

AN ANALYTICAL STUDY AND RELATION OF ACADEMIC INVOLVEMENT OF TEACHERS IN SCHOOLS EDUCATION OF BIHAR: A REVIEW

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1 INTRODUCTION

Bihar, located in East India, holds a rich historical significance. With a geographical expanse of 94,163 km², it ranks as the 13th largest state in terms of size. This state also holds the third spot in terms of population and has experienced rapid growth. The term "Bihar" finds its origins in the Sanskrit and Pali languages, translating to "abode." This name resonates with the historical presence of Buddhist viharas, the dwelling places of Buddhist monks in both ancient and medieval times. Over the past millennium, Bihar has maintained its status as a hub of culture and education.

In July 1993, a remarkable shift happened in Bihar's instructive scene as the public authority suspended the pre-school preparing of essential educators in Pre-Administration Instructor Training Focuses (PTECs) and B.Ed. colleges. This obvious a difficult period for educator training in the state. Be that as it may, when the new century rolled over, the Bihar government embraced critical endeavors to rejuvenate instructor schooling. Teaming up with associations, for example, UNICEF and the Normal School Commission, the public authority used state surveys to direct its activities.

1.1 Evolution of Elementary Education

The Area Fundamental Guidance Program (DPEP), Sarva Siksha Abhiyan (SSA), and the Bihar Preparing Adventure (BEP) have implanted new life into the educational system. After the Right of Children to Free and Obligatory Schooling Act was passed in 2009, the educational scene in Bihar, both at the public level and within the state, experienced a revival driven by innovative ideas, challenges, and valuable opportunities. This guideline has spread out simple tutoring as an inherent proper for each youngster the nation over.

As shown by the transitory data

from the Locale Information Structure for Guidance (DISE) for the year 2011-12, Bihar boasts a joined count 68,923

schools gave to giving fundamental and upper fundamental preparation, falling under the space of simple preparation. Over the span of late years, the amount of government schools has shown a constant ascent, as included by the coordinated information got from DISE data.

Table 1 Number of Government Schools, Bihar

	Total	Primary	Upper Primary
2011-2012	68,853	40,906	27,947
2010-2011	67,622	41,757	25,865
2009-2010	66,842	43,677	23,165
2008-2009	66,785	47,578	19,207
2007-2008	65,779	49,632	16,147
2006-2007	50,589	36,667	13,922

2 LITERATURE REVIEW

Shyam¹ presented Bihar is the twelfth largest state in India with an area of 98,163 square kilometres (Census of India, 2011). The river Ganga divides the state into two natural regions: North Ganga plain and South Ganga plain. Administratively, the state has been divided into 9 divisions, 38 districts, 101 subdivision, 534 blocks, 8,471 Panchayats and 45,103 revenue villages (Govt. of Bihar). Demographically, it is the third most populous state in the country with a population of 103,404,637 with 54,185, 347 male and 49,619,290 female populations. Bihar has a population

¹ Dr. Shyam Sundar Sharma, "Involvement Of Teachers (Panchayat Shikshak, Prakhand Shikshak And Nagar Shikshak) Under Sarve Shiksha Abhiyan(Ssa) Of Bihar Education", Think India Journal, Vol-22, Issue-10, November-2019, pp. 5505-5515.

density of 1,102 persons per square kilometre (Census of India, 2011). Schedule Castes (SCs) constitute 15.9% of the total population whereas Schedule Tribes (STs) constitute only 1.28% of the total population. The percentage of Muslims in the state is 16.53% (Census of India, 2001). The population in the age group of 0-14 years in Bihar amounts to 37.3%: respectively 37.4% and 37.1% male and female. Bihar is a predominantly rural society with 88.7% of the population living in the villages (Census of India, 2011). According to the Census of India (2011), literacy rate of Bihar is 63.8%, (73.4% male and 53.3 % female). Literacy rate in urban areas is 78.75% (84.42% male and 72.36% female); in rural areas it accounts for 61.83% (male 71.90% and female 50.82%). The District Primary Education Programme (DPEP), Sarva Siksha Abhiyan (SSA) and the Bihar Education Project (BEP) have provided new impetus to the school education system. The pace of growth of education system of the country and that of Bihar was renewed owing to new ideas, issues and challenges with the notification of the Right of Children to Free and Compulsory Education Act, 2009, which makes elementary education a fundamental right of every child in the country.

Kumar (et.al.)² proposed Before 1970s most of the schools in Bihar were run by the community. After takeover of all these community run schools by the state government between 1976 and 1981, community school relationship gradually became very poor. It was later realized that universal school education is impossible without reestablishing organic linkage between community and schools and efforts were made to revive the linkage through formation of School Management Committee (SMC) in all public and government aided schools. In this paper authors have tried to look into the changing pattern of SMCs since its inception and impact of SMCs in fomenting relationship between schools and community in Bihar.

Savita (et.al.)³ revealed Free and

compulsory education has been enshrined in the Indian Constitution since its inception. It became a guiding force in the form of Article 45 for providing basic education for all the children up to the age of fourteen years. Even after more than 60 years of independence some states in India are still struggling to achieve Universal enrollment, retention and quality education. The present status of progress of elementary education is varied in nature. In some states the progress is distinctly noticeable, while on the other hand some Indian states are still struggling to achieve the goal of Universalization of Elementary Education (UEE) for all. In the first part of this article the authors have made an attempt to analyze the educational development of the State of Bihar vis-a-vis all the states of India. The entire analysis is based on the District Information System for Education (DISE), 2006- 07 data base of its published analytical report, flash statistics and state report cards which is collated and published by the National University of Educational Planning and Administration (NUEPA). The article has been divided into two parts, the first part deals with the development of DISE in India as a whole and its implications regarding elementary education. It stresses upon Bihar's progress in achieving the goal of UEE. In the second part of the article, the educational development of two states i.e. Bihar with Kerala have been compared in terms of different educational indicators which are vital for providing Universal Elementary Education.

