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RESEARCH ARTICLE

DIGITAL CLASSROOMS: A BOON FOR ACHIEVING QUALITY EDUCATION IN INDIA.

Uma Sheokand.

Research Fellow, Panjab University, Chandigarh (India)-160014.

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Abstract

India has taken several programmes, policies and practices to reach educational goals in the nation especially for the universalization of primary education. No doubt, there has been great progress in the last decade in primary education in India. The gender, caste and demographic disparities in primary education have markedly reduced at national, state and at grass root levels. But quality education is still a big hurdle in achievement of goals of primary education in India. An attempt has been made to in this paper to discuss the several policy initiatives taken by Government of India, to throw light on the success achieved, challenges faced and remedies for the achievement of quality education in Indian schools. The central focus of the paper is to discuss how digital classrooms can be a boon for achieving quality education in India. Pedagogy, methods of teaching, innovative and more creative approach, in form of digital classroom can conquer the hurdles in way of achieving quality education in India.

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Introduction:-

Education is a dynamic force in the life of every individual influencing the physical, mental, emotional, ethical and social development of the individual. Therefore, every child must have access to early education that is of good quality. The primary education is the foundation of learning for life, it ensures whether the child will become a good citizen or not. Children are the future of any country and primary education is the first stepping stone towards the educational literacy of a child. To make child, a better citizen, primary education plays a very significant role. It provides a sound base for learning and helps to develop skills, knowledge, development of a sense of social responsibility and all round personality development. Primary education should be a basic human right, as it is both transformative and empowering. Beyond this intrinsic importance, it is also indispensable for the enjoyment of other human rights and is a means for accessing broader social, economic, political and cultural rights and benefits. 'Primary education must be ensuring that children have positive experiences and that their needs for health, stimulation and support are met, and that they learn to interact with their surroundings' (UNESCO 2007) Education contributes to building more just societies through reducing poverty and inequalities. No country has ever climbed the human development ladder without steady investment in education.¹

¹Thematic Paper on MDG 2 UNDG, Available at http://www.undg.org/docs/11421/MDG2_1954-UNDG-MDG2-LR.pdf. Accessed on 12th January 2014.

Corresponding Author:- Uma Sheokand.

Address:- Research Fellow, Panjab University, Chandigarh (India)-160014.

Objective:-

The objective of the subject matter is to analyze the various policy initiatives taken by government of India to improve the education in India. Hurdles faced by government in achieving educational goals, and to illustrate digital classrooms as a solution for achieving quality education in India.

Methodology:-

For analyzing the initiative taken by government of India for upliftment of primary education in India, secondary data have been used. As the subject matter focuses on the analysis of the condition of Primary education in India the data have been collected from United Nations Development Programme (UNDP), World Bank, Ministry of Human Resource and Development (MHRD) and National Educational University of Planning and Administration (NEUPA) website for the analysis of the condition of Primary education in India. Besides it, the analysis of newspaper reports and authentic online data will also form the part of data. This paper will also discuss the digital classrooms as a solution to achieve primary education goals in India.

Key milestones in India's march towards Primary Education:-

The Indian government took several steps including the setting up of the education Commission besides framing many programmes and policy initiatives, which are as follows:

- ❖ Kothari Commission (1964–66); this commission was set up to formulate a coherent education policy. This Commission comprehensively reviewed the entire educational system and Commission reported that Indian education system needed a drastic realignment and reorganization. This Commission gave many suggestions and recommendations to improve education system in India. The Government of India also expressed strong political will by implementing its recommendations in form of “The National Policy of Education (NPE) 1968”
- ❖ The National Policy of Education (NPE) 1968 was necessary for “radical restructuring” and equalization of educational opportunities and commitment to the universalisation of elementary education. NPE 1968 marked a significant step in the history of education in post independence India. The overall objective of the government was to make education relevant to the emerging environment by way of encouraging social and economic skills. The National Policy of Education (NPE) 1968 has expressed strong political commitment to the Universalisation of elementary education. The programme of action (POA) was started in 1985 for implementing the NPE has rightly observed, NPE give an unqualified priority to Universalisation of elementary education (UEE). The Government of India took many steps to implement NPE, which are
 - ❖ Universal Enrolment and Universal Retention,
 - ❖ Universalisation of facilities,
 - ❖ Curriculum improvement,
 - ❖ Teacher Training and Dynamic methods of teaching
 - ❖ Social Enlightenment and Awareness.
- ❖ National Policy of Education (NPE) (1986 and 1992)² The National Policy of Education 1986/92 states that “In our national perception, education is essentially for all.” This policy was a key milestone in India's march towards goals of “education for all” campaign. The main objective of the National Policy of Education of 1986/92 (Programme of Action, 1992) was to develop a national system of education to express and provide its unique socio cultural identity and also to meet the challenges of the times, so that all students irrespective of caste; creed, sex, and religion have access to education of a good quality. The policy emphasized the need for more financial assistance to education sector.³ India launched a series of national initiatives under the umbrella of NPE 1986/92 to enhance education. Many initiatives were taken under the umbrella of this policy i.e.
 - ❖ National Literacy Mission (1988)
 - ❖ Minimum Levels of Learning (MLL) Programme (1991)
 - ❖ Programme of Action (POA) (1992),
 - ❖ National Advisory Committee (1992),
 - ❖ District- specific programmes (1993)
 - ❖ District Institute of education and Training (DIETs) were structured as per the needs of district and effectiveness of institutions.
 - ❖ State Councils for Educational Research and Training (SCERTs) were strengthened for purpose of recruitment of appropriate faculty, linking of DIETs, resource centres, maintenance of school buildings etc.

