

Exploring ePathshala Usage and Implementation Challenges in Delhi Schools: An Empirical Study

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Abstract

Under the digital India campaign, ePathshala was launched. It was the joint initiative of Ministry of Education (MoE) and National Council of Education Research and Training (NCERT). This paper is focused mainly upon the usage and implementation challenges faced by school teachers of Delhi NCR region. A mixed method research design has been employed. The data was collected through structured questionnaire. The quantitative data suggests the utilization patterns and qualitative data helps in exploring the challenges faced by teachers during the teaching process. ePathshala is an effective educational platform used to assimilate digital content in classroom. It was immensely flourished during COVID-19 pandemic. The findings suggest that teachers use ePathshala resources in their classrooms and integrate into their teaching. But there are certain difficulties that they face while using it. The challenges are related with the internet connectivity, proper training and course content/resource availability. The study concludes by suggesting different ways for the stakeholders to maximize usage potential and to bridge digital divide gap in Indian education system through digital interventions.

Keywords: Digital Indian Campaign, Digital content, Educational Platform, Digital Divide

Introduction

The ePathshala platform was launched in 2015 under digital India campaign by Ministry of Education and the National Council of Educational Research and Training (NCERT). It includes learning resources, audio-visual material, digital books and many other open educational materials. The educational resources available on this portal are user friendly and accessible. During COVID-19, the software has evolved into a fantastic alternative to online learning. Students, teachers and parents can use the technology, it is accessible through tablets, smartphones, laptops, and PCs. In addition, for improving students' critical thinking the instruction and implementation of these multimedia resources are transparent and unbiased. It encourages students to collaborate in groups or pairs to encourage peer learning. To implement the flipped classroom approach, the instructor divides the class into groups and present them a digital content followed by group discussions. Flipped classroom strategy could also be incorporated. A technologically feasible education system that ensures all students receive high-quality, inclusive, and fair instruction. It tries to remove rural-urban divide and socioeconomic or geographical constraints. Making sure that everyone has access to top-notch educational materials.

This application's most significant and adaptable feature is that it can be accessed via web, an Android mobile device, or even an Apple iOS device, which allows it to expand its functionality and reach. The most notable aspect of this is the multilingual help; the materials are available to students in multiple languages. It encourages participation and diversity. Availability of resources such as learning modules, textbooks, and

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teaching related materials makes ePathshala a dynamic source. Since the national education policy 2020 primarily discusses the digitalization of the content available on websites, the ePathshala website and mobile application support the groundwork for digital learning. Scope of life-long learning is provided to the parents as well.

An inventive digital platform called ePathshala was created to improve the educational experience for parents, educators, and students. It offers a variety of curriculum-aligned resources, such as e-books and interactive multimedia. By giving parents access to educational resources, enabling them to monitor their child's progress, and facilitate a contact between their children and teachers. Parents can take an active role in their child's education with the help of ePathshala. NCERT textbooks are available, and anyone can use the ePathshala app or website to learn at their own pace and time. For teachers creating lesson plan, guidelines and e-resources, such as training materials are available. ePathshala teaching aids are incredibly helpful and function as a support system for the teachers.

Need and Rationale

This paper is significant because it addresses the educational resources which are used in classrooms are fair and balanced, essential in promoting critical thinking and scientific inquiry among students. This paper aims to investigate how school teachers, use ePathshala in the classroom. Additionally, if any educator is experiencing difficulties incorporating the resources in classroom. To effectively fulfill the varied requirements of students in an ever-changing educational environment, teachers must constantly refresh their knowledge and abilities. The duty of the school management is to provide instructors with sufficient training and technical support.

