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एन सी ई आर टी
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The NCERT encourages original and critical thinking in education. The JIE provides a forum for teachers, teacher educators, educational administrators and researchers through presentation of novel ideas, critical appraisals of contemporary educational problems and views and experiences on improved educational practices. Its aims include thought-provoking articles, challenging discussions, analysis, challenges of educational issues, book reviews and other related features.

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CONTENTS

Editor's Note

The futuristic vision proposed by National Education Policy 2020 to make India a global knowledge superpower through a radical change in the realm of School Education, Teacher Education and Higher Education requires dedicated and sustained efforts from all stakeholders. The shift proposed in the pedagogical structure of school education by introducing pre-vocational education, skill development courses, competency based teaching, holistic learning, counseling services, etc., will definitely help our future generations to cope with the 21st century skills and technological advancements. It is essential to have an understanding of the ground realities and systematic efforts to address various concerns that will hinder the progress while implementing the pedagogical recommendations as per the NEP 2020. The articles, case studies and research papers in the current issue of Journal of Indian Education (JIE) discuss some of these concerns and endows with some practical solutions for the improvement of our education system.

First article of this issue highlights the progress of School Education in the state of Manipur by Thiyam Bharat Singh. Author illustrated testimonials to support a progression in the literacy rates over six decades but the State still continues to experience higher dropout rates in its hill districts. The study revealed that scanty geographically-isolated schools, followed by proxy practice of teachers, insufficient staffing, poor infrastructure and transport facilities, incongruous pedagogy, lackadaisical attitude of administrators, deprivation of social support, etc., are few significant reasons for such a state of affairs. Sambit Kumar Padhi and Haripad Kumar Mahato did a status study of the elementary education system in Jharkhand. The study briefly acknowledges the measures taken by the State and Central government in this direction to attain the objectives of Universalisation of Elementary Education through various programmes such as expansion in number of schools, increased school enrolment and teachers' ratios.

Varsha Kapoor shares the findings of an empirical analysis of school going adolescent girls in Jammu. She bespeaks of the impact of socio-cultural settings discussing the influences of cultural norms and other contemporary challenges, problems and constraints such as health and safety issues, routinely faced by these adolescent girls of Jammu in getting quality education. The findings highlight that following the paradigm of holistic approach is the need of hour in such areas to create encouraging educational environments for these girls. In a similar study of education of Muslim girls and girls of other educationally disadvantaged groups of slums in Delhi, Fauzia Khan

reveals economic equality as a pivotal and leading alternative to address the challenges such as cultural, environmental and familial matters faced by these groups.

With changes occurring in the sociocultural milieu, there is an ever-increasing need for gearing up counseling provisions in Indian schools. Shruti Pokhriyal, Vinita Bhargava and Mani Bhasin Kalra shares findings of the review research in germane to the indispensable role and requisite of school counselors for professional development and social civility of the students. Making the right career choice is undoubtedly a complex and knotty decision but is of cardinal importance where the role of parents is just inextricable. The paper by Shubhangi Bhagawati and Deepti Puranik portrays this indispensable and imperative character of parents in the canvas of adolescent's career choices exploring their major role plays over the relationship scales of perceived parental influence, emotional independence from parents and vocational commitment. Sujata Bhau and Sunindher Tung studied practice of bullying among adolescents which poses a serious threat to their physical and psychological well-being. The study assesses the prevalence of bullying while drawing the relationship of familial variables namely, family environment and parent attachment (mother and father) with bullying. The authors propound on the lead-off of anti-bullying programs followed by the inclusion of Counselors in Schools.

Space science and astronomy are one of the appealing and entrancing subjects among children which boosts their spirit of science and creative imagination. The study by Felicita Gali and Sudhakar Venukapalli examines how children's creative imagination contribute to their better understanding of the astronomical world. The findings advocate on using enriching teaching and learning activities such as sky watching, planetarium visits with enthusiastic celebration of National and International Science Days to bridge the abstract learning and creative imagination. Tarun Kumar Tyagi, Manish Kumar and Pragya Gupta through empirical study investigate their the gender and locality differences for influencing the students' English language creativity and academic achievement and English language achievement. The study observed that both of these variables "gender and locality" downrightly affect the performance of learners and moderate the relationship between creativity and achievement.

The study by Vijay Shankar Sharma on thestatus of teaching mathematics to visually impaired children studying either in inclusive schools or in special institutional settings highlights the need for accessibility of resources and trained staffing for enhancing their attitude and interests towards learning of the subject. The study also recommends to follow a structured format of teaching for these special students to aid their active participation and learning of this abstruse subject of mathematics.

Radhika Khanna tries to shed light on the importance of holistic education highlighted by NEP 2020 through her case study on the movie, "Taare Zameen par". The article promulgates the idea of the pedagogical use of cinema, discussing how media literacy and inclusion of films could aid teachers across various disciplines in careful observation of the needs, interests, strengths and challenges of each learner while creating opportunities for joyful learning.

The clout of ODL (Open and Distance Learning) and DSMNT (Digital Social Media Networking Technology) over the tried and true conventional teaching could be easily seen and felt in the arduous time of pandemic where virtual technology acted as a powerful medium of teaching and training activities, however, its felicitous utilisation does require scholastic drill and practice. Amit Agrawal and Abhishek Kumar Singh endeavoured to reflect on this notable segment by proffering on the possible benefits and challenges of DSMNT as a dynamic pedagogical resource. Almost all the educational institutions have opted for online education to get over the long and adverse consequences of school closure during COVID-19 pandemic. The article by Vandana Singh briefly illustrates the perception of learners towards online education; also exploring the various attributes of online classes in relation to the availability of resources, which are helpful in designing an effective online environment. The conclusion suggests towards the adaption of blended learning in much rigorous ways to be all set for future visions.

The National Education Policy, 2020 is the vision document of education articulated for bringing transformation in the country's education system. Niradhar Dey critically analyses this vision of NEP 2020, in transforming education while focusing on its significant role and recommendations in majorly three areas of education which are School Education, Teacher Education and Higher Education.

The role of Principal and Teachers' Leadership is of high importance in propelling learning and creating a vibrant school. This thought is well set down by Rashmi Diwan in her article centered on the significance of leadership interventions in generating and sustaining a simulative and inclusive environment conducive for learning in the school.

We expect that our readers would be able to relate their personal experiences with the issues or concerns discussed by the authors of these articles or research papers presented in the current issue. We invite our readers from different levels of school education and teacher education to contribute in the journal by sharing their knowledge in the form of articles, action research reports, theoretical papers, book reviews, etc. Your valuable suggestions and comments for improvement of the quality of the journal are welcome.

Vijayan K
Academic Editor

School Education in Manipur
A Synoptic View

THIYAM BHARAT SINGH*

Abstract

The main objective of this present study is to examine school education and its associated multi-dimensional challenges of Manipur using selected educational indicators. The study finds that the State has performed well in terms of three educational parameters size, equity and efficiency. But Manipur still experiences higher dropout rates in its hill districts indicating an inequality of access to school education. Conflict and violence have impeded the progress of school education. Further, proxy-system of teachers, lack of trained teachers, lack of social support, lack of infrastructure, geographically isolated-schools, lackadaisical attitude, transport bottleneck, inappropriate curriculum, inappropriate pedagogy, political interference and poverty have exacerbated the problems. The study suggests three strategies: (i) a holistic approach to address the multidimensional socio-economic factors affecting school education, (ii) specific intervention for the geographically isolated schools in the hills and (iii) promoting equal access to school education.

INTRODUCTION

There are various studies to prove that during earlier days in Manipur, the process of learning and teaching was conducted orally and passed over from generations to generations. It is believed that the ancient education system of Manipur was based on the method of oral-teaching. Like any other society, it was also the process of learning customs, traditions, moral values, creative arts, etc. Manipuri '*Phungga Wari*' (folktales) narrated by elders in the earlier periods imparted moral values, discipline, customs and traditions.

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Researches also show that there was no proper formal education system in Manipur during those days. Before arrival of the British in Manipur, Bengala script served as the medium of instruction in religious rites and education. It was only after the establishment of the Office of the British Political Agents in 1835, Captain Gordon, the political Agent of Manipur introduced western education system by opening a primary school at *Langthabal* in 1837 on a trial-basis, but it was not successful due to lack of encouragement from the people of Manipur (Long Joba, 2010). Following the suggestion of the Political Agent, Major General W. F. Nuthall under the aegis of Bengal government, a vernacular school was established in 1872 in Manipur, but was also not successful due to lack of students in 1877. The publication of Manipuri script for the first time in the Asiatic Society of Bengal by G. H. Damant seemed to accelerate the progress of proper education in Manipur (McCall, 1930). In 1885, a Middle English school called Johnstone Middle English School was established by the then political Agent, Sir James Johnstone at Imphal with the permission of Maharaja Sir Chandra Kirti Singh. Since then, education has been making gradual progress in Manipur. According to a Summary Report of the Fifth All India Educational Survey, Manipur (1986-87), the education system of Manipur was developed in 1946. Thus, the old order was transformed into a new education system during the process of evolution. Economic Survey Manipur (2020–21) also points out that there has been a great deal of accomplishment in the field of education since 1950–51 with the number of institutions imparting occupational and technical education having shown a phenomenal increase. The landscape of education is changing very fast in this modern society and it has to be looked at in the context of the National Education Policy (NEP) 2020. The NEP has highlighted that education must move towards less content, and more towards learning about how to think critically and solve problems, how to be creative and multidisciplinary, and how to innovate, adapt, and absorb new material in novel and changing fields. There is a need for study on school education as Manipur has been facing multi-dimensional challenges in school education causing hindrances in making progress towards learning achievement and inclusive education. The study is highly significant as it will address not only the inequality in access to education but also provide inputs to the State Government, stakeholders, policy-makers, researchers and academicians for formulation of a successful long-term educational policy for the State.

Objectives and Methodology

The main objective of this present study is to examine the present scenario of school education in Manipur. It

also examines the multidimensional challenges of education by using selected indicators. The present study mainly used data from the Unified District Information System for Education (UDISE+), Government of Manipur. Further, the current study uses Annual Administrative Report of the Education Department (School), Comptroller and Auditor General (CAG) Report, MHRD Reports, State Government of Manipur, Economic Survey, Manipur, Directorate of Economics and Statistics (Government of Manipur), Report of the Kothari Commission, Survey Reports, Books, Articles, Journals, Seminar Papers, Conference Papers, Working Papers, Newspapers, PhD Theses, etc. Moreover, a wide range of literature on the related areas has also been examined for the current study. The scope of the study includes examining the school education system and its associated multi-dimensional challenges for the sixteen districts of Manipur. It also explores the enrolment ratio, retention ratio and dropout rates for primary, upper primary, secondary and higher secondary education. Besides, it also examines the status of Universal Elementary Education, interface between conflict and education and unique educational problems in the hills. The limitation of the study is the use of secondary data for the present paper and the study does not cover school education during the period of Coronavirus pandemic. The present study is organised into eight sections. Section I presents introduction. Section II provides objectives and methodology. Section III presents data on education. Section IV presents Universal Elementary Education (UEE). Section V provides conflict and education. Section VI analyses education in the hills. Section VII provides dropout rates. Section VIII provides findings and conclusion of the study.

Status of School Education

Economic Survey of Manipur (2021) points out that the State has achieved significant progress in terms of literacy rate. For instance, the literacy rate in Manipur moved up from 11 per cent in 1951 to 76.94 per cent in 2011. The rate of male literacy was recorded at 83.58 per cent while the rate of female literacy stood at 70.26 per cent in 2011. Among the districts in Manipur, Imphal West exhibited the highest number of literates followed by Imphal East and Thoubal while Tamenglong recorded the least. Table 1 presents data on the structure of schools for 16 districts in Manipur. It may be observed from the table that Imphal West recorded the highest number of schools with (612), followed by Imphal East with (559), Kangpokpi with (532) and Churachandpur district with (465) respectively.

Table 2 gives data on the Gross Enrolment Ratio (GER) of students for sixteen districts of Manipur. It may be observed from the table that the overall GER of Manipur State for

Table 1

Schools for 16 Districts in Manipur

S. No.	District Name	Block(s)	Villages	Clusters	Habitations	Panchayats	Schools
1.	Bishnupur	2	106	10	213	31	321
2.	Chandel	2	204	9	201	13	232
3.	Churachandpur	4	314	13	341	51	465
4.	Imphal East	2	146	20	310	67	559
5.	Imphal West	3	186	44	361	50	612
6.	Jiribam	1	57	3	79	8	112
7.	Kakching	1	46	4	106	17	182
8.	Kamjong	3	121	17	124	10	140
9.	Kangpokpi	3	400	18	446	33	532
10.	Noney	1	88	8	92	2	143
11.	Pherzawl	2	88	6	104	16	132
12.	Senapati	3	141	12	269	25	370
13.	Tamenglong	3	159	22	203	1	278
14.	Tengnoupal	2	135	6	132	11	160
15.	Thoubal	1	100	8	174	36	377
16.	Ukhrul	2	106	23	112	22	229
	Total	**35**	**2397**	**223**	**3267**	**393**	**4844**

Source: Unified District Information System for Education (UDISE+), (2018–19).

Primary Schools accounted for 112.99 per cent in which Churachandpur district registered the highest ratio with 159.17 per cent of all other districts in the State. The GER for Upper Primary, Secondary and Higher Secondary accounted for 128.14 per cent, 86.57 per cent and 63.58 per cent respectively, in Manipur.

It may be seen from Table 3 that the retention rate for students in primary, elementary and secondary schools for both boys and girls stood above 90 per cent in which elementary schools recorded the highest retention rate in Manipur. For instance, the total retention rate for primary, elementary and secondary for sixteen districts of Manipur accounted for 93.98 per cent, 96.63 per cent and 93.61 per cent respectively. It may be noted here that the retention rate for Noney, Pherzawl and Tamenglong districts are found comparatively low as compared with other districts.

Universal Elementary Education (UEE)

Universalisation of elementary education has been one of the most

Table 2

Gross Enrolment Ratio of Sixteen Districts in Manipur

S. No.	Districts	Primary	Upper Primary	Secondary	Hr. Secondary
1.	Bishnupur	101.73	124.84	81.47	45.39
2.	Chandel	114.7	91.92	63.61	53.27
3.	Churachandpur	159.16	189.31	121.38	75.65
4.	Imphal East	106.94	141.44	100.42	78.84
5.	Imphal West	95.65	125.16	86.1	107.16
6.	Jiribam	157.17	152.29	77.89	36.28
7.	Kakching	97.65	137.22	103.81	50.11
8.	Kamjong	115.16	77.19	43.99	2.13
9.	Kangpokpi	149.7	141.88	82.19	45.67
10.	Noney	178.1	145.63	120.07	57.86
11.	Pherzawl	109.54	65.24	20.44	0.66
12.	Senapati	84.96	67.23	50.01	31.28
13.	Tamenglong	121.45	105.96	60.22	26.64
14.	Tengnoupal	120.71	118	66.82	42.32
15.	Thoubal	111.98	145.64	105.34	75.63
16.	Ukhrul	121.61	135.75	97.35	41.39
Manipur State		**112.99**	**128.14**	**86.57**	**63.58**

Source: Unified District Information System for Education (UDISE+), (2018–19).

important goals of educational development in India since Independence. In view of this, the Parliament passed the 86th Amendment Act of the Constitution of India in 2002, to make elementary education a Fundamental Right for children in the age group of 6–14 years. The Act implies that school facilities should be provided to all children between the ages of 6 to 14.

UEE refers to make education available to all children in the age of group of 6–14 or in Classes I–VIII (Sharma, 2013). It means education for every child to complete the stage of elementary or primary education, either through formal or non-formal means of education. The Act is intended to cover children of every community, castes, creed, religion, CWSN, orphans or destitute and disadvantaged groups. In short, it is inclusive education for all children, rich and the poor, rural and urban, or children from remote and difficult areas. Universalisation of elementary education also means free and compulsory elementary education for all children till they complete 14 years of age. It involves three stages — Universalisation of Provision,

Table 3

Retention Rate in Sixteen Districts in Manipur

S.No.	Districts	Primary			Elementary			Secondary		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1.	Bishnupur	94.04	94.78	94.40	101.22	103.73	102.46	100.56	91.92	96.13
2.	Chandel	88.45	93.65	90.94	116.96	113.32	115.10	100.23	101.69	100.99
3.	Churachandpur	91.05	96.69	93.74	96.84	99.64	98.20	91.47	89.94	90.72
4.	Imphal East	99.77	101.83	100.77	97.05	98.88	97.95	94.04	97.58	95.80
5.	Imphal West	98.79	99.85	99.31	94.21	96.83	95.51	89.76	91.29	90.53
6.	Jiribam	86.15	85.48	85.83	91.11	93.12	92.15	91.83	86.50	88.91
7.	Kakching	91.12	90.76	90.94	98.03	100.64	99.29	100.00	101.37	100.66
8.	Kamjong	71.95	73.56	72.71	92.63	92.93	92.77	79.22	81.86	80.49
9.	Kangpokpi	92.74	94.86	93.77	96.91	98.16	97.51	95.33	92.44	93.90
10.	Noney	93.41	94.41	93.87	94.11	91.42	92.83	78.89	70.82	74.78
11.	Pherzawl	75.60	78.17	76.85	61.05	62.13	61.57	63.16	62.81	62.98
12.	Senapati	87.60	88.27	87.92	95.55	93.44	94.54	99.84	100.26	100.04
13.	Tamenglong	111.52	115.73	113.53	98.29	99.53	98.93	77.82	80.94	79.40
14.	Tengnoupal	92.79	93.25	93.02	89.50	84.55	86.94	106.48	101.96	104.21
15.	Thoubal	95.54	92.94	94.26	99.32	96.47	97.89	99.63	105.54	102.52
16.	Ukhrul	76.38	82.70	79.36	85.25	89.47	87.32	82.49	85.75	84.14
Manipur State		**92.96**	**94.89**	**93.89**	**96.04**	**97.24**	**96.63**	**93.37**	**93.86**	**93.61**

Source: Unified District Information System for Education (UDISE+), (2018–19).

Universalisation of Enrolment, and Universalisation of Retention. CAG Report (2011) of the State Government of Manipur reveals that SSA was being implemented without proper planning and without carrying out household survey and pre-project activities. There was short release of funds, delay in release of funds and diversion of funds in implementation of SSA. Teachers were posted in schools with zero enrolment and there were schools with no posting of teachers. Contract management was weak both under these schemes with loopholes in the contract clauses. The study conducted by Sangeeta and Binita (2012) found that Manipur has shown considerable progress in terms of literacy rates, number of schools, number of teachers and students' enrolment since 1951. The dominance of private schools in terms of number, enrolment of students and performance in the examinations was one of the significant features of school education in the State. In terms of access to secondary education, Manipur is fairly poised to achieve more than the national target of 75 per cent over the next five years. The Gross Enrolment Ratio for secondary level could have been much higher if the schools were spread over strategic places for easy access. In terms of efficiency, participation and access, the State has made a progress but the issue of quality has not been addressed. Lately, the State has focused more on qualitative achievement than quantitative achievement with the broad aims and objectives of RMSA goals.

Teacher education is said to be an integral part of the education system. Successful attainment of quality education depends on the quality of teachers. It is in this context that teachers give light to the darkness of knowledge. Teachers disseminate not only knowledge but also expand the horizon of knowledge for society. The National Council for Teacher Education was established by an Act of Parliament in 1993 with a view to improve the quality of education at school level in general, and teacher education in particular. The study conducted by Sangeeta and Binita (2012) suggested that quality of secondary school education can be enhanced through large number of trained specialised teachers. There is a need for giving in-service training programmes at massive scale, besides providing adequate infrastructure facilities in the schools like science labs, libraries and other facilities. In this regard, for bringing quality education and for achieving aims of universalisation of secondary education in the State, much effort is needed for proper implementation of the State and Central government policies and plans through both Education Department(s) and RMSA with full cooperation from the stakeholders.

In sum, the successful implementation of UEE in Manipur

is determined by prevailing socio-economic factors. Lack of infrastructure, lack of trained teachers and lack of social support are causing problems in the implementation of UEE.

Conflict and Education

Conflict and violence have impacted the students in both tangible and intangible ways. The direct effect of conflict on students in terms of dropout rate and migration is tangible impact. The intangible impact is felt in the form of mass rallies, protests, strikes and road blockades. Conflict has profound impact on Imphal city, as compared to other parts of the State because main Government's offices are located in this place. It may also be mentioned here that current situation is the outcome of on-going conflict and violence happening in Manipur. The mushrooming growth of Tuition and Coaching centres are the direct consequences of conflict and violence. Parents send their children to these Centres for covering their syllabus which cannot be completed in schools. Thus, a very strong linkage between conflict and school education is established in the State.

Karam and Thounaojam (2019) studied about education in conflict-ridden State of Manipur by selecting 95 respondents through purposive sampling technique in which 72 students and 20 teachers respectively were interviewed, including three parents. Findings of the narrative analysis reveal a strong negative linkage of the impact of conflict and education in Manipur. Students are facing a tough time, as schools are closed many a times creating an environment of confusion among the students. The study identifies conflict as one of the major reasons resulting into migration of children to metro cities for regular and quality education. The analysis of case study finds that conflicts have severely affected daily academic routine of students, and thus, promoted tuition culture and educational migration as alternative solutions. Similar view is expressed by Komol (2013), who also finds that people of Manipur are not restricting themselves to acquiring education only within the State, but are also migrating to other States in search of quality higher education. The State has been persistently disturbed by conflicts, strikes, blockages, lockouts, etc. throughout the academic year, hampering the academic calendar.

In sum, there is a linkage between conflict and school education. Conflict has profound negative impact on the long-term learning outcome of students. It has resulted into mushrooming growth of private tuition and coaching centres. Parents send their children to these centres for covering their syllabus which could not be completed in schools.

Education in Hills

The scenario of school education in the hill districts of Manipur is totally

different from the rest of the valley districts. Disadvantaged location of schools where there is transportation bottleneck and communication has adversely affected the size, equity and efficiency of education. Villages in the remote hills are scattered and this makes access to school education very difficult for the students. This is one of the main reasons for low enrolment ratio, high dropout and low retention rate in some of the backward hill districts of Manipur.

In a study by Wangdibou (2015) on education and the problems of the tribals in the hill districts of Manipur, it was found that tribal families could not afford to send their children to school, as parents had to struggle for means of survival amidst acute poverty and starvation. Tamei sub-division of Tamenglong District is far isolated from the main district and is one of the most economically backward areas. People of this area seldom visited or passed through the main district, barring exceptions for some official purpose or for withdrawing their salary. There is great transportation bottleneck. The locational disadvantage of the tribal habitats in the hills is another impediment to tribal education in Manipur. Almost all the tribal villages in the hills are widely scattered. Long distant travelling through difficult terrains to attend schools become dissuading factors. There are hardly any private schools in most of the villages and people solely depend on the government schools that do not offer competitive environment for students to compete and excel in the later years. The situation compels the students to leave their native village causing much extra burden on their families.

It may be summarised here that school education in the hill districts of Manipur depicts a different picture. Geographically isolated districts and widely scattered villages are causing serious problems for students in getting access to school education. This has led to low enrolment ratio, high dropout and low retention rate in some of the hill districts of Manipur.

Dropout Rates

Dropout rates of students in Manipur are determined by various factors like severity of poverty, lack of interest in education, irregularity and absence of teachers in the school, improper functioning of the school, separation between the parents of the children, change of residence, and parents' addiction to bad habits. As regard to dropout of girl students, security, household factors, parent's illness and death are the major contributing factors leading to dropout. There are some other factors too resulting into dropout of students in the State. They are ignorance and illiteracy of parents, curriculum load at primary level, lack of trained teachers, outdated methods of teaching, poor infrastructure like school building and other facilities, political interference, poor administration,

lack of coordination between school and local community and indifferent attitude of school authorities towards qualitative improvement. Various studies show that dropout of students have a huge financial ramification which affect labour market, economic performance and social progress of a country. As per NSSO Report (71st round), it is not only the financial constraints and engagement of children in domestic/ economic activities but lack of interest in education that contributes to high dropout. Thus, it has been argued that ensuring adequate educational facilities is necessary but not sufficient for survival of students and reduction of dropout. There has also been impressive progress towards bridging gender gap in enrolment and retention in elementary education (Govt. of India, 2014). Gender Parity Index (GPI) based on Gross Enrolment Ratio for Primary (I–V) increased from 0.41 in 1950–51 to 1.03 in 2015–16 for all Categories in India (Govt. of India, 2018). GPI for Upper Primary (VI–VIII) moved from 0.22 to 1.10 during the corresponding periods. The GPI for Elementary (I–VIII) increased from 0.38 in 1950–51 to 1.05 in 2015–16 in India. Vungngaihlun et al. (2018) conducted research on determinants of school dropouts in elementary education in Manipur (based on empirical investigation conducted in selected rural locations of the identified districts in Manipur– Imphal West and Churachandpur through purposive sampling) by taking 700 samples from both the districts (350 samples each district). Out of the 350 samples, 200 dropouts and 150 currently enrolled students in both the districts were selected. The findings of the study indicate that poverty, lack of interest in studies, irregularity and absence of teachers in the school, improper functioning of the school, separation between the parents of the children, change of residence, and parents' addiction to bad habits are the most common reasons reported by the children for dropping out of school.

In sum, lack of learning environment, lack of support for children, incongruous curriculum and pedagogy and poverty might be causing dropout of students in school education of Manipur.

Findings and Conclusion

Manipur has made significant progress in terms of literacy rate over a period of six decades. The Gender Parity Index (GPI) for Gross Enrolment Ratios in primary, upper primary, secondary and higher secondary education has significantly improved. Findings of the study show that Manipur still experiences higher dropout rates in its hill districts indicating an inequality of access to school education. Conflict and violence have impeded the progress of school education. Further, proxy system of teachers, lack of trained teachers, lack of social support, lack of infrastructure, geographically– isolated schools,

lackadaisical attitude, transport bottleneck, inappropriate curriculum, incongruous pedagogy, political interference and poverty have exacerbated the problems. The National Education Policy 2020 which aimed to address many growing developmental imperatives of our country by revamping all aspects of the education structure, including its regulation and governance could address the long-term chronic issues of education system in Manipur if implemented successfully. The National Achievement Survey (NAS) conducted by the National Council of Educational Research and Training (NCERT) in 2017 to provide information about the learning achievement of students studying in government and government-aided schools found Manipur as a State in which ST students performed better than other social groups in languages. The NAS has important implications for reforming school education in Manipur. The learning gap that is found in school education of Manipur for both in the valley and hill districts needs to be properly addressed in future. Therefore, there is need for a series of interventions at the district level for reviewing the curriculum, teacher training, pedagogical practices and learning outcomes in Manipur. Finally, three adoption strategies may be suggested: (i) a holistic approach to address the multidimensional socio-economic factors affecting school education; (ii) specific intervention for the geographically-isolated schools in the hills and (iii) promotion of equal access to school education. In the context of education in the hills, the recommendations of the Kothari Commission Report on correction of regional imbalances in the provision of educational facilities and provision of good educational facilities in rural and other backward areas are highly relevant. The State government has recently started a mission called “School Phagathansi Mission” by selecting 60 schools in Manipur to give thrust towards improvement of government Schools. If this mission is successfully accomplished and continues in the long run, the education systems of Manipur will be transformed and also attain equitable and inclusive education.

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Elementary Education in Jharkhand
Progress and Policy Perspectives

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Abstract

Universal elementary education has been at the centre of attention and accepted as a national goal in India since independence. In recent years, momentum has gathered throughout the country for the promotion of literacy, expansion in number of schools, school enrolment, etc. In order to achieve this goal, several programmes have been implemented both at the central and state levels over the years. However, in spite of all these initiatives, many students between the ages of 6–14 are not yet enrolled in the schools. The challenge for universalisation of elementary education is most severe in the educationally backward and newly formed states like Jharkhand. This paperis based on the study of progress occurred and policies implemented in the state of Jharkhand to attain the goal of elementary education. The paper analyses data pertaining to the growth or decline of elementary schools, enrolment of boys and girls, gross enrolment ratio, drop-out rates at various levels, teacher-pupil ratio in the state of Jharkhand from 2015–16 to 2019–20. The paper also makes an attempt to explore the measures taken by the state and central government for quality improvement of elementary education in the state of Jharkhand.

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Introduction

Education is considered as the basic need for human development as it can enhance the capability of an individual to improve one's quality of life. Education is fundamental for achieving full human potential, developing an equitable and just society, and promoting national development. One of the primary goals of the school system is to ensure universal enrolment and attending of school by all children (NEP 2020). Quality education starts from the elementary level, and no higher education can be attained effectively without successfully completing elementary education. Really the role of elementary education is felt quite significant as it is the foundation for all levels of education. Universal elementary education has been at the centre of attention and accepted as a national goal in India since independence. In recent years, momentum has been gathering throughout the country for the promotion of literacy, expansion in number of schools, school enrolment, etc. In order to achieve this goal, several programmes have been implemented both at central and state levels over the years. However, in spite of all these initiatives, many students between the ages of 6–14 are not yet in school.

The challenge for universalisation of elementary education is most severe in the educationally backward and newly formed states like Jharkhand. Jharkhand came into existence as a small and new state on 15 November 2000 by bifurcation of the southern part of erstwhile Bihar. It is one of the 28 states of India, located in the eastern part of the country. Jharkhand shares its borders with Odisha in the south, Bihar in the north, West Bengal in the east, Chhattisgarh in the west, and Uttar Pradesh in the north west. It is situated at 23.6102° N latitude and 85.2799° E longitude. It is the fifteenth-largest state in India, with an area of 79716 square km. Most of its regions are covered with dense forests, hills, and rivers. As per the census 2011, the rural and urban population are 75.95 per cent and 24.05 per cent respectively. The population density is recorded to be 414 people per square kilometers and the sex ratio is 948 females per every 1000 males. The tribals constitute one-fourth of Jharkhand's population as per 2011 census. As per the census 2011, the overall literacy rate of Jharkhand was 66.41 of which male and female literacy rates were 76.84 and 55.42 respectively. The rural and urban literacy rate was 61.11 and 82.26 respectively.

Being a new state, Jharkhand adopted RTE Act in the year 2011 by specifying its own rules and regulations extracted from the original version to make a balance and made it contextual to get maximum benefits, even though it had been implemented nationwide on 1 April 2010. Therefore, an attempt has been made to develop a broad understanding regarding the

progress of elementary education in Jharkhand over the last 5 years as well as to study to what extent the state could be able to implement the various educational schemes for the improvement of quality in elementary education.

Objectives of the Study

The study was undertaken with the following objectives:

1. To study the status of elementary education in Jharkhand since 2015 for a period of five years (2015–16 to 2019–20) in terms of (a) number of schools, (b) students' enrolment and dropout rates, (c) percentage of male and female teachers and (d) teacher-pupil ratio.
2. To examine the major schemes introduced and implemented by the government for the improvement of elementary education in Jharkhand.

Database and Methodology

In this study, data were collected from Unified District Information System for Education (U-DISE), NIEPA for five years (2015–16 to 2019–20). Data such as the number of elementary schools, management-wise distribution of elementary schools, enrolment in elementary schools, gross enrolment ratio in elementary education, dropout rate of students in elementary schools, teacher population, pupil-teacher ratio were collected for making the study comprehensive. The data were tabulated and analysed by using appropriate techniques like frequency and percentage analysis.

Result and Discussion

Status of Elementary Schools in Jharkhand

Table 1 shows that there were 28010 primary schools in the year 2015–16 and it reached to 24207 by the year 2019–20. Similarly, there were 133 upper primary schools in the year 2015–16 and it reached to 63 by the year 2019–20. Table also shows the fluctuation in the total number of elementary schools in Jharkhand in between 2015–16 and 2019–20. There were 28143 elementary schools in the

Table 1
Status of Elementary Schools in Jharkhand (2015–16 to 2019–20)

Year	Primary	Upper Primary (UP)	Total
2015–16	28010	133	28143
2016–2017	26930	86	27016
2017–2018	27465	81	27546
2018–19	24453	68	24521
2019–20	24207	63	24270

Source: U-DISE, NIEPA

year 2015–16. The number decreased in the successive years and reached 24270 by the year 2019–20. Analysis reveals that the number of both primary and upper primary schools declined in successive years with respect to the base year 2015–16, however, the trend was not found consistent during the assessment period, i.e., 2015–16 to 2019–20.

It is evident from Table 2 that four types of schools were operational both at primary and upper primary levels in Jharkhand, viz. Government, Government Aided, Private Unaided, and others. As per the statistics of 2019–20, 88.45 per cent of the primary schools were Government schools and very less per cent, i.e., 2.06, 0.08 and 9.41 per cent primary schools were Government Aided, Private Unaided and others in nature respectively. On the other hand, 20.63 per cent of the upper primary schools were Government schools, and 23.81, 7.94 and 47.62 per cent upper primary schools were Government Aided, Private Unaided and others in nature respectively. It is revealed from the table that the percentage of Government schools was highest at primary level and the percentage of other types of schools was highest at upper primary level as compared to the Government Aided, Private Unaided and other types of schools in the year 2019–20. So for the total number of elementary schools in the year 2019–20 is concerned, there were a total of 24270 schools in the year 2019–20 which accounted 88.27, 2.11, 0.10 and 9.52 per cent of Government schools, Government Aided schools, Private Unaided and other types of schools respectively.

Enrolment in Elementary Schools in Jharkhand

As per Table 3, the students' enrolment in primary schools was 4453527 in the year 2015–16, which declined

Table 2

Management-Wise Distribution of Elementary Schools (2019–20)

Type	Primary	Upper Primary	Total
Government	21410 (88.45)	13 (20.63)	21423 (88.27)
Government Aided	498 (2.06)	15 (23.81)	513 (2.11)
Pvt. Unaided	20 (0.08)	05 (7.94)	25 (0.10)
Others	2279 (9.41)	30 (47.62)	2309 (9.52)
Total	24207	63	24270

Source: U-DISE, NIEPA
Note: Figures in the parentheses indicate percentage

to 3886161 by the year 2019–20. Analysis reveals that the decline of enrolment at primary stage occurred in the subsequent years with respect to the base year, i.e., 2015–16. The percentage of decline was highest in the year, 2019–20, i.e., 12.74 and was lowest in the year 2017–18, i.e., 8.50 with respect to the base year. A similar trend was also observed in upper primary schools of Jharkhand over the five years of study. The enrolment at upper primary stage decreased from 2068541 to 1986908 between the years 2015–16 and 2019–20. The percentage of decline was highest in the year 2016–17, i.e., 10.63 and was lowest in the year 2017–18, i.e., 2.60 with respect to the base year. The combined enrolment (primary and upper primary) declined from 6522068 to 5873069 between 2015–16 and 2019–20. The percentage of decline was highest in the year 2016–17, i.e., 11.24 and was lowest in the year 2017-18, i.e., 2.64 with respect to the base year. Analysis indicates that the enrolment was highest in the year 2015–16 in both primary and upper primary levels and it declined in successive years, but the trend of decline was not consistent.

Table 4 shows the Gross Enrolment Ratio (GER) in elementary education of Jharkhand from 2015–16 to 2019–20, which indicates the extent of participation of students in elementary education over the years. At primary stage, a fluctuating trend was observed in GER over the years. The overall GER at primary stage was highest in 2015–16 and was lowest in 2018–19. It is pertinent to note that the GER of girls and boys are almost same in all the years at primary stage. At upper primary stage, the overall GER was highest in 2018–19 and was lowest in 2019–20. At upper primary stage, the GER of girls was higher than the boys in all the assessment years. The overall GER at elementary stage shows the mixed trend between 2015–16 and

Table 3
Enrolment in EE in Jharkhand (2015–16 to 2019–20)

Year	Primary	% Growth/ Decline	Upper Primary	% Growth/ Decline	Total	% Growth/ Decline
2015–16	4453527	–	2068541	–	6522068	–
2016–17	3940476	–11.52	1848665	–10.63	5789141	–11.24
2017–18	4074931	–8.50	2014774	–2.60	6089705	–6.63
2018–19	4028871	–9.55	1993556	–3.63	6022427	–7.67
2019–20	3886161	–12.74	1986908	–3.95	5873069	–9.95

Note: (–) sign indicates decline.
Source: DISE Analytical Report, 2015–20

2019–20. The GER was highest in 2015–16, i.e., 105.27 and was lowest in 2019–20, i.e., 95.01. Table 4 shows that GER of boys was lower than girls at elementary stage in all the years of assessment.

It is evident from the Table 5 that in the year 2015–16, the percentage of enrolment of boys and girls were 50.66 and 49.34 respectively at elementary level. It is worthwhile to note that there is no such huge gender gap in the enrolment of boys

Table 4

Gross Enrolment Ratio in Elementary Education in Jharkhand (2015–16 to 2019–20)

Year	Primary			Upper Primary			Elementary (P+UP)		
	All	**Boys**	**Girls**	**All**	**Boys**	**Girls**	**All**	**Boys**	**Girls**
2015–16	108.16	107.58	108.79	99.55	95.09	104.40	105.27	103.35	107.33
2016–17	96.64	97.09	96.16	91.81	87.84	96.17	95.04	94.00	96.16
2017–18	103.91	104.99	102.79	83.91	82.10	85.79	96.31	96.30	96.31
2018–19	*99.63*	*NA*	*NA*	*102.52*	*NA*	*NA*	*100.57*	*NA*	*NA*
2019–20	*102.6*	*102.6*	*102.6*	*83.2*	*80.9*	*85.4*	*95.1*	*94.3*	*95.9*

**DNA*- Data Not Available
Source: U-DISE, NIEPA

Table 5

Enrolment of Boys and Girls in EE (2015–16 to 2019–20)

Year	Primary		Upper Primary		Both (P+UP)	
	Boys	Girls	Boys	Girls	Boys	Girls
2015–16	2274317 (51.07)	2179210 (48.93)	1029976 (49.8)	1038565 (50.2)	3304293 (50.66)	3217775 (49.34)
2016–17	2034057 (51.62)	1906419 (48.38)	925537 (50.01)	923128 (49.9)	2959594 (51.12)	2829547 (48.88)
2017–18	2103784 (51.63)	1971147 (48.37)	1007004 (49.98)	1007770 (50.02)	3110788 (51.08)	2978917 (48.92)
2018–19	*2082267 (51.68)*	*1946604 (48.32)*	*992493 (49.78)*	*1001063 (50.22)*	*3074760 (51.06)*	*2947667 (48.94)*
2019–20	*2005296 (51.60)*	*1880865 (48.40)*	*984010 (49.52)*	*1002898 (50.48)*	*2989306 (50.90)*	*2883763 (49.10)*

Source: U-DISE, NIEPA

and girls at the elementary stage during the five years of study. At the primary stage, boys-girls enrolment ratio was 51.07:48.93 in the year 2015–16 and by the year 2019–20, the ratio was 51.60:48.40. Analysis reveals that the enrolment ratio of boys was slightly higher than that of girls at primary level throughout the five years of study. On the other hand, the enrolment ratio of girls was slightly higher than that of boys at upper primary stage during the assessment period except 2016–17. The ratio of boys and girls at upper primary stage was 49.8:50.2 in the year 2015–16 and there was no such change observed in the enrolment ratio of boys-girls over the five years and by the year 2019–20, the ratio stands at 49.52:50.48. Though there was a slight improvement of girls ratio as compared to boys between 2015–16 and 2019-20 at upper primary stage, the total number of girl students was still less at upper primary stage as compared to the primary stage. It was also observed that total enrolment in primary schools was higher than the upper primary schools.

Dropout rate of Students in Elementary Schools of Jharkhand

It was found from Table 6 that the dropout rate has increased from 5.48 in 2015–16 to 6.3 in 2019–20 in primary schools. A similar trend of dropout rate was observed in elementary level also. It was found that at elementary stage, the rate of dropout was 8.99 in the year 2015–16 and by the year 2016–17 it increased to 19.61. The dropout rate of both primary and elementary schools was found highest in the year 2016–17, i.e., 15.71 in primary schools and 19.61 in elementary schools. Compared to primary stage, the dropout rate at elementary stage was higher in all the years of assessment period, indicating the fact that more children leave school before completing Class VIII. Statistics of 2019–20 reveal that out of every 100 children enrolled in

Table 6

Dropout rate of Boys and Girls in Elementary Education (2015–16 to 2019–20)

Year	Primary (I–V)			Elementary (I–VIII)		
	Boys	**Girls**	**Total**	**Boys**	**Girls**	**Total**
2015–16	5.91	5.03	5.48	9.01	8.96	8.99
2016–17	15.54	15.90	15.71	19.22	19.91	19.61
2017–18	*DNA*	*DNA*	*DNA*	*DNA*	*DNA*	*DNA*
2018–19	*6.17*	*4.61*	*5.40*	*10.69*	*9.73*	*10.21*
2019–20	*7.3*	*5.3*	*6.3*	*9.0*	*7.9*	*8.5*

Source: DISE Analytical Report 2015–20

Class I, approximately 94 students could reach Class V and 91 students could reach Class VIII.

It is evident from the table that there is no such safe gender gap in the dropout rate both at primary and elementary stages in all the years except 2018–19 and 2019-20. A mixed trend of dropout rate was observed both at primary and elementary stages over five years.

Teacher Population in Elementary Schools of Jharkhand

It is evident from Table 7 that in the year 2015–16, the ratio of male and female teachers was approximately 69:31 in the primary schools. In the subsequent years, the percentage of female teachers gradually increased. By the year 2019–20, the ratio of male-female teachers in primary schools was approximately 59 and 41 respectively. There was a mixed trend observed in the ratio of male and female teachers in upper primary schools over the five years of study. In the year 2015–16, the ratio of male and female teachers at upper primary level was approximately 60:40. The ratio reached 62:38 by the

Table 7

Teachers in Elementary Schools of Jharkhand (2015–16 to 2019–20)

Year	Primary		Upper Primary (UP)	
	Male	Female	Male	Female
2015–16	68.75	31.25	59.67	40.33
2016–17	68.20	31.80	53.65	46.35
2017–18	*DNA*	*DNA*	*DNA*	*DNA*
2018–19	*DNA*	*DNA*	*DNA*	*DNA*
2019–20	*59.21*	*40.78*	*61.97*	*38.03*

**DNA*- Data Not Available
Source: Analytical Report 2015–20

Table 8

Teacher-Pupil Ratio in Primary and Upper Primary Schools (2015–16 to 2019–20)

Year	Primary	Upper Primary
2015–16	27	19
2016–17	28	37
2017–18	DNA	DNA
2018–19	29.60	40.57
2019–20	30.6	22.0

Source: DISE Analytical Report 2015–20

year 2019–20. Analysis indicates that proportion of female teachers was increasing consistently at primary level in comparison to males. Data of Table 8 indicates that women are gradually showing affinity towards the teaching profession.

