Odisha's Elementary Education And The Impact Of Electronic Resources

Shreema Subhashree Das

Research Scholar

Ravenshaw University

Introduction

Elementary education forms the foundation of the entire education system for several reasons. Elementary education focuses on teaching basic skills like reading, writing, and arithmetic. These skills are essential for all further learning across subjects. Elementary education fosters the development of critical thinking and problem-solving skills, which are crucial for success in higher education and beyond. Children gain social skills, teamwork, and effective communication during their elementary school years. These skills are vital for success in both personal and professional life. Positive experiences and achievements during elementary education contribute significantly to a child's confidence and self-esteem. This forms a strong basis for future learning and personal development. Identifying and Addressing Learning Needs. Early education allows for the identification of any learning difficulties or special needs a child may have. Early intervention and support can make a significant difference in a child's academic success. Elementary education often introduces children to basic concepts of morality, ethics, and cultural understanding. It lays the groundwork for developing empathy, respect, and tolerance towards others. A strong foundation in elementary education prepares students for success in higher levels of education. Without a solid grasp of fundamental concepts, students may struggle to comprehend more advanced subjects. A well-educated population begins with a strong foundation in elementary education. Countries with robust elementary education systems tend to have higher literacy rates, lower poverty levels, and greater economic stability. it provides the essential building blocks upon which all further learning and development depend. Without a solid foundation at this level, students may struggle to succeed academically and personally in later years.

School teachers are the front-line educators in primary education, impacting pupils' educational journeys. Teachers plan and deliver interesting classes that address their students' different needs and learning styles. They use a variety of instructional tactics and materials to make learning more accessible and meaningful. Teachers understand each student's unique skills and problems and provide personalized support to help them achieve. They provide additional support, modifications, and adjustments as needed to ensure that all students reach their full potential. Teachers provide a secure and supportive classroom climate in which children feel valued, respected, and included. They model positive conduct and guide social and emotional skills such as empathy, conflict resolution, and self-regulation. Teachers assess student development regularly using many approaches such as examinations, quizzes, projects, and observations. They give pupils timely and constructive feedback that helps them understand their strengths and areas for improvement. Teachers promote strong relationships with parents, caregivers, and the larger community. They communicate about student achievement regularly, offer information about classroom activities, and engage families in their children's education through events, workshops, and volunteer opportunities. Teachers participate in continual professional development to stay current with best practices in education. They attend workshops, conferences, and training sessions to improve their teaching abilities, subject knowledge, and classroom management strategies. Teachers act as role models for their students, exhibiting honesty, accountability, and a desire to learn. They mentor students, offering direction, encouragement, and support as they face problems and work toward their goals. Teachers advocate for their students' needs and rights, ensuring that they have access to resources, support services, and enrichment programs. They work with colleagues, administrators, and other stakeholders to provide an inclusive and equitable learning environment for all students. School

teachers play an important role in providing a high-quality education that prepares children for success both in school and in life. Their dedication, expertise, and commitment have a significant impact on the lives of their students and the overall strength of the elementary education system, and e-resources have become an integral part of the education system in general, as well as a valuable resource for teachers in particular.

E-Resources, short for electronic resources, refer to digital materials and information that are accessible online or through electronic devices. These resources can include a wide range of content types, such as:

1. **E-books**: Digital versions of printed books that can be read on electronic devices like e-readers, tablets, or smartphones.
2. **Online Journals and Articles**: Scholarly articles, papers, and journals available in digital format through online databases or repositories.
3. **Databases**: Collections of organized data or information, often searchable and accessible online, covering various subjects such as research, literature, history, science, etc.
4. **Multimedia Content**: Digital resources including audio recordings, video clips, animations, and interactive simulations used for educational purposes or entertainment.
5. **Online Courses and Tutorials**: Educational courses, tutorials, and instructional materials available on the internet, covering a wide range of subjects and skill levels.
6. **Digital Libraries**: Online repositories or collections of digitized books, documents, manuscripts, and other items are frequently made available by libraries, universities, or cultural organizations.
7. **Research Tools and Software**: Software programs, tools, and resources for conducting research, analyzing data, managing citations, and publishing papers.**Open**
8. **Educational Resources (OER)**: Educators and learners all across the world can use, share, and modify free and open-source educational materials.
9. **Subscription Services**: Paid online platforms or services that offer access to a variety of digital content such as e-books, audiobooks, magazines, and more.

eResources provide convenient and flexible access to information and educational materials, allowing users to search, retrieve, and utilize content from virtually anywhere with an internet connection. They are increasingly used in academic settings, libraries, schools, businesses, and personal learning environments to support teaching, learning, research, and professional development.

