

A study on the “Digital Initiatives implemented in Schools of Adhra Pradesh with special reference to SPSR Nellore District

1. Introduction:

During the ancient period, two systems of education were developed, Vedic, and Buddhist. The medium of language during the Vedic system was Sanskrit, while those in the Buddhist system were pali. During those times the education was of Vedas, Brahmanas, Upnishads, and Dharmasutras.

In ancient India, both formal and informal ways of education system existed. Indigenous education was imported at home, in temples, pathshalas, tols, chatuspadis and gurukulas, There were people in homes, villages and temples who guided young children in imbibing pious ways of life.

Indians were to be educated in English and their native language. The education system was to set up in every province. Every district should have at least one government school. Affiliated private schools could be granted aids.

In 1771, Charles Grant recommended that English education be introduced in India, with English being the official language. This suggestion was rejected due to the opposition faced by the British Raj, who didn't want to cause more tensions. However, this initiative made the British Raj pay attention to the education system in the country. This was followed by the formation of the Asiatic Society for Oriental Learning in 1784 by James Mill, and the establishment of Benaras Sanskrit College in 1791. In 1801, Fort William College, the first college for western education was set up. In 1813, the **Charter Act Of 1813** was introduced, which implied the continuation of British Rule in India. Under this Act, INR 1 lakh per year was allocated to education. 1882 saw the Hunter Commission, which increased the quality of primary school education. In 1904, the Indian Universities Act was introduced, which brought the government into decision-making for universities. In 1917, the Sadler Commission helped improve the conditions of secondary education and establish autonomy in universities.

After the Independence of India in 1947, the government established different commissions to address the educational challenges and recommended comprehensive policies to improve the education system in India.

The National Council of Educational Research and Training (NCERT) is an autonomous organisation setup in 1961 by the Government of India to assist and advise the Central and State Governments on policies and programmes for qualitative improvement in school education.

Reforms by State Government of Andhra Pradesh

The government of Andhra Pradesh has implemented several initiatives to improve the education infrastructure in the state. The chief Minister of Andhra Pradesh Mr. Y.S.Jaganmohan Reddy has changed the face of education in the government schools with more facilities through Nadu-Nedu, Introduction of CBSE syllabus and English as a medium of instruction, printing of bilingual textbooks, giving students access to Byju's content, distribution of a tabs of students of Class 8th loaded with content, appointment of subject teachers from class 3 and digital teaching from class 6th. To enhance the students speaking and listening ability in English language training is being imparted to class 3 students in TOEFEL certification.

“A seed sown today will reap fruits in 20 years. A child admitted into government school today will face any competition and challenge the best after 20 years. This is what our mission is”, asserted chief minister Y.S.Jagan Mohan Reddy in assembly.

The State Government of Andhra Pradesh has taken different Digital initiatives in Schools. They are...

1. Digital Class Room

The Digital classroom is a "Technology-enabled" learning environment where Student learning and Interaction with the Teacher and Peers is fully supported through strategic use of Information and Communication Technology (ICT).

Principle Secretary, Education of Andhra Pradesh said "June, 12, 2023 will be remembered as a golden day in the era of teaching and learning through digital technology as AP will become the first state globally (out of 3,800 states in the world) where every classroom in government high schools will be done through an Interactive Flat Panel”.



2. Smart Televisions

The Andhra Pradesh state government installed 45,000 Smart Televisions in Government Schools in an effort to narrow down the gap between private schools and public schools. Officials have stated that every government school in Andhra Pradesh will have its own smart television for digital learning.



3. Interactive Flat Panels (IFPs)

Andhra Pradesh State Government Supplied 62,000 IFPs to Schools in the state. The programme aims to provide new-age learning opportunities to students. The traditional blackboards in government schools are being replaced with interactive flat panels.



4. BYJUS Tabs:

In Andhra Pradesh, BYJU'S content is provided to students in two ways: 1. Free tabs with pre-loaded BYJU'S content: The Andhra Pradesh government has distributed free tabs with pre-loaded BYJU'S content to over 5 lakh Class VIII students in the state. The tabs also come with an SD card, a cover, and an OTG cable.

With smart TVs, teachers can display interactive content such as video lessons, project videos, books, and more to engage students and foster active participation. Furthermore, real-time feedback on practice enhances classroom communication and creates a more dynamic learning experience.