As evident from the data given in Table 8, the Teacher-Pupil Ratio (TPR) at the primary and the upper primary stages was 1:27 and 1:19 respectively in the year 2015–16. A declining trend was observed in those schools in the subsequent years and by the year 2019–20, TPR was 1:31 at primary stage and 1:22 at the upper primary stage. The declining trend of TPR is may be due to the non-recruitment of an adequate number of teachers in the subsequent years.

Government Initiatives for Quality Improvement of Elementary Education in Jharkhand

A number of schemes have been introduced and implemented in Jharkhand in order to provide education of equitable quality to all children and to create an education system that provides access, equity and affordability while enabling every human being for lifelong learning from early days of life. The functions and objectives of these schemes and programmes are presented below in brief.

(a) Schemes for Promotion of Girls' Education

In order to promote girls' education, Government has set up girls' residential schools named Kasturba Gandhi Balika Vidyalayas (KGBVs) with an objective to ensure access and quality education to the rural and disadvantaged (SC, ST, OBC, BPL and minority) girls of the Educationally Backward Blocks, especially at upper primary level and to prepare them to become able future citizens at par with the students of mainstream population. The state government has also established Jharkhand Balika Awasiya Vidyalayas for girls in remote blocks of the state. The state has started Mukhyamantri Vidyalakshmi Yojana for SC/ST girls of Class VI to resolve the problem of dropout amongst these girls.

(b) Scheme for Promotion of Education among Tribal Students

In pursuance of Article 46 of the constitutional obligation, Ministry of Tribal Affairs, Government of India launched the scheme of Eklavya Model Residential School (EMRS) with an objective to mainstreaming the tribal students and to provide quality education to the meritorious tribal students in a residential set-up from middle to higher secondary level (Classes VI to XII) in Jharkhand.

(c) Establishment of Model Schools

Model schools have been established in different blocks of the state to provide holistic education to the students. Schools are well-known for their innovative curriculum and pedagogy, model in infrastructure and governance. Presently, these

schools are offering education to the students of Class VI onwards for their overall development.

(d) Special Training for out of School Children

With an objective to attain maximum enrolment, special training centres have been established for out-of-school children. The Government tried to ensure that all children from special training centres are mainstreamed into regular schools. In this scheme, months-appropriate (three months/six months/nine months) bridge course has been designed for out-of-school children to reach age-appropriate classes. In order to run the programme smoothly, government allocates Rs. 1500 for educating each student.

(e) Introduction of English Language in Class I

The RTE Act emphasises on learning of multiple languages in which English occupies an significant place along with the mother tongue. Considering the importance of language in the life of every child, Government of Jharkhand has introduced English as a compulsory subject from Class I onwards in all the State Board schools. The major objective of such an initiative is to develop a minimum level of proficiency in English among all primary school children.

(f) Syllabus Revision and Preparation of Textbooks

Realising the importance of syllabus and textbook in the school system, the state government has revised the syllabus and prepared new textbooks for various classes and implemented them in a phased manner in all the State Board schools of Jharkhand. Textbooks have been prepared in the line of National Curriculum Framework (NCF) 2005. State primary education programme authority and Jharkhand Council of Educational Research and Training (JCERT) are working collaboratively to maintain the standard of primary education in the state. With the active involvement of state resource persons and subject experts, a phase-wise review of textbooks and syllabus has been carried out. JCERT has developed textbooks for Classes I–V in 2015–16 and for VI–VIII in 2016–17.

(g) Promotion of Home Language (Tribal Language) and Multilingual Education

With a commitment to promote mother tongue based education and improve the quality of education among tribal children, government of Jharkhand has taken initiative to develop textbooks for Classes I–II in five tribal languages such as Santhali (Olchiki), Ho (WarangChiti), Mundari, Kharia and Kurukh. Out of these, textbooks have already been developed in Santhali (Olchiki) and Ho (WarangChiti) languages. In order to overcome the language disadvantages among these tribal students, the State has also established certain schools in multilingual pockets of the different districts which have been guiding

tribal students in a phased manner to bridge with Hindi and English in pedagogically appropriate ways.

(h) Computer aided Learning Programme

With a view to familiarise the elementary students with computer and to enhance their skill and confidence, as well as to improve the quality of teaching-learning, the government has introduced computer education for students in elementary schools. Computer training has also been provided time to time to the teachers to enhance their ICT related operational skills.

(i) Innovative Programmes

The State has started certain innovative programmes and interventions for improving the quality of school education. With an objective to ensure regular attendance of all children in school and for their continuous learning, a state wide programme, i.e., "Vidyalay Chalen Chalayen Abhiyan" has been introduced. In addition, certain dynamic activities such as "Khel Khel Mein" — children's school readiness programme in early parts of Class I, "Baal Samagam" (all-round student performance improvement), "Kasturba Sangam" (performance improvement of girls from vulnerable background), "Baal Sansad" (for student leadership and holistic development), 'Buniyad' and "Buniyad plus" (for ensuring early grade learning skills of all children in primary classes, early grade mathematics in primary classes), "Prayas" (to enhance students attendance through integrated collaboration of students, teachers and community members), "Hamara Vidyalaya Kaisa Ho" (guidelines for school improvement), "Pariwartan movement" (active teachers and teacher educators support each other for school improvement), "SESM" (School Education Support Mission for programme review and support in every district), etc., are the integral parts of smooth school operationalisation. The major objective of "Prayas" initiative is to bring back all children to school who remain absent for more than three days in an integrated manner. "Baal Samagam" has been organised annually with an objective to promote leadership qualities, inculcate team spirit, and enable children of government schools to participate in a wide range of scholastic and co-scholastic activities from their schools to block, district and state level. In a similar way, "Kasturba Sangam" is organised for girls from Kasturba Gandhi Balika Vidyalayas. The government has also initiated "Shikshak Samagam" for all government school teachers with an objective to motivate and enhance skills of the teachers. Jharkhand government has also taken initiative to introduce Continuous and Comprehensive Evaluation (CCE) for assessing and enhancing learning outcomes of students and special

Saturday classes for development of personality and moral values among the students.

(j) Infrastructural Facilities

With a view to improve the richness of the school and to attract children towards school, government of Jharkhand has given highest priority to the improvement of infrastructure and other necessary facilities in government schools under the Sarva Shiksha Abhiyan (SSA). Under this scheme, new buildings with ramps have been established; some school buildings have also been renovated. In previous years, compound walls, additional classrooms, library, separate toilets for boys and girls have been constructed.

(k) Training for Untrained Teachers

Realising the importance of trained teachers in the teaching-learning process, the state government has provided training to the untrained teachers working at the elementary schools of Jharkhand. In the first phase, Diploma in Primary Education (DPE) was provided to the in-service school teachers through Indira Gandhi National Open University (IGNOU). Later on, National Institute of Open Schooling (NIOS) also offered Diploma in Elementary Education (D.El.Ed) programme for the remaining un-trained teachers of the state.

(l) Appointment of Teachers

Considering the importance of intellectual workforce in the process of teaching-learning, Government of Jharkhand has taken initiative to recruit the trained teachers in all stages of schools, in general and elementary schools in particular. In order to attract qualified individuals towards the teaching profession, cadres in teaching have also been generated. The state government has appointed a good number of teachers on a permanent basis in 2015–16 for primary and upper primary schools.

(m) School Incentive Schemes

In order to ensure maximum enrolment and to improve the quality of elementary education, Government of Jharkhand has taken the following measures:

(i) Free School Kits: With a view to develop the interest among students: the government of Jharkhand has introduced the 'school kits scheme' for all the government primary and upper primary school students. Under this scheme, 3 notebooks of cost Rs. 60/-, 2 sets of pens/pencils, eraser, pencil cutter of cost Rs. 25/- are provided to the students of Classes I–II. Similarly, 5 notebooks of cost Rs. 100/-, 3 sets of pens/pencils, eraser, pencil cutter of cost Rs. 50/- are provided to the students of Classes III–V. Ten notebooks of cost Rs. 200/-, 5 sets of pens/ pencils, eraser, pencil cutter of cost Rs. 75/- are provided to the students of Classes VI–VIII. Instrument box is also provided to all the students of

Classes III–VIII with a cost of Rs. 30/.

(ii) Free Textbooks: With a view to encourage the students for getting enrolled in the school, the Department of School Education and Literacy, Jharkhand, supplies textbooks free of cost to all the students of state board elementary schools. Head Teacher of the concerned schools shoulders the responsibility for smooth distribution of books among students.

(iii) Free Uniforms: Two pairs of school uniforms are provided free of cost to all the students of Classes I to VIII with an objective to attain universalisation of elementary education. Under this scheme, Rs. 600/- is credited to each student's bank account annually and students are asked to submit the bills of purchased uniforms to the concerned Head Teacher of the school for verification.

(iv) Mid-Day Meal Scheme: With a view to enhance enrolment, retention and attendance and to improve the nutritional levels among children, a mid-day meal scheme, a centrally sponsored scheme has been implemented in this state. Jharkhand State Mid-Day Meal Authority was constituted on 31st March, 2014 with an objective to proper implementation of the programme. Under this scheme, hot cooked meal is served to the elementary school students of the state on each working day.

(v) Scholarships for Students: The state government has initiated the scholarship for SC, ST, and minority students (both boys and girls). Under this scheme, SC/ST/ minority students of Classes I–IV, V–VI and VII–VIII receive Rs. 500/-, Rs. 1000/- and Rs. 1500/- per annum respectively. In order to provide the direct benefit of scholarship to each deserved student, government deposits the amount in the personal bank account of the concerned student.

Conclusion

The analysis of elementary education in Jharkhand reveals certain disturbing pictures with particular reference to enrolment and dropout of students. Truly speaking, despite all attempts in this direction, the result is yet to become satisfactory. In order to surmount the ongoing and upcoming problems, valid measures are to be properly implemented as well to be carefully monitored for their genuine impact. There is a need to assess the benefits achieved by the students from various facilities. Otherwise, this would lead to a quantitative growth without accompanying the qualitative aspects. An effective evaluation of implemented government policies and programmes, over a timeframe, would

help in attaining universalisation of elementary education in the state. In order to attain so, administrative structure has to be overhauled with a strong will and determination. Various media, methods and materials are to be utilised to fulfil the needs of every child and the special needs of the deprived and the differently abled children. This will not only increase the participation of children and retain them in the schools but will also facilitate in improving the quality of education imparted in the school. Time has come to do something serious in this regard. The government alone cannot do all this. It needs concerted and continuous efforts from all sections of society. We as parents, community members, teachers, politicians, planners and policy framers need to come forward and join our hands in helping our children to have a reasonable future in the changing context.

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Looking Beyond Panorama of Reaching Schools
A Situational Analysis of School-going Adolescent Girls in Jammu (J&K)

*Varsha Kapoor

Abstract

Reaching higher levels of education for Indian adolescent girls cannot be a panacea for their empowerment unless the various linked factors are taken care of. This paper critically articulates the impact of socio-cultural settings in getting quality education by adolescent girls in Jammu (India) through gender/ empowerment approach. A division of higher secondary schools is made using quota sampling. Total sample is 300 from twelve schools (240 adolescent girls, 24 parents and 36 teachers). Focussed group discussions (FGDs), observations, questionnaires and structured interviews are the main tools used for data collection. Impact of various factors like socio-cultural environment, issues related to health, parents and teachers as agents of socialisation, safety issues, and decision-making power on getting quality education are analysed. The study emphasizes a holistic approach considering the socio-cultural realities in educational discourse.

Introduction

In the discourse of empowerment of girls, education has always been given prime importance by the policy-makers. Some of the commonly heard notions are, 'by educating girls, you can educate the whole family'; 'investing in girls' education

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is the best investment'; 'send them to school to empower them'. The alternative/anti-thesis perspective to this is "why should girls only take the responsibility of the family in every aspect; why we still need to use the word 'investment' with educating a girl (investing for their dowry is not enough?). Most importantly, is going to school solve the purpose of her empowerment? Is it sufficing to put the girls in schools and enhance the literacy rate of a country by providing them with required grades to reach the next class? What about the societal constraints, safety issues and cultural norms?" With all these questions in mind, this research paper is an attempt to analyse the situation of school-going adolescent girls in India (J&K) who win the war of reaching the school at higher secondary level but still there are deeper issues which need to be addressed for their empowerment through quality of education.

Though numerous studies have been conducted in different parts of the world related to the access, enrolment in schools and dropout rate of girls (Bhatty, 1998; Kane, 2004). But, the issue whether the increased enrolment of girls in schools really empowers them, still needs deeper understanding and action.

Less attention is paid to the data related to impact of the learning environment in social milieu and problems faced by girls in acquiring the required quality education in India.

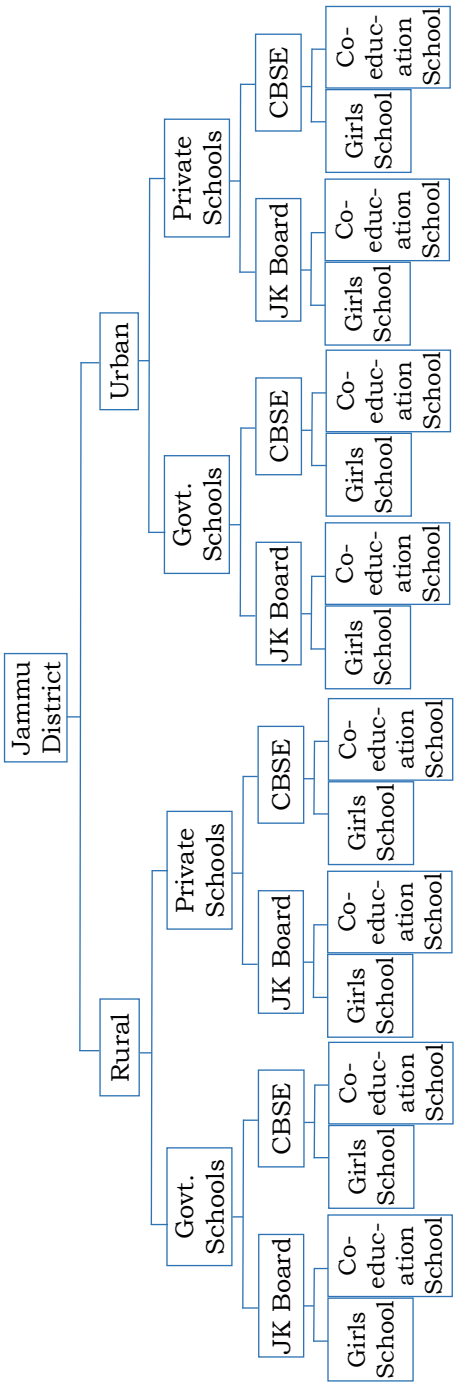
Objectives

1. To understand how the concept of adolescence (especially in context of girls) in India differs from the western societies;
2. To critically highlight the issue that only reaching secondary schools and not considering the different learning environments cannot be the parameter for girl empowerment;
3. To analyse the situation and issues pertaining to adolescent girls studying in different school environments;
4. To comprehend the role of teachers and parents as agents of socialisation in adolescent girls' process of empowerment through education.
5. With these objectives, the present article articulates the impact of social setting in getting quality education by adolescent girls in various educational institutions in Jammu (India).

Area of Study

The present study was undertaken in the district, Jammu. This is one of the important districts of the UT Jammu & Kashmir both in terms of education and its location. The district consists of 8 blocks and 4 tehsils. The district consists of a total number of 2414 schools. There are 64 J&K government higher secondary schools (Directorate of School Education Department, DSEJ, 2016). As per the list of private schools, the estimated

Graph 1: Graphical Representation of Sample



number of higher secondary schools is 200. Another important component of area selection was schools which follow Central Board of Secondary Education (CBSE) curriculum. There are around 40 CBSE higher secondary schools in Jammu district (government as well as private).

Process of data collection

Process

Keeping the objectives of the study in consideration, the design chosen for the present research was exploratory research design. All the higher secondary schools and the adolescent girls studying in them formed the population of the study. Schools were mainly divided based on rural and urban areas (within the municipal limits).

Tools Used

The present study is empirical and qualitative in nature based on both primary and secondary data. Observations, Questionnaires, and Focussed Group Discussions (FGDs) were the major tools of data collection. The primary data is based on the intensive fieldwork carried out in various higher secondary schools of Jammu district. The secondary sources used included various books, articles, journals, archives and sources available on the internet.

Sample

From the complete list of higher secondary schools of both the boards (CBSE and State Board), a division

was made on the basis of rural and urban schools. Quotas were formed on the basis of co-education and single-sex schools, private and government schools, state board and CBSE (Central Board of School Education) affiliated schools finally making sixteen (16) categories (Graph–1).

It was realised during fieldwork that there was no school available as per the four categories chosen. So, the number of girls chosen from twelve (12) categories left was raised from 10 to 20 girls making an adolescent girl students' sample of 240 girls. Twenty-four teachers and 36 parents were also interviewed, making a total sample of 300.

Theoretical Perspective

The perspective selected for the study was 'Empowerment Approach'. As per Kabeer (1999), empowerment has two primary constituents:

- **Resources**, including not only financial and productive assets, but opportunities, capabilities, social networks and other environmental factors; and
- **Agency**, or the ability to act in one's own best interest.

Taking this approach, different school environments are taken as 'Resources' and adolescent school going girls as taken as agency with the notion reinforced by many scholars that when girls and women go to school, or participate in a literacy programme, they not only acquire fundamental literacy skills and academic knowledge but they are empowered to make key decisions and take charge of their lives (Martinez and Fernandez, 2009). In a similar manner, Murphy-Graham (2012) in '*Opening Minds*, *Improving Lives*' used the education-empowerment framework as an insightful way to think about empowerment in an educational context by linking recognition, capacity building and action.

Data Analyses

The actual interpretation of adolescence as a phase of life remains a social construct that differs between cultures. To comprehend the concerns related to adolescent school-going girls in India, the first objective of the study is to understand how the concept of adolescence in India itself differs from the definitions given by world forums. It was realised that the real state of girls can only be realised by considering their socio-cultural set-up peculiar to the Indian scenario. The factors like home environment, cultural values, and peer-group pressures have great impact on interpretation of adolescence (UNICEF, 2011). It was realised during review of literature that the girls in India cannot be studied with the common yardstick as in the West but by considering their socio-cultural environment peculiar to India.

Adolescence in India and West: A Comparison

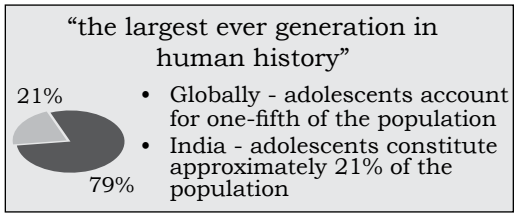
Focussing on the relevance of the concept of adolescence to the

Indian scenario, the term itself becomes questionable. As Indian society is marked by heterogeneity in its culture and essence, it is difficult to perceive adolescents as a homogenous group like in the West and replicate their models to understand the concepts. In Indian society, the concept of 'adolescence' is not viewed as an extended period of education and training for adult roles as in the West. There is limited scope of such experience in context of India. Reasons behind this limitation begins from factors such as a delay in the onset of puberty due to poor nutritional diet, prevalence of early marriage signifying adulthood to alarming crimes, safety issues and societal pressures. Furthermore, the concept of generation gap cited in Western societies does not exist in India (Greene and Walker, 1997). Nevertheless, gradually, with the changing economic and social profile and structures, generational differences in India are becoming increasingly visible and unavoidable. The association of adolescence with sexuality is another factor which increases resistance to the concept, particularly in regard to female adolescence (UNFPA, 2003).

Adolescent Girls in India: Situational Analysis

As per UN Inter Agency Working Group on Population and Development (2000), adolescents consist of 21 per cent of the total population in India (Chart 1).

Chart 1: Population of Adolescents in India



Source: UN Inter Agency Working Group on Population and Development (IAWG-P&D-2000)

According to National Youth Policy (2014), 21.4 per cent of the total population in India consists of adolescents. This age group is characterised by distinct physical and social changes, the separate health, education, economic and employment needs. Such needs of adolescents cannot be ignored and require measures specifically designed for their empowerment (UNICEF, 2011). The lack of information can be attributed to a shroud of silence and mystery. Thus, there is a need to pay attention to the requirements of this age group with special consideration to their different needs and situations like different school environment as formal schooling is considered a significant indicator of empowerment.

Formal Schooling as Agent of Socialisation

Education is an inseparable part of social structure and an important agent of socialisation (Gyekye, 1987). It helps not only to learn new ways but to unlearn certain wrong notions and perspectives which a child internalises from other informal agents. It has the

potential to contribute to alternative socialisation. It is only through the creation of minds ignited with rational thinking that the unequal power structure can be questioned and altered. Girls can come forward and can actively participate in the development of the country (Sen, 1999).

Impact of Social Factors on School-going Adolescent Girls

As per the second objective of the study, it was realised that there is a need to pay attention to various problems girls face in India in getting quality education even after access to schools. A diverse country like India with major chunk of population living in rural areas, long distance from homes to schools especially secondary schools, which are more widely dispersed is one of the major hindrances in the way of providing good education to adolescent girls. They have to deal with a range of threats along the way. Unsafe societies create a fear of abduction, physical and sexual violence, harassment and abuse. Sometimes, even if they get admitted to schools, they remain absent due to lack of appropriate infrastructure and sanitary facilities at schools (Bandyopadhyay and Subrahmanian, 2008). The duration of menstruation creates a fear of social stigma in the minds of adolescent girls, which also results in them missing several days of classes per month and falling behind. This irregular and fluctuating schooling creates major hurdles in acquiring knowledge. Some of the important issues related to girls' situation are analysed below.

Issues Related to Health

'Quality Learners' is the first and foremost requirement of quality education (UNICEF, 2000). Taking the case of India, many girls are nutritionally vulnerable and lack proper diet due to poverty, discrimination and absence of adequate education regarding the importance of a balanced diet. They do not receive the attention they deserve and need. Many studies have analysed the minute incidences of inequality in day-to-day life where girls' meals (food, milk, fruits, etc.) are even compromised for their brothers and fathers (Trivedi, 2012).

Fever, cough, cold, body aches, etc., are the general indicators of

Table 1

Frequency of Girls Falling Sick in a Month

S.No.	Falling sick in a month	No. of Respondents	Percentage (%)
1.	Once	43	18
2.	Twice	124	51.66
3.	Weekly	35	14.6
4.	Never	38	15.8
Total		**240**	**100**

poor health. It was observed that according to more than 50 per cent of the girls, they fall sick twice in a month and only 15.8 per cent never fell ill in a month (Table 1).

The girls of both rural and urban areas fall sick equally showing no major difference. One of the girls from a rural government school asked innocently, "*maam, jo ek baar har mahine bimar hote hai uske ilava batana hai"*, in regional language (Do I have to answer other than one time I fall ill each month?). It was also observed during focussed group interviews that many of the girls perceive themselves as ill during the monthly menstrual period and many of them did not go to school during those days.

Safety Issues

Physical or mental abuse plays a negative role in the process of empowerment of adolescent girls. 65 per cent of the girls marked that they never had any scaring experience while going to school or in the school, while 35 per cent agreed that they had some bad experience. Although major ratio of girls did not have any scary instance to remember but still 35 per cent cannot be ignored either. Majority of girls who admitted that they suffered from some frightening incident belong to rural areas and were studying in co-educational institutes (Table 2).

More than half of the girls were reluctant to share any frightening experience but many of them have experienced something scary (eve-teasing, molestation, harassment, abuse, etc.). The ratio of rural girls studying in co-educational institutes in both private and government schools is greater than other girls who experienced it. It can be analysed that rural girls are more susceptible to such incidences due to the long distances they cover, lack of family support, lack of teachers who help build their confidence and lack of safety measures. It is also realised through observations and during FGDs that girls are hesitant to tell anyone about the trauma they went through. It is in line with

Table 2

Issues Related to Safety

S. No.	Safety issues	No. of Respondents	Percentage (%)
1.	Long distance	66	27.5
2.	Behaviour of male/ female teachers	62	25.83
3.	No washrooms	44	18.33
4.	Poor infrastructure	23	9.58
5.	Inadequate transport facility	45	18.75
Total		**240**	**100**

many studies which show that many a times the girls become victim of people known to them. It can be some relative or a teacher, so they silently bear the suffering due to the fear of embarrassment in the society they live in. This is a major hindrance in the process of empowerment of girls.

Parents as Agents of Socialisation

Majority of the parents (70.83 per cent) replied that they strongly believe that girls should be given higher education, 12.5 per cent just agreed and there were four parents who disagreed that girls should be given higher education (Table 3).

According to them, secondary education is more than enough for the girls as they themselves never went to school. Some of them were afraid that they would not get a suitable match if the girl is over-qualified as the boys in their village are not highly qualified. Parents in urban areas are much more supportive than in rural areas.

The fear that sending girls to school could ruin a girl's and her family's reputation, emerged strongly from the interviews with parents. It was pertinently visible that many parents are afraid that after their daughter reaches puberty, she might engage herself in love affairs and illicit relations especially on her way to school. They are scared that their daughter might engage in activities deemed unfitting within the cultural environment. This in turn could also ruin her marriage prospects and the families' reputation within the community. Leaving school was perceived as a viable solution to avoid this jeopardy. Thus, if parents felt that their daughter was treading the 'wrong path', this presented a socially acceptable reason to discontinue her education.

One of the girls studying in rural government school expressed during the FGD that she is good in studies and wanted to go to a good private school but her parents enrolled her in government school (considering the financial status) while at the same time, her two brothers were sent to private schools. Maximum parents, i.e., 83.33 per cent strongly

Table 3

Issues Related to Safety

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5.	Inadequate transport facility	45	18.75
Total		**240**	**100**

agreed that girls should be educated in girls only schools. Given a choice they would always admit their daughters in the girls' schools. To their satisfaction, girls' schools are comparatively much safer places than co-education schools.

Pressure of Choosing Socially Appropriate Subjects

Although 86.66 per cent revealed that they got subjects of their choice but from observation and FGDS, it appeared that many teachers had a strong traditional stereotypical notion about gender identity (Table 4).

They were of the view that mathematics and science are masculine subject areas, as is technology. It is generally perceived that social sciences and languages are subjects which are more feminine in nature. This reflects the gendered aspect of curriculum. This biased attitude affects the career prospects of girls in a very intensive way. Due to this point of view, it is presumed that girls cannot do well in mathematics and technical subjects like computer education, Information Technology, etc. This notion also impacts girls' own perception of their ability in a negative way and they become reluctant to choose such subjects.

Teachers as Agents of Socialisation

Teachers play the most crucial role in helping girls to fetch the real benefits of formal education. According to around half of the girls under study, they feel free and comfortable in asking subject related questions, their queries, sharing problems and issues related to studies and other aspects of life to only few teachers. For many girls, it is sometimes only one or two teachers in the whole school. It is also apprehended that girls are more comfortable in sharing their thoughts with female teachers. There is no major difference of opinion found in girls studying in different school environments.

It is important here to mention that when this question was read out to girls in some schools, many of them immediately uttered *'No' 'No'*; then attempt was made to make them realise that discrimination is not always clearly visible and its dimension is not always too huge to be noticed always by everyone. After illustrations with few examples like boys being always motivated to go

Table 4

Forced to take Social Sciences

S.No.	Forced to take social sciences	No. of Respondents	Percentage (%)
1.	Yes	32	13.33
2.	No	208	86.66
Total		**240**	**100**

Table 5

Discrimination/More Preference to Boys by Teachers

S.No.	Discrimination/More preference to Boys by Teachers	No. of Respondents	Percentage (%)
1.	Yes	123	51.25
2.	No	37	15.41
3.	NA	80	33.33
Total		**240**	**100**

for sports and girls for music, home science, etc., and few more, the girls were able to respond to the question. 51.25 per cent marked that they were discriminated at times by the teachers (the question was not applicable to 33.33 per cent girls studying in girls only school, Table 5).

Discrimination on the basis of being girls in schools is not always visible and concretely manifested to feel bad about it. At the same time, it is observed that societal norms and cultural values are so deeply imbibed in girls that the discriminatory behaviour is accepted as normal to them (Chanana, 2001). Although many of them accepted that they are always asked to perform gender segregated tasks and activities, but they are not aware of the outcomes of such attitude of teachers. Nevertheless, the present study is not in line with many studies showing discrimination in sitting arrangements in classrooms. No discrimination is found in sitting arrangements in the classrooms. However, girls in co-educational schools sit with girls and not with boys by choice. The major reason for the same can be the internalisation of norms related to gender segregation in society. It can be analysed that many cultural attitudes and constraints that women experience as adults in society are difficult to escape even while in school given that teachers and administrators are themselves a product of those cultural attitudes and constraints.

Influence of Cultural Norms

Cultural norms play a major role in shaping the choices of adolescent girls. Violence is dangerous for everyone and especially for adolescent girls who are themselves going through the phase of physical and emotional changes. Understanding of violence and response to it varies from girl to girl in context of their cultural set-up, educational development and socio-economic conditions (Nambissan, 1996). Some girls narrated the incidents of raising their voice against injustice and violence during FGDs but the number was less. Some of them admitted that by doing so, people around them think that schools are providing incorrect motivation as raising voice

is not considered good for a girl's personality. People might think negatively which would ultimately affect their marriage prospects. Such thought process is impregnated with the deep-rooted gender bias in society where girls are constantly persuaded to tolerate the injustice as being normal and adjusting for their survival.

Decision-making: A Significant Indicator of Empowerment

It is realised that 78.33 per cent of girls did not feel that they had the capacity of take major decisions in their lives. They were dependent on others, mostly on parents especially their mothers for even the simplest decisions. 21.66 per cent girls responded that they could take many of their decisions on their own (Table 6).

Although female schooling at the secondary level is more consistently and strongly associated with increased decision-making, it is observed that maximum girls in all the schools feel that they are dependent on family and peer groups for their decisions and well-being. They are not confident enough to take petty decisions as well as crucial decisions of their life ranging from what to wear, which activity to participate in school to which subject to choose. Many of them admitted that they choose the subjects because their friends are choosing the same and they want to be with them.

Results and Discussion

Perceptions play a vital role in deciding how women should be treated in a society which are themselves the product of cultural set-up. Various social realities are creating a hindrance in acquiring quality education by the girls. In India, major problem is not poverty but the disparity and wide gap between rich and poor. It is a country where many people can send their children to the best considered private schools and there are people who do not want to send their children, especially girls to schools even after the provision of free education. This dilemma needs to be focussed upon for sustainable development so that future generations would not be swinging in the same rope of inequality and curtailed justice.

Table 6

Capability of Taking Decisions/Dependence on Others

S.No.	Capability of taking decisions/ dependence on others	No. of Respondents	Percentage (%)
1.	Yes	52	21.66
2.	No	188	78.33
Total		**240**	**100**

Although gender stereotypes and discrepancies begin from an early age in one's life which are channelised through cultural norms and practices, they become more stringent during adolescence. It is the time when girls are often forced to contend with new restrictions and limitations on their freedom of movement.

Regarding parents, it can be analysed that parents' own experiences, perceptions and attitudes towards education and schooling have a significant impact on girl's education. Their educational status, financial status, locality, cultural set-up and thought-process play a major role in cementing their views regarding education of adolescent daughters.

It can also be inferred that many a times, teachers play a negative role rather than helping girls to eradicate inequalities which ultimately lead to disempowerment and discrimination. Gender stereotypes are constructed by teacher's attitudes, classroom atmosphere and learning approaches which are further reproduced by both teachers and students. For example, during FGDs, it was observed that according to girls, male and female teachers reproduce traditional male and female roles in the classroom. Many female teachers follow the '*supportive sympathetic*' archetype, whilst male teachers follow the 'authoritative' attitude. It is also observed that in most of the schools, there are different staff rooms for male and female teachers. This trend is also reproducing the traditional gender segregation followed in most of the Indian families. Unequal educational outcomes provide a real threat to girl's empowerment and equality in society (UNESCO, 2015).

Recommendations

There is a need to pay attention to the requirements of this age group with special consideration to their different needs and situations. Solutions cannot be based on common benchmark as it is a heterogeneous group with different circumstances in rural and urban areas. It is recommended that any study pertaining to education of adolescent girls should consider the social environment in which they are living.

Teachers can play a major role in improving the life skills of girls. A discourse on education system is incomplete without understanding and articulating the key role played by teachers, especially in context of gender equality. Teachers can play a major role in transmitting the ideology, values, and culture of a nation, state, and its people. At the same time half-truths, wrong information and constricted learning behaviours that students internalise can also be filtered through teachers' lack of knowledge, misjudgements, or biases. Thus, educational reform must therefore emphasise the education and empowerment of teachers that includes the real opportunity for

them to share perspectives, power and decision-making.

Only making new policies and programs is not sufficient. The proper execution and strategy to make it ground reality is also necessary. Moreover, the problems of rural and urban area schools should not be measured by a common yardstick, since problems of rural area schools are more as compared to urban areas. Similarly, replicating policies from other parts of the world without considering the different context and conditions of the state and needs of girls would not solve the purpose.

Conclusion

In the words of Winthrop and Mcgivney, it requires moving beyond the "*ambition from gender parity to a vision of success that better reflects what girls aspire to and deserve in their lives*" (Winthrop and McGivney, 2015). Hence, there is a need to address the relationship between quality education as a resource and girls as agents of their own empowerment.

No reason or argument (cultural/ social/economic) can justify abjuration of education to girls. It is a fundamental right of each girl around the world. Education is an important agent that can change the unjust societal structures and can give girls the freedom they need to make life-choices, to take charge of their lives and to shape their future as per their desires. Thus, a need of holistic approach beginning with providing safe and encouraging environments to girls at homes, schools and society is required to improve their life-management skills and to actually empower them for the new journey of life after schools.

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Socio-economic Factors Influencing the Education of Muslim Girls and Other Educationally Disadvantaged Groups of Slums in Delhi

FAUZIA KHAN*

Abstract

Okhla is an area in South-East Delhi, majorly dominated with Muslim population. The establishment of Jamia Millia Islamia, a central university in this area played a major role to attract people to this area and settle down. The slums in this area present a bad picture as they lack basic civic amenities. The present paper tries to comprehend the factors influencing the education of Muslims girls and girls of other educationally disadvantaged groups (OEDG) in the slums of Okhla. In order to understand the problems of these educationally disadvantaged groups, a detailed analysis of related policy, provisions, strategies and programs implemented by the Government of India for improvement of educational status of Muslim girls and girls of OEDG, has been done. Along with this, the socio-economic factors responsible for the educational backwardness of the sample have been explored in this study. Analysis of the study was done both qualitatively as well as quantitatively. The paper concludes that, at present, economic inequality is the major hindrance for achieving the goal of education in case of Muslim girls and OEDG girls of slums. The social factors such as cultural, environmental and familial matters are secondary reasons of dropout of slum girls in Okhla (DH News Service, 2011).

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Introduction

Delhi officially known as NCT Delhi, is the capital city and a union territory of India with a population of almost 11 million (Census, 2011). Around 10.63 per cent of population in Delhi lives in slum areas, which lacks basic facilities like toilets and proper supply of clean water. Most of the slums here are urban slums, owing to migration of various illiterate, semi-skilled and daily wage workers in search of employment, coupled with the failure to provide resources for the growing population with civic amenities. These slums are at the dearth of basis civic amenities like health, education, sanitation, water, shelter, etc. Various surveys of these slum areas show that many slum children are not in school, and that mostly drop out among them (Tsujita, 2009).

Muslim community constitutes 12.86 per cent of Delhi's total population; and Okhla is one of the densely populated Muslim majority areas of Delhi. In Okhla, larger accumulation of Muslims (Kirmani, 2013) is located in the regions of Zakir Nagar, Batla House, Gaffar Manzil, Shaheen Bagh, Abul Fazal Enclave, Noor Nagar, etc. The esteemed Jamia Millia Islamia, a central University, is also in this area and it has played an important role in attracting Muslim population in the area, who have mostly migrated from Bihar and Uttar Pradesh; and they now constitute an estimated 90 per cent of the Muslim population here (Ahmad and Hamdard Education Society, 1993, pp. 111–112).

Since 1994, the area has been categorised as an unauthorised colony; despite repeated assurances from the government to regularise the area. Most families residing in this area are nuclear, while few are complex or multi-generational families. Much of the population is involved in businesses like petty production and trade, which ranges from low to moderate. Some people are engaged in small, self-owned manufacturing and processing businesses, while some are salaried employees (Islam, 2016). According to the Census 2011, Delhi has nine districts which have more than 12.86 percentage of Muslim population. The maximum number of Slum households was found in South Delhi that account for 142 of the 589 surveyed (SFCAP survey) clusters in the city, the highest in the nine districts of the city.

Delhi has a high literacy rate (86.2%), with male literacy (91.03%) and female literacy (80.93%) which is good but the overall literacy rate of slums is (75.16%) which is satisfactory if we look at the national literacy (72.98%) rate which is far behind the literacy rate of Delhi and South Delhi District. South Delhi District has high literacy rate (87.03%) but the female literacy rate in slums is (68.7%) which is far behind the national literacy as well as the literacy rate of Delhi. If we

compare it with the highest female literacy rate in India which is in Kerala (92.7%), it is very low.

Educationally Disadvantaged Groups

Educationally Disadvantaged Groups (EDG) are those which have literacy rate less than the National Literacy Rate (NLR). This group is marked with a Negative Literacy Gap (NLG). Those groups which have a literacy rate greater than the national average are recognised as Educationally Advantaged Group (EAG). This group is marked with a Positive Literacy Gap (PLG). The Other Educationally Disadvantaged Groups (OEDG) referred in this is to specify exclusive of Muslim community.

Muslims are the largest minority community in India with the population of 172.24 million (14.2%) out of which 83.9 million are females (Census, 2011). In religious category, Muslims are the most educationally disadvantaged community in India (Kaur and Kaur, 2012). Muslim females are far behind their male counterparts in terms of literacy, enrollments and in successful completion of school education from primary to senior secondary level. Maximum dropouts are at primary and secondary school levels, which are due to seasonal migration (Rogaly et al., 2002) and absenteeism at school. In Delhi, Muslim community (–8.72) is the most educationally disadvantaged group. Muslim females have maximum negative literacy gap (–14.07) among all the different religious communities; while Muslim males (–4.14) are the only group which has a negative literacy gap. Besides Muslim males, only SC females (–2.98) have negative literacy rate in Delhi (see Table 1 and Table 2).

Literacy Gap against National Average (LGNA) can be calculated as LGNA = GLR-NLR; wherein GLR=Group Literacy Rate; and NLR= National Literacy Rate (Maulana Azad Education Foundation, 2017).

It is found that in India, females are the disadvantaged group in gender category, Muslims in religious category and schedule caste/tribe (SC and ST) in caste category.

Table 1

Literacy Gap of SC and ST against National Literacy (2011)

Cast Group	Literacy Rate	Literacy Gap (LGNA)
ST Female	49.4	–23.58
SC Female	56.5	–16.48
ST	59	–13.98
SC	66.1	–6.88
ST Male	68.5	–4.48
SC Male	75.2	2.22

NLR 2011: 72.98

Table 1 shows that in India, ST females are the most disadvantaged caste group (–23.63) in case of literacy compared to national literacy in 2011 Census, i.e., 72.98 per cent while SC males is the highest and the only advantaged group.

Table 2

Educationally Disadvantaged groups in India

Group	Group Literacy Rate 2011	Literacy Gap (LGNA)
ST Female	49.4	–23.58
SC Female	56.5	–16.48
ST	59	–13.98
Muslim Female	62.03	–10.95
Hindu Female	64.34	–8.64
Sikh Female	70.30	–2.68
Female	68.53	–4.45
SC	66.1	–6.88
Muslim	68.53	–4.45
ST Male	68.5	–4.48

NLR 2011: 72.98

Table 2 shows the combined status of all educationally disadvantaged groups (Muslims and other disadvantaged communities). It reveals that Scheduled Tribe (ST) Females, Scheduled Caste (SC) Females, Scheduled Tribe (ST), Muslim Females, Hindu Females, Scheduled Tribe (ST) Males and Sikh Females come under educationally disadvantaged groups on the basis of 2011 Census.

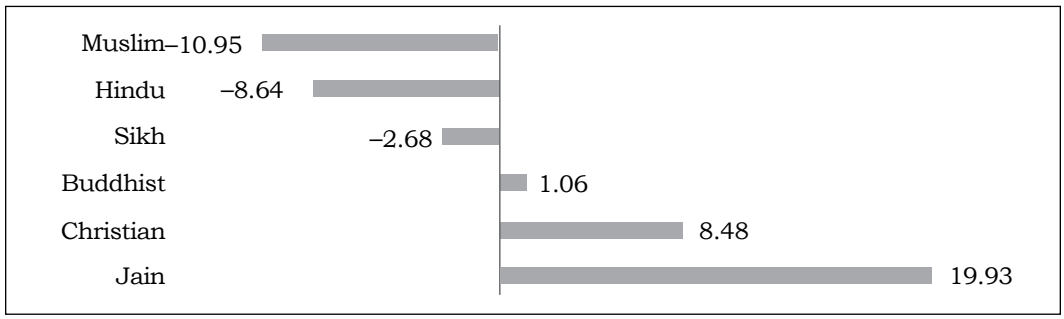
Muslim Girls Education

According to Census (2011), literacy rate of Muslim females is 62.03 per cent, w.r.t. 74.73 per cent literacy rate of Muslim males. The literacy rate of Muslim females is also less than national female literacy rate of 64.63 per cent.