Sorensen (et.al.)⁴ indicated G. Sorensen is the principal investigator for the Bihar School Teachers' Study; she led study conceptualization and design and writing of the article and oversaw evaluation. M. S. Pednekar oversaw study implementation in India and was responsible for study evaluation. D. N. Sinha directed all aspects of study implementation in Bihar, including directing all contacts with participating

Cards 2006-07, Elementary education In India: Where do we stand? NUEPA, New Delhi, pp. 1-15.

⁴ Glorian Sorensen, Mangesh S. Pednekar, Dharendra N. Sinha, Anne M. Stoddard, Eve Nagler, Mira B. Aghi, Harry A. Lando, Kasisomayajula Viswanath, Pratibha Pawar, and Prakash C. Gupta, "Effects of a Tobacco Control Intervention for Teachers in India: Results of the Bihar School Teachers Study", American Journal of Public Health, Vol 103, No. 11, November 2013, pp. 2035-2040.

² Dr. Khagendra Kumar, Prabhunath Singh, "Quality Education and Management of Public Schools in Bihar (India)", International Journal of Humanities and Social Science, Vol. 6, No. 9; September 2016, pp. 128-134.

³ Savita Kaushal, Sudhanshu S. Patra, "Elementary Education in Bihar: Some Reflections from DISE Data", (2008): State Report

schools. A. M. Stoddard led evaluation design and data analysis. E. Nagler led the design of the intervention and training protocol. M. B. Aghi led collection and analyses of qualitative data and contribute to intervention design. H. A. Lando contributed to the intervention design, particularly cessation methodology, and provided guidance on the cotinine pilot. K. Viswanath led the design of the health communications. P. Pawar led the collection and analyses of the process evaluation. P. C. Gupta is the lead investigator in India and oversaw all aspects of the study in India. M. S. Pednekar, D. N. Sinha, A.M. Stoddard, E. Nagler, and H. A. Lando helped write the article, and all authors approved the final version.

M. Nagler (et.al.)⁵ presented Tobacco use within India has significant effects on the global burden of tobacco-related disease. As role models and opinion leaders, teachers are at the forefront of tobacco control efforts, yet little is known about their own tobacco use. This study examines the association between factors in the social environment and tobacco use among teachers in Bihar, India. The study was based on the Bihar School Teachers' Study baseline survey. Seventy-two Bihar government schools (grades 8–10) were randomly selected for the study and all school personnel were invited to complete the survey in June/July in 2009 and 2010. We assessed the relation between social contextual factors and current smoking/smokeless tobacco use by fitting a series of logistic regression models. After controlling for clustering of teachers in schools and other covariates, our results showed teachers with one or more coworkers who used tobacco were twice as likely to be smokeless tobacco users as teachers with no co-workers who used tobacco. Teachers who reported rules prohibiting smoking at home were significantly less likely to smoke than teachers without such rules. Older male teachers also had significantly greater odds of smoking/using smokeless

tobacco. These findings provide direction for future interventions targeting the social context.

Karim⁶, proposed According to the Indian constitution, one of the fundamental rights is the right to education, and secondary education is an important sub-sector of the entire education system because it shapes and directs the child toward a bright future. Bihar has historically been a major centre of learning and is home to one of the oldest universities in the country, but the state's modern education system paints a different picture. Bihar has the lowest literacy rate in the country, at 61.80%, according to the latest census data. The purpose of this paper is to investigate the state of secondary education in Bihar. This research is based on content analysis, which includes newspaper articles, articles from reputable sites such as CENSUS, U-DISE, NUEPA, and NCERT, and reports from reputable sites such as CENSUS, U-DISE, NUEPA, and NCERT, among others. The data shows Bihar's vulnerability in achieving secondary education after analyzing several reports and articles. According to NUEPA statistics for 2014-15, Bihar's net enrolment ratio in secondary education fell to 42.08 percent, compared to 93.77 percent in primary education. Although the Bihar government has made significant efforts at the secondary level, such as making text books available to all secondary students at a low cost through BSTPC and introducing several schemes such as Bihar Shatabdi Mukhyamantri Balika Poshak Yojna, Mukhyamantri Bicycle Yojna, and Shaikshnik Paribhraman Yojna, the overall transition rate from elementary to secondary education remains at 84.64 percent. The study of secondary education in Bihar highlighted the major issues that require immediate attention and action in order to ensure that high-quality education is maintained.

Bano (et.al.)⁷ revealed Bihar is one of the fastest growing states in India. It has been one of the oldest hubsof

⁵ Eve M. Nagler, Dharendra N. Sinha, Mangesh S. Pednekar, Anne Stoddard, Prakash Gupta, Neha Mathur, Harry Lando, Mira Aghi, Laura Shulman, Vish Viswanath and Glorian Sorensen, "Social contextual factors and tobacco use among Indian teachers: Insights from the Bihar School Teacher's Study", *Prev Med.* 2015 May ; 74: 24–30. doi:10.1016/j.ypmed.2015.01.021.

⁶ Orusa Karim, "Status of Secondary Education in Bihar: An Overview", *Journal of Humanities and Education Development*, Vol-4, Issue-3, May-Jun 2022, pp. 229-236.

⁷ Nargish Bano, Nurul Hoda, "The study of Infrastructure Management in Elementary Schools of Bihar", *International Journal of Social Relevance & Concern*, Volume 6 Issue 1 January 2018, pp. 5-11.

education of the country. In spite of having occupied an eminent place in higher education, it has not been extended to its school education system. Schools are always regarded as an important part of our social reforms and playing a significant role in the growth and development of the country. It is always the highest priority sector of India's governments. The government aimed to make the educational accessible by making investment in education infrastructure and recruitment of academic staff and teachers. Current educational system has many merits and demerits at secondary school level. This paper describes the need of essential infrastructure for the achievement of ultimate goal of Government Education System. The objective of the study was to find out the infrastructure distribution in the elementary schools of Bihar state, in respect of Computer facility, Electricity, toilets, classrooms and student teacher ratio etc. This is a comparative study. Secondary data was used for the study. Findings of the study show that there is a major problem of non-availability of suitable infrastructure in the schools. The infrastructural gap is very large.