²National Policy on Education, (NPE), (1986) Ministry of Education, Government of India, New Delh.

³Ibid.

- ❖ Programme of Sarva Shiksha Abhiyan (SSA)⁴ Sarve Shiksha Abhiyan (SSA) is a nation wide, time- frame programme, for quality and basic universal primary education in India with the effective partnership between Central, State and Local governments by involving the Panchyaty Raj institutions, the School Management Committees, Village Education Committees, Parents' Teachers Associations to reach its objectives i.e to provide useful and relevant elementary education for all children from 6 to 14 years by 2000. Its overall goals included universal access and retention, bridging of gender and social category gaps in education and enhancement of learning levels of children.
- ❖ The Right of Children to Free and Compulsory Education Act (RTE), 2010

Providing free and compulsory education to all children is a goal that is enshrined in the Indian Constitution as a Fundamental Right. This, indeed, is also the focus of the World Declaration on 'Education for All', adopted as an international campaign.

The RTE Act provides legal entitlement to free and compulsory education to all children in the age group of six to fourteen years is a fundamental right under article 21A, inserted in the constitution (i.e. 86th Amendment, 2002), This act mandated norms, standards, free entitlements, provided a justifiable legal framework that entitles all children between the ages of 6-14 years for free of cost and compulsory admission, attendance and completion of elementary education in India. It provides for development of curriculum in consonance with the values enshrined in the Constitution, and which would ensure the all-round development of the child, building on the child's knowledge, potentiality and talent and making the child free of fear, trauma and anxiety through a system of child friendly and child centred learning"⁵

Primary Education in India:-

As the EFA agenda approaches the 2015 deadline, as it's a great pleasure that India not only tracks the progress made towards the EFA goals but also highlights different progress rate in different parts of the nation. India, undoubtedly, has made substantial progress towards achieving EFA goals during the last two decades. The efforts put in by the Indian Government, various agencies, academicians etc for undertaking the EFA goals and above all to all the State Governments and Union Territory Administrators in country whose educators, teachers and academician and communities have all contributed unstintingly to this massive national endeavor of reaching the EFA goals in the country. There is brief review of the progress made in with respect to each of the EFA goals and the challenges that remain to be addressed. As per the Annual Report of "Education for All" 2014-15 India has witnessed phenomenal growth of school education, not only in terms of institution, infrastructure, but also in excess, enrolment and retention rate also. There is significant reduction in gender disparities at national, state and at the local level in India⁶.

Growth in Primary Schools: Over a period of time, a steady growth in schools has seen in the recent years as 1,98,493 new school has opened from 2002-03 till 2013-14 in India which is 24.41 percent of total primary schools of the nation. More than 95 percent schools have a building. 96 percent the total new school opened in rural areas.⁷ There are several categories of schools in India. There is significant growth of educational institution in India. During the period 2000-01 to 2013-14, the total number of primary schools (schools with only primary section) has increased by 34.5 percent i.e. from 6,38,738 to 8,58,916 schools).⁸

Access to school, has improved for most of the children as almost all areas have schooling facility within close vicinity of 3 km with the different form of schooling (such as community schools, mobile schools, distance learning and through contracting out their responsibilities to various types of Non Government organisations etc. *Enrolment:* according to the recent data (NUEPA, 2013), As many as 14.1 lakh elementary schools enrol of 137.1 million learners at the primary level and 64 million at the upper primary level.⁹ *Retention:* According to Annual report of EFA 2014-15, India's One of the world's largest Mid Day Meal program provides 108 million children school meals

⁴ Available at www.ssa.nic.in/, Accessed on 7, March 2013

⁵ <http://mhrd.gov.in/rte> Accessed on 4, January 2015

⁶ Education for All: Towards Quality with Equity (2014-15) NUEPA, MHRD, New Delhi

