nonlocalized material, and the need to develop simpler-to-use user interfaces. In this sense, more development of integrated interactive tools and thorough progress monitoring is crucial.

Notwithstanding these difficulties, these tools have been helpful; many teachers nowadays see their importance in online and hybrid learning contexts.

Recommendations for Next Learning Systems

Examination of the numerous results on our survey on the educational platform did reveal several areas of improvement. The section that follows offers practical suggestions on how teachers could support platform usability and hence enable teaching and learning strategies. These subjects should be given top priority in order to satisfy continually shifting expectations of in-service instructors and raise the appeal and efficiency of learning environments. Using the suggestions below will help educational platforms to be developed and upgraded.

1. Boost Dependability and Technological Consistency:

The creators of the platform have to concentrate on its technological development for stability, responsiveness, and constant managing of significant traffic volume. Apart from that, upgrading is also quite often required with quick resolution to prevent loss of customer faith and satisfaction.

2. Increase Personalization:

Future academic settings also demand that the teacher have the tools necessary to customize the resources and interfaces depending on their teaching approach and particular demands of the students. Change educational strategies, create unique learning paths and personalize platform architecture.

3. Content Diversity and Localization:

This should thus incorporate localized knowledge in numerous languages and cultures, so enhancing the capacity of such a website to assist practically everyone, anywhere in the globe. This coverage will be expanded inside the content domain, with increased focus on the humanities and arts, therefore rendering the platforms flexible and inclusive. Broadening the range of material, particularly in the fields of arts and humanities, would enhance the adaptability and inclusivity of platforms.

4. Offer Comprehensive Training and Support:

The effectiveness of educational platforms is maximized when teachers are provided with training and ongoing support. Online tutorials, interactive seminars, and on-demand customer care will let the teachers make best use of the tools.

5. Tracking developments and analytical reporting:

Teachers desire thorough tools to monitor student development and point up areas in which they want assistance. Comprehensive analytics including for reporting on student involvement, attainment, and learning paths should be part of every future platform.

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