Review of Related Literature

Ahmad, M. (2020) aimed towards the effects of COVID-19 and the impact on education, the report discussed government programs like e-Vidya, ePathshala, ePathshala Nishtha, Swayam Prabha, Swayam, and Diksha portals which provide learning material. **Bhat, S. A. (2023)** aimed to offer a comprehensive analysis of COVID-19 and its impact on the teaching and learning processes both in higher education and schools. Associated challenges, which many students faced such as group projects, hands-on courses, and adjusting to new online pedagogies highlighted the need for better technical infrastructure, support networks, and innovative teaching techniques. **Chandra, R. (2020)** studied that students find ease in studying at home using e-learning because to the growing availability of PCs, Android smartphones, and internet networks in remote parts of the nation. The researcher has conducted a thorough comparison of the pre-COVID and post-COVID eras, demonstrating how schooling actually exacerbates the digital divide in the COVID-19 era. **Chandra, R., & Yadav, S. (2020)** conducted study on India's educational model, concerning the creation, growth, and adoption of information technologies that have digitalized all facets of human existence. It also emphasized the advantages of digital learning and the challenges facing the country's transition to a digital India. **Gochade, M. N., Chaudhary, S. E., Kharbe, M., & Nikam, Y. (2021).** examined several issues that professors and students in India face such as a lack of collaborative learning opportunities, time commitment, and effort requirements. For example, some students may reside in rural areas and lack access to mobile phones and internet, which hinders their ability to learn. **Goel, P., & Malik, N. (2021)** conducted study on how aspiring teachers use e-resource portals. It's imperative that e-resource portals and digitalization be

implemented in the fields of research and education. **Jain, P. (2024)** conducted study on the function of nep 2020, the role of libraries, and the effect that libraries have on raising academic achievement. **Jena, P. K. (2020)** examined steps the Indian government took to ensure that education ran smoothly throughout the pandemic COVID-19.

Joshi, D. A. (2021) aimed to examine how students felt about online learning during the COVID-19 pandemic. The study also looks at how technology, usage, and skills affect students' attitudes towards e-learning. **Mahapatra, A., & Sharma, P. (2021)** conducted study on different psychosocial problems that have surfaced cause children and adolescents to experience academic stress and have the potential to cause both short-term and long-term psychological illness. **Nair, N. M., & Londhe, B. M. (2020)** conducted a study on how COVID-19 affects students' attendance in private and public schools. During the lockdown, the government implemented measures in the education sector, including online portals, radio, and television channels to provide students with uninterrupted learning while they are in school. **Parida, A., & Rout, S. (2021)** focused on the problems of secondary school teachers on digital literacy. It studies the digital tools and applications that are used in the classroom to facilitate the easy modulation of concepts. **Patil, M.D., Ghadge, R.B., Dhas, S.D., & Moholkar, A. V. (2021)** investigated the impact of the COVID- 19 epidemic on India's educational system and along with some recommendations for carrying on with classes while the country is under lockdown. **Rajput, N., Chanchal, N., Nisha, & Goyal, A.K. (2020)** investigated relationship among the economy, education, ecology, and society— the three pillars of sustainable development and how they affect each other in making equitable source of living.

Research Objectives

The study has following research objectives:

1. To Identify the Usage Patterns of ePathshala Resources among School Teachers
2. To Find the Challenges Faced by Teachers in Using ePathshala Resources.

Methodology of the Study

The present study is a mixed research method. Two questionnaires were prepared keeping in mind the research objectives. The structured questionnaires were made. The sample selection techniques was random sampling method. Pilot testing was administered on peer teacher educators followed by actual sample. A sample of 40 respondents were randomly selected from Delhi NCR schools. A single research method could not be able to give better results keeping this in mind, mixed research method was adopted. The quantitate method helps in looking at the phenomena of usage patterns, accessibility and effectiveness, on the other hand qualitative data captured the challenges and suggestions which could be added into the numeric data later on.

Findings and Interpretation

The aim of the study is to find out how teachers are incorporating contents and resources of ePathshala platform. The data has been collected from 40 in-service teachers of Delhi NCR region. A structed

questionnaire has been formed using google form. It was then circulated on WhatsApp. The collected data explored the variety of resources used, how often teachers use them, on which device do they use and in teaching which subjects.

Objective 1: To Identify the Usage Patterns of ePathshala Resources among School Teachers

Frequency used: Only (12.5%) of the respondents uses ePathshala resources on daily basis, majority of the respondents which is (70%) rarely uses which makes it less popular among teachers. (17.5%) of the respondents have never used the application. From this it could be interpreted that teachers are not aware about the ePathshala website.