The Figure 1 shows that in India, Muslim females are the most disadvantage group with respect to their literacy rate against national literacy rate, although Hindu and Sikh females also lack in their literacy rates (Census, 2011).

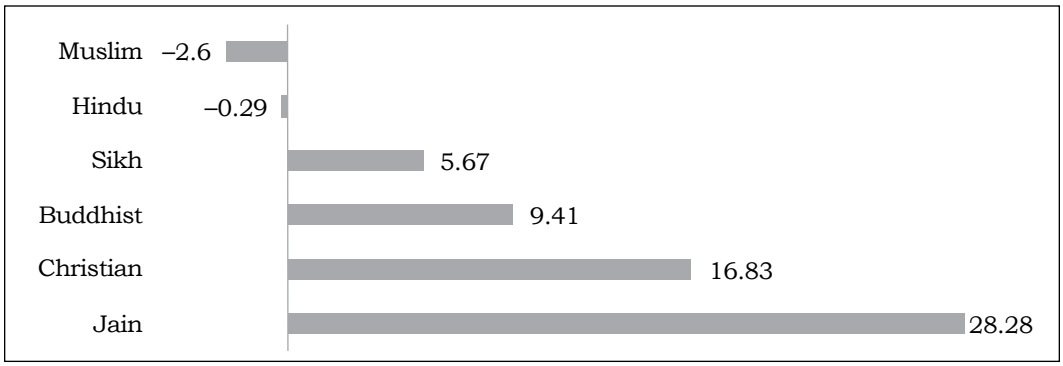
The Figure 2 shows that in India, Muslim females are the most disadvantage group with respect to their literacy rate against national female literacy rate in 2011 Census.

The Figure 3 shows that in India, Muslim females are the most



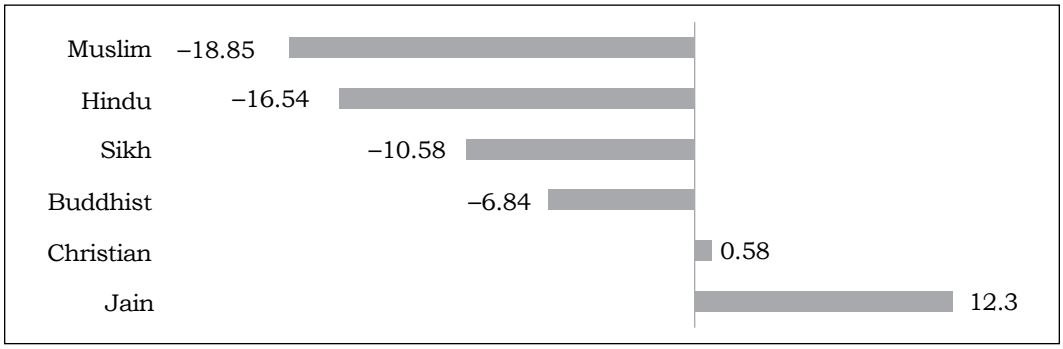
(Census, 2011)

Fig. 1: Female Literacy Gap among Religious Groups against National Literacy Rate



(Census, 2011)

Fig. 2: Female Literacy Gap among Religious Groups against National Female Literacy Rate



(Census, 2011)

Fig. 3: Female Literacy Gap among Religious Groups against National Male Literacy Rate

disadvantage group in terms of their literacy against their male counterparts although Hindu, Sikh and Buddhist female literacy rates are also negative against their male counterparts.

It is therefore understandably difficult for Muslim women to get educated in India; as depicted by the data discussed in Figures 1, 2 and 3.

Educational Issues of Girls of Muslim and Other Educationally Disadvantaged Groups

Despite government initiatives to elevate educational status in the country, there are inequalities and disparities among religious and caste groups in terms of their education, even though the government made

various policies, programs and laws to improve the educational level of the different groups of people living in the country. Literacy rate of the country varies from state to state and community to community. The complex diversity based on caste, religion and ethnicity has left some groups of the country more marginalised and educationally disadvantaged. Muslims, SC and ST, especially their females, come under educationally disadvantaged and marginalised sections (NCERT, 2014). Muslim girls and other disadvantaged groups literacy rates are not up to the mark. They are being victims of misuse and abuse inside and outside their families. Poverty, rigid family system, lack of education and ignorance of rights have made them more vulnerable to exploitation in multiple forms. The problem raised by the marginalised groups has not gained much attention from the government and civil society. Even the activists and community leaders are quite silent on their matters.

UNICEF states that 'Education is one of the most critical areas of empowerment for women, as both the Cairo (United Nations, 1995b) and Beijing (United Nations, 1995) conferences affirmed. It is also an area that offers some of the clearest examples of discrimination women suffer. Among children not attending school there are twice as many girls as boys, and among illiterate adults there are twice as many women as men. Offering girls basic education is one sure way of giving them much greater power — of enabling them to make genuine choices over the kinds of lives they wish to lead. This is not a luxury. The Convention on the Rights of the Child (UNICEF, 1990) and the Convention on the Elimination of All Forms of Discrimination against Women (United Nations, 1979) establish it as a basic human right. That women might have the chance of a healthier and happier life should be reason enough for promoting girls' education.

Many studies are undertaken regarding the issue of education of Muslim minority and other educationally disadvantaged groups in India. Kaushal (2013) found that the major reasons for low rates of girls education in India are social discrimination, cultural barriers, relative isolation, high opportunity cost, lack of accessibility of schooling, distance from the habitation sites, high rate of poverty, familial priority issue, struggle for livelihood, household works, responsibility to look after the younger sibling, early marriage, lack of self-confidence, lack of separate schools, lack of women teachers, limited coverage of incentive schemes, insufficient facilities in schools, and shortcoming implementation, monitoring and evaluation of schemes. Kaur and Kaur (2012) suggested that the disadvantage of Muslims in education is due to religious traditionalism. Kaul (2001) also found that the non-SC children never mingled or

interacted with SC pupils outside school despite of studying together in the school. Khan and Butool (2013) concluded that the educational status of Muslims in India is not satisfactory and needs special attention. It was found that half of the population, i.e., 53.95 per cent of the Muslims in India is illiterate, 17 per cent are literate people just for namesake only. This is a clear indicator that primary literacy rate is highest among the Muslims; while secondary, technical and higher education is lowest among the Muslims.

Hasan and Menon (2004), through Muslim Women Survey (MWS), suggests that low level of schooling is one of the most depressing findings of the survey. In fact, nearly 60 per cent of the total Muslim respondents never attended school. There seems to be a negative correlation between education and employment among Muslims and the "proportion of Muslims in formal employment or wealth creating occupations is small". Wali (2012) studied Muslim Minority Girls in Delhi and Enrolment in Elementary Education. According to him, Dalit, Adivasi and Muslim children are far less likely to enroll in school and are more likely to drop out than others. Gouda (2014) stated that the dropout was high among the children belonging to Muslim, Scheduled Caste and Scheduled Tribe families. The standard of living index also shows that children belonging to low standard of living families were more likely to dropout. In the study, the major reasons cited by the households for the dropout showed that children were not interested in studies, cost was too much, children were required for household work and for work outside to contribute to family income. Nearly 6 per cent of the girls dropped out of school when they got married.

These studies reflect that the factors influencing education of girls, especially girls from marginalised groups such as Muslim, Scheduled castes and Scheduled tribes (SC and ST) are mainly economic, social discrimination, household work, lack of awareness, big family size, feeling of insecurity, patriarchy, lack of facilities such as transportation, infrastructure, etc., poverty, lack of women teachers, lack of certificates and documents, cultural taboos prevalent in the society. Some studies show that in case of Muslims, preference of Madarsa education over modern education, age of marriage, poverty, opposition of co-education, etc., are some of the reasons for dropouts. The issues for other educationally disadvantaged groups are quite different such as feeling of alienation, parent's illiteracy, domestic work, social stigma, etc.

Government Policies and Interventions

Though the education of girls has been one of the priorities for the government of India, still girls are far behind in their literacy rate. In this context, government has taken many steps to

minimize the literacy gap and bring equality, the prevailing disparities from the country with focus to improve the situation of the minority. The National Policy on Education (1986) and Revised National Policy on Education (1992) focused towards the entire educational system to work for women's equality, empowerment and accord a high priority to the education of women. However, various educational schemes, committees, commissions, policies and provisions have been applied by the government to increase the literacy rate.

The Indian Constitution guarantees equality of status and opportunities for minorities and marginalised groups. The fundamental rights grant the Right to Equality and Right to Freedom of Religion and Protection of interests of Minorities in general as well as educational rights. In 1993, the Supreme Court of India ruled that the right to education is a part of right to life in Article 21 of the constitution. Despite the legal provisions in religious category, Muslims in general and Muslim women are lagging far behind their counterparts as well as among the other minority groups. Various committees and commissions are also concerned about the educational disadvantages of Muslims. The 'Education Commission' (1966) recommended for the inclusion of moral values of every religion. The 'University Grants Commission' (UGC) introduced a Coaching Scheme (1984) targeted for the well-being of Minorities. In 2007, National Commission for Minority Educational Institutions (NCMEI) deeply thought about Girls' Education. The Commission had highlighted a point that the girl child had received an inadequate priority in the Indian society.

Mandal (1990), Sachar (2006) and Amanullah (2017) Committees were appointed to study about the socio-economic and educational status of minorities. Mandal identified the bigger gap between majority and minority communities in various fields and recommended to give reservations to those belonging to backward classes. In 2005, Sachar Committee was set up to study the social, economic and educational conditions of the Muslim Community in India. The committee recommended the need for special efforts to bring the educationally backward minorities on par with the rest of the society and to make them participate fully in the mainstream national developmental activities.

Sachar Committee (Ministry of Minority Affairs, 2006) report mentions— "low socio-economic status of Muslim community, higher poverty, lower literacy and educational attainments, higher unemployment rates, lower availability of infrastructure and lower participation in decision making, in civil services including police, judiciary and in elected bodies, and above all, a perceived sense of insecurity and discrimination" as

some of the persistent problems faced by Indian Muslim community; and mentions their double disadvantage with low levels of education combined with low quality of education.

Amanullah Committee (2007) recognised the fact that among minorities, Muslims were both educationally and socially backward and their literacy rate was much below the national average. Muslims suffered from lack of access to quality education. Dropout rates were much higher among Muslim children and disparities increased as they moved higher from primary to secondary education.

After the independence of the nation, policy makers were much concerned about the empowerment of women, girls and other socially and culturally disadvantaged groups' education. Education related policies and programmes have been reviewed from time to time by keeping in mind the goals of national progress and development. The 'National Policy on Education' (NPE, 1986) stated that some minority groups needed more attention for promoting equality and social justice. The 'Programme of Action' (1992) was a deliberate initiation for the empowerment of marginalised groups such as women and religious minority groups. It focused more on girls' education and emphasised on the need of special attention for the girls' education. The programme also offered financial assistance for the modernisation of *Madrasas*.

Further, in 1993, the Supreme Court of India established this fact by stating that Right of Education (RTE) has been derived from Article 21 of the Constitution of India-Right to Life and Personal Liberty. In 2002, under the 86th Constitution Amendment Act, RTE was even more concretised by provisioning free and compulsory education to all, from 6 to 14 years of age. Government of India simultaneously appointed various committees to find out more about the socio, economic and educational status of minorities and constituted commissions for looking after their well-being. Henceforth, National Commission for Minorities (2004) and Ministry of Minority Affairs (2006) were established for the development of minorities and disadvantaged groups in India.

Government of India not only emphasised the education of minorities, but also focussed upon the education of girls. Since independence, Government of India is promoting girls' education through common education programmes as well as specific programmes. Specific Programmes for advancing girls' education include: Condensed Courses of Education for Women Scheme, Mahila Samakhya, National Programme for Education of Girls at Elementary Level (NPEGEL), Kasturba Gandhi Balika Vidyalaya Yojana (KGBV), Dhana Lakshmi Scheme, Scheme for Construction and Running of Girls' Hostels for students

of Secondary and Higher Secondary Schools, and Rajiv Gandhi Scheme for Empowerment of Adolescent Girls.

The recent formulation of the *National Education Policy 2020* (NEP 2020) has given direction to the whole education system right from preparatory to higher education. It aims to achieve the overall development goals of the country; gender equality being one of the sustainable development goals (SDG) has been focused by the policy. Further, NEP 2020 considers sensitisation as a crucial aspect of the education system and therefore, emphasises the sensitisation of all participants in the education system. Considering the systematic marginalisation of social groups like gender, the policy directs the school curriculum to integrate different aspects of human values, inter alia gender equality, nonviolence and detailed knowledge about gender identities (Section 6.20, p. 28).

There are various schemes for girls' education that include: *Beti Bachao Beti Padhao*, *Sarva Shiksha Abhiyan* (*SSA*), Fifteen Point Programs (FPP), *Ladli Scheme*, *Kishori Shakti Yojna*, Incentive for Secondary Education, Providing Vocational Training to Youths Belonging to Economically Backward Classes Including SC/ST/OBC/MIN./SKS under Rehabilitation Programme, Lal Bahadur Shastri Merit Scholarship, Patrachar Vidyalaya, Opening and Strengthening or Pratibha Vikas Vidyalayas and Welfare of Educationally Backward Minority Communities.

As far as government policies are concerned, several committees have been set up to evaluate the situation of girls' education. Apart from the constitutional guarantee, various schemes, policies and programs have been made for the welfare of Muslim girls and girls of disadvantaged groups. There are various schemes run by the government for the upliftment of girl's education.

Methodology

This paper is based on a qualitative study according to a phenomenological approach. The main objective concerning this paper has been to find out the socio-economic factors influencing the education of girls belonging to Muslim community and other educationally disadvantaged groups from the Slums of Okhla. Data was collected through these tools—interview schedule for girls, interview schedule for parents, questionnaire for teachers, questionnaire for principals, and community survey. A total 137 girls who were either never enrolled or dropped out from school were interviewed; out of which 117 were Muslim and 20 were of other religions (OEDG). Girls were selected from the primary to senior secondary level of schools from the identified slum areas. Total 137 concerned parents/guardians were interviewed; out of which 35 were males and 102 were females. 27 teachers were interviewed to for gaining insight on

reasons for dropouts; and 7 principals (1 principal from each designated area school) were consulted for understanding their experiences regarding school management; and working under different committees and bodies. The community survey was undertaken in seven identified slums (Batla House, Nai Basti, Taimur Nagar, Okhla Vihar, Jasola Vihar, Near Mathura Road and Okhla Railway Station) of Okhla, mostly dominated by Muslims.

Analysis of the study was done both qualitatively and quantitatively. Percentages and Mean value of percentages were calculated. The data was analysed based on two factors, i.e., social and economic Factors. Social factor was further classified as familial, cultural and environmental. Economic factor was classified as income level, work for support, school expense, etc.

Findings and Discussion

Findings related to dropout rate, social factors (familial, cultural, and environmental aspect), and economic factors are discussed in this section.

Dropout Rate

According to educational statistics at a glance, Ministry of Human Resource Development (2018), in the year 2014–15, primary level dropout rate was 3.88 per cent while upper primary level was 4.6 per cent in all categories of students. In SC students in 2014–15, dropout rate for girls at primary level was 4.2 per cent and at upper primary level was 6.03 per cent. In ST students, dropout rate for girls at primary level was 6.84 per cent and at upper primary level was 8.71 per cent in 2014–15.

The present study finds out that the major reason for dropout was migration. In these areas, mostly people migrated. They leave and come back, show lack of interest, absenteeism, lack of support, etc.

Social Factors

Under this title three sub factors, i.e., familial, cultural and environmental are included. Cultural aspect refers to the religion, beliefs, customs and tradition, etc. The environmental factor refers to physical surroundings, interaction and communication refers to the point that links teachers and parents.

Familial Aspects

Familial aspect includes variables such as size of the family, workload at home, early marriage, health problems and parental support. Besides, some psycho-social variables such as readiness, perception and mentality have also been included in this category.

Among the familial aspects, the biggest reason is workload at home (90.28%) for dropping out of schools among girls in slums of Okhla. These girls are mostly engaged in household chores such as cooking, cleaning, taking care of siblings, etc., and in all these, they are not getting enough time for their study. In these kinds

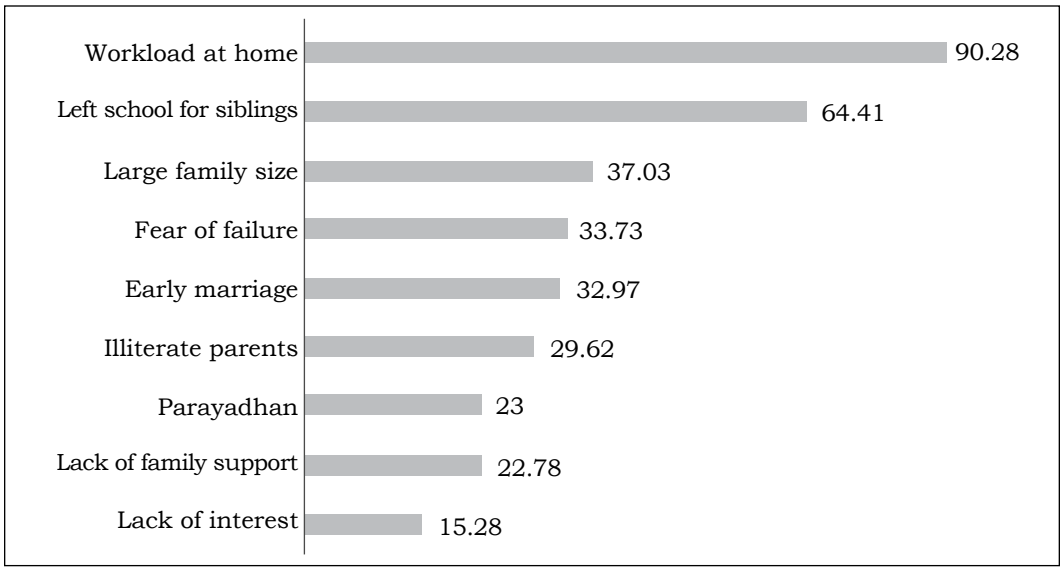


Fig. 4: Familial Aspects (in mean value)

of families, there is a tendency that if their elder siblings have left the school (64.71%), they also have left. Large family size (37.03%) is another reason for leaving school as girls have more burden of household work in this type of family. In the slums of Okhla (48.32%), families have six to eight children. These families, where both parents are working to meet their ends, there girls are doing various kinds of household works and looking after their siblings in the absence of their parents. Another reason is early marriage (32.97%) which is prevalent in Muslim community of these slum areas. It is a big reason according to teachers as they inferred this reason from children and their parents for leaving the school. Illiteracy of parents is another reason for the discontinuation (29.62%) of studies from schools. In these slums, the survey depicts that 55.85 per cent fathers and 87.3 per cent mothers are illiterate. Some parents think that girls are 'parayadhan' or 'wealth of others'. This thought that 'one day she has to go to someone's home,' explicitly disinclines them towards the education of a girl child. The data shows that 22.78 per cent lack support from their family in continuation of their school education. Lack of rigorous feedback from parents leads to absenteeism and not performing at par, resulting to dropout. 15.28 per cent of girls are themselves not interested in acquiring education. This is due to low socio-economic status.

Cultural Aspects

Discontinuation of girls' education in India has been massively impacted by socio-cultural factors; especially in the case of Muslim community wherein dropout of girls is culturally motivated. Although majority of the parents responded that education for girl children is important, somehow there is a connection with the cultural ethos.

The data obtained on cultural aspect shows that lesser number of Muslim teachers (41.66%), own selection of their partners (34.28%), lack of community support (33.46%) and delay in marriage (27%) are the biggest reasons for discontinuation of education from schools. Officials mentioned that lesser number of Muslim teachers is one of the reasons for dropout or not attending schools, although there are many Muslim teachers in the schools as observed during the study. Devaluing girls' education by their parents, no separate schools for girls, non-availability of girls for home chores, no religious education in schools and Parda system are some of the other reasons for leaving school in this area. Teacher-students ratio is not at par and thus, teachers are not able to handle diversity. Teachers are not managing diversity and children are feeling marginalised. Teachers are rigid in their values and not adopting multicultural approach in the class. Child is feeling alienated as well as uncomfortable in the class.

Environmental Aspects

Impact of environmental factors on girls' education has always been high in the slum areas. In traditional society girl child is expected to do household work, and girls are not allowed to go out from the house. So, there is a

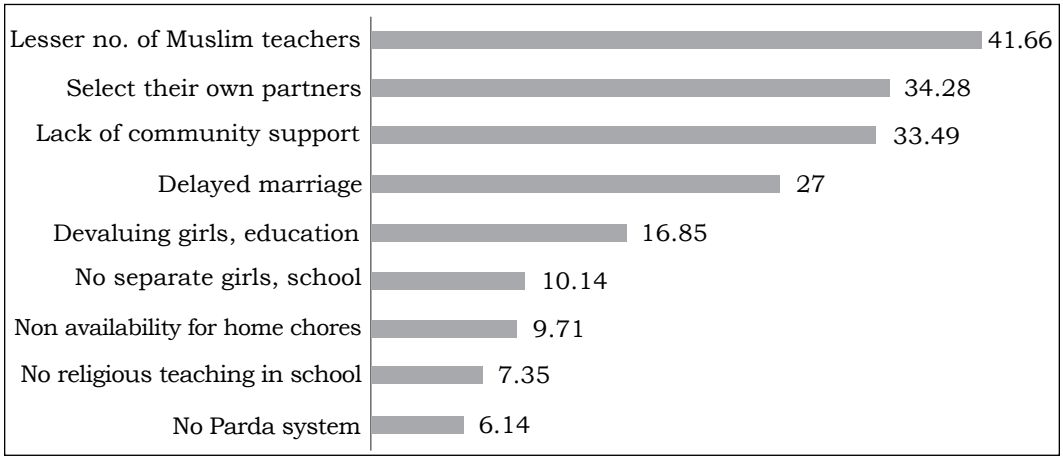


Fig. 5: Cultural Aspects (in mean value)

need of encouragement from internal and external environments for the improvement of girls' education.

If we look at the table, lack of security inside and outside the school environment (53.03%) is the major reason of dropout of girls in slums. Many parents and even girls informed us that they are afraid of going alone and preferred to go in groups as they walked to school. Parents said that as they are living in slums, they are more concerned about the safety of the girls. While going to school, they have to face sexual harassment, stalking, etc. These cases do not get registered. Resulting, either they get involved in all these or they dropout. Lack of interest (36.42%) among girls in their studies because sometimes teachers are not present in the class for long hours, giving punishment, feeling boredom, no classroom teaching, etc. A supportive environment at home is a very important factor for learning achievement of a child. Girls (25.57%) informed us that they have no supportive environment at home in terms of motivation, facilities, no favorable circumstances, etc. Other reasons were improper behaviour of teachers, lack of motivation from teachers, corporal punishment. Neighborhood girls not going to school is also the reason here, but it is not that significant. Girls are not feeling safe and secure while commuting to school as environment is not safe. Neighborhood is also playing a major role in influencing this.

Economic Factors

Under this, income level of the family, expenses, and migration from different

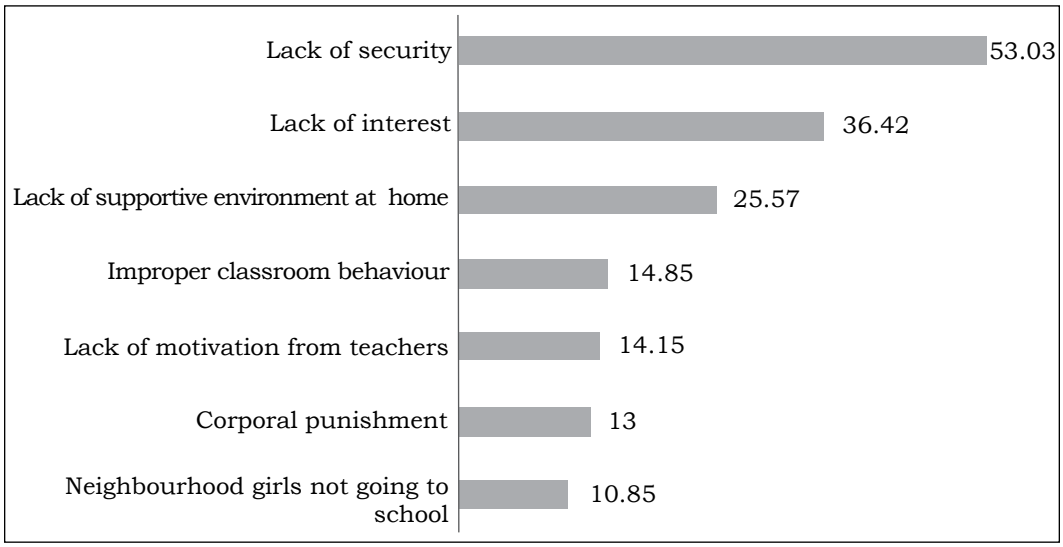


Fig. 6: Environmental Aspects (in mean value)

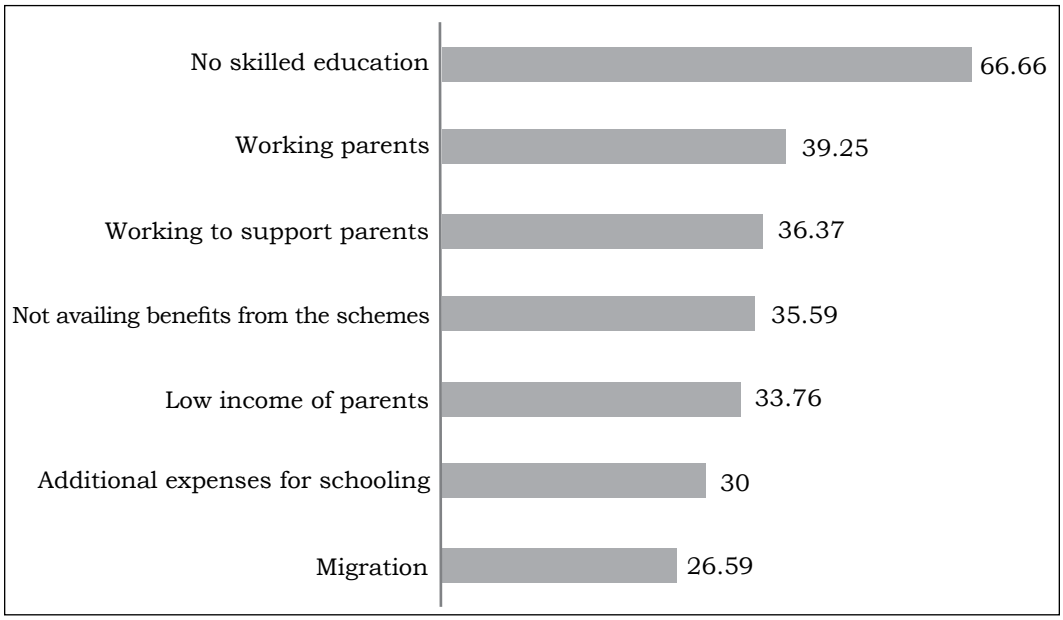


Fig. 7: Economic Factors (in mean value)

places in search of work, affects the continuation of the girls' education. It is mostly because parents are from poor financial backgrounds, are engaged in unorganised sectors and work mostly as unskilled labor for their livelihood.

Lack of skilled education (66.66%) is a big reason for girls to dropout in slum areas. Skilled education provides immediate earning opportunities. Parents and girls preferred to acquire skills like stitching in order to support their family. If both parents are working, girls have to dropout in order to take care of the household and siblings. They do not avail financial benefits from the schemes (35.59%) such as scholarships, Ladli Yojna, etc., which can be an important source of economic support for these girls. 33.76 per cent of the girls says that low income of their parents make them helpless in acquiring education. Additional expenses for schooling (30%) and migration (26.59%) are also the reasons for leaving school. Although most of the girls going to the nearby government schools get free books and uniform; but it is only up to the elementary level, and sometimes distance from home becomes a reason of expense, as they must take even a rickshaw. Mostly families living in slums migrate from different states and they are unskilled laborers, and daily wage workers who came here in search of seasonal work and going back to their villages interrupts

studies of their children. Another reason is language barriers and so they are unable to communicate and understand classroom teaching. Some children do not even have proper documents such as Aadhaar card, birth certificate, transfer certificate, etc., and no bank account which is necessary for their admission in government schools. Also, there is no awareness about policies on ground level as well as teachers are not aware of how to reach out, co-ordinate and generate awareness.

Major commissions established for the welfare of minorities are National Commission for Minorities (1992) and National Commission for Minority Educational Institutions (2004). Ministry of Minority Affairs (MoMA) has launched many schemes such as Quality Education for Madrasas (2006), Pre and Post Matric Scholarships, *Naya Savera*/Free Coaching, *Nai Udan*/Support for Competitive Examinations, *Nai Manzil*/Open Schooling through, '*Nai Roshni*'/Leadership Training, *Seekho aur Kamao*/Learning Skill for Earning, etc. Most of these schemes are specially focused towards girls' education. MoMA also launched, *Tahreek-e-Taleem* Mission in 2017, for providing infrastructure for educational institutions and educational awareness. Maulana Azad Education Foundation, a body under the Ministry, is also running programmes such as '*Begam Hazrat Mahal*' Scholarship for meritorious girls, Garib Nawaz Skill Development Scheme (2016), 3Ts: Teacher-Tiffin-Toilet for modernization of Madrasas (2017).

There are various schemes that are run by the Delhi government for promoting the education of girls, minorities and other educationally disadvantaged groups such as— *Beti Bachaao Beti Padhao*, *Ladli Scheme*, National Scheme of Incentives for SC Girl Child for Secondary Education (NSIGSE), Kishori Shakti Yojna, Financial Assistance for Purchase of Stationery to SC/ST/OBC/ Minorities, Students Scholarship/ Merit scholarship for SC/ST/OBC/ Minority students. Vocational Training is provided to youth belonging to economically backward classes including SC/ST/OBC/ Min./SKs under the Rehabilitation Program: Lal Bahadur Shastri Merit Scholarship, Patrachar Vidyalaya, Pratibha Vikas Vidyalaya, Welfare of Educationally Backward Minority communities, etc.

The functioning of these governmental schemes for the welfare of girl's education in this area are not much effective. Majority of the parents said that they did not have much information about these schemes and very few of them got benefits through these schemes. The girls from Other Educationally Disadvantaged Groups such as SC/ST had received some financial help from these schemes in the form of scholarships, but the Muslim girls of these slums did not receive such type of assistance from schools except mid-day meal, free

uniforms and books. Principal and Teachers claimed that they are giving information about various running or newly launched schemes and projects related to education to the parents directly or indirectly, but parents denied this. However, principals and teachers added that these schemes have made a positive impact on the enrolment of girl students in the area. Their opinion is that, mid-day meal is the most effective scheme for increasing girls' enrolment followed by SSA and Girls Scholarship. Besides free uniforms, free books, Anganwadi, RTE also proved beneficial for slum girls' education. Government officials expressed their opinion that there are lots of problems like lack of knowledge, unawareness, lack of training and information that creates problems in the implementation of the schemes. Officials said, Right to Education (RTE) was not much effective in the promotion of girls' education here as people were not using it for their children. Parents were aware about the schemes, but they had no knowledge regarding its procedure and not using RTI regarding their childrens' education.

During the field visit, it is observed that boys are also out of school in large numbers in these slums. The researcher also noted a dual-face existing in the society towards girls' education. The burden of household chores, looking after their families, zero earning from indoor work, early marriage, are some social notions that spoils the girls' education. As a result, Muslim girls and other disadvantaged groups turn their face away from education; hesitate while involving in various activities, governmental schemes, school activities, etc. They have very little faith in the current system which is supposed to improve their situation.

Also, the major concern here is, programs and policies are chalked out in detail and framed but implementation is not proper. Monitoring is lacking which also does not lead to effective utilisation of resources. Resultant, policies remain on papers only.

Conclusion

Education is the only means to create awareness in the society; and to create such society that empowers women. The main task of education is to equip children with skills to help themselves with their day-to-day problems. Education ensures social security and self-reliance for women; and so girl's education has been a priority in governmental policies. The Constitution of India also assures equal rights and opportunities for women in every field. But, despite these safeguards women in general and women of ST, SC and Muslim communities are still lagging behind educationally.

The primary task of this study was to identify the educationally disadvantaged groups. It is visible that there is a tendency of lower literacy rate, low enrolment and high dropout among Muslim girls of slums

in Okhla. This study highlighted social and economic factors as the reasons for dropout of slum girls. Inherent problem of the slums was lack of basic amenities in this area. Men and women in these areas depend on daily wages work or unskilled labor which is insufficient for the livelihood. When both parents are working, girls take care of the household and this impacts their studies. These parents are less motivated about educating their children, especially girls as compared to OEDG families from these slums. Economic discrimination against the girl child and orthodox thinking have impacted the educational continuation of Muslim girls.

The economic inequality is the major hindrance for achieving the goal of education for all in case of Muslim girls and other educationally disadvantaged group in slums. The social factors such as cultural, environmental and familial matters are secondary reasons of dropout of slum girls in Okhla. Therefore, it is an urgent need to address these problems faced by the Muslims and other educationally disadvantaged groups of girls in slums of Okhla; so, they can achieve better education and ultimately contribute to the nation's development.

The author concludes that community leaders can play an important role in improving the situation. The role of NGOs in such situations can lead to big changes. Rigorous feedback from parents can also help in performing at par. Visits should be organised by schools to meet parents. Regular counselling should be given to girl children. Also, officials who are implementing on ground level, their training for monitoring should be proper. Overall, implementation of policies and program needs to be monitored effectively.

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Counsellors in Indian Schools
Enabling Optimal Development

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Abstract

Counsellors are important stakeholders in the school community who can significantly influence student mental health and well-being, catering to all students in this regard. With changes occurring in the sociocultural milieu, there is an ever-increasing need for gearing up counselling provisions in indian schools. The article is based on a review of research on counsellors in the school setting, their role, need, barriers and facilitators in the counselling process. Currently, in india, the role of school counsellors is ambiguous, and most schools do not actually have a person functioning in this role. To play a more productive role, counsellors that are in schools must aim to provide comprehensive mental health services. The significance of the Counsellor's role is gaining momentum in india and there needs to be greater recognition of their likely contributions, for the benefit of students and of society.

Introduction

The role of schools is to facilitate the optimal development of children in all domains of life (NCERT, 2015). At each stage of development, children present particular needs that must be met adequately.

The much popular ecological systems theory by Bronfenbrenner (1979) highlighted how a child's

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development is influenced by and in turn also influences the various contexts in which the child lives, works and plays. School is one such context where children spend a large part of their day and by virtue of the time spent in a school system has an important impact on children's cognitive and social development (Atkins, Hoagwood, Kutash and Seidman, 2010). Though schools can be potent forces to enable holistic development of all children, it is often academic excellence which is valued more than mental health of children, which is mostly overlooked or considered secondary (CBSE, 2014).

Mental health has been defined to be inclusive of emotional, psychological and social well-being and influences how we think, feel and act (Centers for Disease Control and Prevention, 2021). It is also seen to exist on a continuum with both positive and negative aspects involving well-being or positive functioning at one end and problems including everyday hassles and chronic stressors to more severe mental health symptoms on the other end (Rossen and Cowan, 2015). There are certain risk factors that children might encounter which may lead them to experience mental health issues. Some of these include experiencing disruptions in family functioning, death of a loved one, experiencing bullying or abuse, discrimination, having health difficulties, burden of caregiving, having long-lasting difficulties at school and adjusting to a new place. A family crisis may include parental conflicts or separation, financial hardships, mental or physical health concerns of a family member or getting involved in legal trouble. A child or adolescent might have to perform a caregiving role for an adult or siblings, which could lead to feelings of frustration, anger and loneliness. Health problems could include a chronic condition like asthma or a sudden or severe infection that may last for only a week but is still capable of causing disruption in the child's life. Discrimination, be it on the basis of gender, socioeconomic status, disability, appearance, can make people feel excluded and result in low self-esteem. Bullying in school, verbal, relational or physical can lead to not just feelings of low self-esteem, helplessness, isolation or difficulties in concentrating on academics. Adjusting to the movement to a new city or a new school can be a more transitory period for some while more ongoing for others. In this case, there is often loss of social support with feelings of loneliness (Wille et al., 2008).

Thus, children present with different needs require different levels of support. In a country like India, where mental health professionals are scarce, counsellors in schools may be the first and sometimes the only mental health professionals that children and families have access to. The National Mental Health Survey, 2016 stated that all states except Kerala didn't even have the minimum

requirement of at least 1 psychiatrist per lakh population (Gururaj et al., 2016). Also, stigma associated with visiting a mental health professional is one of the barriers in seeking help and reducing public stigma is one of the goals of the National Mental Health Policy, 2014 (Gaiha, Salisbury, Koschorke, Raman and Petticrew, 2020)

Counselling in the School Setting

Counsellors are becoming an elementary part of the modern-day school support system. Much of the written material on the role of the school Counsellor has been presented by authors in various parts of the world, although much less so in India and other developing countries (Tammana, 2016). The American Counselling Association defines counselling as "a professional relationship that empowers diverse individuals, families, and groups to accomplish mental health, wellness, education, and career goals" (American Counselling Association, 2010). School counselling has been associated with not just improvement in personal and social functioning of students but also academic success. Effectiveness of school counselling has been demonstrated in various settings, including schools in high poverty areas. Regular access to a school Counsellor has been found to enable less suspension rates, higher college enrollment and students feeling more positive about school life, more so in schools where counsellors were available from kindergarten than those where they were present from standard six (American School Counsellor Association, 2010).

Role of a school Counsellor as suggested by House and Martin (1998 as cited in Tammana, 2016) includes promoting student advocacy, developing higher career aspirations in students and identifying educational practices that may help or hinder student progress. While McLaughlin (1993 as cited in McLaughlin et al., 2012) highlights that counselling in schools has three significant elements which include educative, reflective and welfare functions. The educative function is about helping students develop personally and socially, something which happens within interactions with other people like teachers or peers. The reflective function includes assessing the impact of the school and classroom interactions on the personal and social development of students. It involves understanding issues of learning styles, classroom climate and other school practices. The welfare function can focus on aiding decision-making and problem-solving of students, identifying students at risk or experiencing pressure, to respond to their needs. Research supports the role of counsellors at different levels or using the multi-tiered system of support, ranging from preventive services for all students to more focused and intensive work with some students

(Hess, Magnuson and Beeler, 2012). It is a three-tiered system, with the first tier focusing on universal interventions for all children, which often includes programs for socio-emotional learning or interventions to build resilience and promote healthy behaviours among children. Educating parents and teachers about various developmental needs of children and adolescents is also a part of this tier. Tier two is about focusing on children who may be at a greater risk for developing negative outcomes and works like a stitch in time saves nine. Here, counsellors can work in groups like forming a study group for students in the same grade who are experiencing a difficulty in a particular subject. While tier three involves facilitating students experiencing intense crisis and providing them with more individualised and intensive support, like supporting a child diagnosed with attention deficit hyperactivity disorder in dealing with his emotional issues.

One reason that a school is a special setting when it comes to counselling services is that the school space can be accessed by all students within the school and leads to less demand for the family's resources in terms of time and finances in meeting a professional outside the school setting (Macklem, 2011). A Counsellor can be available to children without many formalities or procedures and without the need for parents to accompany the child (Kodad and Kazi, 2014; Sinha, 2006). Also in schools, counsellors can work with children, both individually and in groups, for addressing common issues faced during important developmental stages. School counsellors are in a better position to understand the dynamics of interactions amongst and between peers, teachers, and students and have been recognised to provide support not only to students but also to their families, school teachers and other staff (British Columbia Ministry of Education, 2016). It has been indicated in research that the quality of teacher-student relationship has a role to play in the interpersonal, academic and behavioural development of the child, with interventions focusing on building positive teacher-student relationship as helpful in the child feeling well-adjusted in school. A follow-up study with preschool teachers who had been taught play therapy training skills by a school Counsellor reported benefits for trained teachers, when compared to a group of untrained teachers. The trained teachers began to value children's voice much more, felt more confident in their role as a teacher and provided more empathetic responses to students in the classroom (Hess, Post and Flowers, 2005).

A state-wide study conducted with 22601 seventh graders in Missouri, United States indicated that those students who were in schools with better implemented school counselling programs were more likely to report higher grades, felt that their

education was preparing them well for the future and their school had a more positive climate which included feeling a sense of belongingness and safety at school, better relationships with teachers and peers who behaved well (Lapan, Gysbers and Petroski, 2001).

However, a Counsellor's ability to perform their role is influenced by factors like resources available in the school, assessed need, presence or absence of other mental health professionals, their role as perceived by administrative staff, and policies of the state (O'Connor, 2018; NCERT, 2015). Counsellors in schools need to function keeping in view the limitations of a school setting. These include difficulty in maintaining a quiet, disturbance-free space while engaging in one-on-one sessions, having realistic and achievable goals with the limited time and resources available (Lines, 2006).

Origins of School Counselling in India: Policy Perspective

The need to provide guidance and counselling in schools has been emphasised since the time of independence in India (NCERT, 2015). Counselling services in education initially focused on vocational guidance, though it widened to encompass a more holistic approach to well-being. To begin with, the Secondary Education Commission (1952–53), also known as the Mudaliar Commission, recommended setting up centres in the country to train career masters and guidance officers to be placed in all educational institutions. For conducting research in educational and vocational guidance, the commission recommended setting up a central research organisation. As a result, the Central Bureau of Educational and Vocational Guidance was established in 1954. Bureaus were also established at the state level (Thomas et al., 2017). The diploma course, 'Education and Vocational Guidance', by NCERT also began in 1958, with the focus of training teachers, teacher educators, and postgraduates in counselling skills. The important Education Commission of 1964–66, known as the Kothari Commission, expanded the role of guidance to include more than just vocational guidance. Guidance was seen as valuable not just at the secondary level, but important at every stage of schooling beginning from the primary years (NCERT, 2015). It was proposed that one school in each district would serve as a model for a comprehensive program in guidance/ counselling. Teacher training, pre or in-service, was suggested as being suitable for introducing teachers to the concepts of guidance. The Programme for Action initiative in 1992 emphasised the importance of establishing an infrastructure for guidance and counselling, with a focus on providing information on vocational and educational guidance not only for students, but also for students, parents and teachers (Thomas et al., 2017).

