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Research Article

Impact Of E-Governance In School Education In Odisha: An Overview

Dipak Ray[1]*, Dr. Vijaya Lakshmi Mohanty[2]

[1]*Research Scholar in Governance, Faculty of Management Studies, Sri Sri University, PO: Cuttack-754006 Odisha, India, Email: dipak.ray.jsp@gmail.com
[2]Director, Human Resource Development Center (HRDC), Associate Professor in Governance, Faculty of Management Studies, Head, Public Relations and Social Outreach, Director of Sri Sri Advanced Global Center for Conflict Resolution and Peace Studies (SSAGC-CRPS) and Head of Public Relations and Social Outreach.
Sri Sri University, PO: Cuttack-754006 Odisha, India, Email: jgdvijaya@gmaul.com ; vijaya@srisriuniversity.edu.in

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ABSTRACT

E-governance is an integral part of the Right to Education Act's implementation, planning, monitoring, and overall management of different interventions. Implementation of the Right to Education Act for every child in the range of six to fourteen years has adopted e-governance as a transitional strategy to strengthen the elementary education system process. The objective of this paper is to examine the impact of E-governance on elementary education performances. The study seeks to measure the impact in delivering the output, redress grievance, learning output, and enhancing the institutional and individual performance especially to track the enrolment of girl-children. This study focuses on capturing the innovative methods under e-governance, such as the Child Tracking System, School Student Helpline, Private School Web Portal, and School Quality Monitoring System which is helpful to measure the increasing trend of enrolment, to redress the grievances related to violation of children Right to Education, to understand the level of learning and to regulations of private schools in Odisha. This study will administer survey questionnaire, and conduct open-ended individual in-depth interviews and focus-group discussions to explore information around performance and learning indicators. Various measures such as in the areas of planning, mainstreaming of out-of-school children, distribution of uniforms, textbooks, and mid-day meals, and human resource management. In doing so, the study analyses how some of the ways and means of e-governance are creating a more improved system to enhance the capacity of institutions and individuals as well as to monitor and manage the implementation of activities at the elementary level. This paper provides insights into the key challenges faced by the system to effectively implement the processes and scope and space for government in education in Odisha at large.

Keywords: Right to Education, Good Governance, E-governance, Impact, Education Performance.

1. INTRODUCTION

Information and communication technologies (ICTs) are frequently used in e-governance at various levels of the educational system to improve governance. The key to the successful management of issues related to various academic activities for the better functioning of an educational system without transmission loss is the use of e-government solutions in the educational sector that utilise contemporary technology for having an indication that brings both scholastic and administrative tasks together. The application of e-Governance at all levels of an educational system makes real-time data processing and knowledge management possible. Education-related e-Governance solutions integrate the system's information and operations, making the process straightforward, well-managed, accountable, and error-free.

1.1 ELECTRONIC-GOVERNANCE & EFFECTIVE GOVERNANCE

- The idea of effective governance is as old as India's history of governance; yet, to be fully innovative and structured, it must be able to address the new difficulties that society is currently confronting.

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- E-governance can help with increasing involvement, accountability, and transparency while facilitating the rapid transmission of information, enhancing administrative effectiveness, and enhancing public services in all facets of education. The administration of the educational sector has transformed thanks to e-governance solutions, which are intended to make the system user-friendly and time-saving. Many of them are adaptable enough to quickly and successfully change with the evolving educational environment.
- E-governance is a comprehensive remedy for the education industry.
- For the system to operate effectively, governance must be accountable and transparent in addition to being participatory. The administration of the educational sector has been transformed due to electronic governance solutions, which are intended to make the system time-saving and consumer-friendly. Many of them are adaptable enough to quickly and successfully change with the evolving learning environment.
- In education, e-governance is an integrated option that makes it easier to handle and maintain massive amounts of data, including registration, enrollment issues, pupil database, time on task, staff and student attendance, libraries, financial issues, assessment, report returns, and data related to human resources, among other things, in an organization.
- Electronic governance makes it possible for both the government and individuals to obtain information quickly, develop different classes of service quality, and offer services.
- Disclosure, responsibility, involvement, community engagement, reform of public financial management, and a single nodal accounting technique are only a few of the components of good governance that are necessary for electronic governance.

1.2 OBJECTIVES OF ELECTRONIC GOVERNANCE

It aims at creating a networked environment to promote greater accountability and transparency in the provision of public goods and services to make it easier to undertake various reforms in the education sector. The purpose is as follows.