⁷ *Ibid.*

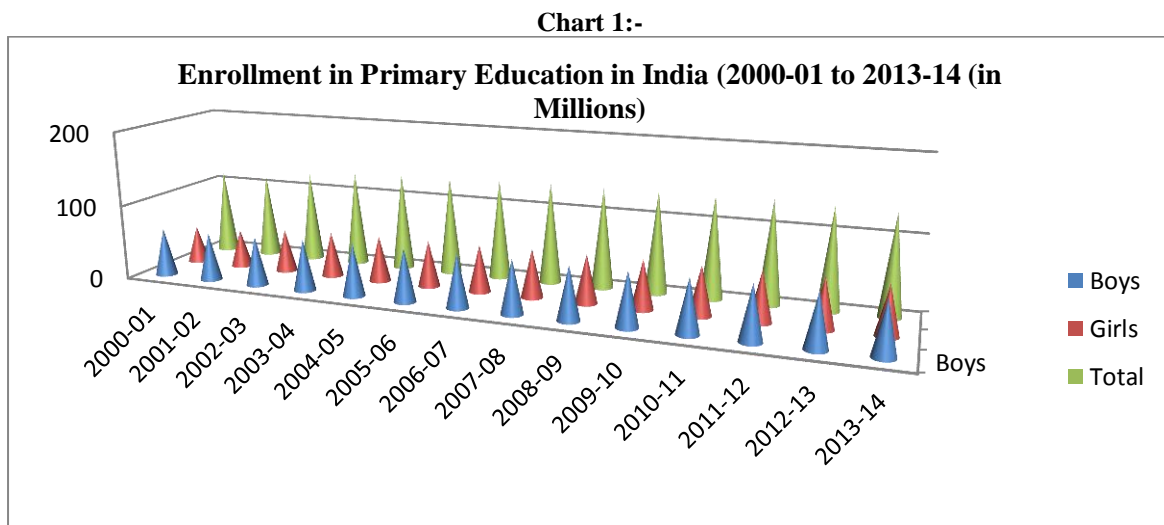
⁸ *Ibid.*

⁹ NUEPA, 2013. *Elementary Education in India: Progress Towards UEE, Flash Statistics, DISE, 2011-12, Provisional*; NUEPA, New Delhi, India.

daily to help retention. *Basic Facilities in Schools:* As per Annual report of EFA 2014-15, there is improvement of basic facilities in schools. In India school and other indicators, facilities in schools have improved significantly it may be physical, ancillary or teaching- learning facilities. Some of the other major facilities available in schools are: Drinking Water Facility: About 94.87 percent schools in 2013-14 had drinking water compared to 94.87 percent in 2012-13 and 83 percent in 2005-06.¹⁰ Toilet Facility: The percentage of schools with boys' toilet is 94.45 out of which 92.67 percentage are functional compared to 84.63 percentage of schools have girls' toilet out of which 91.62 are functional. Around 45 percentage schools have hand wash facility available near toilet.¹¹

Computer Facility in Schools: During the period 2004-05 to 2013-14, the number of schools with computers increased substantially from 8.99 to 23.30 in India.¹² *Mid-Day Meal Scheme:* Providing nutritious food to all children under the mid-day meal scheme is one of the ambitious programmes of the government. In 2006-07, 29 percent of schools managed by the government (including aided schools) had kitchen-shed in school.¹³ Financial Assistance to Schools: Over a period of time, the number of schools receiving school development and TLM grants increased substantially. Compared to 7,24,682 schools that received school development grant in 2003-04, the corresponding figure in 2007-08 was 8,82,745 schools (79.67 percent), reaching a high of 10,11,788 (69.84) in 2012-13.

Enrolment-Based Indicators in Primary Education in India: Enrolment in Primary Schools: The enrolment in primary classes increased between 2000-01 to 2013-14. Enrolment in primary education increased steadily up to 2010-11 and then showed a declining trend, as it is concluded from the chart 1. The enrolment in primary education reached the highest level in 2011-12 (137.1 million) and then declined to 134.8 million in 2012-13 and to 132.4 million in 2013-14. Between 2011-12 and 2013-14, the total enrolment in primary education decreased by 4.7 million, while the enrolment of girls and boys decreased by 2.5 million and 2.2 million respectively.