The National Curriculum Framework, 2005 was a milestone document in highlighting the holistic development of children. It stressed the significance of guidance/counselling from elementary to higher secondary school (NCERT, 2005). Building the right attitude towards self, helping students discover their interests and aptitudes, career planning, meeting their psychological needs with an emphasis on the adolescent years, was recognised as being essential. Teachers were expected to play the role of a facilitator to help children with their everyday problems, and teacher education was seen as important to build this attitude. Guidance and counselling were also seen as critical in helping children deal with stressful periods of preparing for their board examinations. Even though not articulated comprehensively, the NCF seemed to have indicated the role of the Counsellor in Indian schools better than other documents till then.

The National Policy for Children, approved in 2013, identified the need to provide mental health services to all children including career counselling and vocational guidance while the National Plan of Action for Children, 2016 aims at the implementation of the priority areas defined by the policy (MWCD, 2016). Rashtriya Madhyamik Shiksha Abhiyan, a flagship program by the government, was launched in the year 2009 with its aim to universalise secondary education recognised both the preventive and remedial roles of school counselling. Counselling was seen significant to help children continue their schooling, achieving academic success, cope with stressors in their lives, build positive attitudes towards self and others, as well as develop insights about future career paths (NCERT, 2015). The recent National Education Policy, 2020 took mental health of students into consideration in a number of ways. It focused on holistic learning with an increased emphasis on conceptual than rote learning and allowed students the flexibility to choose their learning programmes. Another component of holistic learning was highlighting the need for life skills like teamwork and communication. It also recognised the need to support and sensitise parents and teachers in fostering development of children. It recognised the role of overall health including mental health in facilitating learning and how related problems could hinder optimal learning. The role of well-trained counsellors has been emphasized multiple times. Mental health of teachers influences their engagement with students in the classroom and NEP recognises this by recommending positive working environment for teachers along with professional development (NEP, 2020).

School Counsellors in India

School counsellors in the country come from disciplines of social work, psychology, human development, and education. Counselling in

urban areas is gaining momentum, though in rural areas it is yet to gain recognition (Sriram, 2016). Also, there is no check or regulation by a central body or a policy of licensure for counsellors, and neither are ethical standards regulated. The Rehabilitation Council of India is the only body that maintains records of professionals, who, in this case, deliver services as rehabilitation professionals for persons with disabilities. The Central Board of Secondary Education Affiliation Bye-laws, 2018, has made it mandatory for every secondary and senior secondary school affiliated with the CBSE, to appoint a 'Counsellor and wellness teacher' on a full-time basis (CBSE, 2018). To qualify, the person should be a graduate or postgraduate in psychology, a postgraduate in child development, or a graduate/ post-graduate with a diploma in career guidance and counselling. Those schools that have less than 300 students in secondary and senior secondary classes may appoint a Counsellor on a part-time basis.

Over the past few years, more schools are appointing mental health professionals to look after the needs of students but, the quality of these services and the adequacy of counsellors are areas of concerns (Meghana, 2019). The Associated Chambers of Commerce and Industry of India (ASSOCHAM) conducted a survey in 3200 schools of Delhi-NCR and found that there was a drastic shortage of counsellors in both government and private schools. Only 3 per cent of schools had a Counsellor, with most of these schools being high fee-paying schools (The Hindu, 2016). Absence of a regulatory mechanism to govern the functioning of counsellors compounds the problem of quality of healthcare being delivered to students (Meghana, 2019) and evaluation of counselling services in Indian schools is almost nonexistent (Rajagopal, 2013). The role of a Counsellor in schools has been surrounded by ambiguity more often than not, both in India and other parts of the world, and they are burdened with tasks other than counselling (Venkatesan and Shyam, 2015). Those schools in the country, which do have counsellors, often don't see them as an integral part of the school system, rather, as auxiliary. Another recent newspaper report pointed out that 93 per cent of schools in the country do not have a professional counsellor (Ghosh, 2019).

Based on her personal experience of briefly working as a school Counsellor with children primarily from lower-income families in Mumbai, Tammana (2016) highlighted influences as well as challenges in carrying out her role. Though the issues stated were based on her personal experience, they seemed to be relevant in the context of school counselling. Firstly, she emphasised that school culture or environment, like teacher and child relationship or school norms like disciplining methods had a role to play in impacting

well-being of children and therefore required attention from the school Counsellor. For example, the teachers in her school frequently engaged in giving corporal punishments which students shared was one reason for feeling very fearful of their teachers. Secondly, confidentiality of children was often at stake, with teachers and principals wanting to know the details of the counselling sessions and this often became a dilemma for the Counsellor. Another issue noted was the use of labels by teachers and administrators for children with difficulties. Also, teachers typically overlooked their role as a facilitator in the classroom, with many being of the view that difficulties experienced by children were not the responsibility of the school. They were often not particularly happy with the time invested by counsellors in listening to children, perceiving this to be 'spoiling' the already problematic students. Counsellors had to work hard to justify their roles in schools where they were not considered to be an integral part of the system.

It is important to add that the picture is not all bleak. Based on my observations and experiences in schools while doing my post graduation (Human Development and Childhood Studies) my training course as a Counsellor I came across a few private schools in Delhi NCR (5), all high fee paying except one, that seemed to be taking children's mental health seriously. These schools not only had more than one Counsellor for the entire school, but also involved teachers and peers. Teachers were oriented towards needs of children and the possible emotional and behavioural difficulties through workshops. Also, two of these schools regularly organised workshops for parents. An attempt was made to also sensitise peers, especially in case when there was a child with special needs in their class. The schools delivered life skills classes, screening and identification of children at risk, as well as individual counselling for children who were referred by teachers or wanted to talk voluntarily.

Barriers in Providing and Accessing Counselling Services in Schools

With academics being the priority in schools, counsellors have to compete for recognition and resources in schools (Lines, 2006). A counsellor's role may be unclear to school authorities, which makes it challenging for the Counsellor to work with and communicate their role to the students (Ohrt et al., 2016). In both developed and developing nations, counsellors have reported being engaged in tasks outside their professional purview. Engaging in tasks that are irrelevant to their role, like administrative jobs, leaves them with limited time for student interactions (Gamble and Lambros, 2014; Splett et al., 2013). Venkatesan and Shyam (2015) undertook an exploratory study to understand the job profile of a Counsellor from the

perspective of different stakeholders in national and international high schools of Karnataka. The different stakeholders included counsellors, teachers, students and administrative staff. Counsellors perceived their role as centered on student issues, like providing career counselling, dealing with behaviour problems, and advocating for children's rights. They considered clerical tasks to be the least appropriate. Parents also considered the need for a Counsellor's role to be focused on student issues. Students preferred counsellors to help them in career-related decisions. On the other hand, administrators viewed the most significant role of the Counsellor as facilitating dialogue between teachers, parents and administrators.

High student-to-Counsellor ratio, which is certainly true for many schools in India, that have only one Counsellor for the entire student population, prevents them from functioning optimally and may ultimately be of little help to children (The Hindu, 2016; Ohrt et al., 2016). Also, with a focus on remedial aspects, the preventive tasks of a Counsellor may take a backseat (Nitza et al., 2015). Also, when a Counsellor cannot work effectively in the school system, collaboration with other stakeholders is often challenging (Gamble & Lambros, 2014; Splett et al. 2013). A hindrance to the effective delivery of services includes the absence of adequate clinical supervision that enables professional development and ensures client welfare (DeKruyf et al., 2018). The supervision which counsellors receive the most, and sometimes the only one, is administrative. But administrators are not equipped to supervise counsellors' work, and neither do they share the same ethical principles. Counsellors have also reported not having a place or room of their own in schools, which can compromise on the confidentiality and comfort of a student who may want to share his experiences (Venkatesan and Shyam, 2015). Counsellors are sometimes viewed with a sense of distrust. They may be thought of as being deceptive or as being a challenge to the school management. Over time, matters such as these can lead to counsellors feeling emotionally drained and dissatisfied with the job.

A significant barrier in accessing counselling services by students is the stigma associated with mental health concerns. It is one of the frequently cited reasons for students and their families for avoiding visiting counsellors (Sriram, 2016). Help-seeking has been associated with feelings of inadequacy and inferiority, as individuals feel unable to solve their problems by themselves (Rajagopal, 2013). Also, students worry about confidentiality not being maintained or may have not positive experiences with school counsellors, like coming from a professional who is patronizing (Meghana, 2019). This can act as a barrier in seeking help the next time.

What can Facilitate a Counsellor's Role?

The role of teachers as untapped resources has been emphasised time and again (Padhy, 2013; Ranganathan, 2008). Especially in a country like India where the number of counsellors is inadequate, pre- and in-service training of teachers in basic counselling skills would be very helpful (Ranganathan, 2008). It would also be worth the time, when a school has a designated counsellor, to clearly define the counsellor's role at the beginning of the school session so that they can invest their time in counselling rather than on less relevant tasks (Gamble and Lambros, 2014). Greater participation by parents and staff in student development are ways in which counsellors could carry out their responsibilities more effectively. Lowering the ratio of students-to-counsellors would also leave counsellors with more time to plan and undertake their involvements more efficiently and effectively (DeKruyf et al., 2018).

Counsellor training courses should offer coursework that has adequate practical exposure to working with children and should be in congruence to the everyday realities of the school system (O'Connor, 2018). Training courses must provide experiences in the multiple tiers of intervention possible in a school setting (Splett et al., 2013). As a single training experience may not do justice to the plethora of skills that a counsellor requires and the changing needs they face, in-service training of counsellors should also be carried out at regular intervals to keep them abreast of important skills and knowledge in the field. Counsellors can expand the support system available to them by networking with relevant individuals and bodies like mental health specialists outside the school and/or NGOs working in the area of child mental health.

Conclusion

Promoting and developing the well-being of children is as much a responsibility of the school as it is of the family. Counsellors in schools are an indispensable step in this direction. Research on school counselling is scant in India and is one area that requires particular attention. There has been frequent mention of the need for school counsellors in Indian education policies, frameworks and commissions, though recommendations have not been adequately implemented. More institutions for the training of counsellors is critical and must be aimed for. Though school counsellors are gaining recognition in India, especially in metropolitan cities, their professional identity is still unclear and this negatively influences their relationship with the students and other stakeholders in schools. A counsellor needs support from all other stakeholders in the school system, as alone they

can achieve only as much. It would be helpful if they communicate their role to the other members of the school community including teachers and administrators as well as students, making them more visible in the school system. Also, arranging workshops for teachers, parents and administrators, on various issues about child and adolescent development can be helpful. Counsellors can expand their role as advocates for enhancing programs for all students, and not just those who are identified to have a problem. It would also be useful for counsellors to engage in professional development and enhancing their skills. Needless to say, each school must have a counsellor and the existing ones should consider having at least one at each level including primary, middle and secondary school.

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b. Conflict of Interest

The authors declare that there is no conflict of interests.

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Parental Influence on Adolescents' Career Choices

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Abstract

This paper explores parental influence on adolescents' career choices. Choosing a career is considered to be one of the crucial phases in a person's life and hence it is an important decision. The adolescent period is considered, since it has been explored, as a critical period, filled with a lot of developments and transitions that occur in one's life. Parents play a dynamic role in forming of an adolescent's career, and they are the ones with whom we have day-to-day correspondence since childhood and are involved in some or the other decisions in our life, it is crucial to look into the parent-child relationship. This paper tries to explore three main relationships: first is the relationship between perceived parental influence on adolescents' career choices and emotional independence from parents. Second it tries to explore the relationship between perceived parental influence and vocational commitment of adolescents. Thirdly, it explores the relationship between vocational commitment and emotional independence from parents.

Introduction

Choosing a career has always been considered a significant stage in a person's life. The decision to it will either open up the avenues of success or close the doors of opportunities. While for some, taking such an early decision might be relatively easy, for others it might be quite stressful, and they may encounter a lot of struggle in it.

Difficulties in forming this early-stage decision may cause stress and tension, avoidance or

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delayed decisions, lack of perceived ownership and even sometimes result into someone else taking the decision (Gati and Saki, 2001). However, the irony is that children are not always prepared for taking such a big decision at the time they require taking it. The period of adolescence is explored as one's constant struggle to establish their identity and independence in the community. This is the stage when self-identification, exploration of goals and establishment of autonomy from parents takes place (Newman and Newman, 1995). While choosing a career is often perceived to be an individual choice, it has been theorised (Creed and Patton, 2003) that people rarely consider themselves to be having an autonomous choice while making career decisions. A variety of influences such as family, school, society, economic and social factors are likely to influence one's career decision making. Among the various factors that are found to affect career decisions in adolescents, findings have shown the influence of parents to be of utmost importance, especially because they are the immediate sources of correspondence since childhood. If we look at the child's developmental stages, it can be observed how the child is surrounded by the direct family comprising of parents, siblings and the enlarged family consisting of grandparents, uncles and aunts, where each one is equally likely to have a compelling effect on the adolescent's career choices (Alphonse, 2016). While it has been explored that many parents like to maintain a neutral scenario when exposed to their child's career decisions, the results of a number of studies have shown parents to have a much greater influence when compared to that of the teachers, faculty or career counsellors. These influences can take the form of either support or advice. Parents have played an important part in the development of the personality of the child by providing guidance about the levels of education and training, the details about the different kinds of work and occupations and helping them in the formulation of the work belief system and attitudes. These influences that help shape the personality of the child are learnt in an unconscious way throughout the process of growth and maturation (Alphonse, 2016). Research findings reveal that there are a number of important influences that parents use for shaping their child's career. These influences can range from the role models they set for their adolescent child to look up to, the behaviours and values that the parents like or dislike, agree or disagree upon, the level of parental expectations set for the adolescent child and the level of encouragement and support that the parents provide their children with.

Perceived Parental Influence and Career Development

Parents have been found to engage in various activities that aim at enhancing their children's career

development, that includes encouragement to hone their necessary attitudes and skills that are important for successful career attainment to enhancing their adolescent's ability to choose appropriate working choices (Young and Friesen, 1992). According to sources, parents start affecting the career decisions of their child; the moment they begin to develop the ability to utter their respective parent's job title. Adolescents who enjoy care and support from their dear ones, such as their parents, associate themselves with greater confidence level to learn and relearn and opt for a career that seems to be more appealing (Clutter, 2010). In a research conducted by Dietrich and Kracke (2009), no evidence was found that would indicate stoppage in searching for different career opportunities due to parental pressure. According to studies, the influence of parents on their adolescent's career choices are said to be generally regulated by the emotional bonds that exist between the parent-child relationship (Vondracek, Lerner and Schulenberg, 1986; Lucas, 1997; Middleton and Loughead, 1993). Most of the information regarding the world of work is gathered from parents as adolescents are encouraged and guided towards their life roles (Vondracek et al., 1986). For instance, a parent who encourages a male child to enhance his technical skills may direct to the child's future success as an engineer while the female child possessing similar skills who is socialised by her parents to be a nurturing caregiver may instead direct her career to be a nurse. Bratcher (1982) discussed that the roles that seem to be acceptable for the development of the adolescent child are mostly decided by the traditions and expectations that are being followed in the family, thereby influencing the adolescent's career choices and perceived occupational interests. Shellenbarger (2006) writes that even though parental advice and guidance are considered to be crucial and beneficial to the child, too much of interference or advice can often lead a teenager to disengage and thus separate ties from their career options altogether.

Emotional Independence and Career Development

Olaosebikan and Olusakin (2014) in their paper discussed how adolescents have been found to straddle the line of childhood obedience and adult independence. In a sense, they are usually trying to learn about how to make up their own minds, while ignoring what they are told. As adolescents start disengaging from their parents, autonomy starts to develop. According to several studies, parents foster this disengagement by inspiring their children to develop independence through decision making opportunities as the child matures. Following Chickering Reisser (1993), they noted that emotional independence conveys freedom from continual and pressing

needs for reassurance, affection, or approval. The research conducted by them stated that if the child is emotionally independent from the family, this may lead to forming stronger relationships with one's peers, which will further enhance vocational commitment in the child. Being emotionally independent from the parent demands that the child gradually disengages from his or her family and enhances autonomy, self-efficacy, and interdependence on others (Ladd, 2000). Reviewing several studies have demonstrated that adolescents' perceptions of parental separation and attachment are predictors for different phases of the development of the adolescent, that includes career development as well. Families like those that are dysfunctional in nature, that never allow the exercise of autonomy of thought and expression, demoralise the adolescent (either overtly or covertly) from exercising mental separateness (Blustein, Walbridge, Friedlander and Palladino, 1991). According to Li and Kerpelman (2007), they found that greater the parent-child attachment is, the more the child feels obliged to agree with their parental advice. This likely then leads to the child into taking a career that they would feel their parents would approve of. While on the other hand, if children feel emotionally separated and disengaged from their parents, they end up taking careers of their choices and disregard their parent's choice. This interprets that the level of autonomy shown towards adolescents may provide significant means of predicting advancement towards commitment to career choices.

Vocational Commitment

Vocational commitment is the extent to which a person is willing to state and defend the vocational and occupational goals (Chickering and Reisser, 1993). According to Porfeli and Lee (2012), deciding on a career and identifying with it are the two components of vocational commitment. It aids in forming decisions and further attaching oneself to those decisions. Vocational commitment is generally thought to be a process that is displayed at a young age when offered by the age-old question of what youngsters wants to do when they grow up. One's commitment to a career is demonstrated in the decisions one takes, the choices one formulates and the vocational identities that one establishes. According to research, children identify jobs that are being occupied by people of their same gender or social class and are found to be more inclined towards occupations that appear to be more sensational and glamorous (Porfeli and Lee, 2012). The evolution of vocational commitment takes place as individuals begin to take steps towards identifying their future career plans (Ladd, 2000). Chickering and Reisser (1993) further notes that the development of career plans

and one's desire and motivation to carry on despite barriers are critical components to assess when evaluating vocational commitment. According to Ladd (2000), family, career, and other commitments that are modelled by parents will aid to demonstrate to the adolescent about how they are expected to behave as a grown up. He further noted that individuals tend to be more satisfied and successful with their chosen careers, when they accomplish establishing a secure vocational identity.

Significance of the Study

As deciding on a career is a major turning point in one's life, it is of utmost importance that one should be guided in a proper direction so as to have a fulfilling career ahead. Parents have been found to portray a dynamic role in shaping their child's career. In a collectivistic country like India, individuals spend most of their time with their family, particularly their parents and usually take their guidance till a much older age. Parents provide financial, emotional, motivational support and facilitate the sources (books, newspapers, etc.) to ensure their children's better academic performance. Since in our life, our parents play the most important part, the ones we've had direct day-to-day correspondence since childhood and they almost are involved in some or the other decisions in our life, it is thus necessary to understand their influence and expectations in deciding our careers and gain some insight into this relationship. The period of adolescence is crucial and it is considered to be a combination of defiance and independence and thus, it is equally important to understand if there exists any influence of parents in their children's emotional independence during this phase. Also, since commitment to one's vocation is crucial for a successful career life, it is of utmost importance to explore if it is modelled by parents. Exploring these areas will help career counsellors to carve out appropriate interventions for our younger generation. Thus, looking into this relationship between parents and their influence in their adolescent's career choices will help us to find answers and guide our children, thereby easing out their career decision making process.

Objectives and Research Questions

The objective of this paper was to explore the relationship among "perceived parental influence on adolescents'careerchoices","emotional independence from parents" and "vocational commitment". To meet this objective, the research questions mentioned below were addressed:

1. Does a significant correlation exist between adolescent's "perceptions of parental influence on career choices" and their "emotional independence from parents"?
2. Does a significant correlation exist between adolescent's "perceptions

of parental influence on career choices" and their "vocational commitment"?

3. Does a significant correlation exist between adolescent's "vocational commitment" and "emotional independence from parents"?

Methodology

Sample

The sample of the current study comprised of two hundred adolescents aged between 15 to 18 years, studying in different schools and colleges in India. Snowball sampling was used in this study where respondents recruited other respondents. Online google forms were circulated for ease in collecting responses of the participants.

Tools

The career questionnaire, developed by M.W. Ladd (2000), consists of three parts and data has been collected using the different sub-scales present in the questionnaire. The first sub-scale, the Perceived Parental Influence (PPI) was designed to assess the respondents' perception of the influence of their parents on the career choices of the adolescents. The Emotional Independence sub-scale (IND) was designed in order to assess disengagement from parents. Questions are presented with equal number of positive and negative worded questions to control for the acquiescence response set. The third sub-scale, the Vocational Commitment (VOC) aims at the development of vocational or career goals and decisions and examines how committed a child is to his or her career or vocational choices. One-third of the items are negatively worded to control response bias. Each of the three scales consists of 15 statements/items and uses a five-point Likert Scale for scores on different items.

Results and Discussion

Table 1 represents Descriptive Statistics, which includes the mean, standard deviation (SD) and range of the sample data (Age, Years of Education). It also includes mean,

Table 1
Descriptive Statistics about Respondents and Related parameters

S.No.	Parameters	Mean Value	Standard Deviation	Range
1.	Age of Respondents	16.48	1.02	15–18
2.	Years of Education	11	2.83	9–13
3.	PPI	51.56	5.74	35–64
4.	IND	41.1	7.69	23–65
5.	VOC	54.57	7.69	37–73

Respondents: Girl Students: 100; Boy Students: 100; Total Number of respondents: 200

standard deviation (SD) and range of the variables (PPI, IND and VOC). For a total population of 200 adolescents, the age of the adolescents ranges from 15–18 years, having a mean of 16.48.

Pearson correlation was conducted through SPSS in order to evaluate the correlation found among the variables: "Perceived Parental Influence" and "Emotional Independence from Parents", "Perceived Parental Influence" and "Vocational Commitment" and "Emotional Independence from Parents" and "Vocational Commitment". The correlational data consisting of the Pearson correlation values (r), are presented in the form of correlation matrix in Table 2.

The purpose of the research was to explore if there exists any influence of parents on their adolescents' career choices. Out of the three research questions, the first one explored if there exists a significant relationship between "perceived parental influence" and "emotional independence from parents". A negative correlation was obtained between the "PPI" and the "IND" scale. The overall correlation between IND and PPI was –.248, which was moderately significant at the $p < .01$ level. This data suggests that there exists a significant relationship between PPI and IND. The moderate significant negative correlation between IND and PPI scale suggests that as adolescents perceive less influence of parents on their career choices, they become more emotionally independent from their parents. This was moderately aligned with other formerly conducted researches as that of Chickering and Reisser (1993), where it was observed that students strive to be distinct and independent from their parents (Ladd, 2000).

The second research question explored if there exists a significant relationship between "perceived parental influence on career choices" and "vocational commitment". Between the "PPI" and "VOC" scale, a positive correlation was obtained suggesting that as adolescents perceive greater parental influence while choosing their career, the more they feel career or vocationally committed. Thus, with more parental guidance and influence, they feel more committed to a career. The overall correlation between PPI and VOC was .065, suggesting a correlation that is very weak and

Table 2
Correlation Matrix

	PPI	**IND**	**VOC**
PPI	1	–.249**	0.065
IND	–.249**	1	–.145*
VOC	0.065	–.145*	1
N = 200	*p<.05	**p<.01	

an almost negligible relationship. Thus, despite the correlation being positive, it showed a non-significant result and thus displayed a lack of correlation between the VOC and PPI scales. This might suggest that while parental influence is considered to play a crucial role in career decisions, it actually comprises a minimal part of the multitude of factors that influence vocational choices. Thus, this result fails to support earlier research (Ladd, 2000), which found a moderate significant relationship between vocational commitment and perceived parental influence.

The third research question explored if there exists a significant relationship between "vocational commitment" and "emotional independence from parents". Between the VOC and IND scales, a negative correlation was obtained. This infers that as adolescents become more vocationally committed to their careers, the less they feel emotionally independent from their parents. An overall correlation of –.145 was found between the VOC and IND scales, which was significantly a low correlation ($p < .05$). This puts forward that there exists a very minimal correlation between VOC and IND scales and further research should be carried out. This finding, however, very slightly differs from previous research (Ladd, 2000) which suggested a lack of correlation between the two scales, inferring that there exists no affiliation between emotional independence and commitment to career choices. However, this result seems to be aligned with the other two results and can be inferred that as more the adolescent perceives parental influence on their career choices, the more vocationally committed one is and less independent one becomes emotionally from their parent. Although there wasn't any strong relationship or association shown between any of the two variables of the three different correlations, the mean score attained on the PPI scale (M= 51.565) indicates that almost majority of the sample reported perceiving parental influence on their career choices, while on the contrary the mean score reported on the IND scale (M= 41.1) does not indicate the same. Also, the mean score reported on the VOC scale (M= 54.57) indicates that majority of the adolescents in the sample report were committed to their career choices. While parents may not be shown to strongly influence their children's career choices, but in reality, they do have a significant role to play, whether it be moderately or weakly, and thus this influence should not be taken lightly. Counsellors working with students should bring parents as well in the counselling process to develop effective career plans, educate parents about their influence in the career guidance process for their children and thus help to ease the career-decision making process for children.

Conclusion

Deciding on a career is an important choice, particularly for the child,

since the process begins quite early on. Adolescence, particularly known as the period of defiance and the continual need to establish one's independence, can be a lot difficult, when the pressure of choosing a career at this point grows. The results of the study showed that a negative moderate correlation exists between "perceived parental influence" and "emotional independence from parents". This shows that although the correlation is not that strong, there exists some amount of relationship between the variables, and it is important to look more into this parent-child relationship. Secondly, a positive but almost a negligible correlation between "perceived parental influence" and "vocational commitment" may suggest further research to be carried out between the two variables. Also, a low and negative but significant correlation was found between "vocational commitment" and "emotional independence from parents". It is quite known that one's nurturance can have a meaningful influence on the person one becomes and hence it is reasonable to assume that parents might have some level of influence on their adolescent's career choices and decisions. But among the multitude of other factors, their influence might seem to be quite low in today's generation. Even though this influence can be small, it does play a vital role in the child's decision-making process. There are several parents who want to help their adolescent child in deciding an appropriate career. Thus, based on the inferences from this study, career counsellors may consider including family influences and relations in carrying out career interventions. They may also help parents comprehend the role they play in their adolescent's career choices and assist them in helping their children to make such a crucial decision of their lives. This paper thus raises variety of opportunities for future analysis and research.

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Bullying among Adolescents
Prevalence, Gender differences and Factorial Relationship with Family Environment and Parental Attachment

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Abstract

Bullying among adolescents poses serious threat to the well-being and mental health of youth. The negative consequence associated with its involvement makes it vital to take into account the underlying variables that can play an integral role in this phenomenon. The present study assessed the prevalence of bullying and aimed at studying the relationship of familial variables namely, family environment and parent attachment (mother and father) with bullying. Moreover, the gender differences in bullying were also examined. The sample comprising of 614 adolescents (323 girls and 291 boys) aged 12–18 years were administered the Illinois Bully Scale, Family Environment Scale, and Inventory of Parents and Peer Attachment. The data was analysed using percentage analysis, independent sample t-test and Factor Analysis. The results revealed that bullying was highly prevalent in the present sample and there existed an inverse relationship of bullying with independence, achievement-orientation and control in terms of family environment among boys. In case of girls, there was a direct structural relationship of bullying with mother and father alienation. The findings also depicted significant gender differences in bullying with adolescent boys being more involved in bullying their peers at schools than adolescent girls. It can be concluded that there seems to be a high prevalence of bullying among adolescents and gender and family context plays an integral part in this phenomenon. Results are further discussed in the light of obtained findings.

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Introduction

Adolescence is a stage characterised by numerous physical, emotional, psychosocial and cognitive changes.

Though an individual becomes accustomed to the rapid transformations during this stage, the continuous changes often create stressful conditions for him. It is the time when a person starts moving beyond his family members in forming social relationships. The interactions with those who are not in the immediate settings of the home become a common scenario. The most important among these are the peers with whom adolescents readily spend greater deal of time and interact regularly. Adolescents seek to establish social status among group members and enjoy popularity. But sometimes, the process of forming healthy social relationships with peers is interrupted due to display of problematic behaviours among adolescents. They have a tendency to explore risky behaviours and get involved in challenging tasks which can bring them into limelight and establish their dominance over their peers. Bullying is one such risky behaviour that has now become a serious matter which needs immediate attention.

The history of bullying can be traced down to 1970s with the initial efforts of Dan Olweus who is honoured with the status of being the pioneer in bullying research. In the words of Olweus (1993), bullying refers to "intentional aggressive behaviour that is repeated against victim who cannot readily defend him or herself." This definition highlights four major elements that encompass what constitutes a bullying act. These are: a) intentionality, b) repeated, c) hurtful, and d) power imbalance. It means that bullying is a deliberate act which aims at harming the other person (the victim) repeatedly such that he is not in a position to safeguard himself, i.e., he lacks the power to defend himself. Sometimes, there is confusion between the terms "bullying" and "aggression" but bullying is a sub category of aggression (Olweus, 1993). The element of power imbalance and the repeated nature of bullying contrast it from aggression.

Bullying can be easily understood when classified into traditional and cyber forms. Traditional bullying refers to the offline forms constituting physical, verbal and relational/social bullying. Physical bullying includes behaviours like hitting, kicking, pushing, etc., which can cause bodily hurt. Verbal bullying refers to abusing or name-calling the target repeatedly. Relational or social bullying includes spreading false information about someone or excluding them from social groups. Cyberbullying is a harmful behaviour which a person or a group inflicts purposely and repeatedly by the means of electronic contact towards a victim lacking the power to defend oneself. The present study focuses on the traditional forms of bullying behaviours.

Evidences show that bullying behaviour is not confined to certain cultural settings, but it is rather expanded to various countries around the world (Cook et al., 2009). Bullying is a grave issue concerning Indian youth as well. Findings obtained by an eminent research firm, IMRB (Indian Market Research Bureau) concluded that "Every third child" undergoes bullying in India (The Times of India dated 3 September, 2015). Ramya and Kulkarni (2011) found that 60.4 per cent Indian adolescents reported bullying experiences.

Moreover, studies have consistently reported that gender is an important variable to consider with respect to bullying behaviours. Studies conducted in other countries indicate that significant gender differences exist in bullying behaviours among adolescents (Innamorati et al., 2018; Kokkinos and Kipritsi, 2012). In the Indian context, Malik and Mehta (2016) reported boys are more involved in bullying than girls. It becomes essential to study the gender differences in bullying among Indian adolescents to have a further clearer picture. Also, the high prevalence rates of bullying among youth make it important to look into the factors that can play a significant role in it, specifically in Indian context where there is lack of systematic bullying research. The study of the context of bullying process can help in achieving this aim. The contextual nature of family is a significant factor in this regard. Family environment and attachment to parents are two of the vital variables to analyse when studying the role of familial factors involved in bullying among adolescents.

Eskisu (2014) reported that high school students engaged in bullying have dysfunctional families and family members who are less supportive towards them. Previous studies also indicate significant relationship between higher peer victimisation and peer aggression and being exposed to domestic violence (Baldry, 2003; Bauer et al., 2006). It has been found that a constant relationship is present between contextual and relational dynamics of family and the involvement in bullying (Nocentini et al., 2019). Moreover, those who are engaged in bullying acts come from families where conflict is common (Stevens et al., 2002).

Apart from family environment, parental attachment is another variable which contributes to problematic behaviours like bullying. Attachment can be defined as the affective bond existing between a child and his primary caregiver. Attachment theory emphasises on the salience of this bond and pronounces that it helps an individual to have effective interactions in future and develop social competence (Bowlby, 1969; Thompson, 2008). Some children receive consistent care and nurturance from parents, while others have to deal with ignorance and insensitivity of parents towards them. Such initial experiences with

the primary caregivers guide the development of internal working models in them, which are the set of rules that emerge out of early attachment experiences and provide guidance to process the social information and future exchanges.

Positive internal working models are formed in children who have experienced positive and consistent behaviour of parents. These children develop secured attachment with parents and see themselves and other people as worthy, while those whose parents have been rejecting and insensitive develop negative internal working models. Such children regard themselves and others as unworthy and become insecurely attached to parents.

Researchers have reported that lower trust and communication and higher alienation with mother and father is linked with bullying perpetration (Nikiforou et al., 2013). Studies highlight significant association between poor quality attachment and bullying (Özen and Aktan, 2010). Students having low quality parental attachment have more likelihood of bullying perpetration when compared to those having greater attachment (Walden and Beran, 2010).

Need and Importance

The high prevalence rate of bullying among Indian adolescents along with its negative impact highlights the need to study this issue extensively. Also, the contextual factors play a paramount role in adolescent functioning and social influences. Family environment and parental attachment are such contextual variables that are important to study in relation to bullying behaviour. Healthy familial environment and parental bonding provide buffer against maladaptive behaviours like bullying. However, there is still lack of research in the Indian context that have focused on this upsurging problematic behaviour. In view of this, the present study was conducted to assess the clarity of the relationship of family environment and parental attachment in bullying behaviour.

Objectives

In light of the above studies, following objectives were framed:

1. To study the prevalence of bullying in the total sample.
2. To assess the gender differences among adolescents involved in bullying.
3. To assess the relationship of family environment and attachment with parents (mother and father) with bullying involvement.

Materials and Method

Sample

The present study comprised of sample size of 614 adolescents (291 boys and 323 girls). The age range was 12 to 18 years. The data was acquired from different schools of Jammu city (Union Territory of Jammu and Kashmir). Convenient sampling

technique was employed for data collection. The tests were conducted in a group of 20–25 participants. Along with the information obtained using various psychological tools, relevant demographic details related to the participants were also collected. It includes educational qualification and sex. In order to collect information genuinely, the participants were provided with the choice of not mentioning their names.

Psychological Tools Used

1. **Illinois Bully Scale (Espelage and Holt, 2001):** Illinois Bully Scale comprises of 18 items which analyses bullying and fighting behaviour among participants. The 18 items are spread over three subscales which are the bully subscale (9 items), victim subscale (4 items) and fight subscale (5 items). Only bully subscale (9 items) was used in the present study. It assesses the frequency of bullying behaviour among participants in the past one month. The higher score on bully subscale indicates more self-reported bullying perpetration.
2. **Family Environment Scale (Moos and Moos, 1986):** The Family Environment Scale evaluates perception of people with respect to their family environments. There are 90 true/ false statements assessing three broad dimensions: Relationship dimension, the Personal Growth dimension, and the System Maintenance dimension. There are further 10 subscales underlying these dimensions which include Cohesion (COH), Expressiveness (EXP), Conflict (CON), Independence (IND), Achievement orientation (AO), Intellectual-cultural orientation (ICO), Active-recreational orientation (ARO), Moral-religious emphasise (MRE), Organization (ORG) and Control (CTL). The participants have to mark "TRUE" or "FALSE" for each statement with respect to their family. The scoring is done using a template.
3. **Inventory of Parent and Peer Attachment (Armsden and Greenberg, 1987):** It is a self-report inventory containing 75 items that measure respondent's attachment quality with their mother, father and peers (25 items each). There are three dimensions which assess the quality of attachment, namely trust, communication and alienation. In the current study, only mother attachment and father attachment items were used. The participants mark their responses on a five-point scale (almost never or never true = 1 to almost always or always true = 5). The scores range from 25-125, with higher score indicating more secure attachment.

These tools were adopted and used in their original form as they have been employed on Indian adolescent population widely in the past by

several authors (Gupta, 2012; Negi and Aleem, 2014).

Ethical Considerations

Before the administration of the psychological tests, permission was sought from the participants and the school authorities. They were briefed about the purpose of the present research study. Participants were assured that the information collected was purely for research purpose and would be kept confidential. Prior to the collection of data, focus was laid on building a good rapport with the participants. The questionnaires were administered in the free period. Any doubt or difficulty in grasping the items was cleared with complete cooperation. Separate instructions were provided for each test based on the manual.

Data Analysis

Statistical Package for the Social Science (SPSS) version 20 of IBM was used for data analysis purpose. Prevalence of bullying was calculated for the total sample. Further, data of those involved in bullying in the previous 30 days was subjected to independent sample t-test to analyze the gender differences among those engaged in bullying. Factor Analysis was run separately for boys and girls to examine the factorial relationship of bullying and familial variables studied in the current investigation.

Results and Discussion

To fulfill the first aim of the study, prevalence rate of bullying was estimated among the sample of 614 (291 boys and 323 girls) adolescents. Those who reported "never" in the bullying measure were regarded as being uninvolved in bullying perpetration. It was found that about 13 per cent (78) adolescents reported that they were non participative in any kind of bullying activity. On the other hand, about 87 per cent (536) adolescents were found to be engaged in bullying their peers in the past one month. The high prevalence rate of bullying indicated in the present study signifies that it is a cause of major concern among Indian adolescents. Several authors previously have also reported bullying as highly prevalent among adolescents in India (Malhi et al., 2014; Ramya and Kulkarni, 2011). It needs immediate attention of the concerned authorities as well of the parents of such students. Lack of strict rules at school and less seriousness of school authorities can be the possible reasons of high prevalence of bullying in the present sample. Moreover, adolescents look forward to gain recognition in their friends circle. It is conceivable that teenagers may engage in problematic behaviours like bullying their peers to establish their dominant position among peer groups.

The second aim of the study was to study the gender differences in bullying among adolescent boys and girls. Since 78 adolescents reported no participation in bullying, they were excluded from further analysis. Thereby, the sample consisting of

576 adolescents was subjected to independent sample t-test to meet the second objective. Table 1 shows the values of mean, S.D., and t-ratio for bullying among adolescent boys and girls. The findings infer that there exists significant gender differences in bullying perpetration among boys and girls. Boys significantly differed from girls on bullying ($t = 5.019$, $p < 0.01$). The values of the mean scores further makes this difference more clear indicating that adolescent boys are more frequently involved in bullying when compared to adolescent girls. Similar results have been reported in the Indian context by Malik and Mehta (2016).

Boys in the present sample have been found to bully more than girls. There can be possible explanations of the obtained findings. Gender role socialisation viewpoint can explain greater likelihood among boys to bully others compared to girls. Typically, girls are raised to provide nurturance and care and display of aggression is discouraged in them. On the other hand, boys are raised to be dominant and voice out disagreement more openly than girls. There seems to be a possibility that adolescent boys engage in bullying as efforts to have an authority over others and show themselves in more powerful position, which girls usually avoid. Girls are more conscious of their social image. Also, girls refrain from reporting such incidents.

To meet the third objective of the study, factor analysis was run. A separate factor analysis procedure was run for boys and girls. The factors in both the cases were treated with varimax rotation. The factor loadings were elucidated with the cutoff point of ±0.40 and above. Table 2 shows the results of factor analysis for the boys sample (N = 264). For boys, five factors were procured which accounted for 54.06 per cent variance.

Factor I

There are significant positive loadings in Factor I on the variable of parent attachment, i.e., mother's trust ($r = 0.777$), mother's communication ($r = 0.721$), father's trust ($r = 0.850$) and father's communication ($r = 0.771$). Boys having responsive and understanding parents who satisfy their emotional needs shared healthy interactive patterns with them and good quality of communication.

Table 1

Indicating Values of Means, Standard Deviations and t-Ratio of Scores for Bullying among Adolescent Boys and Girls

Group	Bullying		
	Mean	S.D.	t-Ratio
Adolescent Boys (N=264)	6.75	5.15	5.019**
Adolescent Girls (N=272)	4.79	3.75	

** Significant at 0.01 level

They shared secured attachment with both their parents. Supportive findings have been reported by researchers previously (Nikiforou et al., 2013; Walden and Beran, 2010).

Factor II

There are significant factor loadings in Factor II on the variables of family environment and parent attachment, i.e., cohesion (r = –0.435), conflict (r = 0.642), mother's alienation (r = 0.657) and father's alienation (0.675). Adolescent boys who are emotionally detached from both their father and mother due to the inconsistency of response behaviour on the parent's part belong to families where they receive less support and assistance from the members of the family. Alienation with both the parents is also related to aggressiveness and display of anger in the family. Adolescent boys who feel alienated with their mothers also tend to experience the same with their fathers.

Table 2
Showing Results of Factor Analysis for Boys (N = 264)

VARIABLES	FACTORS					
	I	II	III	IV	V	h2
BULLY	–	–	–	–0.547	–	0.344
COH	–	–0.435	–	–	–	0.434
EXP	–	–	–	–	0.808	0.738
CON	–	0.642	–	–	–	0.502
IND	–	–	–	0.491	0.508	0.533
AO	–	–	–	0.644	–	0.497
ICO	–	–	0.493	–	–	0.444
ARO	–	–	0.694	–	–	0.543
MRE	–	–	0.758	–	–	0.634
ORG	–	–	–	–	–	0.438
CNT	–	–	0.436	0.553	–	0.524
MT	0.777	–	–	–	–	0.641
MC	0.721	–	–	–	–	0.564
MA	–	0.657	–	–	–	0.466
FT	0.850	–	–	–	–	0.734
FC	0.771	–	–	–	–	0.654
FA	–	0.675	–	–	–	0.501
Eigen Value	**3.522**	**1.912**	**1.435**	**1.243**	**1.080**	
Value% of Variance	**20.715**	**11.249**	**8.441**	**7.310**	**6.352**	**54.06**

Factor III

Factor III has positively loaded on the variables of family environment, i.e., intellectual-cultural orientation (r = 0.493), active-recreational orientation (r = 0.694), moral-religious emphasis (r = 0.758) and control (r = 0.436). It depicts that adolescent boys whose families promote active participation in recreational exercises also focus upon social affairs like politics, culture, societal events, etc. Moreover, the emphasis on following rules is linked to importance laid on moral and religious activities.