Variety of resources: The resources that are available on the website among them, PDFs (19.44%) are the ones used maximum. After that (33.33%) uses all the resources such as audio-video content and curricular resources. It was also found, that periodicals are the least used resources among all. It could be interpreted that teachers might have their own source form where they use them.

Operating device: The data indicates that website is highly operated on smartphone (22.5%). Though there are many teachers who don't operate this on any of the devices (32.45%). On the other hand, (25%) of the teachers uses on smartphones, tablets/Desktop and laptops. From the above data it could be interpreted that smartphone is the most convenient source of learning. The m-learning model of ICT is observed.

Teaching subject preference: The sources that are available on ePathshala are diverse and broad. It doesn't limit its scope to Single subjects, but accumulate different subjects such as science, math, English, social science and Hindi for classes from primary to secondary. From the collected data it was analyzed that (25%) of the teachers uses it for every subject that they are teaching. (33.33%) of the teachers don't find the ePathshala helpful for teaching any of the subjects. Languages (15%) indicate that website needs to work upon, providing quality of content and creative teaching-learning materials.

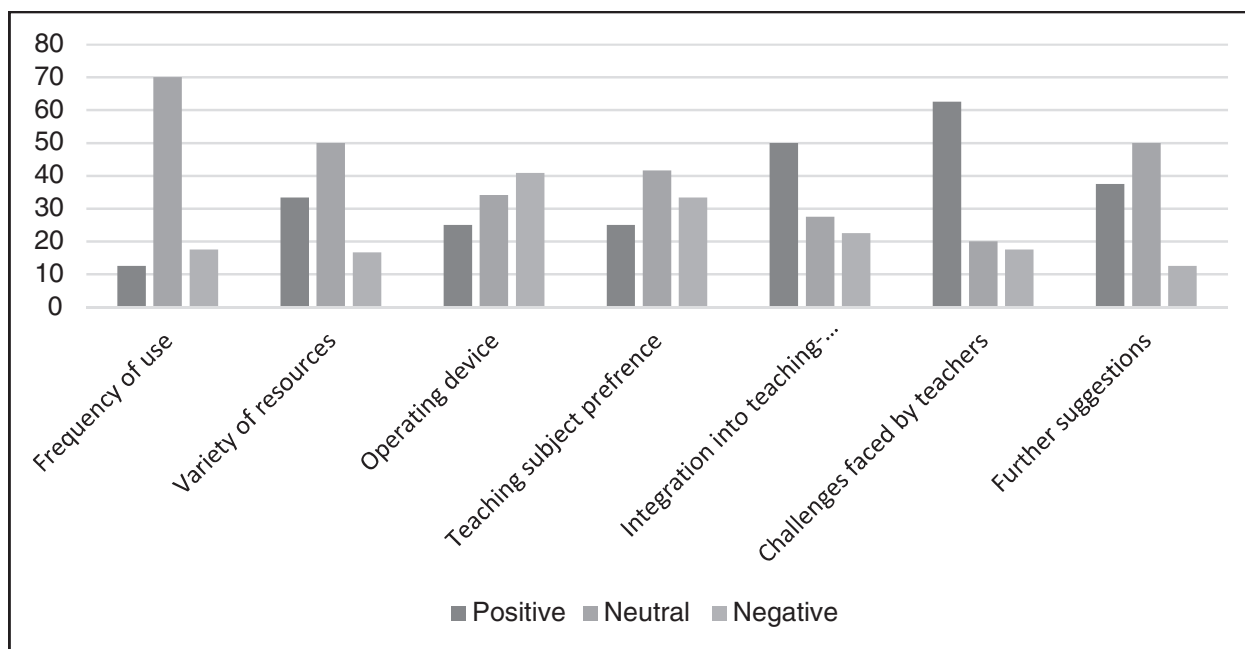
Integration into teaching-learning: There are various methods through which teachers can use ePathshala. It was used in making lessons livelier and provide real life relevance in classroom, (50%) of the teachers believe so. Around (27.5%) of the teachers use the website as a supplement tool to a textbook and try to give extra information using this.

Challenges faced by teachers: (20%) of the teacher's face navigation problem. (15%) of the respondents felt internet connectivity issue. Around (2.5%) of the teachers face language barriers.