Shinde (et.al.)⁸ indicated Schools can play an important role in health promotion by improving students' health literacy, attitudes, health-related behaviours, social connection and self-efficacy. These interventions can be particularly valuable in low- and middle-income countries with low health literacy and high burden of disease. However, the existing literature provides poor guidance for the implementation of school-based interventions in low-resource settings. This paper describes the development and pilot testing of a multicomponent school-based health promotion intervention for adolescents in 75 government-run secondary schools in Bihar, India. The intervention was developed in three stages: evidence review of the content and delivery of effective school health interventions; formative research to contextualize the proposed content and delivery, involving intervention

development workshops with experts, teachers and students and content analysis of intervention manuals; and pilot testing in situ to optimize its feasibility and acceptability. The three-stage process defined the intervention elements, refining their content and format of delivery. This intervention focused on promoting social skills among adolescents, engaging adolescents in school decision making, providing factual information, and enhancing their problem-solving skills. Specific intervention strategies were delivered at three levels (whole school, student group, and individual counselling) by either a trained teacher or a lay counsellor. The pilot study, in 50 schools, demonstrated generally good acceptability and feasibility of the intervention, though the coverage of intervention activities was lower in the teacher delivery schools due to competing teaching commitments, the participation of male students was lower than that of females, and one school dropped out because of concerns regarding the reproductive and sexual health content of the intervention. This SEHER approach provides a framework for adolescent health promotion in secondary schools in low-resource settings. We are now using a cluster-randomized trial to evaluate its effectiveness and cost-effectiveness.

Mathur (et.al.)⁹ presented Implementation of no tobacco policies in schools is associated with lower tobacco use among teachers and students. In this study we assessed the extent that a school-based intervention for teachers resulted in adoption and implementation of tobacco control policies. From a random sample of government schools (8th-10th), 72 were randomized into intervention and control conditions. Intervention included health education programs for teachers and support for tobacco control policy implementation. Adoption and implementation of policies were assessed at baseline and immediately after intervention. All 36 intervention and one control school adopted a tobacco-control policy. Higher enforcement of tobacco-control policy was

⁸ Sachin Shinde, Bernadette Pereira, Prachi Khandeparkar, Amit Sharma, George Patton, David A Ross, Helen A Weiss & Vikram Patel, "The development and pilot testing of a multicomponent health promotion intervention (SEHER) for secondary schools in Bihar, India", *Global Health Action*, VOL. 10, 2017, pp. 1-13.

⁹ N Mathur, MS Pednekar, GS Sorensen, EM Nagler, AM Stoddard, HA Lando, MB Aghi, DN Sinha, PC Gupta, "Adoption and Implementation of Tobacco Control Policies in Schools in India: Results of the Bihar School Teachers Study", *Asian Pacific Journal of Cancer Prevention*, Vol 17, 2016, pp. 2821-2826.

at post intervention (OR=3.26; CI: 2.35, 4.54) compared to baseline in intervention schools. Some 64% of intervention and 28% control schools showed "improvement" in policy implementation. Adoption and implementation of no tobacco policies was positively impacted by intervention. This study provides support for scaling up of school-based tobacco control interventions to promote school tobacco control policies.

Singh (et.al.)¹⁰ proposed Soil-transmitted helminths (STHs) infect over a billion individuals worldwide. In India, 241 million children are estimated to need deworming to avert the negative consequences STH infections can have on child health and development. In February-April 2011, 17 million children in Bihar State were dewormed during a government-led school-based deworming campaign. Prior to programme implementation, a study was conducted to assess STH prevalence in the school-age population to direct the programme. The study also investigated risk factors for STH infections, including caste, literacy, and defecation and hygiene practices, in order to inform the development of complementary interventions. A cross-sectional survey was conducted among children in 20 schools in Bihar. In addition to providing stool samples for identification of STH infections, children completed a short questionnaire detailing their usual defecation and hand-hygiene practices. Risk factors for STH infections were explored. In January-February 2011, 1279 school children aged four to seventeen provided stool samples and 1157 children also completed the questionnaire. Overall, 68% of children (10-86% across schools) were infected with one or more soil-transmitted helminth species. The prevalence of ascariasis, hookworm and trichuriasis was 52%, 42% and 5% respectively. The majority of children (95%) practiced open defecation and reported most frequently cleansing hands with soil (61%). Increasing age, lack of maternal literacy and certain castes were independently

associated with hookworm infection. Absence of a hand-washing station at the schools was also independently associated with *A. lumbricoides* infection. STH prevalence in Bihar is high, and justifies mass deworming in school-aged children. Open defecation is commonplace and hands are often cleansed using soil. The findings reported here can be used to help direct messaging appropriate to mothers with low levels of literacy and emphasise the importance of water and sanitation in the control of helminthes and other diseases.

Misra (et.al.)¹¹ revealed Purpose – The purpose of this paper is to undermine the role of cellular technology, government and the funding agency to deliver reliable and cost-effective health services for the people living in the bottom of pyramid and remote areas of the country where quality healthcare facilities are not available. The people living in rural Bihar (India) have a limited education and are reluctant to visit the female healthcare centers. The Ananya Bihar project has employed volunteers from the same community and aid from the foundation and government to improve the maternity and neo-natal healthcare initially in eight districts of the state. Design/methodology/approach – The study reviewed various m-health projects and m-education projects with a detailing of the Anaya Bihar Project initiated by Melinda Gates foundation and Government of Bihar, India. The study uncovers technical, operational aspects and methodology followed by Ananya. It has detailed the best practices followed by the project. The study also features the capability of mobile as a tool to reach the masses in most cost effective way. Findings – The use of mobile application with the association from the social worker has been tremendously successful in maternity and child healthcare in the state of Bihar, India. The application includes educating the user's about the healthcare, training for midwives, alerts related to vaccination and thereby reducing the mortality rate and improving the maternal healthcare for the people from the bottom of pyramid. The project has created awareness among the rural

¹⁰ Katie Greenland, Ruth Dixon, Shabbir Ali Khan, Kithsiri Gunawardena, Jimmy H. Kihara, Jennifer L. Smith, Lesley Drake, Perma Makkar, Sri Raman, Sarman Singh, Sanjay Kumar, "The Epidemiology of Soil-Transmitted Helminths in Bihar State, India" PLOS Neglected Tropical Diseases | DOI:10.1371/journal.pntd.0003790 May 20, 2015, pp. 1-14.