- Make the government delivery more effective by enhancing the system's accountability and openness.
- By making the system user-friendly, information and services can be delivered to beneficiaries more conveniently and timely, enabling the service provider to do the best for the society.
- More participation of beneficiaries in the government operating system ensures improving service delivery quality.
- The impacts of electronic governance at the elementary level of education are good governance delivery and the application of ICT for real-time connection with the interest group.
- Focusing on inputs (e.g. teachers, Mid Day Meals (MDMs), uniforms, textbooks, educational kits provision) or outcomes (such as enrolment, completion rate, retention rate, learning outcome, etc.) while the focus is not on the reality check on the utilisation of resources against objectively verifiable indicators (OVI).
- This paper suggests that using e- governance as an entry point can help to focus on the qualitative education service delivery

1.3 CONSTITUENTS OF ELECTRONIC GOVERNANCE

The main constituents of E-governance are the following:

- Communication between two Government Authorities and one Department of State Government to another Department;
- Government to Non-State actors/ NGOs communication;
- Government to Citizens (Schools, teachers, School Management Committee members, etc.) Communications (G2C)
- Citizen to Government (C2G) – Feedback mechanism from the community to government authority including different types of grievance redressal.

1.4 REQUIREMENT OF E-GOVERNMENT

- Improving good governance is the goal of e-governance implementation. In general, involvement, transparency, and accountability define good governance. A new kind of engagement between governments and citizens is possible because of recent advancements in ICT, which aids in the advancement of good governance.
- By enabling online discussion and fostering rapid growth and efficiency of pressure groups, ICT can improve the participation of beneficiaries in the exercise of all forms of government operations.

1.5 ADVANTAGE OF ELECTRONIC GOVERNANCE IN THE EDUCATION SECTOR

E-governance in the educational sector has several advantages, including increased productivity, more accountability for administrative operations in education, easier and quicker availability of services along with cheaper prices for public services. The numerous advantages of electronic governance may be summarised which is presented in the following manner:

- Improve departmental efficiency and cut down the duplication of effort;
- Report preparation is made simple and quick;
- There is a decrease in student harassment;

- Quick online information, form submission, and payment processing have also improved;
- The administration, faculty, students, and staff are all more easily connected, which improves the efficiency of service delivery by allowing for the rapid and inexpensive sharing of information, and
- Information is accessible to all people equally.

1.6 E-GOVERNANCE AT THE NATIONAL LEVEL

- To further e-Governance activities, NeGP (National Electronic Governance Plan), which comprises twenty-seven Projects through Mission Mode and eight components, was approved by the Central Government on 18th May 2006.
- National e-Governance Plan was approved jointly by the Government of India's Information Technology Department and the Administrative Reforms and Public Grievances Department that took care of NeGP, and.
- An important goal of the NeGP is to provide all government services to the general public at their doorstep using a single service delivery facility, while also guaranteeing transparency, effectiveness, accountability, and dependability of those services at a cheaper price for meeting the needs of the common person.

2. INTERVENTIONS UNDERTAKEN BY GOVERNMENT.

- 120 channels were transmitted in 2005 where as a single-channel was transmitted in 1962 which indicates communication technology is progressing very quickly and steadily; and
- Education has also moved to multiple phases, starting with the usage of Satellite Instructional Television Experiments in 1974–75, including multiple channels for school education, Gyan Darshan in 2000, and the ability to offer online education to students in their home languages during the Covid - 19 situation through services like e-Vidya.

2.1 E-GOVERNANCE INTERVENTIONS TAKEN UP BY GOVERNMENT OF ODISHA IN THE EDUCATION SECTOR (SOURCE-WWW.OSEPA.GOV.IN)

a) HOUSEHOLD SURVEY 2016 & AADHAR - A household survey conducted in the State to identify every child in the 0-14 age group in each habitation and create a database that can be updated with little effort carrying the change in the educational status of each child. The major impact of the HHS is as under:

- Reduction of shadow enrolment, and
- Increase of out-of-school children

b) TEACHER'S PROFILE - Teachers working at the elementary level are being mapped online concerning their educational qualifications and service experience to place them in schools as per the Right to Education (RTE) norm.

c) ON-LINE GRIEVANCE REDRESSAL UNDER RTE (SCHOOL STUDENT HELP LINE) - School Student Helpline started on 19.10.2010 with a toll-free No. 1800 345 6722 (E-mail: schoolstudenthelplinesme@gmail.com) to address the grievance of children and parents online.

PRIVATE SCHOOL MANAGEMENT PORTAL - Registration of new schools, issue of the certificate of recognition, and governance of private schools are being managed online. People from distant districts need not come to the state capital for getting these services.