Student's response: From the collected data, there are 37.5% of the students who are giving a positive response to ePathshala's integration. Along with it there are only (12.5%) of the students who respond negatively to the contents. (50%) of the students are unsure.

Further suggestions: Out of 40 respondents, (45%) of the participants didn't give any feedback or comments related to the usage, function, or any improvements which are required. (37.5%) of the respondents are not using ePathshala. It is interpreted that teachers don't have any awareness about ePathshala, and are not properly trained.

Visual Representation



Representation Data and its interpretation on Objective 1

Objective 2: To Find the Challenges Faced by Teachers in Using ePathshala Resources.

Experience so far: Out of the 40 respondents there are (50%) of the participants that feel, resources are quite satisfying and fulfill their needs on the other hand there are about (10%) of the respondents who are not satisfied with the experience of the ePathshala platform, meanwhile (40%) of the participants are unsure.

Disruptions in using ePathshala: It is analyzed that (37.5 %) of the respondents feel that there are some internet connectivity issues, a technical barrier which creates problem in the teaching and learning process on the other hand (40%) of the participants did not face any problem. (22.5 %) of the respondents are certainly sure that technical and internet connectivity issue is a hindrance in smooth classroom discourse.

Easy to navigate: From the data that the researcher has analyzed (50%) of the respondents feel that all the contents whether it is audio-video content, eBooks or the curricular resources all are navigation friendly, on the other hand (37.5 %) of the respondents believe that audio and video are best to navigate. (10%) of the respondents feel easy navigation of eBooks and (2.5%) feel navigating curricular resources is easy.

Relevancy with curriculum: (65%) of the respondents believed that resources which are provided on the application are helpful and relevant to the curriculum that they are teaching. (30%) of the respondents are unsure about the relevance of the content. (5%) of the respondents did not find any support from ePathshala resources.

Covers content: Out of 40 respondents (65%) out of them feel that the resources available on ePathshala covers the content entirely. (30%) of them are unsure whether they are able to cover the syllabus using ePathshala resources or not and (5%) of them believe that content available on ePathshala doesn't fulfill the curriculum that they are teaching in their classroom.

Subject specific inefficiency: (45%) of the respondents believed that ePathshala resources is insufficient in providing information related to the subjects like science, math, languages and social science apart from that, (20%) of the teachers believe that subjects like English and Hindi does not have proper amount of content. (5%) of the teachers noticed inadequacy in the content of Social Science and (7.5%) of the respondents feel that science and mathematics are the subjects in which there is a lack of content.

Integration of ePathshala in lesson planning: Out of 40 respondents, (42%) of them agrees that the lesson perfectly aligned with the topics and curriculum which they are teaching, (35%) of them believe that by doing some minor adjustment curriculum is fulfilling their needs. (17%) of them believe that doing some major modifications of the content on ePathshala then they are able to integrate. (5%) of them believe that content is not suitable.

Received Training: When it comes to training (50%) of the teachers receive no training for incorporating ePathshala in classroom. (25%) of them did on their own. (17.5%) of the participants respond that their colleagues helped them. (7.5%) of the total participants are in favor that they were received a formal training from school.

Overcoming challenges for maximum outcome: Out of the 40 respondents (32.5%) of the participants helped students how effectively use ePathshala for learning. (17.5%) of respondents try to integrate the written content with digital media and (7.5%) are in a favor of providing students with the digital copies. (42.5%) of the respondents are in favor that all the methods help them to increase the outcome by minimizing the challenges.

Changes in teaching practice after integrating ePathshala: (15%) of the participants are in favor that by doing some better planning and making their lessons more interactive, help them in developing better teaching learning practice. (7.5%) of the teachers shift their classroom from traditional to ICT based. (10%) of the respondents observed ePathshala does not help in making their teaching lesson more engaging and interesting and (52.5%) of the teachers noticed a major change in student's involvement.