¹¹ Richa Misra Shalini Srivastava, (2016), "M-education in India: an effort to improve educational outcomes with a special emphasis on Ananya Bihar", On the Horizon, Vol. 24 Iss 2 pp. 153 – 165.

families and has improved the maternity healthcare in the eight districts of Bihar, India. They were also planning to expand the project in other states of India. Research limitations/implications – The study is exploratory in nature and has not involved primary data collection and statistical analysis. The study has compiled the data and information available. Practical implications – The present study may be used as a reference to the organization working on mobile healthcare projects to understand the best practices of m-health project. The study also explains the role of various stakeholders (as Ananya-Bihar was a collaborative effort of Social trust, Technical experts, Network service provider, Community, State Government and the People) in the success of the project. Social implications – The study explains the role of technology for the benefit of people. In the present case mobile healthcare initiated by the foundation has been very effective in dealing with maternity healthcare in rural Bihar, where people cannot afford expensive healthcare facility. The only silver lining is increasing tele-density at the most affordable rate in the globe, with funding from NGOs and full support from government. Such types of m-healthcare projects will support the government in delivering quality healthcare to the people who are living below poverty line and deprived of basic healthcare facilities.

Agrawal (et.al.)¹² indicated Background: In 2008–09, the National Health Systems Resource Center of India reported overall quality of nurse-midwifery education in Bihar as grossly sub-optimal. To address this, we implemented a competency-based training using virtual classrooms in two general nurse midwives (GNM) schools of Bihar. The students from remotely located nursing institutions were now able to see live demonstrations of maternal and newborn health (MNH) practices performed by a trained faculty on simulation models at instructor location. Objective: To evaluate the effectiveness of virtual classroom training

in improving the MNH-related skills of the nursing-midwifery students in Bihar, India. Design: This study used a pre- and post-intervention design without a control group. Settings: Students from two public GNM schools of Bihar. Participants: Final-year students from both the GNM schools who have completed their coursework in MNH. Method: A total of 83 students from selected GNM schools were assessed for their competencies in six key MNH practices using objective structured clinical examination method prior to intervention. A 72 hour standardized training package was then implemented in these schools through virtual classroom approach. Post-intervention, 92 students from the next batch who attended virtual training were assessed for the same competencies. Results: The mean student score assessed before the intervention was 21.3 (95% CI, 19.9–22.6), which increased to 62.0 (95% CI, 60.3–63.7) post-intervention. This difference was statistically significant. When adjusted for clustering using linear regression analysis, the students in post-intervention scored 52.3 (95% CI, 49.4%–55.3%) percentage points higher than pre-intervention, and this was statistically significant. Conclusion: Virtual classroom training was found to be effective in improving knowledge and key MNH skills of GNM students in Bihar, India.

Chandra¹³, presented The study identified reasons for poor performance (about 40%) in Hindi language of class VI students in Kasturba Gandhi Balika Vidyalaya (KGBV) of Bihar and also noticed loss in transition (about 6 to 24 %) at the upper primary level despite residential facilities being provided to them. There existed acute shortage of teachers (46%) as well as wardens (46%) in KGBV, resulting in poor management of residential facilities. Additionally, non-availability of language teacher for teaching Hindi and their limited understanding of pedagogical processes left the teaching-learning transaction unattended. Their insufficient training to language at the time of induction showed a gap in inputs concerning what the students desired and what the teachers had. In some KGBVs (e.g. Kishanganj) there existed minimal activities to

¹² Neeraj Agrawal, Somesh Kumar, Sudharsanam Manni Balasubramaniam, Saurabh Bhargava, Pallavi Sinha, Bhawna Bakshi, Bulbul Sood, "Effectiveness of virtual classroom training in improving the knowledge and key maternal neonatal health skills of general nurse midwifery students in Bihar, India: A pre- and post-intervention study", *Nurse Education Today* 36 (2016) 293–297.

¹³ Chandra B P Singh, "Hindi Language Competency of KGBV Students in Bihar" *Issues and Ideas in Education*, Vol-5, No-2 November 2017, pp. 127–141.

overcome learning deficiencies in Hindi. They had virtually no idea about how to evaluate students and formulate plan for improving Hindi language. Non-literate mothers had strong desire to educate their daughter (40 per cent achievement in Hindi language). Attitudinal problem of the school teachers and headmasters were prominently observed. They attributed to the KGBV stakeholders for the managerial activities. The study suggested deployment of teachers and their intensive training for improving Hindi language among the students of KGBV.

Katherine (et.al.)¹⁴ proposed Mental and social wellbeing (MSWB) promotion programs could improve mental health and other outcomes for youth in Low and Middle Income Countries (LMICs). Unfortunately, few such programs have progressed to scale-up and few studies have detailed processes and considerations that could facilitate doing so. This study begins to fill these gaps, describing key findings from training and supporting government middle school teachers to deliver the *Youth First Resilience Curriculum*, a MSWB promotion program, in Bihar, India. We conducted a Participatory Action Research trial of the resilience curriculum among 792 middle school youth and 55 teachers at 15 government schools. Participant-observations, exit interviews, and group discussions were conducted and analyzed via multiple rounds of coding to generate thematic findings. A number of schools showed relatively high levels of interest, session reliability and fidelity, student interaction and teacher facilitative abilities, but there was great variation within the sample. Three leverage points emerged to facilitate future scale-up: factors for successful site assessment and program initiation, supporting teacher success via interest and motivation, and responding to varied teacher skill levels. These points represent critical focus areas for practitioners and policy-makers as more MSWB promotion programs begin to scale in LMICs.