The Changing Landscape of Education with Resources:

1. **Accessibility and Inclusivity:** eResources remove geographical and socioeconomic boundaries, giving students access to a multitude of educational materials and tools regardless of their location or financial situation. This inclusivity promotes equity in education and empowers students from many backgrounds.
2. **Customization and Personalization:** e-Resources allow instructors to adjust educational content and activities to individual students' needs, interests, and learning styles. Adaptive learning technologies use student data to deliver customized interventions and support, resulting in increased engagement and academic performance.
3. **Collaboration and Global Connectivity:** Learners can use eResources to connect with classmates, educators, and experts from all around the world, boosting cross-cultural understanding, collaboration, and knowledge exchange. Online platforms and communication tools make virtual collaboration possible, allowing students to collaborate on projects, share ideas, and have meaningful debates.
4. **Enhanced Learning Experiences:** eResources provide interactive and multimedia-rich learning experiences that engage learners and increase their grasp of complicated ideas. From interactive simulations and virtual laboratories to immersive educational games and multimedia presentations, eResources encourage active investigation and inquiry-based learning, resulting in richer learning outcomes.
5. **Diversity of Content:** From e-books and online journals to multimedia resources and interactive learning platforms, eResources provides a wide selection of information to suit a variety of learning preferences and methods. This extensive collection of digital resources enriches the learning experience and encourages student interaction.
6. **Cost-effectiveness:** Compared to traditional print materials, eResources often incur lower costs in terms of distribution, storage, and accessibility. This cost-effectiveness makes education more affordable and sustainable, particularly in resource-constrained environments.

Implications of eResources for Teaching and Learning

1. **Shift in Pedagogical Practices:** The use of eResources necessitates a shift in teaching techniques to more student-centered and inquiry-based approaches. Educators are encouraged to use creative teaching approaches that use digital resources to foster active learning, critical thinking, and creativity in their pupils.

2. **Professional Development for Educators:** To effectively integrate eResources into teaching practices, educators must engage in continual professional development. Training programs and workshops can help instructors improve their digital literacy abilities, construct engaging digital learning experiences, and use eResources to improve student learning outcomes.

3. **Collaboration and Knowledge Sharing:** eResources enable educators to collaborate by sharing best practices, resources, and teaching ideas. Online communities, forums, and social media platforms provide tremendous opportunities for educators to communicate, share ideas, and support one another in their professional development.

4. **Assessment and Evaluation:** The utilization of eResources needs novel techniques to assessment and evaluation. Educators are urged to use a range of assessment approaches, such as formative assessments, project-based assessments, and digital portfolios, to measure student learning and provide timely feedback.

Significance of the study

In the present era of information explosion, more and more publications are becoming Web-linked. Most of the social science libraries have changed their outlook towards functions and services. The environment is rapidly changing to an electronic one. In this context, the investigators decided to conduct this study to measure the usage of e-resources by the faculty members and students of elementary schools in Odisha.

Objective:

To find out the awareness about e-resources.
To identify the types of E-resources used by the users.
To understand the problems faced by the users while using the e-resources.
To suggest suitable recommendations to improve facilities and services related to e-resources.

Sample and sampling technique

For this study researcher took the views of both teachers and students of elementary schools of K.nuagam block of Kandhamal district of Odisha. Further, the researcher took 12 elementary schools in that particular district through a random sampling technique. From 4 schools researcher took views of both lower primary students and teachers and from the remaining 8 schools researcher took views of only upper primary students and teachers. Again the researcher further divided them into male and female categories.

Methodology

A survey was conducted to collect information regarding the factors prompting the use of e-resources, the frequency of use of e-resources, the purpose of using e-resources, and problems faced by the users while using e-resources. For the collection of the data about the above-mentioned aspects, a questionnaire and interview technique was used. A total of 120 questionnaires were distributed to collect the primary data out of which 110 (91.66%) questionnaires were found usable for analysis. A few users were also interviewed to supplement the data collected via the questionnaire.