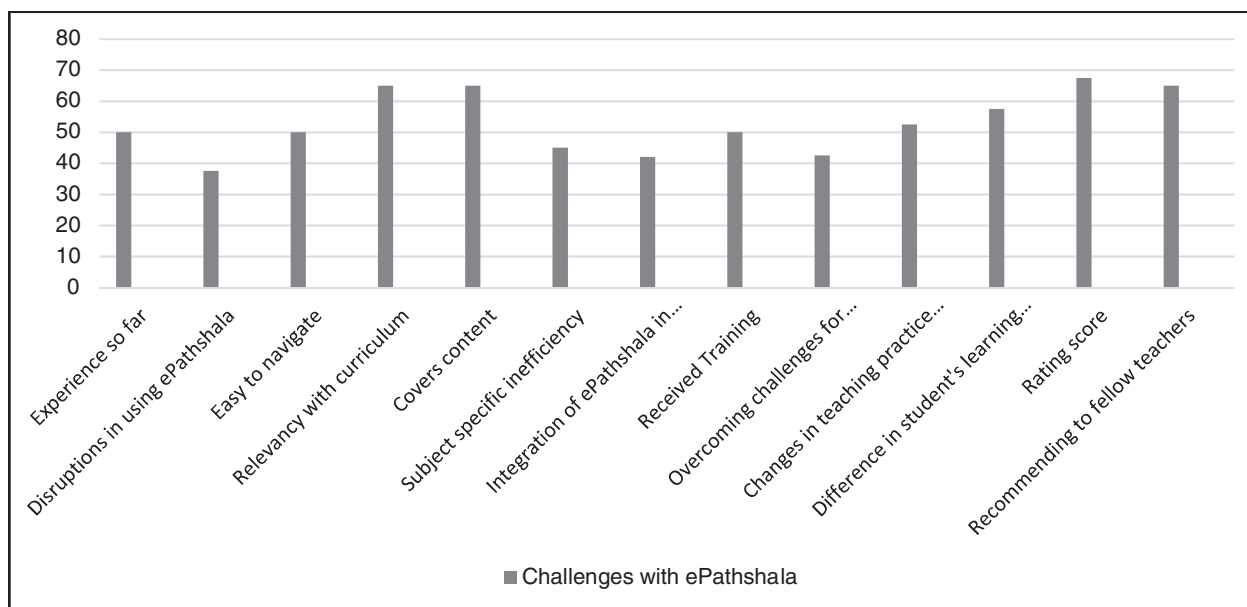
Difference in student's learning outcomes: Out of 40 respondents (57.5%) perceive that there are some noticeable improvements in student's learning outcomes (27.5%) of the respondents believed that by incorporating ICT in classroom there are improvements in student's learning. (12.5%) of the respondents are difficult to assess their students and (2.5%) of the respondents noticed no improvements.

Rating Score: The range of score given to the ePathshala is from 1 to 10 and the most common score which was analyzed was (7) and the average score was (6.95). This could be interpreted that ePathshala has good number of resources.

Recommending to fellow teachers: (67.5%) of the teacher said they will recommend ePathshala to their fellow teachers. (25%) of respondents are unsure whether they should recommend or not, (7.5%) of the population responded that they will not recommend ePathshala to other educators.

Feedback to developers: Around (65%) of the population doesn't have any feedback for the developers, (7.5%) gave positive feedback. (5%) of the respondents are unsure and have no comments to make.

Visual Representation



Representation of Data and its Interpretation on objective 2

Suggestions

It could be suggested that there is a need for providing training to the teachers in digital literacy, it could be arranged for in service teachers. The quality of the content and availability of resources is required to improve; subject specific content is needed to be provided on ePathshala. It is very important to upgrade the technical infrastructure in schools by providing them with better ICT classrooms and smooth internet connectivity. A wide range of languages is a suggestive measure. The resources that are provided on the application should be interactive and engaging, real life examples, experiential learning should be incorporated. Teachers who learnt from their colleagues tend to use ePathshala more effectively and efficiently, so peer learning and collaboration should be encouraged.

Conclusion

The study reveals that ePathshala is a promising website if used efficiently, but many schools are not aware with this. And due to the rigidity of the school administration, teachers are unable to explore diverse digital resources. A multi stakeholder approach is needed to make ePathshala source of core teaching platform. Educators, schools, policy makers, developers and parents should come together and enhance the scope and use of government developed digital resources. Addressing the current challenges with proper interventions will automatically increase reach, inclusivity, flexibility, equity and digital usage for all.

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