¹⁴ Katherine Sachs Leventhal, Gracy Andrew, Christopher S. Collins, Lisa DeMaria, Hari Shanker Singh and Steve Leventhal, "Training School Teachers to promote Mental and Social Well-being in Low and Middle Income Countries: Lessons to facilitate scale-up from a Participatory Action Research Trial of Youth First in India", International Journal of Emotional Education, Special Issue Volume 10, Number 2, November 2018 pp 42 – 58.

Mukesh Rawal¹⁵, revealed Indian education system is still not mature at both the urban and rural area. Mid-day meal is the program organized to attract the students to get education. Under these circumstances government imposed nation wise lockdown on March 25th, 2020 to combat COVID-19, has made severe impact on the education system. India has the world's second largest school system, after China. According to UNESCO, 63 million teachers were affected in 165 countries. A total of 1.3 billion learners around the world were not able to attend schools or universities, and approximately 320 million learners are affected in India alone. It has changed the traditional education system to the educational technologies model in which teaching and assessments are conducted online. Both the positive and negative impacts of COVID-19 on Indian Education system are observed. This paper aims to analyze the Impact of COVID-19 on Indian Education System, focusing on education during online teaching and assessment of students getting online classes in this pandemic from settings at home.

Kumar (et.al.)¹⁶ Purpose: Online education is now most popular and useful way of learning after the transformation in internet. In COVID – 19 pandemics, the online teaching and education were at its peak. This developed the importance of the online education. Various states of India are providing online education and thus to evaluate the Marketing strategies and prospects & problems in online education in Bihar was done. Online Education allows user to get fruitful knowledge and quality-based education at the minimum cost. The innovation in technology and many government initiatives toward quality education to all, at minimum cost, is changing learning attitude of students and they are moving toward online education. The purpose of this study is to access the marketing strategy for online education in Bihar along with problem and prospects comes with online education. Design and

¹⁵ Mukesh Rawal, "An analysis of COVID-19 Impacts On Indian Education System", Educational Resurgence Journal Volum2, Issue 5, Jan.2021, pp. 35-40.

¹⁶ Kamlesh Kumar, Ajit Das, Bhagwan Singh, Puja Kumari, "A study of Prospects and Problems of Online Education in Bihar", Empirical Research Paper, Vol 15, Issue 1, Jan-Mar 2023, pp. 31-39.

Methodology: For this research data is collected through the standard structured questionnaire. The quantitative method is used to investigate the respondent's behaviour toward online education system. In this research 950 respondent's sample data have been collected through non-probability sampling method and data was analyzed through the statistical methods like Factor Analysis, Linear Regression. **Findings:** The study analyzes the 950 respondent's data as per their demographical characteristics that is "age group", "Educational qualification", "Gender wise" participation and also "profession wise". After that factor analysis and regression analysis is performed to evaluate the prospects and problem of online education with key factor of online education in Bihar. The present study confined that internet connectivity is a biggest issue along with insufficient digital infrastructure to provide online education, degree get through online education mode is also biggest credibility issue among the students because they are not sure about the degree earned through online mode is acceptable or not. **Originality/Value:** This study shows that in context of Bihar it's need significant affords to break the psychological barrier between people and technology and online education can be powerful method in education sector.

Madhu Singh¹⁷, Mid-Day Meal Scheme (MDMS) programme is being implemented in the state of Bihar since January 2005. MDM continues to be a big distraction for teachers in Elementary schools. Although in Bihar there has been increase in access rates and a significant increase in classroom infrastructure, but children are not achieving class-appropriate learning levels. The purpose of this study is to study the level of attitude of elementary school teachers towards Mid-Day Meal Scheme and to examine significance of difference in the attitude of teachers on the basis of gender, educational level and annual income. The population of the study was Elementary school teachers of Government schools in Bihar. The sample of the study consisted of 327 Elementary School teachers of government schools in

Bihar. The results show that attitude of teachers differed significantly on the basis of sex. Teachers with intermediate as their educational level have more favourable attitude than the teachers who were post-graduate. No significant difference was found on the basis of their annual income.

Singh¹⁸, indicated Information and Communication technology has been the latest buzz in modern educational setup. The enormous benefit of using computers in teaching and learning is all known to us. It is the potential of it thus which has resulted in the framing of Policy on Information and Communication Technology in School Education by the Department of School Education and Literacy under MHRD. ICT@School scheme is one such policy of Government of India to provide ICT facilitated teaching learning support to government schools in India. Bihar has been also a part of this scheme and this scheme has been implemented in more than 1300 schools of Bihar in the span of 10 to 12 years. This paper reports on the findings of the status of implementation of this scheme basically on the students. The data has been collected from 1551 students from 87 schools of selected districts of Bihar where this scheme was implemented. The findings revealed very poor conditions of ICT Lab in terms of its availability for the students. The boys and girls of these schools have equal perception and pattern of using ICT with respect to different indicators on ICT usage. The students seldom get chance to use ICT Lab due to the factors such as unavailability of computer teachers, dysfunctional computers and accessories, lack of internet connection and theft or lost equipments.

Nagler (et.al.)¹⁹ presented Although tobacco use is declining in several countries including India (dropping from 35% in 2009–10 to 29% 2016–17 among adults)—it still poses a huge burden on India, as the world's

¹⁷ Dr. Madhu Singh, "Mid-Day Meal Scheme: As Perceived By the School Teachers in Bihar", International Journal of Novel Research in Humanity and Social Sciences, Vol. 3, Issue 3, pp: (53-59), Month: May – June 2016, pp. 53-59.