Source: Statistics of School Education, 2007-08, MHRD, GoI and Unified System of Education U-DISE), National University of Educational Planning and Administration (NEUPA)

Improvement in Pupil Teacher Ratio: Increase in the number of teachers is also reflected in the pupil-teacher ratio which has shown consistent improvement. Overall PTR was hovering around 30, it has reduced significantly from 36 in 2005-06. During 2013-14, at the primary level, it was 25 students per teacher. Number of districts where PTR was above 30 was 219.¹⁴

¹⁰ *Education for All: Towards Quality with Equity*, (2014-15) National Educational University of Planning and Administration (NEUPA), New Delhi

¹¹ *Ibid.*

¹² *Ibid.*

¹³ *Ibid.*

¹⁴ *Id: at 23*

India has put in place comprehensive capacity development programmes. In spite of several efforts made by the government, the quality Education (UEE) has not been achieved even after more than six decades of independence. The some basic reasons for the present low education quality in India is traditional way of teaching, poor deployment of teachers and poor teaching quality.¹⁵ No doubt there is growth in education quantitatively but when comes to the quality education. Which is sometime far away from ground reality, as reported by *Pratham, There is not much quality education in India specially in rural schools. Students are lacking in Arithmetic and language skills.* It resulted from traditionally designed education system, organizations and institutions that can restrict the effective teaching learning process¹⁶.

Some of the changes required present Education System:-

1. **Knowledge and wisdom; rather than rote learning:** Today in the new era such a generation is required which can apply, what they have learnt rather than those who can repeat their reference books. Creativity and innovation citizens are the need of the hour who can think and take decision having a clear world-view based on information gathered in classrooms rather than repeating information fed to them.
2. **Application rather than learning:** Students study from standardized textbooks and can even explain them very well, but when it comes to practical application of their knowledge, it becomes a problem for them. There has been time-worn pedagogy where the focus has been on memorizing rather than application.
3. **Learning outcomes rather than good marks:** Good marks have been the key for students across the Indian subcontinent. It is pretty common in India for families and relatives to create a lot of pressure for students to perform for students to perform exceedingly well academically. Learning as a concept is ignored, as the focus is on scoring high percentages that may not justify the rationale of creating educated, aware individuals in society. Today education needs to be consumed by the young generation. If India want to look beyond Sir C.V. Raman as the only Noyal laureate in field of science from India: we need to look beyond traditional way of teaching students and should move towards implementing learned concept, which clearly defines the skills, and knowledge.

Benefits of Digital Classrooms:-

1. **Online events and competitions:** There is no better education with other students within same field. School holds competitions that student of nearby schools can participate in. It also becomes a platform to showcase the talent of the students. Now with a digital classroom, schools can hold online events and can even increase the talent of the students. Now with a digital classroom, school can hold online events and can increase the frequency of these online events.
2. **Sharing of Quality faculty available remotely:** Technology has the capability to collaborate and communicate and hence school can partner with leading teachers to train the students in their respective fields. The major problem faced, is to find quality facilities for the new establishments, which is not an easy task.
3. A new innovative way that can be introduced by leveraging technology is 'Sharing of Faculties', which means every educational establishment, can share their facilities with few other campuses can be scheduled remotely. This in turn will improve the quality of the education and at the same time will reduce travelling cost of the faculties.
4. **Experiential Learning:** Digital learning redefines the boundaries of a classroom. Sitting in a class, the teacher can make the students experience the application of a concept through 3D content and photographs. Imagine history lessons on Mughal architecture using high-resolution pictures, graphic stories and recorded light and sound rather than boring notes dictated to class.
5. **Knowledge Management:** One of the most important things that a school has to do is showcase their schools, pedagogy, curriculum to large number of inspectors and visitors that come to the school. Digital classroom will enable a large collection of assignment, tests, question bank, digital content and e-books and recorded lectures. This is knowledge management, which automatically happens as a result to adopting a good digital classroom technology.
6. **Playful learning process:** Today the student needs continuous assessment in order to keep them engaged with the subjects. This in turn can be made more interesting through Playful innovative methods of learning. The students can be given hurdles to cross in order to move to the next segment, adding a hint of fun and excitement while learning.

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¹⁵PullaRao, (1998) *Economics of Primary Education*, Jaipur; Rawat Documentatons,

¹⁶ Op.cit, Thematic Paper on MDG 2 UNDG,

7. **Teacher Training:** To improve the quality of education, the quality of teachers has to be improved first, which can be done by leveraging technology in a way that a 'Teacher Development Program' can be started with some of the best teachers across the country and twice or thrice a month can train young teachers from other participating establishments remotely via live sessions.
8. **Improved efficiency:** Every quarter many teachers waste more than 10 working days in preparing stuff like marks entry, collating reports, class plans etc. Use of digital tools can help them to reduce the time invested on such activities and the time thus saved can be utilized for other purposes like research and development.

Conclusion:-

Education is the base of social and economical development of any country. The process of giving and receiving systematic instruction at a school is called as education and the method of education is called pedagogy. It is this pedagogy that needs to change for quality education in modern India. Using digital technology in classroom, the quality of education can be enhanced significantly. In addition to this, it will enhance motivation and interest of children towards studies. This will make learner's performance more innovative and practical, which is the need of the hour.