5. Center for Teacher Accreditation (CENTA)

Centre for Teacher Accreditation (CENTA®) Private Limited is an end-to-end professional platform for teachers that works with 1 million teachers - probably the world's largest. CENTA aims to make teaching a more aspirational profession. CENTA works for teachers by: 1. Assessing and certifying the competencies of teachers 2. Connecting outstanding teachers to career opportunities, rewards and recognition 3. Supporting their professional development journey through the MyCENTA platform CENTA is a Registered Certification Trademark in India.



6. Personalised & Adaptive Learning labs(PAL)

The objective of this intervention is to help teachers identify and improve the student's actual learning levels, provide relevant assessments and educational content and help students to gain mastery at his/her grade level learning outcome in an efficient, convenient and transparent manner. PAL software first assesses a student's level of comprehension, then provides content that teachers targeted concepts. Through this, the students will be doing their assessment tests online and based on their reports remedial coaching will be given for their improvement.



7. State Institute of Educational Management & Technology (SIEMAT)

Andhra Pradesh State Institute of Education Management and Training (AP-SIEMAT) was established in the year 2005. SIEMAT aims to improve the quality of education in schools by providing training and professional development for School heads, administrators, and senior officials in the State. Decentralization of educational planning and management is a major concern in India. Translation of the idea of decentralisation into an operational practice requires creation of necessary organisational arrangements to make the practice administratively feasible and professionally supportive.

The need for developing organisational arrangements to facilitate educational planning in a decentralised framework was recognised for a long time in India. However, the efforts to create such organisational arrangements were not very successful. Planning competencies are almost non-existent at local levels and now it is recognised as one of the major constraints in translating the idea of decentralised planning into an operational practice. Development of local capacity in planning and management of education requires state level institutions to provide professional guidance and support. SIEMAT can be one of the organisational arrangements to help professionalising educational planning and management activities at the state, district and sub-district levels.



8. SCERT

The State Council for Education Research & Training (S.C.E.R.T), Andhra Pradesh was formed in 1967 on the lines of National Council for Education Research & Training, New Delhi and it was the first S.C.E.R.T in the country. It is an apex body to the Department of School Education, Government of Andhra Pradesh looking after academic matters of School Education viz., designing school curriculum, development of text books, hand books, teacher education curriculum, developing evaluative procedures for various classes from Class I to X, planning and implementing quality inservice teacher trainings and doing functional research activities etc.

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9. TOEFL

The TOEFL iBT test measures a test taker's ability to combine listening, reading, speaking and writing skills where it matters most — in the classroom. It gives your institution access to millions of students who have proven they have what it takes to succeed in an English-speaking academic environment.

The government has thus implemented the TOEFL (Test of English as a Foreign Language) training at school level itself for the students. He observed that TOEFL not only accelerates English learning, but also equips students with internationally recognised proficiency in the language.

The TOEFL syllabus has been designed to assess the reading, writing, listening and speaking skills of candidates in a university setting. The TOEFL exam and the TOEFL syllabus have been designed to assess various skills of the candidates and know their English language proficiency. Here is the complete TOEFL syllabus covering the writing, reading, listening, and speaking aspects of the TOEFL exam. The TOEFL exam is one of the most popular English assessment tests for candidates looking to travel to the USA, Canada or any major English-speaking country for higher education. The TOEFL exam is conducted by ETS and currently, the TOEFL test is available in three formats, TOEFL iBT (Internet-based format), TOEFL at Home (home-based TOEFL test) and TOEFL Test on Paper (held at both the TOEFL test centre and at home). In this article, we are going to be focussing on the TOEFL exam syllabus 2024.



10. “Nadu Nedu” Programme

Government of Andhra Pradesh have taken up ManaBadi Nadu Nedu to provide face lift to all Government Educational institutions by upgrading the infrastructure facilities in all Government Schools, Welfare Hostels, Junior colleges, DIET, CTE& IASEs colleges, Mandal Resource Centres, Bhavitha centres, Disabled Welfare Hostels in the state. The Role of GRAMA SACHIVALAYAM ENGINEERING ASSISTANT / WARD AMENITY SECRETARY is very important and crucial in implementation of ManaBadi Nadu Nedu. All efforts are being taken to develop a training module to impart extensive technical training to GRAMA SACHIVALAYAM ENGINEERING ASSISTANT / WARD AMENITY SECRETARY for successful implementation of ManaBadi Nadu Nedu. The GRAMA SACHIVALAYAM ENGINEERING ASSISTANT / WARD AMENITY SECRETARY will be trained in Schedule of Rates, Rate analysis, Preparation of Estimates, Execution of the Works of ManaBadi Nadu Nedu, Quality Procedures, Technical Specifications of different Material used, Quantifying & Measuring the works executed and Billing. This Technical Manual can be a reference book for GramaSachivalayam Engineering Assistant / Ward Amenity SECRETARY in executing ManaBadi Nadu Nedu Program.