Factor IV

Factor IV has loaded significantly on the variables of bullying and family environment. This suggests that bullying behaviour among boys is significantly related to their family environment. The focus of this study is largely concerned with the findings of this factor. As shown in Table 1, there are significant loadings on bullying (r = –0.547), independence (r = 0.491), achievement-orientation (r = 0.644) and control (r = 0.553). It can be inferred that boys who belong to families where less autonomy is promoted are likely to bully others. It could be that such boys look out for ways where they can exercise their control over others outside their families. Also, family environment where more control is exerted in terms of adhering to proper rules and regulations are less involved in bullying activities. A possible explanation for this could be that they learn the importance of following rules and norms from their family members since childhood which they continue in the school premises. They have an understanding of the consequences of disobeying the rules in school which may land them in trouble. Moreover, boys engaged in bullying have low levels of achievement orientation. They lack the competitive spirit which is probably due to their greater focus on unhealthy activities like bullying. Such activities take up most of their time and divert them from other important goals regarding education and career.

Family lays down the foundation of social interaction for an individual. A positive family environment fosters healthy peer interactions. Recent studies have revealed that lack of support from families, poor communication, low levels of warmth and care are linked to bullying among youth (Eskisu, 2014). When compared to adolescents who are victimised due to bullying or are rather non participative in bullying acts, those who bully have been found to report negative perceptions pertaining to their parents (Mohebbi et al., 2016). Overall, perpetrators of bullying have negative perceptions regarding their families.

Factor V

There are significant positive loadings in Factor V on the variable of expressiveness (r = 0.808) and independence (r = 0.508) suggesting independence is prompted among

families of boys where family members are encouraged to express themselves freely to state their viewpoints.

Table 2 shows the results of factor analysis for girls sample (N = 272). For girls, five factors were procured which accounted for 56.16 per cent variance.

Factor I

Similar to boys, Factor I in girls has loaded positively on the variable of parent attachment, i.e., mother's trust (r = 0.786), mother's communication (r = 0.770), father's trust (r =0.808) and father's communication (r = 0.779). Since both trust and communication are the dimensions which highlight secured emotional bond with the caregiver, they are positively associated. Girls having healthy attachment bond with mothers also share the same with their fathers.

Factor II

Factor II in girls has loaded significantly on the variables of family environment. These include conflict (r = –0.496), intellectual-cultural orientation (r = 0.650), active-recreational orientation (r = 0.721) and organisation (r = 0.556). This indicates that families of girls where dispute is a common scenario and conflicts take place openly, there is less likelihood of attention being paid to social, cultural, political, intellectual and recreational activities. The conflicting nature of relationships among family members possibly leaves them less time to focus on other aspects of life which are of more social and personal concern. They hardly spend time on activities which encourage enjoyment and relaxation. They remain stuck in a vicious circle of conflicts that takes place among familial relationships.

Factor III

There are significant positive loadings on Factor III for the variables of bullying (r = 0.447), mother's alienation (r = 0.804) and father's alienation (r = 0.760). The aim of the study is more focused on the findings of this factor. Alienation is the dimension of attachment which signifies insecure attachment or poor attachment bond with the parents. The results depict that girls who are likely to bully others are emotionally detached from both the parents. It is well-known that positive emotional bond with the primary caregivers lays down the framework for later social relationships. Adolescent girls who feel alienated with their parents tend to carry the negative schemas about social interactions in subsequent relationships feeling that others are unavailable for them. Such schemas persist and are clearly visible when they engage in unhealthy peer interactions like bullying perpetration.

Supportive findings are reported by Nikiforou et al. (2013) who found that girls involved in bullying reported higher levels of father's alienation. Similar findings have also

Table 2
Showing Results of Factor Analysis for Girls (N = 272)

VARIABLES	FACTORS					
	I	II	III	IV	V	h2
BULLY	–	–	0.447	–	–	0.418
COH	–	–	–	–	0.471	0.440
EXP	–	–	–	–	0.763	0.636
CON	–	–0.496	–	–	–	0.477
IND	–	–	–	–	0.489	0.468
AO	–	–	–	0.718	–	0.573
ICO	–	0.650	–	–	–	0.514
ARO	–	0.721	–	–	–	0.528
MRE	–	–	–	0.572	–	0.426
ORG	–	0.556	–	–	–	0.421
CNT	–	–	–	0.681	–	0.566
MT	0.786	–	–	–	–	0.662
MC	0.770	–	–	–	–	0.699
MA	–	–	0.804	–	–	0.702
FT	0.808	–	–	–	–	0.690
FC	0.779	–	–	–	–	0.667
FA	–	–	0.760	–	–	0.660
Eigen Value	**3.858**	**1.850**	**1.506**	**1.274**	**1.060**	
Value% of Variance	**22.695**	**10.885**	**8.860**	**7.494**	**6.233**	**56.16**

been obtained by Walden and Beran (2010) who concluded that high levels of parental alienation reported by students is related with high frequency of bullying experiences. Studies have consistently found that insecure attachment with parents is associated negatively with bullying (Özen and Aktan, 2010).

Factor IV

This factor loaded positively on the subscales of family environment, i.e., achievement-orientation (r = 0.718), moral-religious emphasis (r = 0.572) and control (r = 0.681). Adolescent girls whose families centre on obeying regulations give more importance to moral and religious practices. This may be because they follow the traditional norms. Such families also promote competitive spirit.

Factor V

This factor has also loaded positively on the subscales of family environment

which include cohesion (r = 0.471), expressiveness (r = 0.763) and independence (r = 0.489). Supportive family members encourage free expression of personal views and openness in the family. They also promote autonomy and assertiveness among family members.

Conclusion and Implications

The current study was undertaken to take into account the prevalence of bullying along with analysing the familial variables that are associated with bullying in adolescents. Gender differences were also analysed. It was found that bullying is highly prevalent in the present sample. Boys were more engaged in bullying than girls. Family environment is significantly associated with bullying among boys. In case of girls, poor quality attachment with both the parents is related to their participation in bullying. The findings obtained highlight the need to address the issue of bullying among Indian adolescents with immediate action. Counsellors in schools can work in coordination with the concerned school authorities to deal with the problem of bullying. Anti-bullying programs should be promoted at schools. Also, parents should focus on fostering healthy attachment with their children and provide them with nurturing and supportive family environment. Workshops can be conducted at the school level for this purpose to make parents and family members aware about the crucial stage of adolescence and its challenges and how they can play an important role in healthy adolescent development.

Limitations and Suggestions

It is pertinent to acknowledge the limitations of a research study so that improvements can be made in future investigations. The present study did not examine the peer victimisation aspect of bullying behaviours. Moreover, the data was collected for only offline forms of bullying and cyber bullying was not taken into consideration. Cyberbullying and factors contributing to it should also be studied in subsequent studies to provide a more comprehensive picture of this new type of bullying. Also, self-report measures were used for data collection. Techniques other than self-report measures can be used in studying bullying. Other sources of information like parents, teachers and peer nominations should also be examined for bullying research since these can also provide valuable data. Regardless of these limitations, the present study is a significant contributor in growing bullying literature in India.

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Exploring Children's Creative Imagination in Conceptual Understanding of the Astronomical World

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Abstract

One of the fascinating traits is that children have inborn potentials and intrinsic qualities that often make them wonder about the terrestrial and celestial worlds and continuously explore the world they experience. Astronomy and space science can a strongly appeal to children. Astronomy is one of the best ways to introduce the spirit of science and creative imagination to children. The current study aims to examine how children's creative imagination contribute to their understanding of astronomical phenomena. The sample consisted of 36 Grade 9 students from a high school located in Hyderabad, India. An instrument called 'Test of Creative Imagery Abilities' (TCIA) was administered to assess children's ability to draw creative images. To test their knowledge of astronomy, 30 probes on different astronomical topics were administered. Children's explanations to the probes were categorised as naive, synthetic and scientific. The research was quantitative in nature. Correlational research has shown that children's conceptual understanding of astronomy is significantly correlated to their creative imagination. The correlation coefficient of the overall score of creative imagination and conceptual understanding in astronomy was found to be 0.482 ($p < .05$). Though this study had established a moderate but positive relationship between creative imagination and astronomy understanding, the researcher suggests that the introduction of visual creative imagination exercises allow students to gain a better understanding of abstract astronomical phenomena, and teachers should develop strategies that enhance children's imagination.

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Introduction

Creativity requires imagination. It takes imagination to play with ideas, create unique and new connections, and explore different possibilities (Duffy, 2006). Imagination is the ability to imagine something that does not currently exist or is not visible (Gundoğan, 2019).

The ability to imagine, rearrange, and manipulate existing knowledge to transform it into a unique and original mental image is called creative imagination (Eberle, 2008). Imagination is a human being's inherent capacity. The roots of great inventions stem from human imagination (Vygotsky, 2004). Science is founded on human imagination, creativity and logical reasoning. This scientific development is based on observation and inferences from the environment. Creative literature offers numerous anecdotal and empirical examples of how significant visual images can be part of eminent scientists' creative achievements (Ho, Wang and Cheng, 2013). Creative imagination is the skill to form a mental image or concept of something that does not yet exist or is not currently perceived. It is expressed as "the ability to create and transform representations based on the material of past observations but significantly transcending them to so-called creative representations" (Dziedziewicz and Karwowski, 2015). It enables one to develop scientific theories and produce new ideas through the continuous process of reflection, reasoning and evaluation. Creative abilities play a prominent role, although at times they are overlooked in learning (Gajda, Beghetto and Karwowski, 2017).

Children's thought and imagination begin at a young age, and their creativity is without limits. Studies show that imagination is the engine of children's creativity (Vygotsky, 2004). Imagination helps children to change an object's perception from what it is, to what they can imagine. "Children can indeed form mental images of objects and events that do not exist in reality. These are products of their imagination, even though the material for these products is drawn from everyday reality" (Hadzigeorgiou, 2016). Creative skills play a significant role in learning (Gajda et al., 2017; Beghetto, 2016). According to Wang, Ho and Cheng (2015), scientific imagination is a mental process that involves creating new ideas associated with scientific principles relevant to daily life experiences. The relationship between creative imagination and knowledge was considered by Beghetto (2016) as a mutual relationship in which creativity promotes understanding and understanding unlocks new and imaginative ways of thinking. Hence, there are convincing reasons to hypothesise that creative imagery abilities would translate into understanding abstract concepts including basic astronomical experiences in children (Jankowska, Gajda and Karwowski, 2019).

(Creative Imagination and Conceptual Understanding in Astronomy)

According to Mintzes and Wandersee (1998), conceptual understanding is an "epistemological outcome of the conscious attempts by learners to make meanings". Conceptual understanding in science was defined by Mullis et al. (2003) as "having a grasp of the relationships that explain the behaviour of the physical world and relating the observable to more abstract or more general scientific concepts. It increases in sophistication as children progress through school and develop cognitively". Measuring conceptual understanding "requires children to extract and use scientific information and apply their understanding of science concepts and principles to find solutions and develop explanations".

Conceptual understanding in astronomy refers to both a cognitive aspect ranging from knowledge to application and reasoning, as well as a content aspect that includes a scientific understanding of key concepts in astronomy. These two aspects are considered when measuring the conceptual understanding of astronomy. It implies a profound understanding of the meaning of concepts, including knowledge of concepts and the skill to use this knowledge in different settings as well as in systems, including relationships with other concepts (Wellington, Osborne and Wellington, 2001). In this study, the term conceptual understanding refers to a process of developing varying levels of understanding, such as naive understanding, incomplete or partial understanding, and accurate scientific understanding.

According to the National Aeronautics and Space Administration (NASA), the foremost objective of teaching astronomy to young children should be to develop their imagination; and to stimulate their interest in space exploration. More specific is that the visual creative imagination develops, interprets, and transforms what is "seen with the mind's eye" (Gajda et al., 2017). Creative imagination is one of the essential competencies that impact creative potential effectively. The creative essence of visual imagination is represented by new and unique concepts, which are substantially different from the reality that exists in our minds. It takes creativity and verbal thinking to infer what is happening in the distance (Kikas, 2006). It is required to be more imaginative to learn astronomy as it is natural science (Bakhramovich, 2019). Imagination and thought come together to help young children understand the world around them. Instead of refraining from teaching concepts that seem too difficult for children to understand, we should look for ways to teach astronomy, such as the use of imagination. This form would be more accessible to younger children (Sharp, 1995).

Imagination is a human being's inherent capacity. The creativity literature offers numerous anecdotal and empirical examples of the significance of visual creative imagination for the innovative contributions of important scientists. Naturally, creative imagination plays a significant role in unravelling scientific problems (Ho, Wang and Cheng, 2013). Creative imagination enables one to develop scientific theories and produce new ideas through the continuous process of reflection, reasoning and evaluation. The roots of great inventions stem from human imagination (Vygotsky, 2004), and it is emphasised that imagination operates based on experiences of daily life that inspire creative activities.

There are some well-established examples of how famous scientists use visual imagination in a novel way: Discovery of gravity by Newton; theory of relativity by Einstein through the imagination of a light beam; Faraday's magnetic lines of force; Kekule's cyclical benzene structure; all of these evolved into visual imagery. The creative imagination helps scientists not only to visualise these phenomena, which are challenging and at times, impossible to observe directly but also to grasp and explain them (Hadzigeorgiou, 2016). Children's knowledge of astronomy is not directly related to experience. The motion of celestial bodies and planetary functions in our solar system is not easy for children to recognise and understand. As a result, their perceptions often contradict scientific assumptions. Because children believe that the earth's surface is flat (Ehrlen, 2008), and their naive astronomical concept is based on the mental model they created. This approach involves visualising, describing and transforming information for collection rather than relying on direct observation (Gilbert, 2005). Like scientists, creativity and imagination can help children visualise and explain basic astronomical facts, concepts and events.

The current study used the concept of creative imagination depicted in the new "Conjunctional Model of Creative Imagery Ability" (CMCIA) by Dziedziewicz and Karwowski (2015). This theoretical model highlights the three key features required for the effective working of imagination as given in Figure 1.

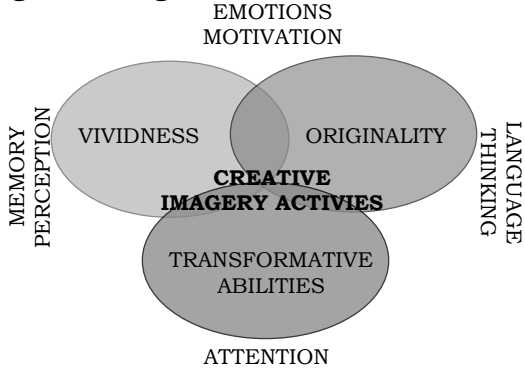

Fig. 1: Conjunctional Model of Creative Imaging Ability.
(Source: Dziedziewicz and Karwowski, 2015)

CMCIA considers three interrelated components of creative visual imagination:

- Vividness — the skill to generate highly complex and expressive images.
- Originality — the skill to create new images based on past experiences, but the ability to surpass them will be an important aspect.
- Transformative ability — the capability of transforming the images generated.

In the CMCIA model, the ability for creative imagination results from the combination of these three dimensions. Besides, it is assumed that these capacities are jointly dependent on perception, attention, memory, language, thought, emotions, and motivational processes. This model is one of the few scientific conceptualisations of creative imagination and accepted as the foundation for a reliable and valid tool for assessing these skills in children (Jankowska and Karwowski, 2015). Research findings have shown that even in young children, vividness, originality, and transformative ability can be achieved successfully (Dziedziewicz, Gajda and Karwowski, 2014).

Researchers have drawn attention to the potential benefits of harnessing visual imagination; primarily, the central role of visualisation and visuospatial abilities in learning astronomy (Kikas, 2003; Subramaniam and Padalkar, 2009). On reviewing the literature, it was found that there were no studies conducted to understand the relationship between creative imagination and conceptual understanding in astronomy. However, Jankowska et al. (2019) investigated how students could construct mental models of space through creative visual imagination and creative thinking. Both quantitative and qualitative approaches have been used for data collection. The research sample consisted of 98 children from a randomly selected pre-school in Warsaw, Poland. This study examined creative imagination centred on a conjunctive model of visual creative imagery abilities. They were defined as three interrelated components: the vividness of the image, the originality of the image, and the degree to which the image is altered or changed (Dziedziewicz and Karwowski, 2015). To identify the level of creative imagination, the Creative Imaginative Ability Test [CIAT] (Jankowska and Karwowski, 2015) was used. Creative thinking was measured, using the "Test of Creative Thinking-Drawing Production" (TCT-DP) (Urban and Jellen, 1996). To investigate students' knowledge about space, "The Drawing Task" (Jovchelovitch, Priego-Hernández and Glăveanu, 2013) was administered. Students were instructed to draw the space in a certain way. They were required to include as many space-related

details as possible in the drawing. For analysis, the hierarchical SEM model was used to establish the association between creative imagination and mental models of space. The effect size indicated a strong positive relationship ($\beta = 0.52$, $p < 0.001$). This study showed that creative visual imagination is related to spatial understanding and knowledge. These findings supported the idea that students' understanding of basic celestial phenomena improves with visual creative imagination. Interestingly, imaginative thought was not related to knowing and understanding celestial phenomena. Qualitative analysis has demonstrated differences in student representation. Their understanding of space and their visual creative imagination had a positive correlation. Therefore, the researchers concluded that the strategies used by younger students to study basic astronomy, i.e., methods that promote innovative visual imagination, should be enriched.

Does creative imagination make the learning of astronomy easier? Based on these arguments, we presumed that creative skill, i.e., creative visual imagination, indeed promotes the learning of science, and in particular enables children to visualise and describe simple astronomical concepts. We hypothesised that creative abilities make learning easier, particularly the learning of elementary astronomy.

Objective of the Study

This study aims to investigate how an understanding of astronomical concepts relates to creative imagination. The research question which guided this study is: Is there any relationship that exists between creative imagination and understanding of astronomical phenomena?

Research Procedures

To achieve the objectives of this study, 36 students of Grade 9 from a CBSE school in Hyderabad were selected. The sample was drawn through a purposive sampling technique which is a non-probability sampling technique. The reason for selecting this school was that the students here come from families of moderate socioeconomic status, of various cultural and ethnic origins. All these children had received formal instruction from the same teacher on basic astronomical topics under the unit, "Stars and Solar System" in their previous academic year (8^{th} grade). The research design adopted in this study was a correlational study.

This study considers conceptual understanding in astronomy as the dependent variable and creative imagination as independent variables. To assess learners' conceptual understanding of astronomy, the researcher administered 30 probes under five sections (Keeley and Sneider, 2012) that focus on elementary astronomy to elicit

students' ideas and data collection. "A probe reveals significant data about children's thinking— for example, their scientifically correct ideas, their misconceptions, their partially formed ideas, and the types of reasoning and connections they use to make sense of phenomena or concepts" (Keeley, 2011. The probes were selected from two sources: (a) Uncovering children's ideas in Astronomy by Keeley and Sneider (2012) and (b) Uncovering children's ideas in Science by Keeley, Eberle and Dorsey (2008). These 30 probes were divided into five sections or domains: "*Nature of planet Earth, Sun-Earth system, Earth-Moon-Sun system, Dynamic Solar system, and the Stars*". Each section consisted of six probes on various concepts related to astronomy. The first section addressed concepts related to the nature of planet earth, spherical earth, and gravity. The second section focussed on topics related to the sun-earth system, such as the formation of day and night, the seasons and shifts in the position of the sun during the day. The third section covered the EMS system which focused on moon modelling, and section four on the solar system. Finally, section five focused on ideas related to the stars.

All probes developed by Keeley have a common context; a set of choices of answers and an open segment where the study participants were invited to explain. The probe comprised of two parts, in the first part children were asked to select the correct claim from the list of statements given and in the second part to give their explanation as to why their claim is correct while supporting their claim with enough evidence, conceptual understanding and reasoning. Because constructing explanations and defending scientific ideas are essential scientific skills to be mastered by children in high school. Our primary interest was not in simple answers like the "agree" or "disagree" statement, but the second set of answers where children explain and clarify their thinking and reasoning. It was interesting to assess whether these explanations are naive explanations, partially scientific explanations (synthetic models) or correct scientific explanations (Vosniadou and Brewer, 1992). The study participants' written responses to the probes were analysed quantitatively to get the level of conceptual understanding inherent in their explanations. The data were analysed employing the procedure of putting descriptions with related meanings together, in other words, the descriptive content analysis technique. The explanations of students are classified into three types based on the criteria of analysis as given in Table 1.

To prepare the grading headings for the study, the researcher analysed the responses of students based on the scoring parameters, collected examples of the answers that should have been graded as 1, 2, or 3, and established a grading manual/ evaluation rubric for each probe.

Table 1
Criteria for Scoring Student's Level of Understanding

Types of explanations	Analysis criteria
Naive explanations	These explanations are developed based on children's own perception and experience. This includes: • Correct claim/incorrect reason • Description of the phenomena • The knowledge received from sources like adults, myths, religion, culture • Incomplete and contradictory explanation
Partially scientific explanations	These explanations are developed through one's own experience and learnt verbal knowledge. This includes: • Correct claim/partially correct reason statement • Factual knowledge received from teachers, textbooks, web • Correct explanation: mostly supports the response but has no concepts that support response
Accurate scientific explanation	These explanations closely match with scientific explanations and conceptual understanding. This includes: • Correct claim/correct reason • The explanation is correct; includes relevant concepts that support response

According to this rubric, student's explanation for each probe received a score; like scores of '0' if the claim itself is wrong, '1' for pre-scientific/ naive explanations based on one's everyday experiences, '2' for those explanations which are partially scientific (synthetic) and '3' for the responses which have correct scientific explanations. Scores were not given for those who selected incorrect claims and wrong reasons. Based on these criteria, a student can score a maximum score of '3', a minimum of '0' for each probe/question. The total score of six probes gives students conceptual understanding in a particular domain. The cumulative score of all five sections was taken as the score for students conceptual understanding of Astronomy.

The researcher conducted a "Test of Creative Imagery Ability" (TCIA) prepared by Jankowska and Karwowski (2015) to assess the creative imagination of learners. This instrument was chosen because it is currently the only measure that determines the creative imagination of children. He defined creative imagination as "the ability to create and transform representations that are based on the material of past observations but significantly exceed them— the so-called creative representations". Seven tasks make

up the TCIA assessment. From a basic graphic sign called the initial figure, the respondent is required to create and explain as many images as possible orally or in writing. The participant then selects the most original of the images produced and generates a drawing with a short description. The instructions demonstrate the need to modify, change and add elements to the original image to produce something much more unique.

The three-point scale, namely the scale of vividness, originality and transformative ability were used to measure the sketches and descriptions. The vividness scale tests the level of visualisation or imagination and the quality of explanation given for the image created. A vivid image is one in which the original image has been integrated with a certain amount of detail. The scale of originality assesses the novelty of the generated images. Originality is expressed by

Table 2
TCIA Assessment Criteria

Scoring	Vividness	Originality	Transformative ability
0	The original figure has not been supplemented but was interpreted, i.e., it was given the title.	Presentation of common objects (things, plants, animals, people, places). Their shapes, functions, and properties are real, and their activities, processes, states, and events are typical.	Multiplication of the original figure.
1	Simple, frequently schematic completion of the original figure.	Individual, simple modifications of shape, functions, and properties of widely known objects (things, plants, animals, people, places) as well as typical activities, processes, states, and events.	Recreation, simple completion of the original figure, and adding to it a relatively independent object(s).
2	Complex, rich in detail completion of the original figure.	Complex, significantly altered concerning reality, modification of shape, functions, and properties of widely known objects (things, plants, animals, people, places) as well as typical activities, processes, states, and events.	Complex modification of the original figure— its multi-aspect elaboration.

the representation of new objects, actions, processes and events, distinct from existing ones. The transformative ability scale examines to what degree the original picture has been modified. The evaluation parameters are presented in Table 2. The final results shall be taken by adding the points obtained for each drawing on the scales of vividness, originality and transformative ability. In this study, creative imagination scores refer to the scores obtained from TCIA which gives the sum of the scores of TCIA subscales, namely originality, vividness and transformative ability. A participant can get a maximum score of 42 (14 per scale). TCIA is an untimed test that usually lasts less than 20 minutes. According to previous research, TCIA is a valid and reliable indicator of creative imagination (Jankowska and Karwowski, 2015; Karwowski and Jankowska, 2016).

To investigate the potential relationship between independent variables, namely children's creative imagination, and dependent variables such as conceptual understanding in astronomy, the researcher employed Pearson product-moment correlational analysis.

Findings

(i) Correlation between Conceptual Understanding in Astronomy and components of Creative Imagination

Creative imagination does indeed promote the learning of science, including the learning of elementary astronomical phenomena. Hence, we presumed that creative skill, i.e., creative visual imagination, enables people to visualise and describe simple astronomical concepts. To test if there exists any correlation between these three components of creative imagination (vividness, originality and transformative ability) and astronomy conceptual understanding, the following hypothesis was framed.

Research Hypothesis 1: There exists a significant correlation between children's conceptual understanding of astronomy and the components of creative imagination, namely vividness, originality and transformative ability.

To test the statistical testing, this research hypothesis was translated into the null form.

Null Hypothesis 1: There exists no significant correlation between children's conceptual understanding of astronomy and creative imagination (vividness, originality and transformative ability).

Pearson product-moment correlation was applied to the null hypothesis to test the correlation between elements of creative imagination and conceptual understanding in astronomy. The results are shown in Table 3.

Table 3 indicates that there is no significant correlation between vividness and conceptual understanding in astronomy ($r\ (34) = 0.280$, $p > .01$). Similarly, for originality and astronomy conceptual

Table 3
Correlation between Components of Creative Imagination (Vividness, Originality and Transformative Ability) and Conceptual Understanding in Astronomy

S. No.	Measures		1	2	3	4
1.	Vividness	Pearson Correlation	1	0.734**	0.698**	0.280
		Sig. (2-tailed)		0.000	0.000	0.099
		N	36	36	36	36
2.	Originality	Pearson Correlation	0.734**	1	0.669**	0.271
		Sig. (2-tailed)	0.000		0.000	0.110
		N	36	36	36	36
3.	Transformative Ability	Pearson Correlation	0.698**	0.669**	1	0.151
		Sig. (2-tailed)	0.000	0.000		0.380
		N	36	36	36	36
4.	Conceptual Understanding in Astronomy	Pearson Correlation	0.280	0.110	0.380	1
		Sig. (2-tailed)	0.436	0.786	0.247	
		N	36	36	36	36

** Correlation is significant at the 0.01 level (2-tailed)

understanding the value of $r = 0.271$ and p = 0.110 which is greater than 0.01 (r (34) = 0.271, p >0.01) and for transformative ability, the value of r = 0.151 and p =0.380 which is greater than 0.01 (r (34) = 0.151, p > 0.01). Thus, in all three cases, the null hypothesis is accepted, and it is concluded that there is a weak and insignificant correlation between the different elements of creative imagination and conceptual understanding in astronomy.

(ii) Correlation between Creative Imagination and Conceptual Understanding in Astronomy

Research Hypothesis 2: There exists a significant correlation between children's conceptual understanding of astronomy and creative imagination.

To test the statistical testing, this research hypothesis was translated into the null form.

Null Hypothesis 2: There exists no significant correlation between children's conceptual understanding of astronomy and creative imagination.

Table 4
Correlation between Creative Imagination and Conceptual Understanding in Astronomy

S. No.	Measures		1	2
1.	Creative Imagination	Pearson Correlation	1	0.482
		Sig. (2-tailed)		0.009
		N	36	36
2.	Conceptual Understanding in Astronomy	Pearson Correlation	0.482	1
		Sig. (2-tailed)	0.009	
		N	36	36

The Pearson product-moment correlation was computed to analyse the relationship between combined scores of creative imagination and conceptual understanding in astronomy, and the findings are presented in Table 4.

As shown in Table 4, the coefficient of correlation (*r*) between creative imagination and conceptual understanding in astronomy equals 0.482, and the *p*-value is 0.009, which is less than the significance level of 0.01. Hence, the null hypothesis is rejected. It is noted that a significant positive correlation exists between creative imagination and conceptual understanding in astronomy, signifying that children with creative ability often demonstrate conceptual understanding in astronomy.

Discussion and Conclusion

The current study detected a significant positive between creative imagination and astronomy conceptual understanding. The positive correlation between creative visual imagination and the conceptual understanding of astronomy has the potential to advance research in this field of study. Creative visual imagination tends to facilitate not only the application of knowledge but also the perception of abstract and dynamic phenomena like space itself. Our findings were consistent with the previous research which found a strong relationship between the ability to construct mental models of space and creative imagination (Jankowska et al., 2019; Jankowska and Karwowski, 2015). The researchers stated that students' knowledge and understanding of space might be supported by their creative imagery abilities (Jankowska et al., 2019). A greater level of imagination facilitates the acquisition of knowledge and the interpretation of abstract concepts such as space itself (Gajda et al., 2017).

Many abstract events are seen in everyday life, which children try to imagine and understand. They encounter real and imaginative

situations regularly. As Russ has said, connecting the real and the imaginative world has essential functions for development (Russ, 2014). It enhances their thinking and helps them to consider and visualise objects that are comprehensible by observation, such as Earth and Moon, apparent motion of the celestial bodies, eclipses, and the lunar phases. The role of creative imagination in acquiring astronomical knowledge has been discussed in very few studies. In this study, we found a reasonable correlation between creative imagination and conceptual understanding. The reason might be due to the lack of variation in student performance in the drawing tests conducted to measure creative imagination. As Gajda et al. (2017) reported, "verbal tests of creativity might have yielded significantly stronger relationships with an understanding of space and related concepts than figural tests". This research was performed on small sample size. The findings can therefore be replicated and generalised by further analysis of large samples. The findings of this study may have far-reaching consequences. It is suggested that using enriching strategies and activities to develop creative imagination would help children to understand abstract areas of knowledge better. As stated by Hadzigeorgiou, Fokialis and Kabouropoulou (2012), "Perhaps if approached from this perspective, creativity in science education (including elementary astronomy) can create new opportunities for both teachers and students and increase students' engagement in science learning".

In the words of Einstein "Imagination is more important than knowledge". Therefore, teachers should provide opportunities for students to develop and expand their horizons of imagination by using various teaching strategies. To develop creative imagination and encourage interest in Astronomy, teachers can encourage children to visits Planetariums, arrange for sky watching, form Astro clubs with the collaboration of local astronomical societies, amateur astronomers and science teachers, celebrate World Science Day, National Science Day, National and International Space Day, etc., in schools by conducting various events to highlight the significant milestones in science, space science and technology and use various interactive simulation lessons available to teach astronomy interestingly and effectively. In Indian schools, the subject of astronomy is rarely taught. The typical situation is that at grade level 5–9 (ages 10–14), there is an astronomy unit that deals with basic topics such as day and night cycle, seasons, moon phases, planetary orbits, and some descriptive material about planets and stars. Apart from the rudimentary astronomy as part of science and

geography, Indian children do not learn about the universe, the celestial bodies and basic astronomical figures in schools. Astronomy is one of the best ways to introduce the spirit of science to children. Therefore, it is a need to introduce more topics related to cosmology and astronomy in the school curriculum in a consistent manner and thus inculcate a scientific temper and creative imagination in our children. Creative imagination has no boundaries. It stimulates progress, gives birth to newness— discoveries, phenomena, concepts, etc. It is related to higher senses, beauty, astounding feelings, great curiosity and longing to search for reality. Astronomy which is real, mysterious and awe-inspiring correlates to creative imagination, and both go hand in hand. Introducing astronomy education as part of the curriculum in schools will doubtlessly enrich their imagination connected to the realities of astronomy.

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English Language Creativity and Academic Achievement

A Study of Gender and Locality Differences

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Abstract

The main aim of the present study was to investigate the gender and locality differences of English Language Creativity of senior secondary students. As a by-product of the main study, the relationship between English Language Creativity, Academic Achievement, and English Language Achievement was also examined. Sixty-seven eleventh grade students from three schools of Gaya District, India, age range from 16–19 years were included in the sample by using the convenience sampling technique. English Language Creativity test developed by Malhotra and Kumari (1990) was administered to the students. Academic achievement and English language achievement were measured based on grade/ percentage of marks obtained by the students in their previous examination. Mann-Whitney U test and Kendall Rank correlation (τ) were used to analyse the data. The results revealed that gender and locality differences were found in English language creativity, i.e., female students were found better than their counterparts on dialogue writing and poetic diction whereas urban students were found better than their counterparts. Furthermore, gender and locality differences were also found in the dimension of language creativity except for flexibility. Subsequently, it is also revealed that English language creativity was found to be positively related to academic achievement and English language achievement. Plausible explanations and implications of the findings of the research are discussed.

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Introduction

Language is one of the most important means of communication. Therefore, its importance is not confined to the classroom but also plays an important role in other disciplines like science, mathematics, social science, etc. Noam Chomsky's (1982) writings have shown the importance of the creative aspect of language and defined language creativity as the unique capacity to organise and produce new sentences of a language. Language is a common creative act, and every human being uses it in their daily lives. It covers a large area like play, prose, poetry, film, storytelling, etc. Poets, writers, dramatists, and novelists, all of them have different types of unique abilities in their writing which is termed as language creativity. Language creativity is a multidimensional attribute, and it includes the following dimensions like fluency, flexibility, originality and elaboration. The literature also highlighted that learner's ability and environment have a profound impact not only on his or her performance in the cognitive domain but also in the non-cognitive domain.

Throughout the literature, numerous research studies have focused upon creativity in a general domain (e.g., Guilford, 1950; Cropley, 1967; Raina, 1969; Torrance, 1972; and Runco, 2004), the method for fostering creativity in a general domain (Torrance and Torrance, 1973), and ample evidence for creativity in a specific domain like mathematics (Jensen, 1973; Singh, 1987; Ervynck, 1991; Sriraman, 2004; Mann, 2005; Tyagi, 2017), and science (Majumdar, 1975; Sinha and Singh, 1987; Hu and Adey, 2010; and Yang et al., 2016).

Creativity in the specific domain has been a debatable issue and no final decision has been settled yet. Baer (2015) reported that creativity is considered not only content-specific but also task-specific within content areas. In 1993, Gardner pointed out that every person has creative potential in a specific domain; however, the degree may vary. Silver (1997) reported that creativity is closely related to deep-flexible knowledge in the content domain and similar findings were also reported by Singh (1987) and Tyagi (2017).

In the 21st century, for maintaining its existence and prosperity every nation is required to nurture its creative potentials/talents in different fields like science, mathematics, engineering, language, etc. Language is the only way to express our opinions, ideas, imagination, and dreams. Besides this, it plays a pivotal role to influence the learners' performance in every field. In the present era, the English language is the most spoken language and is considered an international language also. In several countries, it is considered as a second language too. Therefore, learning the English language is essential to excel in higher education and research in different fields. It is also the language of computers that

helps us to connect with the world via the internet. Even most of the reputed research journals are being published in the English language. So, the English language teachers have to take out the best creative ideas and thoughts of the students by engaging them in interesting activities for harnessing their writing skills. NCF (2005) also emphasised that literature can also be a spur to children's own creativity.

Rationale of the Study

Getzels and Jackson (1962) conducted a landmark research study in the field of psychology and reported a low and positive relationship between creativity and achievement and firstly highlighted the role of creativity in school achievement (Ai, 1999). It has also been shown (Ai, 1999) that those who used the Grade Point Average as a measure of academic achievement have also reported consistent results with the findings of Getzels and Jackson. Torrance (1962) also reported similar findings. Sharma (2011) and Sumangala (2014) reported a significant difference between boys and girls with respect to language creativity. They found females better in language creativity than boys. In contrast, Rani (2013) and Uvaraj (2011) reported no significant difference between language creativity of male and female students, science and arts stream, Government and private institutions. Furthermore, he found a significant difference between language creativity of rural and urban students and concluded that urban students are better than rural students on language creativity scores. Baer and Kaufman (2011) conducted an extensive review of gender differences in creativity and pointed out no consistent pattern of gender differences, both in creativity test scores and in creative accomplishments. Despite this result, they argued that any gender differences in creativity may be the product of the interaction of different types of environments. Ergo, they suggested that further researches are needed to determine the gender differences in creativity. Research has shown the importance of an individual's background characteristics for influencing his/her cognitive and non-cognitive behaviours (Ai, 1999). Similarly, it has also been demonstrated that school and home environment (Sharma, 2011) and bilingualism (Kessler and Quinn, 1987) both have a positive effect on the language creativity of the students. Several research studies (Ai, 1999; Naderi et al., 2009) have shown the importance of gender as the most significant factor for influencing the students' academic achievement. Asore (2012) reported that Hindi language creativity is positively related to achievement in Hindi. Zhang, Ren and Deng (2018) reported a positive relationship between creativity and achievement but in contrast, several research studies reported a low and negative relationship between creativity and

achievement (Olatoye, Akintunde and Ogunsanya, 2010; Madu and Ebere, 2016). Different tests and different samples have been selected by the researchers in the different research studies. Some researchers used achievement tests scores and a few used grade point averages, while others used standardised tests.

After reviewing the research studies on English language creativity and academic achievement, however, ample evidence in this regard was found overseas but not in the Indian context. It is also observed that gender and locality, both variables affect the performance of learners and moderate the relationship between creativity and achievement. Therefore, to promote creativity and enhance the achievement of students, the role of gender and locality is needed to study for improving the learning process. Therefore, this study has been conducted to address the following research questions:

(i) Do gender and locality differences exist in the English language creativity of senior secondary students?

(ii) Is there any significant relationship between English language creativity, academic achievement, and English language achievement?

Objectives of the Study

The following objectives of the present study were:

1. To study English language creativity between male and female senior secondary school students.
2. To study English language creativity between rural and urban senior secondary school students.
3. To examine the relationship between English language creativity and English language achievement.
4. To find out the relationship between English language creativity and total academic achievement.

Hypotheses of the Study

The following null hypotheses were formulated to achieve the objectives of the study.

1. There is no significant difference between the English language creativity of male and female senior secondary school students.
2. There is no significant difference between the English language creativity of rural and urban senior secondary school students.
3. There is no significant relationship between English language creativity and English language achievement.
4. There is no significant relationship between English language creativity and academic achievement.

Method

The main aim of the present study is to investigate the gender and locality differences for influencing

the students' English language creativity and focus and ferret out the strength and direction of the relationship of English language creativity with academic achievement and English language achievement as a by-product of this study. For which descriptive survey method was used to achieve the objectives of the present study.

Participants

In the present study, the population consisted of all the students studying in CBSE-affiliated senior secondary schools especially located in Gaya city of India. Sixty-seven students of the eleventh standard were selected by using convenience sampling technique from three English medium schools located in Gaya District, Bihar. The age group of the selected sample was from 16–19 years.

Instruments

English Language Creativity

Language creativity of students was measured by using the English language creativity test developed by Malhotra and Kumari (1990). The items of the test encourage the students to freely play with the alphabets and statements. Plot building, dialogue writing, poetic diction, descriptive style, and vocabulary test were the five subtests that had been included in the test. The task pertaining to fluency, flexibility, and originality have been used in the present study. There were twenty-seven items in the test with an open range of possible test scores.

Test-retest reliability of five subtests namely, plot building, dialogue writing, poetic diction, descriptive style and vocabulary test were found to be 0.87, 0.76, 0.79, 0.84 and 0.89 respectively (N=200). Whereas parallel form reliability of the test was found to be 0.62, 0.64 0.59, 0.61 and 0.63 respectively (N=200). The investigator established the construct validity of the language creativity test against the 'Things done on your own' checklist with a sample of eighty students. In addition, three other constructs namely, non-verbal intelligence, verbal intelligence, and language achievement tests were used to establish the validity of the test with a sample of 400 students of different grade levels. The coefficient of correlation between 'Things done on your own' and all the five subtests was found very high ranging from 0.63 to 0.71, whereas the relationship of all the five subtests with non-verbal intelligence verbal intelligence and language achievement test was very low ranging from 0.05 to 0.32.

Academic Achievement and English Language Achievement

In the study, academic achievement is considered as the percentage scores in the Class X examination. Whereas English language achievement is considered as the percentage scored in English subject only in the previous examination. Therefore, Class X results of eleventh standard

students were taken from the school records with the permission of school authorities to calculate academic achievement and achievement in the English language of the students.

Procedure

Before administering the test on the selected sample, the consent with all ethical considerations was taken from the school authorities. All the required instructions were given to the students succinctly before administering the tools. All the procedures of data collection had taken 15 days. The information about marks in academic achievement and English language achievement on the previous examination, i.e., Class X were collected through the concerned authorities. After the collection of data, the scoring process was done as prescribed in the manual of the English language creativity test.

Results

The mean, standard deviation, skewness, and kurtosis of the sum scores of English language creativity, academic achievement, and English language achievement are presented and summarized in Table 1. The ratio between standard deviation and mean is consistently higher on English language creativity scores than academic achievement and English language achievement. Therefore, the data did not follow the characteristics of normal distribution.

Tables 1, 2 and 3 show the basic statistics of the group of participants' age ranging from 16 to 19 years. The difference in mean scores of English language creativity and academic achievement was found. It is clearly apparent that the SD value of English language creativity is 98.26 for mean 242 which is very high and almost less than one-third to mean which shows that the group is very heterogeneous and does not satisfy the assumptions of parametric statistics.

It can be seen from the data in Table 2 and Table 3 that the nature of the data as collected through the language creativity test is positively skewed. Values (in bold) show the nature of the abnormality; therefore, parametric statistical technique is not appropriate to analyse the data.