¹⁸ Vikramjit Singh, "ICT@ Schools Project and its Implications on Government Schools Students of Bihar", Educational Quest: An Int. J. of Education and Applied Social Science: Vol. 9, No. 2, pp. 161-167, August 2018.

¹⁹ E. M. Nagler, M. Aghi, A. Rathore, H. Lando, M. S. Pednekar, P. C. Gupta, A. M. Stoddard, C. Kenwood, B. Penningroth, D. N. Sinha and G. Sorensen, "Factors associated with successful tobacco use cessation among teachers in Bihar state, India: a mixed-method study", Health Education Research, Vol.35 no.1 2020, Pages 60–73.

second largest consumer of tobacco products. In Bihar state, with a prevalence of 25%, the Bihar School Teachers Study (BSTS) successfully enlisted teachers as role models for encouraging quitting and changing social norms pertaining to tobacco. The study used a mixed-methods approach to identify factors associated with teachers' quitting. Qualitative data were collected through focus groups with teachers and school principals. Quantitative data were collected through a written survey administered to school personnel post-intervention. Key findings from focus groups were that teachers and principals quit using tobacco and promoted cessation because they wanted to model positive behaviors; specific information about tobacco's harms aided cessation; and the BSTS intervention facilitated a school environment that supported quitting. Survey results indicated teachers who reported knowing people who quit using tobacco in the prior year were far more likely to quit as were teachers who reported that their school's tobacco policy was completely enforced. The combination of qualitative and quantitative data yielded important insights with strong implications for future interventions.

Tripathi²⁰, proposed this paper investigated the infrastructural facilities for vocational education and the number of vocational lecture and their qualification and training in the training college. The survey method was used to the study the infrastructures and qualifications among the lecturers as a working their colleges. The sample consists of 02 colleges selected purposefully from Sasaram. Self develops tools are used on the basis on different aspect of vocational education and their qualification and training like: Interviewing the Headmaster /Head of the Institute, administering questionnaires to the lecturers concerned, Questionnaire for the students, Institutional Documentation study. The statistical tools that were used for this research study include averages, ratios, percentages etc. After analyses and interpretation of data, the findings of the study are obtained. Findings provide an

overview of the work done by the research reveals that satisfactory infrastructures facility for vocational education in colleges and the professional qualification of lecturers, minimum lecturers possess NET/JRF, Ph. D in education and other subject as well as computer knowledge qualifications. It also found that all lecturers working as permanent and some of on deputation.

Haque²¹, revealed Information and communication Technology (ICT) is entering into almost all subjects. It is supposed to be used as a tool where and when considered useful. Actions are taken or planned to make sure that ICT will be the real part of the curriculum by supporting software development by integrating ICT into standard learning materials, by offering ICT module cases and by integrating the use of ICT in the different subjects areas. Further analysis reveals that a comparison of learner to teacher ratios at schools by the school type (primary, combined or secondary) shows that among schools that do not have computers, large class sizes and high learner to teacher ratios predominate in primary schools. In secondary schools, class size and learner to teacher ratios tend to be lower. By combining the information on the technology clusters and the learner to teacher ratio clusters an Index of Resources was constructed with three levels: low, medium and high. The survey, it was possible to create a index of technology resources (i.e. the level of technology resources which schools have). School had to indicate which of a number of 'technologies', such as TVs, VCRs, OHPs etc they had. Again, through cluster analysis, two 'technology clusters' were produced: high and low clusters. The vast majority of schools in the sample were classified as the low-tech cluster, ie. Where not more than one of thee items was available. The remaining 20% of schools were classified as the high-tech cluster. These schools on average have more than four of the items in the technology list. The next step was to look at the cross-tabulation of the ratio groups with the technology clusters. The use of ICTs can make substantial change in education and training mainly in two ways, Firstly, the rich representation of

²⁰ Mr. Ramakant Tripathi, "Status of Vocational Education At Teacher Training Institute In Sasaram (Bihar)", International Journal of Multidisciplinary Education Research, Volume 10, Issue-9 (4), September 2021, pp. 71-74.

²¹ Md. Imbesatul Haque, "Role of ICT in Secondary School in Bihar", Ideal Research Review, Vol., 68, No.1, December 2021, pp. 53-58.

information changes the larger's perception and understanding of the context. Secondly, the vast distribution and easy access to information can change relationship between educators and student teachers. ICT can also provide powerful support for educational innovations.

Prasad (et.al.),²² indicated the researchers have found that the role of teachers in the teaching learning process is very important. Updated curriculum, advance books, tech enabled class room may fail in the absence of a committed teacher. The researchers have believed that a study on teachers will be very meaningful for improving the teaching learning processes. But there are several aspects related with teachers that contribute to the teaching learning process. The researcher, in the present research paper, have detailed Job satisfaction issues related with teachers and teaching learning process in India. A comparison among the private school teachers and government school teachers suggested that there is higher level of Job satisfaction among the teachers in government schools.

Singh²³, Background: Learning losses does not mean forgetting only curricular learning but slipping back of fundamental learning abilities that learner would have acquired during schooling. School closures in India have severely disrupted learning processes of children resulting in learning losses and social gaps in academic outcomes. Though school closure is a global phenomenon, its adverse effects on learning outcomes are unevenly distributed in the society. Purpose: The paper aims to trace the phenomenon of learning losses resulting from a prolonged school closures during COVID 19 pandemic at the national level since march 2020. The study further is directed to trace accessibilities and uses of digital resources in India. Method: The study used secondary sources of data mainly of Bihar to ascertain the trend of learning

losses. The data were regenerated to measure the emerging trend. Results: Learning loss was unevenly distributed in the society. Those who were digitally equipped had compensated their learning losses during school closures. The Bihar had mere 5 per cent computer and 15 internet facilities. The rural households had only 3 per cent computer and 13 per cent internet facilities. Primary grade children especially of disadvantaged groups in Bihar suffered more because they have very limited home learning resources. Learning crisis was more prominent at elementary school level where both the home resources and digital tools were inadequate. They spent hours in surfing social media for private purposes. The phenomenon of cyber loafing was widely seen among young students, showing a serious problem of internet abuse by secondary school students. Conclusion: Despite constraints Bihar managed to continue school learning programme during COVID 19. It had a largest force of digitally-equipped teachers (about 1.25 lakh) known as Potential Learning Community (PLC) who were ready to deliver e-contents to beneficiaries. Teachers established connectivity with parents and learners who had no android mobile. They started running Schools on Mobile (SOM) classes. The paper discusses learning recovery plan such as engaging community, reallocating resources for schools, etc.