The state government has launched ‘Nadu- Nedu’ scheme during November 14 2019 to take up the basic infrastructure works with nine (9) components i.ei. Toilets with running water, ii.Electrification with fans and tube lights, iii. Drinking water supply, iv. Furniture for students and staff, v. Painting to school, vi. Major and minor repairs, vii. Green chalk boards, viii. English labs, ix. Compound walls in all Government Schools for transformation of Government schools in the State.

“ManaBadi Nadu-Nedu” programme, the digital transformation of the conventional classrooms got a big push. Implementation of schemes like JaganannaAmmavodi, VidyaKanuka and Gorumudda and comprehensive academic and administrative reforms were introduced to improve learning outcomes of children studying in Government schools.



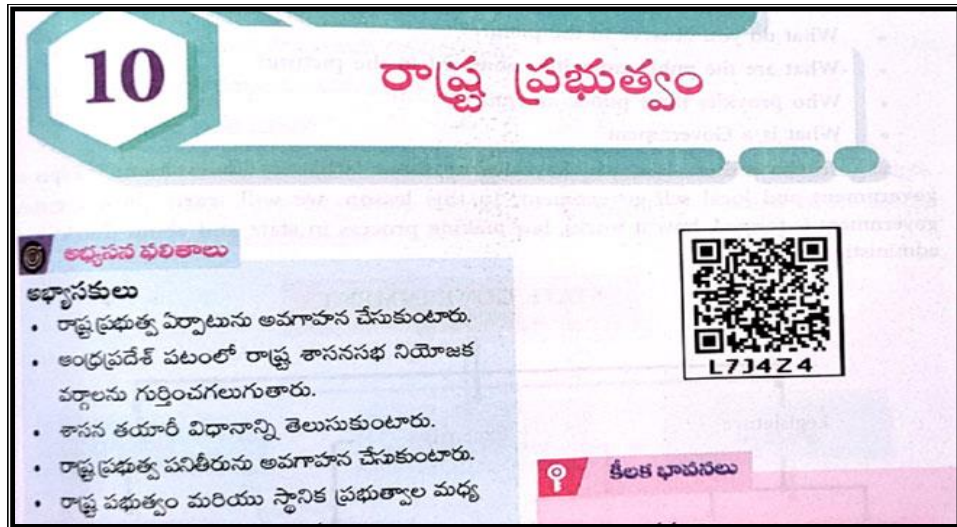
11. QR codes in Text books

The School Education department has decided to include QR codes in the language textbooks of class 6 to 10 students. The QR codes were introduced in the non-languages textbooks of class 6 to 10 students in the last academic year (2018-19).

Simple assessment tests will be incorporated at the end of every chapter through QR code. Students can scan it and answer the questions and share their scores on social media platforms. At present, the School Education department has been incorporating QR codes in textbooks for class 6 to 10 students with the technical support of the Central Square Foundation and Nandan Nilekani's EkStep Foundation.

As part of the QR initiative, digital links would be printed at the end of each chapter to help students get additional information of the subject. The QR code will help the students access digital material related to that particular concept, which could be a short video lecture or tutorial or a customised content. For example, in a Physics textbook, in the functioning of pendulum, there would be a QR code printed at the end of the chapter.

Scanning the QR code will lead to the video content of the functioning of pendulum, various formulae and other details. In fact, the school education department initially thought of bringing QR codes only for the class VIII students for last academic year (2018-19). But later, the officials included QR codes in the non-language textbooks of class 6 to 10 students.