It is also evident from Table 3 that data does not show the characteristics of normal distribution, i.e., positive skewness. The participants in the present study were selected by

Table 1
Descriptive Statistics of Scale Sum Scores (N=67)

Variable	Minimum	Maximum	Mean	SD	Kurtosis	Skewness
English Language Creativity	89	451	242	98.26	0.005	1.00
Academic Achievement	47.6	88.6	73.06	12.75	–1.27	–0.40
Achievement (English Language)	43	94	70.50	13.34	–1.00	–0.21

Table 2
Mean and S.D. of English Language Creativity (Gender)

Areas(A) / Gender	Plot Building (A-1)	Dialogue Writing (A-2)	Poetic Diction (A-3)	Description Style (A-4)	Vocabulary Test (A-5)	Fluency	Flexibility	Originality	Total (Language Creativity)
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Male (N=30)	73.17 (34.13)	9.43 (12.28)	11.03 (9.53)	13.60 (12.24)	102.40 (54.84)	121.27 (54.85)	52.50 (21.42)	34.03 (17.12)	208.97 (92.09)
Female (N=37)	85.16 (30.23)	16.19 (10.23)	16.00 (7.76)	18.03 (10.29)	133.70 (68.70)	154.22 (58.91)	70.08 (25.85)	44.57 (16.70)	268.78 (96.05)
Total	79.79 (32.35)	13.16 (11.61)	13.78 (8.89)	16.04 (11.34)	119.69 (64.36)	139.46 (59.06)	62.21 (25.37)	39.85 (17.52)	242 (98.27)

A–Area of Language Creativity

Table 3
Mean and S.D. of English Language Creativity (Locality)

Areas (A)/ Variable (Locality)	Plot Building (A-1)	Dialogue Writing (A-2)	Poetic Diction (A-3)	Description Style (A-4)	Vocabulary Test (A-5)	Fluency	Flexibility	Originality	Total (Language Creativity)
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Urban (N=56)	83.98 (32.16)	14.70 (11.65)	14.71 (9.07)	17.34 (11.58)	124.52 (67.857)	146.80 (60.83)	64.77 (26.14)	42.55 (17.63)	254.75 (100.56)
Rural (N=11)	58.45 (24.89)	5.36 (7.99)	9.00 (6.21)	9.45 (7.28)	95.09 (34.93)	102.09 (28.82)	49.18 (16.33)	26.09 (8.25)	177.09 (50.69)
Total	79.79 (32.35)	13.16 (11.61)	13.78 (8.89)	16.04 (11.34)	119.69 (64.36)	139.46 (59.06)	62.21 (25.37)	39.85 (17.52)	242 (98.27)

A– Area of Language Creativity

convenience sampling technique. Due to abnormality in data and using non-probable sampling technique, it does not satisfy the assumptions of the parametric test. Therefore non-parametric statistical techniques namely, Mann-Whitney test (U) and Kendall Tau Rank Correlation test (τ) are the best alternatives of t-test and Pearson 'r' respectively which were used to analyse the data.

It is evident from Table 4 that the obtained z values with df = 65 were found to be significant with respect to dialogue writing and poetic diction areas of the English language creativity test. The mean values clearly indicate that female students were found to be significantly higher in dialogue writing and poetic diction areas of English language creativity than their counterparts.

As can be seen from Table 5 that the obtained z values were found to be significant with respect to all dimensions as well as a grand total of the English language creativity test with df = 65. The mean values clearly indicate that the female students were found to be better on all dimensions as well as on total English language creativity test scores than their counterparts.

The statistical values as indicated in Table 6 show that the obtained z values except vocabulary test were found to be significant with df = 65. The mean values indicated that the groups of urban and rural students were found to be significantly different from each other with respect to plot building, dialogue writing, poetic diction, and descriptive study of English language creativity test with

Table 4
Results of Mann-Whitney U Test on the Areas of Language Creativity Test (N = 67)

S.No.	Areas	Gender	N	Mean Rank	U	z	p-value
1.	Plot Building	Male	30	29.05	406.50	–1.87	0.06
		Female	37	38.01			
2.	Dialogue Writing	Male	30	27.60	363.00	–2.46	0.01*
		Female	37	39.19			
3.	Poetic Diction	Male	30	28.67	395.00	–2.02	0.04*
		Female	37	38.32			
4.	Description Style	Male	30	29.57	422.00	–1.68	0.09 (NS)
		Female	37	37.59			
5.	Vocabulary Test	Male	30	29.40	417.00	–1.74	0.08 (NS)
		Female	37	37.73			

*Significant at 0.05 level ($p < 0.05$)
NS-Not Significant at 0.05 level ($p > 0.05$)

Table 5
Results of Mann-Whitney U Test on the Dimension of Language Creativity (N=67)

S.No.	Dimensions	Gender	N	Mean Rank	U	z	p-value
1.	Fluency	Male	30	27.48	359.50	–2.46	0.01*
		Female	37	39.28			
2.	Flexibility	Male	30	26.43	328.00	–2.86	0.01*
		Female	37	40.14			
3.	Originality	Male	30	27.22	351.50	–2.57	0.01*
		Female	37	39.50			
4.	English Language Creativity	Male	30	27.07	347.00	–2.62	0.01*
		Female	37	39.62			

* Significant at 0.05 level ($p < 0.05$)

Table 6
Results of Mann-Whitney U Test on the Areas of Language Creativity Test (N=67)

S.No.	Areas	Locality	N	Mean Rank	U	z	p-value
1.	Plot Building	Urban	56	36.33	177.50	2.21	0.02*
		Rural	11	22.14			
2.	Dialogue Writing	Urban	56	36.68	158.00	2.59	0.01*
		Rural	11	20.36			
3.	Poetic Diction	Urban	56	36.34	177.00	2.22	0.02*
		Rural	11	22.09			
4.	Description Style	Urban	56	36.20	185.00	2.08	0.03*
		Rural	11	22.82			
5.	Vocabulary Test	Urban	56	35.13	245.00	1.07	0.28 (NS)
		Rural	11	28.27			

* Significant at 0.05 level ($p < 0.05$)
NS-Not Significant at 0.05 level ($p > 0.05$)

df = 65. The mean values indicate that the group of urban students was found to be higher on all dimensions of English language creativity test. Both groups of urban and rural students were found almost similar with respect to vocabulary tests.

As can be seen from Table 7 that the obtained *z* values were found to be significant on the creativity scores of the language creativity

test with df = 65 except only for one dimension, i.e., flexibility. The mean values indicated that the group of urban students was found to be more creative on the English language test. Both the groups were not found to be different significantly with respect to the flexibility dimension of English language creativity test.

It is evident from Table 8 that the obtained coefficient of correlation (τ= + 0.64, z = 8.05, $p < 0.05$) between English language creativity and academic achievement was found to be positive and significant. Further, Table 8 also shows that obtained coefficient of correlation (τ= + 0.68, z = 7.74, $p < 0.05$) between English language creativity and English language achievement was also found to be positive and significant. Therefore, it is concluded that English language creativity is positively related to academic achievement and English language achievement.

Discussion and Conclusion

The present study investigated the significant gender differences in the areas and dimensions of English language creativity. English language creativity and its two areas namely,

Table 7
Results of Mann-Whitney U Test on the Dimension of Language Creativity (N=67)

S.No.	Dimensions	Variable	N	Mean Rank	Rank sum	U	z	p-value
1.	Fluency	Urban	56	36.27	2031.00	181.00	2.15	0.03*
		Rural	11	22.45	247.00			
2.	Flexibility	Urban	56	35.98	2015.00	197.00	1.87	0.07 NS
		Rural	11	23.91	263.00			
3.	Originality	Urban	56	36.97	2070.50	141.50	2.82	0.01*
		Rural	11	18.86	207.50			
4.	Total Creativity	Urban	56	36.31	2033.50	178.50	2.19	0.02*
		Rural	11	22.23	244.50			

*Significant at 0.05 level ($p < 0.05$)
NS-Not Significant at 0.05 level ($p > 0.05$)

Table 8
Correlation Coefficient (Kendall Rank Correlation Coefficient)

Variable	N		z value	Significance
English Language Creativity and Academic Achievement	67	+ 0.64	8.05	$p < 0.05$
English Language Creativity and English Language Achievement		+ 0.68	7.74	$p < 0.05$

dialogue writing and poetic diction were found to be significantly different based on gender. Furthermore, a significant difference was found in English language creativity and its dimension namely, fluency, flexibility and originality caused by gender. The findings of the present study were strongly consistent with the findings of previous research studies (Sharma, 2011; Rani, 2013) who have revealed the existence of gender differences in English language creativity scores in which female students scored significantly higher than male students. Conversely, the results of the present study disagree with the findings of other research studies (Sumangala, 2014; Seng, 1991) in which male students are better than female students of language creativity. These differences in the different aspects and dimensions of English language creativity can be explained by the different identification of gender roles in Indian culture. Therefore, research studies have shown evidence that the dissimilar aspects of language creativity might be caused by the environment and gender stereotypes (Baer and Kaufman, 2011), gender identity (Ai, 1999), and gender roles of males and females in culture.

The second finding of the present study indicates a significant difference between the areas of English language creativity of rural and urban students except for one area of language creativity, i.e., vocabulary test; subsequently, similar results were found between English language creativity and its dimension except for one dimension, i.e., originality. It is, therefore, concluded that urban students have higher language creativity than rural students. However, similar findings were reported by Massarrat (2014) Uvaraj (2011). But Surapuramath (2014) showed no significant difference in language creativity among the urban and rural students. The reason for this could be that the urban people are more exposed to the language and other aspects as they have better socioeconomic status and other facilities than rural background students. The urban students may have the opportunity to use English language in their home, surroundings, etc. The teacher at urban schools may be better at English language in comparison to rural schools because of using interesting methods, attending in-service professional training programmes, and giving special attention to the development of language creativity.

The third finding of the present study revealed a strong positive relationship between English language creativity and academic achievement. The result of research studies (Chauhan and Sharma, 2017; Naderi et al., 2010; Asore, 2012; Surapuramath, 2014; Nami, et al., 2014; Bagaria, 2016; Gajda et al., 2017) has shown the evidence of a positive relationship between English language creativity and achievement. In contrast, Madu and Ebere (2016)

and Olatoye et al. (2010) reported no significant relationship between these two constructs. Furthermore, the fourth finding of the present study revealed a significant and positive relationship between English language creativity and English language achievement which was supported by some research studies (Inuusah et al., 2019; Asore, 2012; Bagaria, 2016; Gajda et al., 2017). In addition, Jyothsna (2020) also reported a high positive relationship between creative writing and academic achievement in English. Therefore, language teachers should emphasise students' active involvement in the process of language learning, use of open-ended problems, and use of computer-assisted language tools (Mehar and Lehal, 2016) to benefit students' development of creativity in language.

The findings of this study have the following educational implications that English language learning should be given special attention and a support system must be provided to nurture the seed of language creativity among students so that their academic achievement and achievement in language can be enhanced. Therefore, this study advocates that the teachers and teacher educators should develop innovative strategies by using contextualized content that will make the learners more acquainted with the English language. It is also suggested the use of open-ended problems and multiple-solution tasks (Tyagi, 2019), freedom for expressing the ideas of the students, brainstorming, Synectic method (Vani, 2013), etc. It would also help them to enhance the imagination power and divergent thinking abilities of the students and finally magnify their language creativity and academic achievement. In addition, teachers should upgrade their skills and knowledge through different trainings and use innovative teaching-learning strategies to foster English language creativity among students. In rural schools, English language teachers should provide several opportunities to the students to express their ideas and creative writing by engaging them in different interesting activities so that their language creativity can be enhanced.

Despite the methodological strength, the present study has some limitations. One concern is the operationalization of academic achievement. However, academic achievement was measured using cumulative grade point average (CGPA) in the general domain. It is very difficult to describe adequately because it involves many different abilities and skills, e.g., for convergent thinking, students must move in a convergent or restricting direction, eliminating the incorrect choices, whereas, for the divergent direction of thinking no one response/answer is correct or incorrect. Another limitation is related to sample size. To make a generalisation of the findings of the study, a large and representative sample is required.

Language creativity and achievement are commonly identified as important areas for the student's growth in the school curriculum. The sample consisted of only eleventh grade students; a different pattern might well emerge with elementary school or university students. The exact relation may be identified by using the partial correlation technique between language creativity, English language achievement, and academic achievement. Therefore, further research is needed to look for gender differences in the interactions among aptitudes, motivations, and the effect of environment and opportunities. Besides this, future research may be conducted to identify the causal relationship between language creativity and other variables like linguistics intelligence and linguistic aptitude by using cross-lagged panel analysis (Tyagi and Singh, 2014). Past and present studies have not addressed the concerned issues of which one is independent and dependent variable. How can we foster students' language creativity? Ergo, longitudinal and experimental research may be conducted to look at other issues and a better understanding of language creativity.

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Status of Teaching and Learning Mathematics for Students with Visual Impairment Studying in Inclusive and Special School Settings

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Abstract

Mathematics is important for students with visual impairment just like for non-disabled students. Learning of mathematics by visually impaired students is generally considered tough as some of the areas in Mathematics demand vision. Several research studies reveal that visually impaired children can also learn mathematics when they are taught in an appropriate manner. The present paper focuses on a study which was conducted to find out the available provisions of learning mathematics by visually impaired children who are studying mathematics in inclusive as well as special school settings. The paper will put some light on various aspects related to availability of resources, trained human resources, interest and aptitude of visually impaired students towards learning mathematics. The paper also ponders upon the provisions made for making the learning of mathematics accessible for students with visual impairment by various education boards of northern part of India. The paper will also provide a structured format of teaching mathematics to visually impaired students. The paper will sum up by justifying the importance of Mathematics learning for children with vision loss.

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Introduction

Mathematics is important and one of the fundamental learning component in school curriculum and thus considered as an essential component of the curriculum for visually impaired children also. Experts emphasised that learning of mathematics is actually demanding in today's era for learners with vision loss. Mathematics emphasises on logical thinking and the opportunity offered by mathematics helps students to relate theory to practice. Mathematics occupies a very important place in the education of an individual both as a subject of intrinsic value and for its usefulness in daily life.

It would be very difficult that man can lead his life successfully and smoothly without elementary and preliminary knowledge of mathematics. At primary stage of education, especially mathematics as a subject, occupies an even more important place. It is at this stage that foundation is laid for the development of conceptual understanding of mathematics. The importance of mathematics cannot be neglected and overlooked in today's era. It develops mental capabilities such as logical thinking, reasoning power, systematic examination of facts and analytical ability leading to discovery of solution to a problem.

Learning mathematics is considered to be difficult even for the children with vision. It is thought to be a subject involving abstract entities having little resemblances to real objects, which one handles in their daily life. Mathematics has a quality that the applications of simplest mathematical operations have numerous results but if mathematics were merely abstract, it should be easier for visually impaired children to comprehend it because due to the unavailability of unnecessary visual inputs, children with visual impairment are saved from so many unnecessary visual perceptual details. But this is not so by virtue of the development process of concept formation in the child as well as the nature of the concepts and relations involved in learning mathematics. The basic concepts of mathematics are not merely abstract but they are concrete that gives these concepts wide applicability as well as precis meaning. It will never be acceptable to any mathematician if one says that visually impaired children have a different notion or meaning of any concept of mathematics. Learning of mathematical activities should be designed in such an order that the desired learning of the mathematical concepts is not affected for children with visual impairment.

Mastery over mathematical skills by children with visual impairment may be little difficult because of number of reasons related to learner, teacher or transaction of curriculum of mathematics. The visually handicapped are not less competent in this, what is required is not the perception of concrete particular in all its richness but most general (Mani,

1992). Due to primary and secondary implications of visual impairment, students with visual impairment and mathematics teacher teaching them face several problems. (Sharma 2008 and 2009).

Children with vision loss may lack in the incidental experiences, which their sighted counterparts can make use of, therefore, they need successive interactions with basic experiences and suggestions to arrive at the desired intuitive grasp of the concept. One has to put the mathematical learning activities for a visually impaired child in such an order that the desired learning of the concepts is not affected.

The study was conducted in the State of Uttar Pradesh having a total of 5,79,182 persons with visual impairment; out of these, 3,07,821 were males and 2,71,361 were females. The total population of visually impaired persons in Uttar Pradesh comprises of 1,42,921 persons with seeing impairment who belong to the age range of 10 to 19 years, while a total number of 53,560 visually impaired children were of the age range 0 to 4 years and 70,532 were from the age range 5 to 9 years (Census, 2011).

There are total seven schools for the visually impaired students in Uttar Pradesh being run by the Government. In Lucknow and Gorakhpur, two different intermediate colleges are established separately for boys and girls with maximum intake of 200 students in each. In Banda and Meerut, two schools for the visually impaired boys are established with maximum intake of 200 students and in Saharanpur, one school for visually impaired at High School standard is established. All these schools are under direct control of Department of Empowerment of Persons with Disabilities, Government of Uttar Pradesh and have both residential and non-residential facilities for its students (Performance Budget, DoEoPwD, GoUP, 2018).

Rationale of the Study

Mathematics has equal importance for disabled and non-disabled students. As per the exemptions extended by various educational Boards to persons with disabilities, students are permitted to choose four subjects from the list of subjects in addition to one language. Due to various reasons, in most of the schools, students with visual impairment do not choose mathematics as one of their subjects. Considering the importance of mathematics, it is essential to know the status of mathematics teaching and learning for visually impaired students studying in inclusive and special schools. Hence, the present study was carried out.

Objectives of the Study

The study was planned to attain the following objectives:

1. To study the present status of mathematics teaching in special and inclusive schools for visually impaired children.

2. To study the mathematical aptitude of children with vision loss.
3. To study the availability of various resources for teaching and learning of mathematics by visually impaired children.
4. To identify the problems encountered in curriculum transaction of mathematics learning to children with visual impairment.
5. To suggest various measures to provide structured format of teaching and learning of mathematics to visually impaired students.

Delimitations of the Study

The following were the delimitations of the study:

1. There are several subjects available for students with visual impairment but the present study was delimited to teaching-learning of mathematics only.
2. The study was delimited to only those inclusive schools where at least five visually impaired students were enrolled.

Sample and Sampling Procedure

Usefulness of any research work depends on selection of a good sample. Population in the present study is very limited; hence, purposive sampling procedure was adopted for selecting the sample. The study was carried out in 7 special schools for the visually impaired students and 7 inclusive schools.

The preliminary data was collected about the teacher teaching the visually impaired children both in special schools and in integrated schools. The study was carried out on sample size of 100 teachers. Out of these, 50 special education teachers were teaching in special schools for the visually impaired students and 50 teachers were teaching mathematics in inclusive schools, where visually impaired students were enrolled. Another sample of 100 visually impaired students was selected in which 80 students of Class VI to VIII were enrolled in special schools for the visually impaired and rest 20 visually impaired students were from inclusive schools. The sample of visually impaired students was further divided into 50 per cent boys and 50 per cent girls in each setting.

Hypothesis

Since this study was aimed at problem identification during mathematics teaching and learning to visually impaired children, it was hypothesised that the teachers do not face any problems in teaching and learning mathematics to visually impaired children. It was further hypothesised that adequate resources are available in the schools for teaching and learning mathematics for students with visual impairment.

Tools

The following tools were used in this study:

1. Preliminary Data Blank was developed in order to collect the

basic personal information like age, sex, qualification, experience of the teachers, visually impaired students, availability of resources, etc.

2. A questionnaire was constructed by the investigator to identify the problems faced by mathematics teachers of visually impaired children as standardised tools could not be found for this purpose. This questionnaire consisted of 60 items, out of which 10 required descriptive answers and the balance 50 had three options each. These were discussed in detail with experts in the field and on the basis of these discussion 20 items, found not very relevant were dropped. Hence, the final questionnaire consisted of 40 items.
3. Another questionnaire was designed to know the responses of visually impaired students studying in special schools and inclusive schools about their mathematical aptitude, availability of resources, etc. This tool consisted of 20 questions including 6 open-ended type questions. This tool was also sent to subject experts and content validity was established based on the suggestions provided by the experts. Experts found all the 20 items relevant and provided few suggestions on the syntax, which were incorporated before applying the same.

Data Collection Procedure

Personal information about the mathematics teachers working both in special and integrated education programmes was collected with the help of personal data blank in the first phase. After collecting preliminary data, the questionnaire for the study regarding the problems of mathematics teachers, was distributed to teachers selected as sample from special schools for the visually impaired in the second phase. In the third phase, questionnaires were given to the sample consisting of visually impaired students of classes sixth to eighth. The investigator collected the filled-in questionnaires personally and with the help of research scholars. For visually impaired teachers, the questionnaire was transcribed in Braille script.

Statistical Techniques

Quantitative analysis of the data was done using descriptive statistical techniques to draw inferences.

Discussion

Majority of the teachers of visually impaired students (85%, i.e., 68 teachers out of 80) teaching various subjects in special schools expressed that the major problem in teaching mathematics to visually impaired children was lack of resources and other facilities necessary for teaching this subject. The visually impaired children have their mathematics textbook in Braille but all the mathematical concepts were not

properly transcribed in Braille. The concepts related to geometry and other concepts where vision is needed to understand are also not transcribed in tactile form. 65 per cent of the teachers, i.e., 52 teachers of visually impaired students informed that they use only Taylor Frame and Abacus to teach mathematics while only 5 per cent of such teachers informed that they emphasis Braille slate and mathematics Braille notations for practicing mathematical calculations by visually impaired students. Surprisingly, none of the teachers teaching visually impaired students in special schools used new geometry kits to teach geometrical concepts to students with visual impairment. The teachers teaching visually impaired students in inclusive schools were of a different notion about teaching-learning mathematics by students with visual impairment. Nineteen teachers out of 20, i.e., 95 per cent responded that students with visual impairment will not be able to understand mathematics at senior secondary and further levels due to unavailability of adequate aids and appliances to teach mathematical concepts. This results in problematic situation for students with vision loss, as even if they try to make efforts, they get discouraged. Similar findings came out through the research conducted by Frances (2006). The present study is in line with previous studies of Pushpa (1996) and Kalaiselvi (1985) who both reported that mathematics teachers of visually impaired children face problems of shortage of Braille material and special equipment. 70 per cent of the teachers teaching in inclusive schools expressed that time specified for teaching mathematics to visually impaired children for one period is not sufficient as they are more engaged with students with sight in the classroom and unable to manage time during teaching concepts where visually impaired students are also engaged with their sighted counterparts. However, more than half such teachers reported that they use peer support in such situations. Such teachers emphasised on giving extra time in one period for teaching mathematics to visually impaired children. This finding is very important so far as the promotion of teaching this subject is concerned. The provision of additional time will help these teachers pay more attention on teaching this subject. Only 5 teachers, i.e., 6.25 per cent from the special schools had qualifications to teach mathematics at senior secondary level. The teachers' training institutes consider graduation with 50 per cent marks as minimum qualification for admission in B.Ed. Special Education-Visual Impairment degree and very less number of students, who studied mathematics up to Graduation level, are opting for this course.

Surprisingly, the teachers (80%) teaching mathematics in inclusive schools, although not all stated that there are some areas in the mathematics curriculum which

visually impaired children may not be able to learn correctly as it required vision essentially. They also reported that the curriculum needs certain modifications, however, 30 per cent of the respondent teachers expressed opposite views on this regard and said modifications should not be made. This is contrary to all the previously available studies, where it has strongly advocated that the curriculum needs no change. Findings of studies conducted by Stanley (2008), Sharma (2012) and Andrea (2014) also revealed the need of adaptation and development of new and need based material for use among these children for teaching some spatial concepts.

Majority of the teachers reported that the major problem in promoting teaching of this subject in both special schools as well as in integrated programmes is the exemption, which the visually impaired children enjoy and opt for other subjects in place of mathematics in secondary classes. Due to this, on one hand children do not take any interest, the teachers on the other hand, do not want to take pain in teaching this subject even at the secondary level. This is perhaps the reason that few teachers mentioning that some areas in the mathematics curriculum need modification or omission.

Teachers of inclusive and special schools have given another important observation that the parents of the visually impaired children were not supportive enough in making their wards to learn mathematics. This is perhaps because of the fact that parents, in the absence of objective understanding of the restrictions imposed by visual impairment, do not realise the importance of this subject and they are unaware of the capabilities of their child.

Visually impaired students (66) of special schools, i.e., 88 per cent of the sample reported that they are not interested to learn mathematics in their senior secondary classes and the rest, 12 per cent, i.e., 9 students were of the view that if good mathematics teachers, mathematics Braille books and aids and appliances, other than Taylor Frame and Abacus, are provided to them, they want to continue studying mathematics even at senior classes. This is a very positive sign where students want to continue their learning of mathematics at higher level if appropriate teaching methodology is used. Students who were studying in inclusive schools also were of the opinion that they will continue their mathematics learning at higher secondary level as their sighted peers support them.

None of the schools, whether special schools or inclusive schools, had Brailler with them and thus students do not know about the functioning of Brailler in writing mathematical equations or problems. All the seven special schools for the visually impaired and seven inclusive schools were using Braille slates, Taylor frames and abacus for

teaching and learning of mathematics for students with visual impairment.

On the basis of findings of the present study, it is narrated that both the hypotheses are rejected. The findings reveal that the teachers and students with visual impairment face several problems in teaching and learning of mathematics. It is also revealed that adequate resources are not available in the schools for teaching and learning of mathematics to students with visual impairment.

Conclusion

Children who are blind or have low vision can easily understand and learn mathematics like any other child with sight; what they need is a teacher who understands their needs, plans teaching of his/her mathematics lessons accordingly and learning resources should be made available to them. Students with visual impairment may need special assistance in understanding mathematics about what is being taught in the class. Their peers, teachers and senior students can help them in proper understanding of the concepts. Teachers should make such programmes so that sighted peer group can be sensitised. This includes knowledge of difficulties faced due to visual disability and also training in the use of various aids, appliances and Braille. Prior to this, provisions should be made to study mathematics at senior secondary or higher levels among interested students and for those who have mathematical learning aptitude. This can be initiated on trial basis. To sum up, it can be drawn that the child with visual impairment can understand all the mathematical concepts. The only requirement is to make efforts for making it easier for learning mathematics among children with visual impairment.

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Taare Zameen Par — A Case Study
Pedagogical Use of Cinema and National Education Policy 2020

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Abstract

This paper looks at cinema's pedagogical dimension and potential through the case study of Taare Zameen Par, a Hindi film released in the year 2007. The author has studied the film's impact on various stakeholders of the Indian education system and reflected on the practices for transformative education. We know that cinema wields tremendous power to engage and influence viewers, an eclectic mix of students, teachers, parents, educational administrators, policymakers, and others. This paper analyses the selected film's contribution to shaping and changing perspectives on education. It further proposes the integration of cinema as a pedagogical tool in the new classroom being ushered in by the National Education Policy, 2020, which advocates doing away with learning by rote and mere reproduction of information.

A discussion of the film Taare Zameen Par is relevant as the cinematic presentation of a student with learning difficulties raised many concerns about the quality of a learner's educational experiences that are today at the heart of the National Education Policy's implementation. The author thus found it worthwhile to expand her area of inquiry to include the impact of changes in the education system through implementing NEP 2020 that "lays particular emphasis on the development of creative potential" of an individual. Cognitive learning is a part of a wider canvas of creating a knowledge society that takes cognisance of the students' diverse dispositions and aspirations. It draws on "the principle that education must develop not only cognitive capacities — both the 'foundational capacities' of literacy and numeracy and the 'higher-

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order' cognitive capacities such as critical thinking and problem solving but also social, ethical, and emotional capacities and dispositions."
NEP 2020 recognises that the fundamental principles guiding the education system and its institutions should work towards student-centred, multidisciplinary and holistic learning.

It must allow sufficient flexibility for the students to choose and pursue a discipline while at the same time, create a space for nurturing their creativity and critical thinking.

The aim clearly must be to build conceptual understanding rather than learning by rote. Students must develop their innate potential in their journey through the education system. These goals are achievable by creating dialogic learning spaces where the teacher interacts with students to understand their learning needs and contributes as a humble knowledge worker.

"A good education institution is one in which every student feels welcomed and cared for, where a safe and stimulating learning environment exists, where a wide range of learning experiences are offered, and where good physical infrastructure and appropriate resources conducive to learning are available to all students. Attaining these qualities must be the goal of every educational institution." (NEP 2020)

A student would feel welcomed and cared for when the teacher would emphasise the power of difference and be open to new perspectives emerging from interaction with the student. The author asserts that there is a need to have intellectual humility to realise the several aims and objectives of NEP 2020.

"It is unwise to be too sure of one's own wisdom," said Mahatma Gandhi.

"The more we know, the more we can see that we do not know." (The Mother, 1954)

The above quotes most aptly bring out the paradox of endless learning in the history of the search for knowledge. However, this search for knowledge has recently been transformed into the pursuit of information and scholarship in the world of academia. Learning and knowledge dissemination has been reduced to a commodity and much in tune with capitalist production models have been modified with an eye on profit related to the market. Giroux (2008) categorises this as 'the biopolitics of market sovereignty'. This change has affected most crucially the process of dissemination or pedagogy. Teaching, learning, the creation and sharing of knowledge through thinking facilitated through questioning or critical thought are part of the complex process of pedagogy. Pedagogy then plays a linking or relational role whereby learning is imbibed as enculturation, and all knowledge gained is part of the culture, making the process organic.

Shulman (1986) describes several types of teacher knowledge, including knowing how to teach and what to teach. It is the science of teaching that is commonly defined by pedagogy. The most essential in the common understanding of pedagogy is educational theory and instructional methods. Instructional methods are specific strategies and techniques such as cooperative learning, inquiry, lecture, learning centres, and advanced organisers which teachers use during teaching. There are various educational theories, but teachers need to understand their own personal theories of learning because that helps teachers make more thoughtful decisions in the classroom (Galton, 2007).

To bring in transformative education, teachers need to expand their knowledge and explore different ways of seeing, thinking and feeling. As educators, it is vital to look at critical pedagogy that primarily focuses on a more human relationship between the student and the teacher. Ira Shor asserts that "critical pedagogy is liberatory pedagogy through critical education and action." The revolutionary "thinking of the comrade" is the attitude that a teacher should have towards students. It's a thinking that acknowledges the student's position as to where the teacher once was, and the student may one day be where the teacher is today. Thus by relating to the student on a human level and reducing the teacher-student gap, critical pedagogy draws attention to the potential of both the teacher and the student to grow together and reshape the structures they inhabit (Monchinski, 2008).

As opposed to critical pedagogy, over-directed learning or what Freire termed the 'banking deposit method', emphasises students' fatalistic views of themselves as against 'problem posing' education that affirms students to be in the process of becoming (Freire, 1970). This system of education also puts the teacher and the student against each other. An antagonistic relationship builds between the teacher and the student because a teacher is knowledgeable while a student is not.

The challenge, also the very purpose of 'educative and pedagogic methodology', is to move beyond strategies for specific learning to accommodate living as learning. Numerous researches have been carried out in this direction, showing the difference between the two strategies and their importance. Scholars have raised a whole realm of issues to reiterate the significance of 'from learning to living approach', and critical pedagogy has contributed much to this discourse. Some of the critical issues and suggestions for this transformation are discussed below.

Richard Peters and John Holt, although their educational theories drastically differ, assert the teacher to be only a guide. While the former insists on getting inside the forms of knowledge, the latter upholds the

need to free the student to follow his/her interests (Galton, 2007).

Alexander (2017) suggests another angle to the role of the teacher, and this is that a teacher should be a facilitator. Through this role of the teacher, s/he creates room for dialogic teaching, which can "minimise the use of rote, recitation and instructional talk in favour of dialogue."

Many educational researchers remind us of a damaging history of education where educators have used violence and fear as a stimulus to establish authority and dominance largely leading to resentment from students, especially the male students. They suggest replacing this with the value of humour. They believe that a teacher who uses humour is less likely to be challenged and signals trust and a shared sense of purpose.

Scholars from the school of critical pedagogy have raised many pertinent points on the process of exclusion that takes place through planned behaviourism. Vygotsky (1962) advocated not to decontexualise the nature of behaviourism as "behaviour of individual social actors cannot be disconnected from the socio-historical-cultural context in which it is situated in practice." Kincheloe and many other forerunners of the school reject the hierarchy of the intelligence paradigm in the conception of the mind that suggests "high levels of cognitive ability are rare qualities found only among an elite few." In opposition, these scholars argue that "good sense and reason are human qualities" equally distributed throughout the species. Other important scholars of critical pedagogy include Paulo Freire, Antonio Gramsci, Piaget, Gilles Deleuze and Foucault. Critical pedagogy has always stood against the "dominant, domesticating form of education informed by paternalistic, Euro-centric, and mechanistic approach to teaching and learning" (Malott, 2011).

Bringing in critical pedagogy is imperative to realise and manifest NEP 2020. Here, cinema has a supportive role in contributing to creating the new classroom.

Cinema: A Pedagogical Tool

Educators have a task of integrating cinema — including documentary films and short films, both live-action and animation, into their inventory of tools, to inculcate in their students a superior understanding and application of the various concepts and concerns which are at the heart of schooling and the state of composure and mental health of students. This paper has attempted to discuss the pedagogical use of cinema in education with the hope that more teachers and teacher educators will draw upon films as a tool in their classrooms. Cinema has, from its very inception, been popular among the masses, treated as a magic box that takes one into the world of fantasy. But this is not the only perception and impact of cinema. Besides, cinema has also been acknowledged

for its portrayal of reality and critical representation of social inequality.

The different genres of cinema continue to capture the imagination of the diverse audience. More recently, especially since the 1990s', many newly developed mass media technologies have come to the fore that have complemented each other and have widened the reach of cinema, both by way of the number of audiences and the time they invest into it. Films can now be seen more repeatedly, economically and they cannot be erased from people's memory. Films are also a powerful archive of social change. Films have taken different stands, sometimes being neutral to representing the social context, sometimes promoting a particular social practice and sometimes being critical. In either perspective, films have had a significant impact as a pedagogical medium.

The strength of cinema as a pedagogical tool also owes to its ability to resonate with a wide cross-section of the audience, from disparate socioeconomic strata of society, quite unlike any other pedagogical tool. As Giroux (2001) observed, "Film not only challenged print culture as the only viable source of knowledge; it was an attractive cultural text for students because it was not entirely contaminated by the logic of formal schooling. … Film became a … useful … resource to offset dominant textbook ideologies and is invaluable as a pedagogical tool to challenge officially sanctioned knowledge and modes of learning." Films are made for popular consumption and usually for entertainment. Still, one cannot undervalue the educational impact of certain films created to bring awareness and societal change.

This paper takes a close look at the pedagogical value of Bollywood director Aamir Khan and creative director Amole Gupte's *Taare Zameen Par*, which aimed at providing an insight into a child's mind, with school education and learning disability as its focus. The author conducted in-depth interviews with filmmakers and educators to explore the role of films in transformative and critical education. P.K. Nair, National Film Archives of India's (NFAI) founder-director and the doyen of film preservation in India, described pedagogy as the process of education through formal, classroom situations with the teacher/elder acting as a guide. He further opined that education also has a natural continuous process that is not time-bound. It starts from birth and evolves through direct contact with life, nature and fellow human beings.

Films, according to him, are commonly accepted as an effective medium of communication and artistic expression. They create realistic situations that offer audiences virtual experience (most often) from the protagonist's point of view. Hence, pedagogy through cinema offers education through experience-based learning.

The author also interviewed the film's scriptwriter, Deepa Bhatia and creative director, Amole Gupte to understand their intent and choices in shaping the film's narrative. They shared the process of research in depth towards creating the film's script that had them involved with the project for eight long years. To give shape to their concerns about the prevalent education system, they spent considerable time researching and working with Maharashtra Dyslexia Association, Tulip School and many school children through several theatre workshops in Mumbai.

They also revealed the need to approach Aamir Khan, as they knew that having a superstar on board, would help them reach out to a larger audience with the message of the film. The film garnered a wide viewership and was highly successful at the box office. The film's director, Aamir Khan, spoke on various public forums on the need to bring changes into the Indian education system. In one of these programme's broadcast on a popular television channel, in 2009, Aamir Khan and the then US Secretary of State, Hillary Clinton discussed the importance of education at the national and international levels. He said, "… one of the key things about education to me is not whether you know the answer of $(a+b)^2$, but are you encouraging children to question? Are you encouraging children to have their own minds that are wanting to learn and are thirsty and hungry? And not merely people who have a good memory. Kids are told that you have to learn this by heart and kids learn it by heart. You are not creating individuals who will have minds which will take our humanity forward, in a way that we can't imagine today. That will only happen if you have minds which are encouraged to question, to disagree, to challenge, to search and discover and I don't think that we are following that kind of education in India today. It's mostly focusing on how well you can memorize things." (statevideo, 2009).

Gupte also elaborates on the need to let go of rote learning and the unhealthy pressure on students in schools. He says, "What is this? It should be an open book exam. Why is this a shut book exam? Is a test intended to find their capability at mugging up a subject? This is the most ridiculous way of dealing with knowledge. Cramming knowledge is like forcing more air into a balloon than it can retain. It vanishes as soon as it finds its way out. Children should only be asked to go by their own memory, what they retain. And eventually, what they retain is the beauty of the experiences and not the torture of cramming and mugging up."

"It will be acutely underestimating the content of this film if we narrow it down merely as an exercise in recognising and managing dyslexia. In fact, it looks like a wide angle landscape of the present age where everyone is in a restless hurry. This film raises serious questions on

mental health perspectives. We seem to be heading to a state of mass scale mindlessness even as children are being pushed to 'perform'…family systems hell bent on goading young children to peaks of achievement, and schooling systems governed by steel frames of critical disciplinary forces. Are we heading to a major landslide in the coming years leading to major breakdowns in the mental health and functioning of school going children?" (Sathyanarayana Rao and Krishna, 2008).

The film struck a chord with audiences from all walks of life. Teachers and parents reflected on their roles and discussed the issues raised by the film in their groups. Many questioned the state of school education, which ignored mental health at the altar of adult expectations.

Educational interventions in schools across India

The film not only helped a large number of individuals to reflect on important concerns about schooling but also inspired real-life interventions by several schools across India. The project, "Identification of Dyslexic Students in English and Mathematics and giving them Adequate Remedial Measures with the Help of Training and Scientific Technology" of a Puducherry School was one such project selected by the NCERT (National Council of Educational Research and Training) to implement their program, 'All India Competition on Innovative Practices and Experiments in Education for Schools and Teacher Education Institutions 2010–11'.

NCERT awarded it the best project. Similarly, many educational institutions across the country reflected on their practices and brought in changes to the benefit of the students, especially the laggards by the school's "standards".

One could also gauge the impact of the film from the fact that the Delhi High Court laid down that dyslexia was not a disease. Medha Lotlikar, founder of Saraswati Mandir Trust who ran three schools for children in Mumbai with severe learning disabilities recounts that it ordered a man to watch the film when he described dyslexia as a mental disorder. These words of the Delhi High Court are not only heart-warming but provide a lot of hope to the thousands of children who are being labelled as dyslexic, autistic, slow learners, attention deficit and so on. These children are then excluded, thrown out of regular schools and put in special schools, most of which are not registered and are illegal and irregular.

Supplementary educational video with the film

The film director, Aamir Khan recorded a panel discussion featuring educationists who discussed the educational issues and concerns at the heart of *Taare Zameen Par*. The experts discussed the condition of dyslexia for the benefit of all the viewers

who watched the film. The panel included Dr. Vrajesh Udani, child neurologist; Masarrat Khan, CEO, Maharashtra Dyslexia Association; Medha Lotlikar, Educator, Tulip School; and Dr. Harish Shetty, psychiatrist and counsellor. In the panel discussion, the filmmaker made efforts to discuss various perspectives related to child psychology, pressures of the educational system, coping with learning disabilities, and has thrown light on the need for inclusive education. A DVD with the panel discussion was released as a complete educational resource material that accompanied the film's DVD in the year 2007 so that all those who purchased the film's DVD became aware of crucial concerns in the field of education.

Impact on viewers-citizens through the power of cinema

As discussed earlier, the power of cinema to make an emotional connection with millions of people is seen through this Hindi film. The author observed the film's influence on the feeling and thinking process of an ordinary film viewer, beyond the academic and intellectual sections of the society, through a spectrum of online responses members of the audience posted from across the world. Amole Gupte shared some of the reactions from parents and teachers in an interview with the author.

He narrated how people came up to him in various symposiums and conferences. He further spoke about his decision to choose the popular feature film format over the documentary one to reach the national consciousness to a wide range of audiences.

"When I visited Hyderabad, Delhi and other cities for some symposiums that were organised after *Taare Zameen Par's* release, people identified themselves emotionally with the characters in the movie. *"You have depicted my life story." "Sir, you don't know what difference this has made to our lives; we cried when we saw the movie."* People's perceptions also changed. They confessed how unknowingly they had been troubling their child. This makes me sad but the good thing happening everywhere is the social change. That little drop in the ocean is the biggest thing, you know."

Gupte tells about the people in his circle who expressed, *"We never looked at our children this way"; "I think I will not push her for the tuition or I will not do this."* Gupte continues, "I have heard people, and they have understood on their own the point which academically has been discussed — about how to bring in change. But that which does not often go out of intellectual and academic circles has now touched the chord of a layperson."

Amole Gupte and Deepa Bhatia resolved that they would not commence the film production until they had a star actor. Gupte says, "Having a star on board would

increase the film's impact, which is what both of us wanted. It's a film not only about dyslexia because then an unlettered person wouldn't like the film, as he would have no connection with reading and writing. But it is also a film about the inflexible educational system and about childhood and parenting."

The need of the hour is "flexibility, so that learners have the ability to choose their learning trajectories and programmes, and thereby choose their own paths in life according to their talents and interests" (NEP 2020).

Taare Zameen Par is a film that communicates the need to sensitise parents and teachers to factors that affect learning. Krishnamurti (1974) stresses in his thoughts on education, "Fear is what prevents the flowering of the mind, the flowering of goodness. Most of us learn through fear. When the brain is conforming to a pattern of obedience, it is no longer capable of freshness, no longer capable of thinking simply and directly." However, as we see in the film, Ishaan is constantly fearful and unable to withstand his teachers' and father's authority. This changes through the interaction with his new art teacher, Nikumbh who educates Ishaan's parents, the school principal and his fellow teachers about Ishaan's learning difficulties.

The film emphasises the absence of fear and authority to enable learning and to support children through appropriate responses and interventions to allow joyful learning. As educationists, our concern is the academic progress of the learners and their overall sense of wellness and well-being. Education is to prepare the student for life, and therefore the development of all aspects of the human personality must be the prerogative for teachers.

Conclusion

In this paper, the author has looked at *Taare Zameen Par* as a case study of the pedagogical use of cinema. The findings of her doctoral research have been related to the National Education Policy 2020, which aims to bring in a landmark transformation in India's education system. The issues raised through the film are those of concern for students, teachers, parents, educational administrators and policy-makers. These include holistic education and caring for mental health and well-being. This paper discusses the imperative of listening to and observing the needs, interests, strengths, and challenges and creating opportunities for joyful learning.