2.2 DIGITAL (ELECTRONIC) LEARNING

With the aid of technology, students can learn at any time and from any location through electronic learning. Training, the provision of information at the right moment, and resource person guidance are all included in electronic learning. The term "electronic learning" refers to a variety of methods and applications, such as computer-dependent learning and online classrooms. Learning through digital mode includes strong tools in the process of organising classes along with modifying lessons to align with the learning requirements of students. In electronic learning, often known as e-learning, computer technology is used as the primary delivery method for training.

BENEFITS OF ONLINE EDUCATION

- During the COVID period, electronic learning has become more and more well-liked among educators because of its advantages and capabilities in making the availability of educational resources from outside the institution on a global and instantaneous basis; and
- More frequent and adaptable communication with pupils via Television, mobile apps, has become feasible.

2.3E-LEARNING INTERVENTIONS TAKEN UP GOVERNMENT OF ODISHA (Source-www.osepa.gov.in)

The government of Odisha has taken a lot of steps to continue classroom transactions through different methods of e-learning during the Covid -19 situation as follows.

a. During the lockdown due to Covid-19, a digital learning initiative called "Odisha Shiksha Sanjog" was implemented using the WhatsApp group to include pupils in teaching-learning activities in the following manner.

i. To share study materials with pupils from various classrooms at the secondary and elementary levels, the class teachers have set up unique WhatsApp groups for children;
ii. Participants in the programme are students from grades II – X;
iii. Teachers create their digital materials in addition to collecting written and multimedia materials from various digital platforms. These are distributed through the program's class-specific WhatsApp group;
iv. After the publication of learning materials, the students are given worksheets depending on the intended learning objectives;
v. The subject matter experts are also available online to address the questions posted by the pupil in the concerned WhatsApp group;
vi. Availability of the key for necessary solutions is ensured in the evening for evaluation by the student or their parents;
vii. For subsequent offline assessments, the teachers order the students to write the answer in their notebooks; and
viii. A schedule has been created for uploading educational materials for the programme in several topic areas at the District level.

Creation of WhatsApp Groups: WhatsApp groups have also been formed at various levels for producing and disseminating electronic contents as well as keeping an eye on its execution. Different groupings include the District Education Officer (DEO), District Project Coordinators (DPC), Block Education Officer (BEO), Additional BEO, Block Resource Center Coordinators (BRCC), Cluster Resource Centre Coordinators (CRCC), Head Masters (HMs), teachers, and students.

- Resource Person Group: The group was constituted based on classes and subjects, with 10-15 teachers. The group's mentor is one of the Headmasters or Senior Teachers. The group created the digital content, worksheet, and answer sheet for the associated subject/class.
- Master Resource Person (MRP) Group: The MRP group reviews and prepares for sharing the contents created by the Resource group.
- Monitoring Group: The monitoring group is composed of the DEO, DPC, ADEO, and BEO. This group distributes the materials that the MRP group has finalised to the group for Field Circulation, which consists of Additional BEOs, Block Resource Center Coordinators (BRCC), Cluster Resource Centre Coordinators (CRCC), and follow-up to make sure that materials are received by the students.
- Group of the Headmasters: The field circulation group exchanges teaching learning materials with the Head Masters group.
- Group of Teachers: The group of teachers' receives the teaching-learning materials from the group of Headmasters.
- Group of Students: The materials are posted by the teachers in the student groups created for each class.

Materials Coding: Codification has been made for the benefit of students, parents, and teachers, and materials for learning (lessons, worksheets, and answer books).

Parents' and School Teachers' Responsibilities:

- The school teachers and headteachers are to see that each class has separate WhatsApp groups.
- The school teachers and headteachers are to mobilise the parents and encourage them to join the group activity through Whatsapp, and provide necessary assistance in the teaching-learning process of the child.
- The DEOs are free to issue rules for any region-specific situations at their level.

b. Broadcast of Video lessons in Odia language:

The Videos are broadcast for Class-X students from April 20, 2020, for 2 Hours per day i.e. in the morning from 11.00 A.M. to 12.00 Noon and in the evening from 03.30 P.M. to 4.30 PM (Monday to Friday).

c. Digital Infrastructure for Knowledge sharing ("DIKSHA"): Textbooks are available online by integrating QR codes for each chapter and class. These books are uploaded on both the Odisha School Education Programme Authority (OSEPA) website and the 'DIKSHA' Portal. The portal offers QR codes linked to digital content created by various sources from Class-I to X. Parents, instructors, and students are increasingly using the DIKSHA platform. Materials available in the portal are also used in Odisha Shiksha Sanjog App.