Leventha (et.al.)²⁴ presented Youth worldwide are struggling with increased mental health concerns. As youth in low- and middle-income countries make up more than 20% of the world's population, finding ways to improve their psychosocial wellbeing is crucial. CorStone's Youth First program is a school-based psychosocial resilience program that seeks to improve the mental, physical, social, and educational wellbeing of early adolescents. The program is delivered via trained government schoolteachers who facilitate students' learning and development in small groups using a discussion and activity based curriculum. In August

²² Dr. Kamlesh Chandra Prasad, and Wagish Chandra Choudhary, "A Comparative Study of Job Satisfaction in Primary School Teachers of Government and Private School in District Patna, Bihar", International Journal of Innovative Research in Engineering & Management, Volume-9, Issue-5, October 2022, pp. 318-322.

²³ Chandra B P Singh, "School Closures: Facing Challenges of Learning Loss in India" Issues Ideas Educ. Vol. 10, No. 1 (2022), pp.13-19.

²⁴ Katherine S. Leventhal, Peter L. Cooper, Lisa M. DeMaria, Priyadarshi Priyam, Hari Shanker, Gracy Andrew and Steve Leventhal, "Promoting wellbeing and empowerment via Youth First: Exploring psychosocial outcomes of a school-based resilience intervention in Bihar, India", Frontiers in Psychiatry, 17 November 2022, pp. 01-19.

2021, a study among 322 adolescents was conducted to investigate and compare program participants' and nonparticipants' understanding and use of inter- and intra-personal psychosocial skills. Focus group discussions were held with students in eight intervention schools and four comparable schools not receiving the intervention (control). Through the focus group discussions, students provided their opinions, thoughts, and ideas about vignettes describing challenges that youth in their communities frequently face, including early marriage and financial pressures. Analysis integrated qualitative and quantitative approaches, consisting of an iterative thematic analysis process followed by quantizing data and conducting t-tests.

Suman (et.al.)²⁵ proposed the National Education Policy (NEP) of 2020 marks a significant turning point in India's educational landscape. This policy, deeply rooted in indigenous knowledge systems, seeks to both draw from and refine these traditions to address the needs of contemporary society. Inspired by Mahatma Gandhi's Nai Talim, the NEP seeks to lay the groundwork for education that embodies inclusive principles reminiscent of pre-colonial systems that were eroded during the colonial era, only to be replaced by an ill-suited Eurocentric model. This research paper endeavours to demonstrate the NEP's dedication to reviving indigenous wisdom and incorporating it into the modern educational framework. To provide context, the study explores the historical impact of colonialism on Indian education, shedding light on how indigenous knowledge systems were marginalized and supplanted. The paper then delves into the NEP's guiding principles, highlighting its holistic approach to education, promotion of multilingualism, and emphasis on vocational training – all of which resonate with India's rich heritage. Moreover, this research underscores the NEP's significance in nurturing a sense of cultural identity and promoting a more equitable and inclusive educational

system. By conducting a comprehensive analysis of the NEP's objectives and initiatives, this paper underscores its potential to bridge the gap between traditional wisdom and contemporary needs, ultimately fostering a robust, globally competitive educational system deeply rooted in Indian culture. This contribution aims to enrich the ongoing discourse on education reform and the resurgence of indigenous knowledge, emphasizing the pivotal role played by the NEP in effecting this essential transformation.

Md. Qutbuddin²⁶, revealed the present study is aimed at studying the degree of perceived mental health among teachers working in private and government schools with particular reference to Begusarai district of North Bihar, India. It is generally observed that teachers differ to each other in respect of their institutional values, other related opportunities and problems, therefore, the present investigation is planned to make a comparative study of perceived mental health among teachers working in private and government schools of Begusarai district– a well-known town of North Bihar. The sample of the present investigation consisted of one hundred sixty (N = 160) teachers comprising Government School (n=80) and Private School (n=80) randomly selected from different corners of Begusarai district where teachers resides. It was hypothesized that teachers working in private school in Begusarai district would have better mental health in comparison to the teachers working in government schools especially in Begusarai district. A standardized mental health inventory developed by Jagdish and Srivastava (2003) was administered individually on the sample. This inventory also consists of 6 dimensions such as self- evolution, perception of reality, integration of personality, autonomy and stability, growth oriented attitude and environmental mastery. In this inventory high score indicates good mental health. Finally, results revealed significant difference between means of two groups of private and government school teachers as t was found statistically significant. Although, government school teacher has

²⁵ Amit K Suman, Saurabh Kumar Shanu, "Gleaning Wisdom from Ancestral Heritage: Indigenous Knowledge Traditions and the National Education Policy", International Journal of Early Childhood Special Education, Vol 13, Issue 02, 2021, pp. 2522-2532.

²⁶ Dr. Md. Qutbuddin Ansari, "Perceived Mental Health among Teachers with Particular Reference to Begusarai District of North Bihar, India", Saudi J. Humanities SocSci, 8(1): 14-19.

been found to have better mental health as compared to private school teachers, hence, such discrepancy of results has been discussed in detail by giving probable reasons.