"Let us allow the blossoming of laughter and nurture the brimming, bubbling enthusiasm of childhood in the classrooms and corridors of schools…One needs to seriously probe the fact that positive mental health promotion is not a cross-sectional element, rather in reality, it is a longitudinal journey starting from early childhood…it is the need of the hour to skillfully and sensitively gear up the children to the required

levels of performance by carefully mapping their strengths, weakness and resources." (Sathyanarayana Rao and Krishna, 2008)

Educationists and policy-makers have realised the burden that undue emphasis on cognitive learning places on young minds. Therefore, in the NEP 2020, there is a call for revamp of the current design of the education system that is centred around the learning-for-exams format. Herein, the focus would be on conceptual understanding by bringing the fun in learning to make learning chiefly experiential, throwing up opportunities to engage the students in their learning journey inside the four walls of an institution and the outside environment. The provisioning of vocational internships would enable this to facilitate, for instance, an interaction of the students with local artisans and others. This should give the students vital exposure to the skill sets employed by the workers to ply different kinds of trades for their livelihood. This is intended to steer the thrust of schooling from mere cognitive learning to learning that addresses an innate potential of a human being. It should also aid in creating an ecosystem for positive mental health through inherently engaging, joyful education.

Taare Zameen Par demonstrates the effective use of a film as a pedagogical device. This film was widely used for stimulating discussion and reflection amongst school teachers and policy-makers. Many educational institutions across India organised in-house film screenings on their campuses. Giroux (2011) in his article argues that "films not only provide a pedagogical space that opens up the 'possibility of interpretation as intervention', they also make clear the need for forms of literacy that address the profoundly political and pedagogical ways in which knowledge, practice, discourse, images and values are constructed and enter our lives."

Though *Taare Zameen Par* has been used to 'cultivate' teachers and students alike, a teacher could choose for screening scenes from the film to organise classroom discussions around them. It is interesting to mention that there were takeaways and some imposing lessons for both the communities to apply in their real-life situations. At least they would hold back and think before carrying forward with the conditioned responses. The film can facilitate, bring about a behavioural change to a more humane and sensitive ecosystem and thus fulfil education's grand purpose.

We have seen how a film produced primarily for entertainment has also inspired educational interventions in schools across India. Along with its impact on individuals in the audiences, educators across the country also reflected on their practices and initiated dialogue and projects to address the lacunas in their institutions.

This was also sought to be achieved by recording a panel discussion with educationists informed of the issues and concerns surrounding the ideas raised by the film. Along with learning from the experts, the viewers-citizens also learn through the film's creative deployment of storytelling. The elements of a well-researched script, camerawork, sound design and songs written especially to bring forth Ishaan's condition and Nikumbh's empathetic response to it, strike an intended emotional connection with the audiences.

Experiential and reflective learning is being encouraged by the NEP 2020 along with the inclusion of multi-modal learning. The choice of a popular Bollywood film as a case study in the pedagogy of cinema demonstrates the power of the moving image in the introduction and the implementation of the National Education Policy.

Kincheloe (2008) shares evocatively, "I simply listened to people who had been deemed failures by the larger society or by the schools they attended. Such individuals, I have learned over the years, often possess some of the most compelling insights into what is actually happening, into how people are seriously harmed by institutions ostensibly constructed to help them improve their lives." As NEP 2020 begins to transform the face of Indian education, Ishaan Awasthi will continue to remind us of the harm that schools can do if we don't wake up to the need of changing our pedagogical practices, emphasising critical pedagogy and dialogic teaching.

In the film, we see the art teacher, Ram Shankar Nikumbh, played by Aamir Khan himself, reach out to the 8-year-old Ishaan Awasthi, played by Darsheel Safary. He is a student branded by his teachers and parents as being lazy, careless and inept at his studies. Nikumbh demonstrates a teaching approach that emphasises the concept of "Dialogue" (Buber, 1937). Morgan and Guilherme (2012), in their paper, discuss the relevance of Buber's thought to our times, "For Buber, an educational approach based on dialogue is an approach that places appropriate weight on both the teacher and student's roles. The role of the teacher is to set the curriculum, the framework, to set the value platform for the student, but this does not mean that the student's interests, creativity and needs are overlooked as the student develops these within the framework set by the teacher."

Is there any difference between a mainstream teacher and an art practitioner in their pedagogical talk? The virtues of empathy and regarding the other as important as oneself are portrayed through the way Nikumbh cares for Ishaan and makes all attempts to forge communication with him. Throughout his interaction with Ishaan, we see exemplified the dialogic teaching approach. Also, as an art teacher, he reflects sensitivity and reciprocity to Ishaan. "Compared

to teachers, creative practitioners … gave pupils more time to think when planning and designing activities … extended questioning sequences so that classroom discourse was dialogic rather than … the more usual 'cued elicitations' … offered more precise feedback … tended to extend rather than change pupils' initial ideas" (Galton, 2008).

Nikumbh's intervention as an art teacher uses song, music, dance and outdoor activity where the students explore their creative and artistic abilities and encourages them to learn with fun. He deploys humour with a creative amalgamation of various elements of a dramatic performance that marks his entry into the class and the film. As Alexander (2018) states, why shouldn't learning be enjoyable? The motivational power of Nikumbh's dialogic teaching wins over the traumatised and recluse Ishaan. The film affirms the possibility of making education inclusive and drawing in students with varying capacities. Critical pedagogy, as we have seen earlier in the paper, is emancipatory and addresses contexts of social disadvantage.

"Central to this evolving criticality is humility. Here we realise that we do not know, and in our fallibility we work with people from diverse socio-economic classes, genders, sexualities, races, and ethnicities both at home and around the world to overcome our ignorance" (Kincheloe, 2008).

A teacher needs to create engagement for learning to occur. When this engagement is informed by empathy and deep listening, then the teacher can successfully create a conducive learning environment for diverse learners in and outside the classroom.

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Using Digital Social Media Networking Technologies (DSMNT) in an ODL Teachers/Teaching Training and Practice during COVID-19

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Abstract

Globally, educational institutions, states and central universities were closed due to the corona pandemic. The search for new modes of teaching-learning and training began during the lockdown. In current society, Digital Social Media Networking Technologies (DSMNT) are powerful pedagogical resources; however, they require special teacher training. Using DSMNT to support educational endeavours leverages the benefits of in-person learning groups or communities, along with the benefits of using technology to support student system involvement. The research study begins with a reflection of the use of training teachers in the utilisation of DSMNT and the curriculum, or the pedagogical use of DSMNT. The research paper closes with a discussion of the benefits and challenges of DSMNT (Social Networking) based on the data obtained from questionnaires, observations and posts of students/others on the network. Despite the difficulties, the use of DSMNT was recognised as positive during COVID-19.

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Introduction

The major challenge in Indian higher educational institutions is to integrate the methods of teaching and pedagogy with technology–to strengthen the teaching method with digital technology instead of traditional teaching method in which face-to-face teaching is taught. ODL and digital social media technology has become a powerful medium of teaching and training activities during this pandemic. We cannot teach as we were trained during the 1980's, which is different as compared to the current student profile with most of them born during the 1990's.

Indeed, internet and mobile technology perceptions are raising questions regarding the mode of learning and teaching. This has challenged us to reinvent the concept of place, time, space, identity, immediacy, community and togetherness in a new way. These students are the Net Generation or the "digital natives". These digital natives bring new challenges to the teaching and learning environment. Shortly after the millennium, digital social media with digital natives began to appear as a new way to mark a change in the way immigrants interacted with websites/mobiles. With the help of website technology, mobile technology changed all the disciplines of study, in which digital platforms of social media played an important role. "Social media is like a snowball rolling down the hill; it's picking up speed. A few years from now, it is going to be the standard." Over the past 10–15 years, "Web Technology 2.0" and "Web Technology 3.0" became famous features of websites, which allowed digital social media stakeholders to interact with each other as contributors to a website's content and information.

Literature Review

Digital Social Media Technology in education refers to the practice of using social media platforms as a way to enhance the education of students and teaching. Digital Social Media Technology is defined as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content." (Kaplan, and Haenlein, (2010). COVID-19 has led to an expansion in the use of open distance learning and digital social media technology for educational communication purposes. The pandemic has also impacted ODL in higher education sector as the lockdown imposed in most countries resulted in the immediate closure of universities, colleges and schools, and the move to remote delivery of all academic activities (Sangster et al., 2020). With the lockdown situation around the global world, more than 72 per cent of the world's student's population were not attending schools/colleges/universities (UNESCO). During this time, Open and Distance Learning (ODL) mode was becoming more popular than the

conventional mode of education. ODL a very good platform to keep learners/ educators engaged and safe by maintaining social distancing during the lockdown period for COVID-19. Open distance learning can take various forms and be supported by different systems and applications. It can be referred to as mobile learning, e-learning or blended learning (Ajayi et al., 2019). Faculty preference for traditional learning and inertia with regard to change were also included among a range of personal, social, technical, political, physical and economic infrastructure challenges the higher education institutions needed to face [cf.: Hashemi and Adu-Gyamfi, 2021; note that use of mobile applications and online tools, such as WhatsApp, increases immediacy and connection between students and teachers, while Ally and Prieto-Blazquez (2014) reported that with online tools, students can contact at any time regardless of the time differences, such as: WhatsApp, emails, Messenger, e-Learning platforms, virtual whiteboard, sharing platforms, audio and video communication tool (Google meet, MS Teams, Zoom)]. Telegram is a secure messaging app that became highly popular in the post-Snowden age. If you are a security-conscious user, this social messaging app can provide you with peace of mind. Pinterest is the most popular visual bookmarking and picture sharing social media site. This research paper explores the use of digital social media networking technologies (DSMNT) to support education and student educators' participation in teaching practice in open distance learning or online learning.

Objectives

The main objectives of study are:

(i) To understand the use of Digital Social Media Networking Technologies (DSMNT) in teaching and practice.

(ii) To introduce the benefits of DSMNT in education sectors.

(iii) To analyse the barriers faced by stakeholders in the use of Digital Social Media Networking Technologies.

(iv) To give suggestions and strategies for Digital Social Media Networking Technologies.

Research Methodology

This study was exploratory by nature and, therefore, this research was mostly interpretive. According to Cohen, Manion and Morrison (2007), interpretive research begins with individuals and how they understand and make sense of the world around them. The online survey was used to collect the data. The study aims to investigate the factors that impact digital social media technology in open and distance learning during the COVID-19 pandemic and the role of social media in this process. In this study, various data collection methods such as questionnaires,

interviews, group interviews and observations were used. The primary source of data was an online questionnaire conducted among the students participating in distance learning courses in education at the Open Universities or Institutions. As a source of the data, we used the results of a survey conducted between April, 2018 to July, 2021 among the D.El.Ed, B.Ed. and M.Ed. students and teachers, Management/ Administration compulsorily participating in open and distance learning programs in Uttar Pradesh, Madhya Pradesh, Uttarakhand, Punjab and Delhi. The students represented a mix of different levels of graduation and post-graduation. Three hundred stakeholders took part in the survey. However, first 200 questionnaires for right answers/fill were found to be valid. Incomplete questionnaires were eliminated. Each states respondent was divided in four segments (B.Ed./D.El.Ed; M.Ed; Faculty and Management/ Administration) for collecting primary data. The questionnaire was divided into three sections. The data was entered in MS EXCEL. The information presented in the current study was collected from various authentic websites as it was risky to go out for data collection due to the pandemic. Some journals and e-content relating to educational system during COVID-19 were studied to find out the problems associated with the ODL system especially during pandemics.

Using Digital Social Media Networking Technologies (DSMNT) in Teaching and Practice

Scholars argued that digital social media and others are characterised as Web 2 based e-learning technology resources that emphasise participation, sharing of knowledge, active and uninterruptible connectivity, collaboration and ideas among stakeholders (Killeavy and Moloney, 2010; McLoughlin, 2007; Lee, 2007; and Van Wyk, 2013a). According to the authors and researchers, social media resources can be divided into three categories. The first category includes social networking sites or platform resources such as Twitter, Facebook, Ning, MySpace, Messenger, WhatsApp and Instagram, which serve as online communities that allow stakeholders to connect with new or old friends and share information, enabling thoughts and sharing. The second social media category includes content creation and editing websites such as Google Docs, Wikipedia, Blogger and Word Press. The third category emphasises sharing content and organising sites. These digitalised social media can be very useful as e-learning tools which can serve an educational purpose, engagement during the teaching practice placements. Several authors and researchers have collaboratively defined social network sites or platforms as web-based services that allow an individual or group to (1) articulate a list of other users or stakeholders, with whom they share

a share connection, (2) form a public or semi-public view and view profiles within an impounded system and (3) on the other hand, the initial purpose of these platforms or sites was purely social as they provided a means to make new friends and connect with old friends (Boyd and Ellison, 2007; van Wyk, 2013 a). With the use of technology, the learning environment can be expanded (Cox, 2018). Teachers have used twitter to post assignments directly on the class account and students can practice commenting and liking the messages (Figueroa, 2021). College institutions are adapting many social media platforms into their educational systems to improve communication with students and the overall quality of student life (Burbules, 2016). Twitter was used to discuss material, organize study groups, post class announcements, and connect with classmates (Junco, R.; Heiberger, G.; Loken, E., 2011). YouTube also improved students' digital skills and provided opportunity for peer learning and problem solving (Sherer and Shea, 2011). Today Khan Academy is still in use and its continuing positive impact on education is seen as well (Severance, 2015).

Analysis of Data/Findings

As the discipline ended, other findings were obtained from a questionnaire answered by all the 200 respondents.

Table 1

Stakeholders	D.El.Ed. Students	B.Ed. Students	M.Ed. Students	Faculty	Management/ Administration
Number of respondents	60	60	20	40	20

Table 2
Highest Educational Qualification of Respondents

Gender	D.Phil.	Ph.D.	P.G.	U.G.	XII	Total
Female	00	10	26	43	21	100
Male	02	19	22	39	18	100
Total	02	29	48	82	39	200

Source: Self Survey

Table 3
Age Groups of Respondents

Age Group	Below 21 Years	21–30 Years	31–40 Years	41–50 Years	Above 50 Years	Total
Number of respondents	33	106	34	23	04	200

Source: Self Survey

Benefits of Dsmnt in odl Education

Digital Social Media Technology can help to aid teachers in communicating with students even when they are outside of the classroom (Faizi, El Afia, and Chiheb, 2013). Feedback can be submitted so quickly over social media (Magda and Hanna, 2012). Now, in order to convince the teachers, students and management to use DSMNT in ODL education we need to share the following benefits.

The analysis based on the percentage of consent of the respondents divided into four categories in Table 4 shows that the most important statement of consent in the benefits of digital social media technology is increase in teaching and practice. An analysis of Table 4 shows that the difference in the percentage of consent is small in some factors and the difference is high in some other factors. For example, 24 per cent of undergraduate students and 47 per cent of postgraduate students consider the cost of activity to be low. While teachers consider operating cost as minimum but management does not.

Institutionalising practices that increase the time and energy students spend engaging in these types of activities, as in this research, student-teacher engagement in utilised social media through blog space with a supportive "My Unisa" learning management platform may increase. This increase in teacher-student participation may also enhance the potentiality that students, teachers or researchers will remain in their teaching practice curriculum. Increased academic persistence would inevitably have a favourable impact

Table 4

Percentage of respondents who fully agreed

Detail of benefits	B.Ed./ D.El.Ed.	M.Ed.	Faculty/ Teachers	Management/ Administration
Increase in teaching and practice	96	100	100	89
Low cost of activity	24	47	91	39
Improvement of image	93	99	95	91
Interaction with students and colleagues	83	93	98	78
Flexibility and mobility	79	89	91	82
Personal development	92	100	100	91
Improvement in efficiency	98	100	100	96
Innovative skills/inventive thinking	49	94	66	52
Social justice/equality	43	91	93	53
Updating information/Global Awareness	88	100	69	64

Source: Self Survey

on their continued progress towards degree completion and promote academic success in comparison to the low engaged students (van Wyk, 2013b; Kennedy, 2000; Umbach and Wawrzynski, 2005). In addition, the nature of teacher-student-people-teacher discussions or interactions can have important or effective repercussions for student motivation and introduction, as can effective, positive and individual or group interactions with lecturers or student interactions when providing unsuccessful learning. It may increase intellectual commitment. Support is needed to help the student overcome educational challenges (van Wyck, 2012; Chickering and Ehrmann, 1996). Social digital media can be used to facilitate and increase the number of student discussions or interactions with lecturers by overcoming the constraints of time and destination. As a result, opportunities for students to ask questions as well as receive resources and feedback from their lecturers can increase performance levels. In addition to often being very convenient, Chickering and Ehrman (1996) note that social media/ technology can also be a less startling form of teacher-student interaction than asking questions in front of a classroom or spacious lecture hall or student conference room.

Advantages of Digital Social Media Networking Technologies

1. 7*24*365 teaching and learning
2. Enables two-way communication in real or ultimate time
3. Mitigates geographical constraint
4. Encourages self-placed learning
5. It is user-friendly

Role of Digital Social Media Networking Technology in teaching and learning

This technology has proven its role during the closure of educational institutions and in ODL. The role of this technology is explained below:

1. It is an effective customised learning tool between students and teachers. The usefulness of this tool has been proven during this pandemic.
2. It is a tool to measure learning independently for each student.
3. It is a follow-up tool of face-to-face teaching mode.
4. It is a tool to follow the student.
5. It is a great tool for assessing the students.
6. Through the tools, students engage in interactive activities and peer learning.

In this question was asked as to how often are stakeholders/ participants' frequency use of a variety of Digital Social Media Networking Technologies resources to discuss/ complete the assignment/practice of teaching/workshop/internship/ content based methodology/school based activities or other.

In Table 5, the majority of respondents (81%) indicated that

Frequency of Digital Social Media Networking Technologies Use

Table 5
Percentage of respondents who fully agreed

Survey Question: Used DSMTs to work with other stakeholders				
Stakeholders	**Very often**	**Often**	**Sometimes**	**Never**
D.El.Ed. Students	23 (14)	47 (28)	25 (15)	05 (03)
B.Ed. Students	38 (23)	52 (31)	10 (06)	00 (00)
M.Ed. Students	45 (09)	40 (08)	15 (03)	00 (00)
Faculties	48 (19)	42 (17)	10 (04)	00 (00)
Management or Administration	25 (05)	45 (09)	25 (05)	05 (01)
Total	35 (70)	46 (93)	17 (33)	02 (04)

Source: Self Survey Note: Number of respondents shown in brackets

they often (46%) to very often (35%) used DSMNTs, discussion forums and other activities with class friends outside of study room to prepare course assignments and other activities. Most of the respondents who agree very often are professors while the least percentage are D.El.Ed. students, i.e., 48 per cent and 23 per cent respectively. The highest percentage of respondents who agree with it is 25 per cent among D.El. Ed. students and management while on average, it is 17 per cent. The percentage of respondents who agree with the never statement is 5 per cent only among D.El.Ed. students and management.

These are the five important types of teaching methods for a teacher. It depends on the teacher to implement one of these teaching methods according to the need and environment of the classroom. Lecture method has been used in teaching since ancient times. Even today, this method has taken an important place in Indian schools. Lecture refers to teaching the text in the form of speech. The thinking level of the students is expanded by the question-answer method and it also develops their memory power. Listening to stories and telling a lot helps children to learn language in primary classes. Story listening is interesting for children as well as enhances their creativity. Many a times, children tell their friends by making desired changes in the story they heard. In role-playing method, the student teacher has to fulfill the role of both the teacher and the student in its practice. The student teacher has to teach a small topic to her peers only. His/her other fellows take on the role of students. A field trip is to take a group of people on a journey away from their normal environment. For example, visiting the zoo, garden and museum is a part of school life. The analysis of the mediums of DSMTs for the

Table 6

The Mediums of Dsmts for the Top Five Teaching Methods

Method	Rank – 1	Rank – 2	Rank – 3	Rank – 4	Rank – 5
Lecture	Facebook	YouTube	WhatsApp	Telegram	Blogs
Question-Answer	Quora	WhatsApp	Messenger	Twitter	Telegram
Storytelling	YouTube	Facebook	WhatsApp	Blogs	Instagram
Role-playing	YouTube	Instagram	Facebook	WhatsApp	Snap-chat
Field trip	WhatsApp	Instagram	Facebook	Snapchat	Skype

Source: Self Survey

above teaching methods has the following results.

Barriers to stakeholders' use of Digital Social Media Networking Technologies

A critical look at some of the barriers to the use of social media in higher education are concerns about privacy, integrity of student submissions, inconsistent social media policy, separate course and personal account, grading and assessment, measures of effectiveness, lack of integration with learning management systems (LMS), and time and resources to learn or use social media tools (Madden, 2010, 2012). According to Conn and Brady (2008), social networking sites have the potential to expose college students to inappropriate online content, fears of online identity theft and student-based cyberbullying, or online student harassment. According to Lederer (2012) social media could be a distraction in the

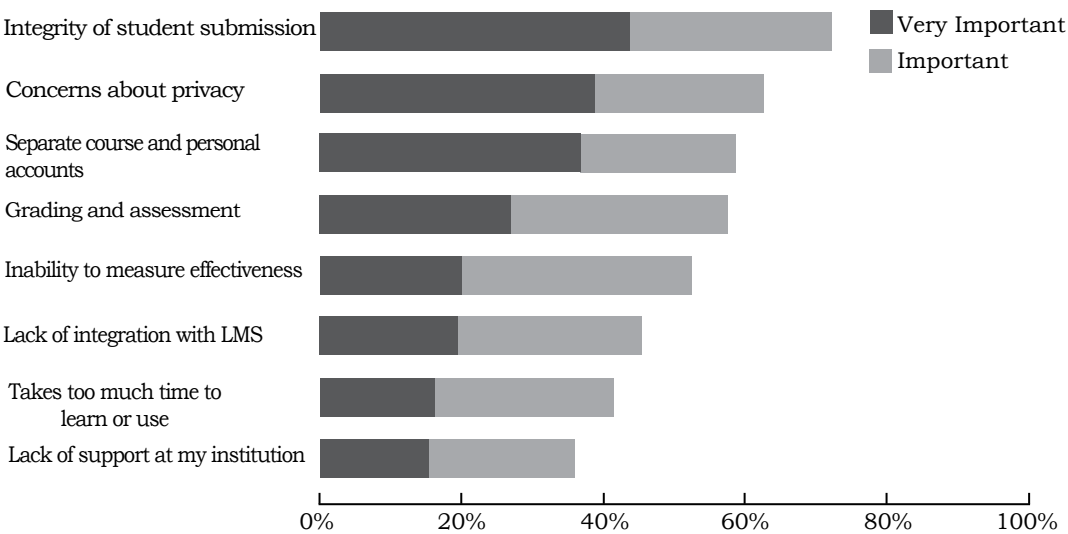

Fig. 1: Barriers to stakeholders' use of DSMN technologies

teaching-learning process because it can divert learners' attention from classroom discussions as well as disrupt the learning process for students by deflecting their focus. Keen (2007) perceived quality of content as a major concern. Benito-Ruiz (2009) cited information overload as another challenge. The students misuse social media sites, when it is used for instructional purposes (Klopfer, Osterweil, Groff and Haas, 2009). The picture is the same for 2013, as faculty continue to cite a number of barriers between digital social media and the classroom. Over 69 per cent report that "lack of conscientiousness or integrity of student submissions" is an important or very important barrier, and 64 per cent say "privacy concerns" are an important or very important barrier. Conclusion that teachers have not widely or unintentionally adopted social media for teaching purposes; they have many concerns.

Barriers to stakeholders' use of Digital Social Media Networking Technologies

In an effort to understand better the nature of their privacy concerns from the figure above, all faculty who rated privacy as an important or very important barrier to teaching utilisation of digital social media were asked a set of more detailed questions. These questions were aimed at determining what aspects they found the most troubling, concerning privacy and social media in their classes. The findings show that it is not a single challenge or issue that bothers the teacher – they have a high degree of concern with many aspects of privacy.

Faculties with concerns about privacy were asked about five different specific privacy issues for students and faculty. Over 79 per cent of the respondents stated that they "somewhat agree" or "strongly agree" that each of these 5 areas represent an important area of concern. A large proportion (over 80%) of faculty also reported that they were concerned about "personal privacy" for students as well as for themselves. However, this opinion was not as strongly held as those on class discussions, as most faculty only "somewhat agree" that they are concerned about risks to personal and student privacies. The highest level of concern is about class discussions—over two-thirds of the faculty said that they "strongly agree" that non-class members "view" or "participate in class discussions" is an issue. The degree of faculty concern was only slightly less than those outside of class would be able to "view other class materials." By contrast, the majority of faculty say that they "strongly agree" when asked about their concern for privacy of class discussions and materials.

The DSMNT or Online Distance Learning (ODL) teacher, Easton (2003) claimed that the faculty had two roles, specifically beginning from an instructional or educational

designer to an interaction facilitator when online courses were introduced.

Duncan, Kenworthy, and McNamara (2012) found that in addition to the roles of leading and directing the online learning platform to reach task or goals, online teachers must also be aware of the balance of teaching time and the flexibility of problem-solving tasks that may sometimes occur while working.

They will be required to impinge upon online goals or task-based learning or discussions regarding the students' new roles. It has eliminated common chatting time preferable than face-to-face discussions. Faculties emphasised that students' views of the optimum online language students included self-motivation, originality of work, and timeliness of assignments.

Research indicates that

- 78 per cent of faculty members are using Digital Social Media Networking Technologies in courses they teach or for professional careers outside the classroom.
- 29 per cent posted contents related to the course for outside the class learning.
- 34 per cent of faculty members asked students to view Digital Social Media Networking Technologies as part of course assignment.
- 15 per cent students commented in course related posts through Digital Social Media Networking Technologies.
- Facebook, WhatsApp and YouTube are mostly used.

Conclusion

During the COVID-19 epidemic, the activities of direct contact have come to a standstill, so Digital Social Media Technology will prove to be a milestone in this situation. Education, teaching and training is a continuous process; this technology is very useful to prevent this process from getting blocked and it will continue to expand in the future. The rapid development of technology impacts not only people's lives in general, but also education (Concannon et al., 2005). In such critical moments as the COVID-19 lockdown, distance methods of learning are irreplaceable when it comes to supporting the educational process. Analysis of survey showed that Digital Social Media Networking Technologies was a positive strategy in developing and reaching the objectives of the discipline. As discussed, difficulties were observed; however, they may have resulted from lack of computer skills by some of the students. It is worth mentioning that, despite their problems in participating in the forums, the discussions presented high-quality content. Indeed, the increasing figure research regarding Digital Social Media Networking Technologies (DSMNT) and its use in discontinuous areas, most specifically in ODL or online education, gives evidence that it can lead to a weighty transformation in

how we frame of structured learning spheres in the future. This technology has the potential to replace the traditional human relationship between teachers and students. It is now able to motivate the pupils with much control. Better guidance can be provided by this technology resulting in a more satisfying learning experience for the students. Literally, during the pandemic and in the modern educational landscape, digital social media networking technology has changed the entire educational process. Digital social media technology has provided a single environment in the field of education so that students can adapt for their future and can pursue academic activities through innovative dimensions. New and innovative activities are going on even during this pandemic as many meeting platforms are being used for online classes. Findings of majority respondents believe that Digital Social Media Networking Technologies (DSMNT) are precious tools or technology for teaching, and that social media sites can be precious tools for ODL or collaborative and online learning. It is a strenuous assertion that "Digital Social Media Networking Technologies (DSMNT) are not a part of our social life, it is fully part of our digital living."

Future Research and Recommendations

The greatest challenge to future research and the usefulness of these results is in understanding the use or lack of using social mass media resources by low engaged students. During this pandemic, highly engaged students in studies have made great use of digital social media techniques and are at high utilisation of resources. This should not come as a amazement to teachers. It is a natural tendency by a gifted student to make good use of the resources available in educational institutions; social media proves helpful in its development. It is recommended that the benefits of using digital social media for endorsement or to support teaching and learning will not be fully realised until there is a better understanding of how the social nature of these social media resources can be utilized to entice low engaged or disengaged students to interact in educationally purposeful ways with their high-engaged peers and instructors so that it contributes to the success of students. Future researchers could consider investigating the link between the use of social media and academic performance.

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Perceptions and Experiences of Learners about Online Learning in the Secondary Schools

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Abstract

Pandemic has successfully forced global shutdown of several activities, including educational activities. As a response to the crisis of continuing learning, almost all the educational institutions have opted for online education. Remote learning, home learning, online learning are the alternative learning methods for classroom learning.

This study was conducted to find out the perception of learners towards online education and it also tried to explore various attributes of online classes such as presentation of academic content, resolving a queries challenges, etc. It also took into account the issues related to the availability of devices and internet connection, which are helpful in designing an effective online environment. The findings of the study indicated that most of the learners have a positive perception about online learning to continue their studies. The students however, felt the need of providing flexibility in the time schedule of the classes. They also believed that online learning is stressful both physically and mentally as it affects the health and their social life.

It is argued in the paper that online learning must be cautiously designed keeping in mind the pedagogical considerations, while instructional activities have to become hybrid. In order to adjust with this new normal, educational systems have to adopt blended learning in a much rigorous way. The lessons which are learnt now in the form of challenges have to be optimally converted into opportunities.

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Background

With the sudden outbreak of pandemic, a lot of changes have been brought in the society. Schools, where learning spaces and learning environments are designed to provide meaningful learning experiences, which helped in improving both cognitive and social emotional outcomes of learners, are also closed.

According to the UNESCO report (2021), closure of schools in India has impacted around 320 million, which is a huge number. This has forced learners to stay at home and continue their learning. Apart from schools, closure of all parks, sports centers, etc., have left children with no chance of engaging themselves in any kind of physical activity and recreation. This prolonged physical inactivity, lack of mental stimulation, social isolation, lack of routines and structures can result in aggressive, destructive behaviour among children.

Natural disasters can stimulate our motivation for the adoption of highly innovative communication technology and e-learning tools et al. (2017). Amidst, these prevailing circumstances to continue the learning and maintain the quality of learning process, online education has been adopted by educational institutions. In this perspective, the National Education Policy (2020) also recognises the potentials and risks of using technology in education.

In order to lower the impact of pandemic, the schools have remodeled their ways of continuing education. The schools adopted online mode to continue learning at home. Online education can be understood as electronically supported learning which depends on continuous use of the Internet for facilitating interaction between teachers and learners. Further, in this online learning environment, students can learn and interact with teachers and other students from anywhere (Singh and Thurman, 2019). According to Hrastinski (2008), there can be two types of online learning, namely asynchronous (which doesn't happens at the same time) and synchronous (which happen at the same time) online learning which are most often compared. During the pandemic synchronous type of online learning was adopted, in which online classes, easy accessibility, stable internet connections, use of laptops and smart phones were common features (Basilaia et al., 2020). The various digital/online platforms and tools serve as a substitute to traditional classroom situations. (Basilaia et al., 2020). While online learning cannot replace the traditional classroom learning as it has its own advantages. In order to make online learning effective and efficient, the instructors, organisations and institutions must have comprehensive understanding of both its benefits and limitations.

While, the country was gearing up to take on the challenges of online learning through the recent launch of PM e-Vidya by the Ministry of Human Resource Development (MHRD), a

national campaign which will unify all efforts related to digital/online/ on-air education. The sudden closure of educational institutions due to the pandemic has led to introduce online learning in a hasty manner by the schools without investing due time to weigh the advantages and disadvantages. It has resulted in the emergence of many challenges and issues such as lack of training by teachers and learners, lack of available educational resources and insufficient digital infrastructure. The greatest challenge is for the learners, as they had to learn new ways to engage and study.

In order to provide quality learning, views of all the stakeholders of the educational institutions including management, teachers, and learner's decisions should be considered. Kopp et al. (2019) gave five common assumptions that are considered more of hindrances to digital transformation of higher education institutions as against contributions to its realisation, and these assumptions are related to (i) change, (ii) pace, (iii) technology, (iv) competences and (v) financing. These have similar implications for school education.

According to Branch and Dousay (2015), effective online learning is a byproduct of cautious design and planning of instruction with the application of organised model for design, development of instruction. They further argued that in the absence of the cautious design, development process can lead to the rejection of contemporary online education experience. It will be taken as emergency remote teaching rather than an effective way of online education (Bozkurt and Sharma, 2020; Vlachopoulos, 2020). Therefore, it is asserted that required measures have to be ascertained for maintaining the quality of learning and for making learning a smooth process. During these challenging times, many initiatives were taken such as introduction of suggestive alternative calendars to schools, which not only included generic guidelines about the subjects but also suggested specific use of different technological and social media tools.

In order to meet the current demands and challenges of the new circumstances, the National Education Policy (2020) also urges to optimise the existing digital platforms and ongoing ICT-based educational initiatives to be optimised and expanded. Here, the important point to be kept in mind is the equitable reach of technology to all, so that equal participation can be ensured.

Hence, it was needed to conduct a study to find out the perspectives of the secondary learners, their parents and teachers about online learning and to understand the challenges and issues related to online learning will help to understand the situation and provide concerted efforts to provide quality education to all.

This study tries to throw light on various aspects such as

administration and management, technological infrastructures, pedagogy, and social context. This is important because if one could analyse the implementation of online education technology in any given institution or framework, the administrators of the relevant institution have to make decisions about how to support the adoption of this technology and maintain it on an ongoing basis, and pedagogy completely changes as the teachers and learners are physically distant and in social context. NEP 2020 also asserts to conduct such pilot studies which could throw light on the ground realities. Keeping the above in mind, this study tries to answer the following questions: whether the learners are interested to take online education? What was the availability of digital infrastructure the learners had? How did they adjust to this new platform? What will be the role of the parents as learners are away from their physical classrooms?

Design of the Study

The study was conducted to find out the perceptions of various stakeholders including students, teachers and parents about the shift to online education during the pandemic. Hence, the nature of the study is descriptive survey research which helped in providing an in-depth understanding of the present situation.

Population and Sample of Study

The population of the research included all learners, teachers and parents of learners studying at the secondary level in a public school from Distt. Gautam Budh Nagar, U.P. A sample is a small group of units to be selected from a population under study. A final sample of 150 learners from Class IX of a senior secondary school were selected through random sampling and 30 teachers teaching at secondary level were included in the study. For the perception of the parents, one of the parent was included as a final sample, i.e., 75.

Tools used in the Study

Two online questionnaires were created using Google Docs, one for teachers and other for learners to get their opinions. For the parents, a separate questionnaire was also developed.

The teacher's questionnaire consisted of details such as sociodemographic information, online education training, familiarity with the use of ICT and faculty's perceptions of teaching online effectiveness. On the other hand, the students' questionnaire consisted of students' perceptions of online learning's effectiveness, familiarity with the use of ICT, structure and nature of online classes and advantages and challenges of online learning. Questionnaire used the likert type scaling for recording the responses. Likert scales have probably become the most popular attitude scale format for measuring

public opinion on any issue. (It is an attitude scale, and is not appropriate for measuring behaviours (Likert, R. 1932).

For parents, the questionnaire basically focused on their views about online learning, and nature of support they provide.

The questionnaires were sent to the experts in the field for content validity before collecting the final sample.

For data collection, the questionnaires developed were sent through emails to the teachers and students. The responses from the parents were also collected by sending the questionnaires through email. A friendly reminder was sent to potential respondents to ensure the highest possible response rate. Questionnaires with incomplete information or missing data were excluded from the analysis.

Results

The analysis of the data was done through percentage analysis; the analysis is presented under five headings:

Perception of Learners towards Online Education

From the analysis of the responses from the sample group of 150 students, it was found that around 62 per cent of learners agreed that closure of the schools was necessary as a controlling measure to prevent the loss due to COVID-19 pandemic. It was found that about 56 per cent of the learners had never attended any kind of online classes before, hence it was clear that for nearly half of the respondents it was a new experience. The results of the survey also indicated that majority of the secondary learners (around 46%) were not interested in taking online classes due to fear of technological and other constraints which they faced. The learners also raised their desire for meeting their peers and teachers for an interaction, which they are unable to do because of the pandemic situation. Following statements by the learners reflect their feelings:

"We cannot see a teacher, can't talk to friends face-to-face."

"We miss the school atmosphere and cannot play with friends like in the Physical Education class."

The above statements highlight the disadvantage of using technology as a primary medium that breaks direct communication between the learner and the teacher, so the human touch is lost. Song et al., (2004) has also highlighted that learners feel that lack of community, technical problems, and difficulties in understanding instructional goals are the major barriers for online learning.

In this study, the other group of learners (46%) who were interested in online learning, could be innately motivated and therefore were relatively less affected in their learning as they needed minimum supervision and guidance. While the remaining 54 per cent of learners consisted of the group who either faced difficulty in learning

or required adult supervision. There were also a group of learners, who were academically competent, but their economic background put a hindrance in the access and affordability of online learning.

Hasty decision to start online delivery of education has brought into notice the inadequate customisation of technology and the psychological principles of learning. This calls for a well thought strategy to strength online delivery of education through customised teaching which takes care of the new needs that have emerged in this scenario.

With the constant use of technology, the socioemotional development of the learners is getting impacted, which may have a long-term effect on their personality. The above results also highlight the importance of schools in raising psychosocial skills which have an impact on the life of learners, both outside and inside schools. Since learners have now been taking online classes, spending additional time on virtual platforms, it has left them vulnerable to online exploitation.

When parents were asked about their willingness to send their children to school after reopening, 95.7 per cent of parents said they were not interested in sending their ward to school. The fact is evident that parents are concerned about childrens' health and safety and they are not willing to send their children to school. Therefore, the schools will have to continue online teaching, which in turn sends a clear signal that schools have to be better prepared for learning which is more interactive and meaningful. The schools have to devise a mechanism where all the aspects of personality are developed, though it is a challenging task but it is important too.

b) Familiarity and Readiness with the Use of ICT for Teaching and Learning

This pandemic has reaffirmed the importance of ICT in education. Learning at all levels of education is the ability to continue, even when physical interactions in educational institutes is not possible. In this situation, it becomes imperative that both teachers and learners have to be familiar with the different technologies and their use in order to effectively achieve the goals of learning.

Hence, the study started with the assessment of the extent to which teachers and their learners were prepared for school closure and to examine how frequently they were using technologies in the classroom before the crisis came. The results showed that on average, around 66 per cent of teachers were using ICT in their teaching and 56 per cent learners of were using ICT for either developing or completing their projects or class work. It was also found that around 72 per cent of teachers had undergone trainings for using ICT for teaching, but it was limited only to the use of computers and smart boards. Hence, technology

was used as a supporting medium in classroom learning.

Capacity to adapt and innovate are the qualities needed to respond to any crisis. Responding to how both teachers and learners took up this challenge of adopting the use of technology from supporting medium to primary medium. Almost all the teachers and learners reported the use of online platforms such as Google Classroom, Zoom, virtual learning environment, social media and various forums like Telegram, Messenger, WhatsApp. Teachers even reported that initially there was little inhibition, only for sometime in terms of using them but very soon they became quite confident in using these platforms. They made pragmatic use of technology to ensure that learning can happen remotely, which highlights teachers' capabilities to adapt and their professionalism too. Further, they even suggested that it can be resumed even after face-to-face teaching resumes to provide additional resources and enrichment to the learners.

Further, it even highlights key role of the Principals of schools in fostering collegiality and collaboration among teachers.

There was an increased collaborative participation reported by the teachers which developed a collaborative culture within the school and among the teachers. School principals and teachers continuously facilitated the dissemination of useful information, instructional material and resources among themselves. This developed a mutual professional support and effective use of online resources.

c) Availability of Proper Technical Devices

For the successful implementation of online education, the primary need is to have a proper gadget like mobile or laptop or personal computer to access the online classes. When learners were asked about which devices were they using to access their classes, following results came out as given below in Table 1.

Table 1

Depicting the various devices used

Technical device used	Percentage
Smartphone	57.98
Laptop	35.83
Tablet	4.89
Desktop	0.65

Majority of the learners (57.98%) were using smartphones to access online learning; they also complained that with a small screen it was many times not possible to concentrate. Since the schools had suddenly decided to take online education because of COVID-19 pandemic shutdown, the learners did not have the proper device to take classes but parents were found to be interested to buy the devices and were firm about not sending their children to school.

Most learners (68%) were using mobile data pack as internet sources and WhatsApp were the main medium

to communicate with teachers and classmates. Hence, with limited training, insufficient bandwidth and little preparation, there was unequal participation in learning going on in the classes.

It was suggested that the educational institutions must take an initiative to educate the parents, teachers and learners about the digital equipment needed for the device and about internet connectivity to make online learning smooth and provide the required training to the teachers about the online platforms going to be used as well as give guidelines to parents.

d) Structure and Nature of Online Classes

When the learners were asked about their preference for number of hours they can study through online mode, around 82.5 per cent of the learners reported that they can spend less than four hours in a day for online classes, which is lesser than the academic time they spend during school in a face-to-face situation. It was also found that the learners were easily getting distracted and they experienced physical discomfort (like pain in their back and neck) while sitting in front of the screen for a longer duration. This implies that there is a need for change in the pedagogy of learning through online mode; the online education must be infused with showing more videos, animation and giving opportunities to learn independently.

Majority of learners (98%) reported that they were accessing the live session of teachers, and they were not able to view the recorded lesson as it was neither uploaded nor shared in the group. But, the learners did say that it would have been better if the recorded lessons were provided to them. The availability of the session by the teachers would have given flexibility to the learners to go through the content again at their own pace; this could have also reduced/solved their queries with respect to the subject. It was also reported that teachers mostly preferred using powerpoint presentation for delivering the academic content. Around 54 per cent of teachers were using powerpoint for the delivery of academic content. Regarding the nature of reading materials, majority of the respondents (73.6%) preferred video content over the supplemented reading materials. Also, the learners found the video programmes to be supplementing their learning better than reading materials.

In order to get full benefit of online learning, there is a need to provide a concerted effort to go beyond replicating a physical class/lecture through a video. Instead, more efforts must be taken to make classes more interactive and interesting; a wide range of collaboration tools and engagement methods may be incorporated which can promote inclusion and personalisation.