Demographic Profile of Respondents and Response Received Table 1 shows the gender-wise distribution as well as category-wise distribution of the respondents.

Gender-wise Distribution	No of Questionnaire				
	Teacher		Student		
	Question Distributed	Response Received	Question Distributed	Response Received	Percentage of Respondents
Male	50	40	20	20	85%
Female	40	30	10	10	80%
	90	70	30	30	83%

Table-1

We sent questionnaires to teachers of different schools and also interacted with students with questionnaires. The participation level was satisfactory. Out of 120 questions sent, we received 100 responses, which is 83%. Among the respondents, male faculty or students were there similarly female faculty members and female students were also there as mentioned above. The researcher collected data solely for this purpose only.

Questionnaires were also distributed among faculty members of both primary and upper primary schools.

Stage wise Distribution	No of Questionnaire						
	Teacher			Student			
	Question Distributed	Response Received	Teacher %	Question Distributed	Response Received	Student %	Overall %
Primary(1st Class- 5th Class)	30	18	60%	10	10	100%	70%
Upper Primary (6th class- 8th Class)	60	52	86%	20	20	100%	90%
Total	90	70	77%	30	30	100%	83%

Table-2

The researcher sent 90 questionnaires to lower primary and upper primary and the number was 30 and 60 respectively and the received analysed data is presented above.

Frequency of Internet use

Internet use	Teachers of Primary Classes	Teachers of Upper Primary Classes	Students of Primary Classes	Students of Upper primary classes	Percentage
Regular use	8	25	1	9	43%
Most of the time used	2	10	0	5	17%
Occasionally Used	6	12	3	4	25%
Never Used	2	5	6	2	15%

Table-3

Data was collected from both teachers and students and from that analysis, it was found that e-resources are being used regularly in elementary schools as govt of Odisha provides free computers to each school to develop student's skills.

Purpose of Internet Uses

Purpose use	Teachers of Primary Classes	Teachers of Upper Primary Classes	Students of Primary Classes	Students of Upper primary classes	%
Academic	6	18	3	8	35%
Personal	8	22	7	12	49%
Office use	4	12	0	0	16%
Total	18	52	10	20	

Table-4

From the above-mentioned data, we can find out that computers are being used more for personal use rather than academic use.

Types of eResources used

eResources	Teachers of Primary Classes	Teachers of Upper Primary Classes	Students of Primary Classes	Students of Upper primary classes	%
e-journals	5	20	0	0	25%
e-maps	6	48	0	10	64%
e-books	8	41	0	0	49%
e-magazine	7	36	0	0	43%
e-newspaper	4	38	0	0	43%
Subject wise Video & Audio	18	45	10	20	93%

Table-5

This data gives crystal clear glimpses of the types of e-resources that are being used in the schools.

Impact of e-Resources on Teaching and Learning

Impact of eResources	Teachers of Primary Classes	Teachers of Upper Primary Classes	Students of Primary Classes	Students of Upper primary classes	%
Minimal	**4**	**10**	**4**	**5**	**23%**
Moderate	**10**	**24**	**5**	**6**	**45%**
Extensive	**2**	**12**	**1**	**3**	**18%**
No-Impacts	**2**	**6**	**0**	**6**	**14%**
Total	**18**	**52**	**10**	**20**	**100%**

Table-6

Levels of Satisfaction with availability and use of resources

Satisfaction Level	Teachers of Primary Classes	Teachers of Upper Primary Classes	Students of Primary Classes	Students of Upper primary classes	Percentage
Highly Satisfied	**7**	**12**	**6**	**8**	**33%**
Satisfied	**9**	**32**	**4**	**12**	**57%**
Not-Satisfied	**2**	**8**	**0**	**0**	**10%**
Total	**18**	**52**	**10**	**20**	**100%**

Table-7

The above data collected from various sources gives an insight into the availability and uses of e resources and we can find out that there is a satisfactory level of use of e-resources in schools.

Problems faced while using e-Resources

While e-resources offer numerous benefits, users may encounter several challenges when utilizing them. Some common problems faced while using e-resources include

1. **Access Restrictions**: Some e-resources may be restricted to users with specific affiliations, such as students, faculty, or members of particular institutions. Access restrictions can limit the availability of certain materials, especially for those without proper credentials.