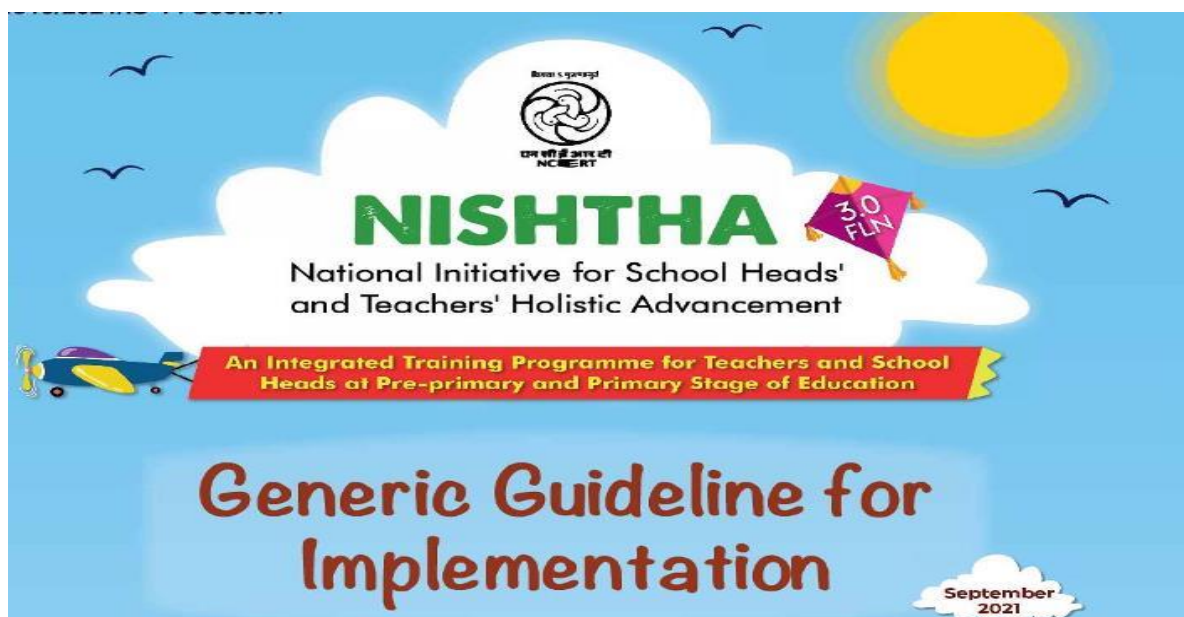


12. NISHTHA

NISHTHA is a capacity building programme for "Improving Quality of School Education through Integrated Teacher Training". It aims to build competencies among all the teachers and school principals at the elementary stage.

NISHTHA aims at training all teachers and heads of government schools at the elementary level, faculty members of SCERTs, DIETs as well as Resource Persons

from BRCs and CRCs. They will be oriented on developing their skills on various aspects related to learning outcomes, competency Based Learning and testing, Learner centred pedagogy, school safety and security, Personal social qualities, inclusive Education, Information and Communication Technology (ICT) in teaching learning including, Artificial Intelligence, Health and Kitchen garden, School Leadership qualities, Environmental Concerns, Pre School, Pre Vocational Education and School Based Assessment in a joyful learning manner etc. • The Andhra Pradesh state has identified 1114 Key Resource Persons and 238 SRPL State resource persons Leadership who have technical knowledge and content knowledge to provide online training to teachers in the state. • NISHTHA integrated training covers all the recommended areas and aims at holistic development of teachers. Under NISHTHA online training, 1150 SRGs and 90,000 Secondary grade teachers working in state governed schools will be covered from 13 districts in a span of 3 months.



2. Objectives:

- A) To find out the influence of digital classroom on the interest of students.
- B) To find the impact of smart TVs and the classroom academic development.
- C) To study the impact of Interactive Flat Panels on the developmental activities of students.

- D) To compare the BYJU's Tabs content with the academic text book content syllabus.
- E) To find the impact of PAL Programme on the academic standards of mathematics among the High School Students.
- F) To study the awareness, attitude and practice of the QR code by the students and teachers.

3. Hypothesis:

1. The level of Digital Classroom impact among the students is high.
2. The impact of Smart TVs in the classroom is favourable to the classroom academic development.
3. The impact of Interactive Flat Panels in the classroom is high to the classroom academic development.

4. Data Collection:

The method adopted for the present study was determined by considering the nature of the problem, the kindness of the data required and the objectives of the study. So the investigator adopted survey method for the study.

Tools used: The following tools are used to measure the variables.

- A) Opinion of the students regarding different digital gadgets and their usages.
- B) Awareness, Attitude and practice questioners were prepared on 5 point scale issued to both the teachers and students.

5. Data Analysis:

On the basis of the objectives of the study both the teachers and students were given the questioners and meant for the following statistical analysis.

- A) Percentages B) E-Test C) Chi-Square Test D) Correlation Analysis

6. Results and Findings:

The results will be made on the above procedures.

7. Summary and Conclusions:

Basing on the statistical procedure and findings of the results conclusions were to be made.

8. Recommendations:

The following recommendations were made on the basis of findings and conclusions of the report.

9. Bibliography :

Different websites from Internet Sources