d. 'App Madhu': An e-learning app based on syllabi in the Odia language has been created to offer a virtual classroom experience in the student's home language for self-learning and self-assessment. Beginning with Class V to X, videos in mathematics and science have been released together with the chapter-by-chapter textbooks and self-assessment facilities. Students can quickly access the site on their mobile, video

downloading, and online to check the learning progress. A child can explain questions in his or her learning environment, so assisting parents in directing their children's at-home learning.

e. Class through Electronic Platforms: Students in secondary schools have taken online classes through different e-platforms like Microsoft Teams, Zoom, and Google Meet. Many e-learning activities have been used in District Institutes for Education & Training and Odisha Adarsha Vidyalaya (OAV) by using online platform like Google Meet. Training is imparted to teachers online.
Electronic-Vidyalaya: For the convenience of the students, the digital content is created for the information & communication technology programme is available online for classes IX to X.

f. 'Radio Pathashala' programme - During the Covid-19 pandemic period, the State government initiated an online education programme for the pupils at primary level to higher secondary level. Education through Radio is one of the programmes through this programme the students who have no internet accessibility are facilitated with education through Radio. Broadcasting of the educational programme 'Radio Pathashala' through All India Radio by its different Regional Stations and 'Vividh Bharati' stations. The Audio Lessons of five mins, 10 mins, and 15 mins on different subjects of class I to class VIII were prepared at 'Biju Pattnaik Film and TV Institute Odisha' by taking the assistance of the eminent subject teachers, reviewers, and presenters. This programme was continued through AIR. The broadcasting schedule is communicated to the District and Block-level functionaries for wide circulation among the students, parents, and teachers. The Audio Lessons are also uploaded in the e-Pathashala module of the OSEPA website and DIKSHA Portal for frequent use by the students for their revision work.

g. Education through YouTube Channel

- There are 17 YouTube Channels created for Class I to Class XII.
- There are more than 10 Lakh subscribers over all the channels.
- There are more than 5M views and 500k hours of watch time per channel.
- We have developed 17 Studio (1 studio per each class 1 to 10 and 7 studios for classes 11 & 12) set-ups over the state for YouTube Live Classes.
- We have successfully uploaded more than 10k content for Class I to Class XII on YouTube.

3. CONCLUSION

- ICT has assimilated into people's daily lives all around the world. It is time to use talent to improve the educational system as well. Security, database of best practices, improved information analytic capabilities, etc. are all necessary for e-governance to function smoothly.
- The above study was done to find out the impact of e-governance (governance by using IT) in delivering good governance in Elementary education.
- ICT is the most practical technique that can be used to effectively offer services throughout the full spectrum of educational activities. ICT is adaptable and multipurpose to satisfy a variety of needs and promotes creativity.
- E-governance increases system's openness. E-Governance encourages creativity in the workplace which positively correlates with effectiveness. The government should pass enabling legislation for the improvement in the delivery of benefits and entitlements to eligible students under the Right to Education Act.
- Budgetary support, compatible infrastructure, processes, guidelines, and expertise for creating and gathering online data are all necessary. With the development of ICT, e-governance is a trend that is rising to reinvent how the government operates and creates a new model of governance.
- Authorities may also be able to analyse a single institute's performance in comparison to the goals set and pinpoint any gaps with the help of such a comprehensive and integrated system.
- After the National Education Policy, 2020 is put into effect, the system must get input from teachers and students to improve the course curriculum within the limit of the national framework. This will enable all the underperforming schools to improve in terms of several educational metrics, such as student retention and learning outcomes.
- When e-governance is implemented at the level of educational administration and school governance, the education system will be able to properly prepare students to meet the constantly changing demands in today's fiercely competitive economy. It is the time, for policymakers, pedagogues, and implementers to take steps in terms of imparting education that would help empower the people so that they would contribute to nation-building.

LIMITATIONS

- Availability of and accessibility to ICT infrastructure – Children in tribal-dominated Districts are not having any android mobile phone or TV set to get the benefits of e-learning.

- Capacity building of Teachers & education administrators.
- Increasing awareness among teachers and administrators.

5. FUTURE DIRECTION (RECOMMENDATIONS)

- More infrastructure (ICT) to be created at both school, block, and district levels and should be accessible to students and teachers.
- Capacity building of teachers, education administrators, and children to be done on the procedure and utilisation.
- Convergence with e-partners like the Department of Electronic & Information Technology, Govt of Odisha, NIC, OCAC, NGOs, etc. to bring about more innovations in pedagogy
- Linking and delivering education products electronically.
- Grievance of different groups of beneficiaries is required to be addressed through an online platform.

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