Singla (et.al.)²⁷ indicated Purpose: Adolescence encompasses a critical developmental phase, which fosters or hinders psychological, physical, and social health. Whole-school interventions take a universal approach in targeting the entire school environment (“school climate”) to improve adolescent outcomes; however, little is known about the mediating role of school climate on these effects. Methods: Our study (N = 5,539) was situated within the Strengthening Evidence base on school based interventions for promoting randomized controlled trial, which demonstrated the effectiveness of a lay counselor delivered school intervention among secondary school students in Bihar, India. We examined the potential mediating role of school climate and its subcomponents (relationships at school, sense of belonging, commitment to academic achievement, and participation in school events) at 8 months post randomization of the Strengthening Evidence base on school-based interventions for promoting intervention on longer term adolescent health outcomes (depressive symptoms, experiences of bullying, and perpetration of violence) at 17 months post randomization. The trial was registered with ClinicalTrials.gov (NCT02484014). Results: School climate mediated the effects of the intervention on all three outcomes of interest.

Shanker (et.al.)²⁸ presented Intention of this investigation was to explore if a relationship exists or not between emotional intelligence and burnout by examine a sample of 200 teacher educators that were selected by a purposive stratified sampling method from among of all teacher educators in District Gaya, India. In this investigation,

two instruments were used to collect data, such as Weisinger’s Emotional Intelligence Test and Maslach Burnout Inventory (MBI). This research was correlation type so to analyze the data, were used Pearson correlation co-efficient and Analysis of Regression. Investigations found that teacher educator were not significantly different in emotional intelligence on the basis of gender, locality and teaching experience. Gender and teaching experience has nothing to play on burnout but locality has a significant difference on burnout score of teacher educators. Emotional intelligence and burnout syndrome have a strong negative association ($r=-0.221$), according to research results. Emotional intelligence had a significant contribution on burnout of teacher educators.

Gordon²⁹, proposed the transformational power of education is considered crucial to improving life outcomes. However, girls in rural India often still face barriers to learning. The literature notes economic and socio-cultural barriers to girls’ education which both mediate, and are affected by, parental aspirations. This research explored the aspirations for girls’ education of members of a grassroots microfinance organization in rural Bihar through one-on-one interviews and focus group discussions. Economic factors, such as increased awareness of employment opportunities and changing financial situations enabled mothers to act on their pre-existing aspirations for daughters’ education, supported by shifts in the requirement of higher levels of education for marriage. Mothers also emphasised the potential for education to enhance their daughters’ wellbeing as influencing their aspirations. Therefore, policymakers must prioritise education that has a socially transformative agenda, as well as providing support to tackle economic and socio-cultural barriers to girls’ education.

Anubhaw (et.al.)³⁰ revealed purpose – This paper aims to know the library resources, library services and

²⁷ Daisy R. Singla, Sachin Shinde, George Patton, and Vikram Patel, “The Mediating Effect of School Climate on Adolescent Mental Health: Findings From a Randomized Controlled Trial of a School-Wide Intervention”, *Journal of Adolescent Health* 69 (2021) 90-99.

²⁸ Ravi Kant, Amit Shanker, “Relationship between emotional intelligence and burnout: An empirical investigation of teacher educators”, *International Journal of Evaluation and Research in Education (IJERE)*, Vol. 10, No. 3, September 2021, pp. 966-975.

²⁹ Rebecca Gordon, “Your mind becomes open with education’: exploring mothers’ aspirations for girls’ education in rural Bihar”, *Compare: A Journal of Comparative and International Education*, 53:5, pp. 837-854.

³⁰ Suman, Anubhaw Kumar; Patel, Dr. Madhu; and Kumar, Atul, “Comparative Study of Academic Libraries of Selected Higher Educational Institutions in Motihari City, Bihar (India)” (2021) pp. 1-24.

facilities provided by the higher education academic libraries to their users, find out their problems in delivering better services to users, followed by the best possible suggestions for overall improvement and development of the libraries of selected higher educational institutions in Motihari, Bihar. Design/Methodology/Approach – To accomplish the objectives of the study, data has been collected through a structured questionnaire consisting of several questions keeping in mind the objectives of the study, followed by personal interviews with librarians or In-charge of the libraries and visits to the selected libraries. Questionnaires were filled by the librarians or incharge of the libraries chosen for study. The quantitative and qualitative both methods were employed to analyse the collected data, and a conclusion is drawn with suitable & achievable suggestions as well. Findings – The study reveals that libraries of all selected higher educational institutions in Motihari have a good collection of library resources and provide user-oriented library services to their users. Research limitations/implications – The study is confined to Academic libraries of selected higher educational institutions viz, Central university and state university colleges situated in Motihari and affiliated to the University Grants Commission (UGC). The study examines the resources, services and facilities available in libraries for their users, in this drastically changing environment.

3 CONCLUSION

The Government of Bihar has initiated ongoing teacher education reforms, which the proposed teacher education project aims to accelerate. The Implementation of Mission Gunvatta to Adjust Jobs and Obligations of Partners from Educator Training Foundations and Schools, the Smoothed Out Progress of Institutional Help from SCERT to Schools, the Foundation of BRC and CRC as scholarly Help Habitats to Upgrade Educator Viability in Study Halls, and the Improvement Needs Examination (DNA) for Enrolling Educator Instructors at DIETs, PTECs, and Chomps, among other Government Drives, Point to this Goal These endeavors are outfitted towards

accomplishing the objective of giving quality training in schools.

The impending undertaking will additionally upgrade this cycle by reinforcing the limit of educator schooling organizations, at last further developing instructor execution in study halls through Open and Distance Learning (ODL) and Ceaseless Expert Turn of events (CPD) programs. The resultant improvement in showing viability in homerooms because of these preparation projects will be connected to a responsibility system, which ought to associate with the accessibility of ideal offices — adequate framework and a satisfactory number of prepared educators in schools. Additionally, certifying educator instruction foundations will consider their accessible offices and abilities. The study suggests implementing a multi-level grading system for schools and teacher education institutions to mitigate potential social effects from accountability and accreditation mechanisms. In order to determine whether a school or teacher education institution is eligible for the highest grade, the suitability of these mechanisms ought to be contingent on the existence of the necessary facilities.

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