2. **Technical Issues**: Users may encounter technical difficulties when accessing or using e-resources, such as website downtime, slow loading times, compatibility issues with different devices or browsers, or problems with authentication and login procedures.

3. **Information Overload**: The vast amount of information available through e-resources can be overwhelming, making it challenging for users to locate relevant and reliable sources amidst the abundance of content.
4. **Quality and Credibility**: Assessing the quality and credibility of e-resources can be difficult, as not all sources available online are peer-reviewed or academically reputable. Users must exercise critical thinking skills to evaluate the reliability and trustworthiness of the information they encounter.
5. **Subscription Costs**: While some e-resources are freely available, others require paid subscriptions or one-time fees for access. Subscription costs can be prohibitive for individuals or institutions with limited budgets, potentially restricting access to valuable information.
6. **Digital Divide**: Socioeconomic disparities and uneven access to technology can contribute to a digital divide, where certain individuals or communities lack the necessary resources or skills to effectively utilize e-resources, exacerbating existing inequalities in access to education and information.
7. **Copyright and Licensing Restrictions**: Users must adhere to copyright laws and licensing agreements when accessing and using e-resources, which may restrict the reproduction, distribution, or modification of content. Failure to comply with these restrictions can lead to legal consequences.
8. **Lack of Training and Support**: Some users may lack the necessary skills or training to effectively navigate and utilize e-resources, leading to frustration and inefficiency. Adequate training and support resources are essential to help users maximize the benefits of e-resources.
9. **Privacy and Security Concerns**: Users may be concerned about the privacy and security of their personal information when accessing e-resources, particularly when providing sensitive data during registration or payment processes. Ensuring robust data protection measures and adhering to best practices in cyber security is crucial to mitigate these concerns.
10. **Dependency on Internet Connectivity**: E-resources rely on Internet connectivity for access, which can be problematic in areas with limited or unreliable Internet infrastructure. Lack of internet access or disruptions in connectivity can impede users' ability to utilize e-resources effectively.

Addressing these challenges requires collaboration between stakeholders, including e-resource providers, institutions, policymakers, and users themselves, to develop solutions that enhance the accessibility, usability, and reliability of digital information resources.

Findings & Suggestions

Among the Internet users, most of the respondents are satisfied with the Internet. 57% of the respondents are satisfied with the Internet and its uses. Only 10% of the respondents are not satisfied with internet usage. Slow internet connection and awareness are among the reasons why people are not satisfied. Although they are satisfied with internet use, 45% of people use it moderately. I found most of them people used subject-wise video/audio for the internet. That is 93% of the people like to use video and audio material. And also e-books and e-maps are widely used. The study also indicates that people use the internet for their personal use and academic uses. Among them most of the time they used for their purposes. Academic uses are less than their personal uses. It is required to increase awareness among people to increase the Internet for academic use.

Suggestions

The teachers may be given an orientation on the use of advanced search strategies and search options.

Teachers

- The teachers may sent to some workshops/seminars/locally conducted classes to make them familiar with the latest ICT tools and techniques.
- Sessions on the availability and uses of e-resources should be held in the faculty improvement programs.
- Teachers may be motivated to use e-resources like e-books, and journals which are highly authentic and informative.

Students

- The usefulness and special features of various search engines should be introduced to the students.
- The students may be encouraged to use e-resources such as e-journals, and newspapers, to keep them updated.
- While the students are accessing e-resources, a teacher may be available on the spot to guide and help the users in times of access problems.
- More academic purpose-oriented e-resources should be added to the collection for the students.

Conclusion

This particular study explored the awareness and utilization of electronic resources and related matters among the teachers of primary schools in Odisha. The rapid growth of information and communication technologies, particularly the internet and electronic resources has facilitated the convergence of new electronic devices and formats. It changed the traditional method of search, storage, retrieval, and communication of scholarly information. The latest information has been embedded in a variety of ways and forms in various kinds of electronic resources. Nowadays teachers are using and exploring e-resources and keeping themselves up to date in their specific subject areas. So, the role of e-resources has increased tremendously, and this research gives a definite introspection of teachers on the level of e-resources and the problems encountered by the users.

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