Around 59.6 per cent learners shared that they don't get their

Table 2

Showing the responses (in percentage) about the nature of online learning

Characteristics		Percentage of Responses
Format of Online Classes	• Live online classes	98%
	• Whether recorded lessons were provided	98.6% (not available)
	• Whether recording of the classes were allowed?	98% (not allowed)
	• Only PowerPoint was used	79.7%
	• Both PowerPoint and white board were used	54%
	• Only lecture	31%
	• Classes were interactive	62%
Supplementary Reading Material	• Sufficient reading material was provided	68%
	• Reading material was interesting	23.2%
	• Preference to a reading material	26.4%
Supplementary Video Material	• Video content was sufficient	86%
	• Video content was supplemented well to the reading materials	84.36%
	• Preference to a video	73.6%

doubts cleared regarding subject topics while in class, while 40.4 per cent of learners shared that they are able to get their doubts cleared during the class. Various methods are preferred for clarifying the queries; 35.5 per cent of the learners said that it is done during the class through live chat while the remaining chose the option for posting their queries either through an email or by using WhatsApp to the teacher. Interestingly, 40 per cent of the respondents reported that their doubts were cleared by the teacher within a day.

At times, it is a difficult task for teachers to provide a clarification about the doubt on the same day, as they are also quite burdened with the demands of online learning. A lot of teachers' time is spent in planning for their lessons like identifying the online resources (videos, etc.) and even assessing the progress of the learners online. Kebritchi et al.,

(2017) also highlighted that it can be challenging for a teacher to move from offline mode to online mode, changing their teaching methodologies, and managing their time. Also, a greater challenge is to develop content which not only covers the curriculum but also engages the learners.

When the learners were asked to give their opinion about the online assessments, whether they are satisfied with the assessments. About 58.2 per cent of learners reported that they were not comfortable to take online exam. Since, assessment is a critical component of learning as it provides an understanding about individual strengths and the areas to improve upon. Hence, alternative approaches to paper and pencil tests may be chosen carefully, which can help in achieving its pedagogic functions and at the same time, are interesting.

Another important aspect which has an impact on the structure of online learning is the platform used by the teachers to deliver their educational content. Multiple platforms are available, but teachers are using either Google Meet or Zoom for their classes. There is a need for identifying a platform for online learning which is suitable to the requirements of school education. Absence of suitable platform can have an impact on quality standards and control. This problem has to be taken up on priority so that benefits of quality education can be enjoyed by everyone. If online learning has to be made a part of their 'new normal', then a lot of preparation is needed (Cojocariu et al, 2014). One should not merely focus on the pros attached to the adoption of online learning during the crises but should also take account of developing and enhancing the quality of virtual courses delivered in such emergencies (Affouneh et. al, 2020).

Therefore, there is a need to develop an effective and efficient educational system to impart education via online mode. This new system must ensure that teachers adopt and use such digital technologies and other online tools which correspond to learners' needs, their prior competencies and digital literacy of both teachers and learners. It is suggested that there must be regular online training about the availability and effective use of digital resources for pedagogical practice.

e) Enabling the Environment for Home Schooling

The crisis in terms of learning which has emerged due to this prevailing pandemic, it is essential to understand what the conditions were and whether there was a supporting home environment to continue their studies through online mode. Supporting home environment will go beyond merely having an access to the necessary digital device. It would include all the facilitating conditions at home which will help the learner to continue his/her studies without any hindrance.

As per the results of the study, it has already been stated that access to the necessary digital devices is not equally distributed across the population. In particular, learners from socio-economically disadvantaged backgrounds who lack the means to access these devices may be severely affected by the COVID-19 crisis, increasing learning inequalities as a result. Although the absence of face-to-face interactions can be somewhat compensated by the use of online platforms and other technology-rich activities.

Also, the prevailing environment of risk and uncertainty, has an impact on the motivation of learners in a negative way. In this context of learning, the parents have a greater responsibility to act as both a motivator and facilitator of learning. These situations have impacted the emotional state of the learners, hence parental emotional support matters a lot. Also, in the present situation, learners are expected to be independent and responsible for their learning. Therefore, the parents have to continuously encourage their children to be confident and encourage their educational efforts and achievements. Continuous encouragement and support from the parents also displays a strong association with learners' self-efficacy.

It was found that around 61 per cent of learners felt that they were able to pursue their goal of learning independently in these challenging situations, but a great chunk of 49 per cent of the learners believed that they were not so confident to manage learning. The learner's goals for learning were related to the motivation to learn, which means that these learners (49%) were at a significant risk of learning failure.

Another aspect was that about the availability and use of digital devices which is a pre-requisite for any type of online learning. It was found that most learners were using mobile phones, which was often shared with other family members including parents working from home and siblings for home schooling. Also, access to quiet physical space to study at home was a challenge which deteriorated the experience of online learning.

Schools must also aim to strengthen school-parent engagement. For that they must chalk out a plan to provide appropriate information and guidance to parents on effective practices for supporting their children's learning at home.

Discussion and Conclusion

The ongoing pandemic has presented a deep crisis, especially to continue learning in educational institutions. Schools and colleges are shifting to online platforms to catch up with the curriculum. It may be too early to say how learners and teachers will cope with online learning as they figure out the constraints; reorient to address them but the perception and readiness of teachers and learners is an important consideration.

The findings of this study indicated that majority of the learners had positive attitude towards online classes being undertaken in their schools. They reported that online learning was advantageous as it provided flexibility and convenience for the learners. This is reinforced by the study done by Muthuprasad et al. (2021) in which they found that the learners of agriculture preferred online learning.

The study also reported that majority of the learners stated that they can spend less than four hours in a day for online classes and were easily getting distracted as they experienced a physical discomfort (like pain in their back and neck) while sitting in front of the screen for a longer duration. This finding corroborated with the findings of the studies by Song et al. (2004); Allen (2011). It is suggested that long duration of classes must be avoided; it will be helpful in taking off the physical and mental strain. Therefore, short breaks must be given after each class.

Learners preferred well-structured content with recorded videos sent to them, so that it can be viewed later. Hence, it implies a careful mix of resources must be provided to the learners so that they get a variety of stimuli. This will not only engage them meaning fully, but will help them use their senses optimally. It was also suggested that the learners are given opportunity to work collaboratively so that they not only engage themselves cognitively, but also socially. Petrides (2002) also claimed that it is convenient to work collaboratively in an online group.

They also indicated the need for interactive sessions with quizzes and assignments at the end of each class to optimise their learning experience. However, most learners also reported that online classes were more challenging than traditional classroom teaching because of the technological constraints, delayed feedback and sometimes the inability of teachers to handle the Information and Communication Technologies effectively. Therefore, all these factors should be considered while developing an online course to make it more effective and productive for the learner. It implies to relook at the present pedagogical practices in schools and synchronise them with the present demands of online learning. There is a need to adopt the online tools which are helpful in facilitating collaborative learning.

Apart from promoting innovative personalised teaching-learning platforms, there is also a need to provide the required need-based training to teachers and build the capacity of both learners and teachers to work independently.

The lesson learnt from the COVID-19 pandemic is that teachers and students/learners should be oriented towards use of different online educational tools. After the COVID-19 pandemic when the

normal classes resume, teachers and learners should be encouraged to continue using such online tools to enhance teaching and learning.

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National Education Policy (NEP) 2020 on Transforming Education
A Critical Analysis of Recommendations on School, Teacher and Higher Education

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Abstract

The National Education Policy 2020 had been notified on 29th July 2020 after 34 years of the implementation of National Policy on Education (1986). Detail structural and pedagogical changes have been recommended in Early Childhood Care and Education, School Education as well as Teacher and Higher Education. Beginning from the fundamental principles of the constitution of NEP 2020, a sign of transformation in education and its implementation practices have been focused in every part of NEP 2020. This article focuses on the history of educational development of India and analyses some of the major recommendations of NEP 2020 on different aspects. The article discusses the vision of transforming education by implementing NEP 2020 in the major three areas of its recommendations such as School, Teacher and Higher Education. A critical analysis has also been made against the specific recommendations in each section of the policy and a consolidated summary and discussion has also been made.

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The History

University Education Commission (1948–49), popularly known as Radhakrishnan Commission was the first education commission established in independent India. Though the commission has focused on the University system of education, but, it has equally dealt with the other stages of education also. The second Education Commission was set up in India in the name of Secondary Education Commission (1952–53). The commission focused on the issues of secondary education of the country. Further, the country evidences the National Education Commission (1964–66). The commission had submitted its recommendations from primary level to the higher education system. On the basis of the report of Kothari Commission (1964–66), the then Prime Minister announced the first National Policy on Education in 1968 which talks about 'radical restructuring' of education for achieving equal educational opportunities in order to achieve national integration and greater cultural and economic development. Further in 1986, the then Prime Minister introduced a new National Policy on Education catering to the needs of shaping the structure and functioning of school education to higher education system. 10+2+3 system of education (10 years of school education, 2 years of higher/ senior secondary education and 3 years of degree/college education) was very much popular during that time and it was implemented across the country.

On the basis of NPE 1986, many schemes on education started in the name of 'Operation Blackboard', establishment of Open Universities, concept of Rural University. Further, the NPE 1986 was modified in 1992 in the name of Programme of Action (PoA) of NPE 1986.

After more than three decades of NPE 1986, presently India has witnessed the National Education Policy (NEP) 2020.

National Education Policy 2020—The Vision

'National Education Policy envisions an education system rooted in Indian ethos that contributes directly to transforming India, that is Bharat, sustainably into an equitable and vibrant knowledge society, by providing high-quality education to all, and thereby making India a global knowledge superpower' (NEP 2020, p. 6).

It emphasises to reflect Indian knowledge system, values, and ethos in education system where the young minds realise the traditional knowledge structure of Bharat and to shape a modern system of education by developing a sustainable vibrant knowledge society by providing quality education to all and maintaining equity and equality. The NEP 2020 has been developed particularly to achieve the global education development agenda reflected in Goal 4 (SDG4) of the 2030

Agenda for Sustainable Development, adopted by India in 2015 that seeks to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" by 2030.

This article specifically focuses on the development of an objective and strategic plan to the realisation and its implementation of the vision of NEP 2020. Let us now focus on different parts of NEP 2020 and management of its strategic intent towards its effective implementation.

NEP 2020 on School Education—Recommendations and Critical Analysis

India is one of the largest systems of school education in the world so far its number of schools and its different types, quantum of students and teachers and its management is concerned. There is a paradigm shift in the school education pedagogical and curricular structure in the NEP 2020 in comparison to earlier system of education. The pedagogical structure of existing 10+2 system of school education (10 years of school education up to Class X and 2 years of higher secondary education, i.e., Classes XI and XII or +2, i.e., Junior College) as per the NPE 1986 has been transformed to a new pedagogical school education structure in the present NEP 2020, i.e., 5+3+3+4 system of education (5 years of foundational education including three years of pre-school and two years of Classes I and II; 3 years of preparatory education, i.e., Classes III, IV and V; 3 years of middle school education, i.e., Classes VI, VII and VIII; and 4 years of secondary education, i.e., Classes IX, X, XI and XII).

In this new pedagogical structure of school education, this is for the first time that care has been taken to formalise Early Childhood Care and Education (ECCE) as it is a part of broad formal structure of school education. Now this has become a part of the foundational stage of education. Further, the Right of Children to Free and Compulsory Education Act which is popularly known as Right to Education Act (RTE Act, 2009) says that the State should provide free and compulsory elementary education starting from Classes I to VIII. These eight years of fundamental right of school education is a part till the completion of middle stage of education as per the pedagogical structure of School Education. Again, two years of secondary education, i.e., Classes IX and X is included in the scheme of Rashtriya Madhyamik Shiksha Abhiyan (RMSA) since March 2009 (MHRD, 2009), and now it is a part of Samagra Shiksha (MHRD, 2018–19) which subsumes the three earlier schemes such as Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) (MHRD, 2018–19) and Teacher Education (TE).

The above developments narrate a wider concept of school education in India so far its implementation

is concerned. In NEP 2020, specific aspects on implementation of school education have been highlighted as follows:

- Making Early Childhood Care and Education an integrated part of school education and for that, there is a need of developing a National Curricular and Pedagogical Framework for Early Childhood Care and Education (NCPFECCE) for the children up to the age of 8 (till the completion of foundational stage). This will be developed by NCERT in line with the National Curriculum Framework for School Education (NCFSE).
- This is a welcoming step that for the first time, this has been documented with an intent to formalise Early Childhood Care and Education as this stage which prepares the mind of the children for formal education.
- National Mission on Foundational Literacy and Numeracy has been recommended to be set up by the Ministry of Human Resource Development (MHRD) to attain foundational literacy and numeracy in primary schools by 2025.
- Attaining foundational literacy and numeracy at the early years of school education is very important as it has been observed that students are not able to attain the minimum level of learning in terms of foundational literacy and numeracy that is required at a particular stage (NCERT, 2017).
- Realising the Pupil-Teacher Ratio (PTR) of 30:1 in all the schools with special care to achieve the PTR of 25:1 in the areas having large numbers of socio-economically disadvantaged students. It improves the earlier practice of PTR as recommended in RTE Act 2009, i.e., PTR of 30:1 at the lower primary level (Classes I to V) and 35:1 at the upper primary level (Classes VI to VIII) (RTE Act, 2009).
- This is a way forward for achieving quality education at the foundational, preparatory and middle stages as it puts a strong construction for further education of the child. This is possible when classrooms should not be overcrowded and adequate number of students are given the teachers to deal with.
- Curtailing dropout rates and ensuring universal access to education at all levels in terms of specifically bringing back about 3.22 crore dropout school children in the age-group of 6–17 years to the mainstream of school education system. The challenge is just not educating them but also to develop skills and competencies among them through vocational education so that they can engage themselves meaningfully in the world of work.
- This recommendation encourages the idea of achieving 100 per cent

literacy not only in number, but also with providing quality skill-based education. This can be possible though lifelong learning integrated with varieties of skills and competencies. A dedicated section of Lifelong Learning in NEP 2020 shows the importance to curtail dropout rates and ensure universal access.

- Addressing specific pedagogical concerns in school education curriculum in terms of realising conceptual understanding of the curriculum components, holistic and experiential learning, critical thinking, peer and collaborative learning, problem solving, research and innovation, eliminating hard separation in Arts and Sciences, achieving 21st century skills, providing wider choices of subjects at the secondary stage, etc., are evidence of shifting from an inter disciplinary teaching-learning environment towards practicing a multi en and trans-disciplinary approach of teaching-learning practices in the schools.
- The above pedagogical concerns are articulated in NEP 2020 in line with the existing National Curriculum Framework (NCF 2005) and further, it is going to be reshaped through the new National Curriculum Framework for School Education. Constructivist approach of teaching-learning process, connecting life experiences of the children and developing a learner-centered school education system at par with global standards is very much evident from the recommendations. It shows a clear transformation of school education.
- Development of National Curriculum Framework for School Education (NCFSE) as per the new pedagogical and curricular structure and National Curricular and Pedagogical Framework for Early Childhood Care and Education (NCPFECCE) by NCERT in line with the vision, fundamental principles and specific recommendations of NEP 2020 on school education curriculum.
- Addressing local knowledge and practices in a national level curriculum is always a challenge. But a clear reflection is evident in the policy that the curriculum will provide enough scope for addressing local practices and knowledge, diversities in form of languages, cultures, social settings, occupations, etc.
- Ten–day bagless period in grades 6 to 8 at the middle stage of school education emphasises learning outcomes based on ensuring skills and competencies and to acquaint the learners with the required proficiency in education.
- National debate on reducing curriculum load at the school education stage may be well accommodated with the practicing

of ten-day bagless curriculum. After all, acquisition of contextual skills and competencies from the school curriculum are the prime requirements for the learners.

- Practicing mother tongue as a medium of instruction, both at the private and public schools at least till the completion of Class V preferably till Class VIII is one of the important recommendations of NEP 2020.
- The above language practices, specifically for implementing mother tongue as medium of instruction in both types of schools needs to be planned and executed properly as India is a multi-lingual country and it has many diversities so far as languages, cultures, traditions, and local lifestyle is concerned.
- Development of learning resources (textbooks) for the students at the school level is recommended to develop national textbooks with local content and flavour and also to be published in multiple languages. It develops spirit among the young students that the content which has been included in the textbooks are not the matter of another world, but, that is truly related with the life of the students.
- Recommendations of a learner–centered constructivist assessment strategy for moving from rote learning to authentic system of continuous assessment culture in the school is one of the important concerns of the NEP 2020. A holistic practice of 360-degree multi-dimensional assessment strategy which includes learning progress as well as uniqueness of each learner in their cognitive, affective, and psychomotor domains is also recommended.
- Implementation of varieties of assessment techniques may it be self or peer assessment, practice of project and enquiry based learning and assessment strategy, quizzes, role-play, group work, portfolios, etc., emphasises for developing a culture of assessment for enhancing learning by continuous comprehensive assessment.
- Implications for improving school performance in terms of authentic and quality learning by the students, ensuring access and equity for all, achieving learning outcomes, acquisition of values and life skills, addressing the need of Children With Special Needs (CWSN) in the inclusive schools, governance of the schools in terms of allocation of funds by the central and state Governments, etc. are the major focuses for realizing quality schooling of the children.
- The proposal of setting up a National Assessment Centre, PARAKH (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development) as a standard-setting body under MHRD that

fulfils the basic objectives of setting norms, standards, and guidelines for student assessment and evaluation for all types of schools.

- The above recommendation will deal with issues relating to achieving a definite education standard and maintaining outcome-based learning in different subjects, especially in foundational literacy and numeracy.
- Retaining of two board examinations at the secondary stage at the completion of Classes X and XII with an exit option at Class X for joining various vocational courses is also a way forward for engaging the learners in various skill oriented vocational courses.
- Skills and competencies cannot be separated from any academic programme. It is therefore, with vertical mobility that there should be horizontal mobility so far as liberal education and vocational skill based education is concerned. Exit after Class X and joining vocational education branch is definitely a welcoming step.
- Engaging the National Testing Agency (NTA) in a big way for conducting high quality common aptitude test as well as specialised common subject, exam of different subjects, at least twice every year with the purpose to enable most universities to use these common entrance exams rather than having hundreds of universities each devising their own entrance exams.
- Conducting common aptitude test by NTA can solve many questions about maintaining transparency in admission system, making examinations economical in terms of time, money and effort, and maintaining parity in examination with the syllabi across the universities.
- Extension of Teacher Eligibility Test for teacher recruitment at all stages of school examination, i.e., at the Foundational, Preparatory, Middle and Secondary stages is again a welcoming step for ensuring quality in education.
- Implantation of 50 hours of Continuous Professional Development through online and other modes for every teacher on various contextual themes emphasises the establishment of a culture to acquaint the teachers with various recent developments that happen across the globe.
- Continuous professional development of teachers is one of the needs of the hour as knowledge, pedagogy and technology are continuously changing. It is therefore, making it compulsory for attaining 50 hours of CPD (online of blended) as another step for providing quality education at the school level.

NEP 2020 on Teacher Education—Recommendations and Critical Analysis

This has been observed in the recent past that teacher education is undergoing a crisis, not in terms of quantity but quality. Mushroom growth of teacher education somehow neglects its quality parameters. In NEP 2020, this has been realised that a transformation strategy of teacher education has been planned to take care of preparing quality and dedicated teachers. Let us focus upon some of the highlights in the NEP 2020 on teacher education.

- Moving teacher education gradually into multidisciplinary colleges and universities by 2030 so that the trainees will undergo subject and pedagogical studies simultaneously and prepare themselves effectively with the required knowledge base, skills and competencies.
- Establishing huge multidisciplinary institutions requires much funding for development of resources, both human and material. Again, ensuring quality education in the multi-disciplinary institute is also another concern as it is difficult to find quality teachers in different subject areas.
- By 2030, a four-year integrated B.Ed. degree programme will be the minimum qualification of the teachers. Only the multidisciplinary institutions (colleges and the universities) are recommended to offer this integrated B.Ed. programme.
- The recommendation seems unrealistic as a single four-year teacher education programme may not solve the requirement of teachers in the country and it also brings limitation for the choices of pursuing a teacher education programme at any stage of one's life.
- Apart from the above, NEP 2020 has also given its recommendations that the multidisciplinary higher education institutions offering the four–year in-class integrated B.Ed. programme and having accreditation for ODL may also offer high-quality B.Ed. programmes in blended or ODL mode to students in remote or difficult-to-access locations and also to in-service teachers who are aiming to enhance their qualification.
- This is one of the welcoming steps by the NEP that the strength of blended and ODL system of education, particularly in teacher education has been realised.

NEP 2020 on Higher Education—Recommendations and Critical Analysis

Keeping in consideration of the achievement of the 21st century skills, quality higher education must aim to develop good, thoughtful, well-rounded, and creative individuals. Maintaining quality in the higher education system depends upon a

culture of quality school education system in the country. The specific recommendations that we have discussed in the school education section provides a clue to shape a progressive and forward look of taking up higher education issues in the country. Higher education substantially contributes towards sustainable livelihoods and economic developments in the country. It further works for achievement of the constitutional obligations through our higher education system in view of establishing a democratic, just, socially conscious, cultured, and humane nation upholding liberty, equality, equity, fraternity, and justice for all. Focusing on the fundamental principles of NEP 2020, the specific recommendations that have been given in NEP 2020 are as follows:

- Making higher education multidisciplinary and providing students with a wide range of choices of subjects and disciplines in their degree and further education.
- Establishing a National Research Foundation for prioritising research in higher education system as it is one of the integral parts of higher education system with regular teaching.
- Governance of higher education system is always full of events over the years and the issues need to be addressed through a single regulatory body in higher education.
- Implementation of an alternative system of education like online, blended and ODL education is the need of the hour for increasing Gross Enrollment Ratio (GER) and to maintain access, equity, and inclusion through a range of measures, including greater opportunities for outstanding public education; scholarships by private/ philanthropic universities for disadvantaged and underprivileged students.
- Moving to convert all higher education institutions as multidisciplinary institutions by 2030 and to increase substantial students' strengths in thousands and accordingly, development of infrastructure and other quality requirements by 2040.
- The target of achieving Gross Enrolment Ratio in higher education including vocational education from 26.3 per cent (in 2018) to 50 per cent by 2035 is another vision before NEP 2020 to materialise through planning and transformation in higher education system. In this regard, the role of Open Universities, Online and ODL systems of education have been appreciated and recommended to work for increasing GER.
- Replacing the multiple concept of higher education institutions such as 'deemed to be university', 'affiliating university', 'affiliating technical university', 'unitary university' simply by a name of

'university' on fulfilling the criteria as per norms. It should focus on undergraduate, graduate, and post graduate, Ph.D. programmes, and engage in high-quality teaching and research.

- Provision of establishing model public universities for holistic and multidisciplinary education, at par with IITs, IIMs, etc., called MERUs (Multidisciplinary Education and Research Universities) to be set up that will aim to attain the highest global standards in quality education. They will also help set the highest standards for multidisciplinary education across India (NEP 2020).
- The above recommendation will help not only to move from an interdisciplinary teaching-learning environment but also towards a multi-trans-disciplinary teaching-learning environment. Further, the recommendation also emphasises to establish institutions of higher learning at par with the global standards thus aiming to come in global institutional ranking.
- The existing Choice Based Credit System (CBCS) of education at the UG and PG levels will be retained with its revised form for providing wider multidisciplinary subject choices to the students and credit transfer from one institute to an other at the same level and programme.
- The existing CBCS system of UG and PG curriculum provides wider opportunity and scope to the learners for selecting subjects of their own choice and to study the skill-based courses that will further help the learners to engage themselves in world of work. It is the need of the hour to make the CBCS based curriculum more skill and competency based. The implementation of the above recommendation will work in this direction.
- A substantial visionary statement has been made to bring back the concept of Vishwa Guru and to restore its glory by internationalising education and to facilitate international students in India. Specific recommendations in this regard focus on establishment of an International Students Office in every higher education institution, permitting top 100 universities in the world to operate in India and to operate high performing Indian universities/institutions in other countries.
- The above recommendation emphasises to break the isolation in the higher education system and to make the system flexible, movable and work in collaboration with international organisations and bodies. Knowledge sharing and movement of students are possible when we have a quality institution that performs as per the global requirements. The recommendation will work in this regard.

- NEP 2020 has emphasised for the high take up in engaging 50 per cent of learners through the school and higher education system shall have exposure to vocational education by 2025. In this regard, the National Skill Development Corporation (NSDC) has already beenengaged for proving vocational and skill-based education to the candidates and further it needs to be integrated with various higher education programmes. The NSDC achievement with 538 training partners, 10,373 training centres, 20.45 lakh trained in different skills, and 1.86 lakh placements by 2019–20 is really significant and further it needs to be incorporated with higher education system (NSDC, 2019–20).
- The above recommendations on incorporation of skill components in higher education, liberal and professional programmes and integrating skills as part of every course in academic programmes is a visionary step as the value of any academic programme is to prepare individuals for engaging themselves in world of work and to live their life. In CBCS based UG and PG curriculum, it is already present but there is a need to revisit it and further skill components need to be included where there is a scope to include.
- The NEP 2020 envisions the establishment of a National Research Foundation (NRF) with the overarching goal to enable a culture of research in our universities, its funding, bringing quality in research and funding both in academic and systemic researches.
- Research one of the pillars of any higher education system. Prioritising research is to bring higher education institutions at par with the global standards. The proposed National Research Foundation should focus upon the systematic and innovative areas to promote research, providing requisite funds for it and to prepare a dedicated team of researchers to conduct research.
- Establishment of a common and single point regulator for higher education in the name of the National Higher Education Regulatory Council (NHERC) will function for four institutional structures such as regulation, accreditation, funding, and academic standard setting.
- The above recommendation is the need of the hour as it has been observed that there is lack of coordination between the regulatory bodies, institutions, accredidation, etc. Establishment of NHERC may solve many difficulties relating to regulatory functions at the same time to bring transparency in the higher education system.
- Use of online education system and digitalising resources for easy

dissemination of knowledge is now an unavoidable requirement. The benefits of knowledge and its dissemination should not only be limited for few sections of the society or in the urban areas. It should reach the remote areas and its students should access the best teaching and quality learning resources. This is possible by using and promoting technology in education. SWAYAM based online courses and other digital learning initiatives of the Government are working in this line, but there is a need to look into the difficulties coming in it and accordingly implement into the mainstream education.

Summary and Discussions

The vision and fundamental principles of NEP 2020 is no doubt based upon an objective progressive thought. This has been articulated keeping in consideration the developments taking place around the globe at the recent time and with a prospective implementation. As mentioned above in the school, teacher and higher education system, there is a need to maintain equitable development among the institutions in terms of its vertical and horizontal growth both in quantity and quality. Creating a just society and achieving equality, equity and quality in education system, which is a pre-requisite of our Constitution, is possible by timely implementing the recommendations highlighted in NEP 2020.

The huge system of education may be school or higher education that caters to more than 260.597 million students (Classes I–XII) in school education with more than 1.522 million schools (MHRD, 2018) and 51,649 higher education institutions including 993 Universities; 10,725 stand alone institutions and 39,931 colleges (Statistics, 2020) catering to 37.4 million students (MHRD, 2018–19) is the second largest system in the world. While catering to such a large quantity, maintaining equitable quality is definitely a challenge before all the concerns. Another important aspect is the huge diversity in India in terms of languages, culture, traditions, lifestyle, habits and belief. We consider all our diversities as our strengths and it makes us live united, irrespective of all our diversities. Maintaining an equitable quality in education in a wide diverse society needs a complete strategic plan of action and its fruitful implementation.

Making education system multilingual, promoting local knowledge and tradition, developing learning resources in multiple languages, maintaining parity between uniform and localised curriculum, reducing curriculum load by incorporating hands-on-activities and skill-based curriculum practices, developing vocational education parallel, making assessment system authentic and observation based and transparent, etc., are the major concerns for implementing the policy.

NEP 2020, in this regard provides a way forward and clear cut path to follow for achieving the goals. Vision of NEP 2020 cannot be achieved in a fragmented way; rather it can be achieved inclusively and holistically. It is therefore, from the beginning onwards of the foundational stage of education towards the higher and professional education, this has been evident that with the recommendations a suitable strategic implementation plan has also been discussed in the vision document. It may be in terms of establishment of National Curricular and Pedagogical Framework for Early Childhood Care and Education (NCPFECCE) by 2021, National Curriculum Framework for School Education (NCFSE) by 2021, National Curriculum Framework for Teacher Education (NCFTE) by 2021, National Higher Education Regulatory Council (NHERC), and other such national councils and bodies within a specific time bound period.

Spherically, when we talk about working of the policies and schemes on the field, it needs a lot of brainstorming, ground work, commitment to translate the policy into practice, involving all the stakeholders in the execution of the policies and schemes with defining their duties and roles, judicious investment in the institutions and a strong willpower of the Union and the State Governments. One of the beautiful things that can be mentioned here is that the Union Government has already been very proactive to translate the policy into practice and to implement it in its totality. This is evident that some of the recommendations have also been implemented or in the process of implementation. In this regard, nationwide discussions and debates have been started for formalising the implementation plan of NEP 2020. The national and state level councils, national institutions, regulatory bodies, universities, colleges, research institutions, government functionaries, non-government organizations, private bodies both at the central and state levels have already started in-depth discussions for framing the implementation plan to execute the policy.

Apart from the constructive efforts made as mentioned in the above paragraph, there is a need to be realistic that in the strategic plan which aspects of the policy should be implemented immediately and which later. An institutional time frame needs to be finalised to transform their courses and curriculum in line with the principles of the policy. All the stakeholders should feel responsible for things they are supposed to do. It includes appropriate Governments, institutions, regulatory bodies, national institutions, experts, teachers, parents, community members, non-government organizations, etc.

The country is very hopeful that the third national policy on education in the form of National Education Policy (NEP 2020) which is realised after 34 years of the implementation of the second National Policy on Education

(NPE, 1986) will be implemented minutely with its sections and sub-sections for transforming this country into truly a Vishwa Guru and to lead the country ahead in all aspects of its development.

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Propelling a Learning Environment in Schools
Significance of Principal and Teacher Leadership

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Abstract

The paper is centered on key leadership interventions in generating and sustaining environment conducive for learning in schools. The paper takes cognizance of creation of a positive culture to bridge the learning gaps, combat silent exclusion, addressing learning deficit in order to minimize school factors that hinder student learning. The paper also recommends changes a principal leader and teacher leader can bring in the overall school environment to facilitate student learning.

Focus on Learning and Development: The Shifting Paradigm

Indian school system, historically viewed as essentially 'examination centred' is now seen as a 'learning and development continuum'. There is a realisation today that measuring learning levels are only a part of the means and not an end in itself. Cigman (2008) clarifies that it is not simply about getting children to perform better in examinations; it is about getting them to feel better–more motivated, confident, happier–and about the idea that feeling good in these ways leads to success at school, and in life generally. The knowledge society today demands excellence and creativity in place of

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rote learning and examination-based performance.

In the emerging paradigm, schools are expected to identify the social and emotional aspects of learning as a key focus for their work with the children. The United Kingdom in 2005 recognised that the factors holding back student learning are associated with difficulties in understanding and managing the feelings of children, working co-operatively in groups, motivating them and demonstrating resilience in the face of setbacks. In India, after the emergence of NCF 2005 and NEP 2020, the schools are expected to aim to make learning a joyful activity to meet the complex and diverse learning needs of students. This calls for school Principals and teachers who think and act differently, while proactively nurturing learning. In the emerging paradigm, one would agree that 'learning to learn' is gaining momentum.

Understanding Learning and Culture of Learning in Schools

The Glossary of Educational Reform (last updated 29 August, 2013) explains

'Learning environment refers to the diverse physical locations, contexts, and cultures in which students learn... also encompasses the culture of a school or class—its presiding ethos and characteristics, including how individuals interact with and treat one another—as well as the ways in which teachers may organise an educational setting to facilitate learning...'

The schools where learning is constantly encouraged, every idea enriched, stimulating environment created is locked in a continuous cycle of *learning to learn*. Senge (1990), in his most popular writing on *The Fifth Discipline* explains learning organization as places "where people continually expand their capacity to create the results, they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together matters. The special feature of supporting teaching and learning, accommodating differential learning needs leave an everlasting impact on the learning and learning outcomes, and indirectly but strongly, on mental health and emotional well-being. Creation of an environment conducive to learning by the principal and teachers together creates stronger connections that result in holistic development of a child.

The Policy Pronouncement

There have been concerted policy recommendations on improving quality of school education. NPE 1986 (Para 5.15) emphasised on the importance of creation of a positive learning environment, coupled with attractive physical infrastructure and well qualified human resources. NEP 2020 (Para 5.8 to 5.14) strongly contends for a caring, vibrant, inclusive environment of schools

Box 1: Key Ideas

- ✓ A committed team ensures every student learns and every school excels.
- ✓ Generate a constructive learning climate.
- ✓ Sustain good teaching practices.
- ✓ Gradually transform from creation of learning milieu to a high-performance learning culture.
- ✓ Work as a team, distribute leadership, build highly motivated team and a learning culture.

conducive to learning for every child in this country. The Policy recognises the importance of positive teaching-learning culture that leads to improved learning outcomes. Para 5.13 indicates the *role expected of principals and teachers, explicit to include developing a caring and inclusive culture at their schools for effective learning and the benefit of all stakeholders*.

Issues and Challenges hampering Learning

Poor learning levels, low school completion rates even after completing several years of schooling have attracted considerable criticism all these years. Silent exclusion is the most critical factor pushing a child to discontinue education at any stage of schooling. This form of exclusion is hidden as no one would come to know that the student who keeps attending school regularly is hardly learning. If silent exclusion, learning gaps and learning deficits are to be addressed seriously, it becomes imperative to generate enabling conditions for every learner to be able to learn.

Attracting children to schools and retaining them in an environment which they might consider unfriendly is another challenge. The greater onus lies on school principal and teacher leader to work out on strategies for dispelling the fear and unfriendly school climate that is equally vital for holistic and balanced growth of the child, bringing the trust and confidence that schools stand as the biggest support to them for their emotional wellbeing. Therefore, in the first place, schools and classrooms need to focus on 'learning and learner'. In the second place, the schools need to become 'safe and conducive' institutions. These expectations bring to the fore, the need for making the whole system revolve around learning, total wellbeing and safety. This is not an easy proposition as it poses a huge challenge at system and institutional levels, particularly in varying school contexts.

Building Constructive Learning in Schools: What can a principal do?

There has to be a realisation that schooling in itself is not learning. When improving the school is the focus, learning becomes a priority.

Seen from this perspective, the School Principal follows a motto *All for learning*, a commitment, that leads to *Learning for all* (World Development Report, 2018, p. 16). At the heart of learning of every child in such schools, lies the untiring efforts of the principal in creating a supportive climate by building teams of committed teachers, collective creativity, reflective dialogues and the like. The domains where attention can be focused to reinforce learning in the school need special mention.

Become an academic leader

Academic leadership has strong linkages with student learning. Leithwood, Day and Sammons (2006) contended that academic leadership improves teaching and learning indirectly but influences staff motivation, commitment, and working conditions. The Principal as an academic leader guides through the teaching and learning, creates a positive work culture, gives freedom to experiment, innovates new ways of teaching and learning inside the school, but also connects teachers with professional learning community outside the school.

Create learning communities for social learning

The social engagement of school leader with professional learning communities outside the school provides an array of opportunities for teachers and SMC/SDMC members to share experiences, reflect on challenges, thus together refine ideas and enrich mutual learning. Social learning reinforced by the principal among students creates a chain of small learning communities in the school to shape a constructive positive climate for motivation; fosters an environment of trust, cooperation and empathy; models positive attitudes, respectful behaviour, helpful conversation and constructivist learning, absence of any kind of complexes like ridicule, sarcasm, or superiority; view others positively and treat them well. The peer group learns social virtues of cooperation, discipline, sharing, loyalty, morals, courage, resourcefulness and self-reliance. The learning communities also provide personalised learning environment to every student in the school. The students participate in the learning processes that promote higher order thinking, nurture differential learning needs and motivation to learn. Small learning communities provide a climate of personalised learning, allow students to link new learning with existing knowledge, build new knowledge following a constructivist approach, deriving learning from different members of learning community while creating own learning pathways. The more is the strive for absorbing learning, better is the confidence with renewed spirit, *I can do it*. Once the lost confidence is regained, the student restores all the thrill of learning from peer groups, teachers and teaching

community outside the school as well as professional learning communities. Such occasions create an overall stress-free environment charged with energy, interest, curiosity, excitement, humour and fun.

Increase the comfort levels of students

Feeling of safety and security add to the total wellbeing of all. The home environment may not be congenial for many students and they bring all sorts of baggage from home. The mental blocks created seriously hamper their learning curve and keeps impeding their learning cycle. It is important to recognise that mental health is a major hampering factor that should be seriously addressed. On the contrary, when a student comes to know that listening, sharing and caring environment is encouraged in school they are bound to break all mental states. Any time students break the shackles of mental hurdles and step outside their comfort zone to achieves higher, consider it a time of celebration.

Meeting psychological needs

A stimulating environment has the most powerful effect on the learner and on the process of learning. Such conditions are created where students and teachers become active learning partners in the process of learning. In such an environment where freedom of improvising and applying new innovative methods are encouraged, the confidence levels of teachers and students enhance. Learner's involvement in organising learning for themselves provides an impetus to satisfy learning needs of students and teachers, which is a major contributory factor for "feeling good" about learning. Also when a creative school Principal ignites the spark of creativity in the classrooms and teaching methodology, the mental space to absorb knowledge that comes through collective learning is bound to bring sparkle in the eyes of teachers and students, tangible excitement in all teaching and learning exercises, an active attempt to learn, a drive to find out, construct or reconstruct something new.

Be a reflective thinker

A reflective leader is endowed with the capability to look inwards and shape the way of functioning that reflect on what strategies will help in creating happiness and satisfaction for self, teachers and students. It's time to realise how important it is to examine, introspect, reflect on one's style of leadership and take decisions on matters of concern for a school which might have been lost unknowingly. The reflective leader can make connections between conflicting or disaggregated school processes, question one's own functioning, prioritise requirements and take the conscious controls to make the school a place where teachers and students feel comfortable while it carves out pathways for it's progression. Classroom visits, coaching and

mentoring of teachers foster collegial conversations about teaching and learning. A reflective leader helps the teacher and learners to see the world with a different lens; in the process, creates a reflective teacher and a reflective learner.

Nurturing Differential Learning Needs: What can teachers do?

Principal leadership influences teacher leadership to create appropriate learning spaces for every child in the school by planning and implementing activities around happy, caring, productive classrooms charged with excitement and stimulating learning experiences. Teacher leadership is what matters the most when it comes to nurturing learning needs of all children. Some of the measures discussed in this section carve pathways to facilitate learning of all.

Ensure vibrancy to reinforce learning in the classroom

Learners respond well to beautiful, attractive environments and activities that reinforce learning and creativity. It is important therefore to design classrooms that provide sufficient space to play and learn simultaneously (Vygotsky, 1978; Sawyer, 2006; World Bank Group, 2016 and 2019). Researchers also have evidences to state that cognitive development is closely linked to physical space utilisation as well as social interactions. The teachers use part of classroom wall space to celebrate student success. The physical environment emits positive energy that gives a feel of welcoming culture, boosts the interest and curiosity around, helping the students and teachers to reconstruct and embrace learning. No matter

Box 2: Key Ideas

- ✓ Create an ecosystem to enrich learning for all through formation of Professional Learning Community within the jurisdictions of a specified geographical area or formation of informal teaching teams, helping them learn and apply new teaching strategies, creative problem solving, overcoming subject-specific difficulties, handling problematic students, etc.
- ✓ Generate enabling conditions for teachers and students to learn and sustain the efforts for maintaining the culture of learning.
- ✓ Promote schools to become a learning organization and further build it as an innovative and creative institution to provide new experiences to teachers and learners and to give new meaning to a school.
- ✓ Cultivate beliefs that change is possible; every team member has the ability to create a culture of learning and potential to contribute to improved student learning.
- ✓ Small learning teams contribute to personalised learning teams. These teams have the capacity to bring a comprehensive reform in the structure and climate of schools.

how attractive a physical space is, learning can never happen if learners are not stimulated to learn. The teachers use a variety of instructional strategies and activities to make learning an insightful experience that nurtures a feeling that the school actually 'cares'. The students are taught problem-solving, conflict resolution and/or social skills. The emphasis is more on improvement rather than perfection. Some of the positive effects of stimulated learning leading to a vibrant classroom may be summarised as:

- Setting attainable goals and providing feedback at regular intervals.
- Introducing internal reinforcers by organising learning around students' interests and potentials.
- Capturing the interest of learners by making tasks challenging.
- Taking the learning trajectory from beliefs and attitudes to causes of successes and failures.
- Instilling confidence among learners that they can "do it" by enhancing the expectations of students about their capacities to succeed.
- Setting goals to attain mastery by establishing linkages between existing skills and new tasks, supporting every action and effort, ensuring success and the reinforcing self-confidence at every stage.
- Providing a variety of choices for students like writing a paper, making a presentation on the topic chosen. Teachers may feel that they may have less personal influence on learning, but certainly can suggest ways to support learning.

Nurture uniqueness in every learner

Students learn differently and in a variety of ways. Therefore, differential learning abilities call for a variety of styles of instruction. The beginning can be made by gauging the prior knowledge of every student which one will find through the three categories of learning potential:

- Learners may look at the whole picture by taking all segments of knowledge together as one whole.
- Learners may interpret with different meanings in a particular context in which it has occurred. The teacher can integrate both types of learning to help them learn to adjust to the learning challenges.
- Learners may become impulsive and respond either quickly or more thoughtfully.

The category in which students fall will be understood by their responsiveness in the class or the choice of assignments. The techniques may include creating visual images to relate new information with already learnt information and organising information into an easily remembered structure. A teacher can include multiple tasks in learning to benefit students in matching their

preferences with levels of learning and to adjust to the task challenges that do not match their preferences. Students may respond to different activities in different ways depending on their preferences for learning. Assessing the range of understanding and remediation for those falling below 25 percentile rank can certainly help the teacher to understand the higher order learning needs of every child. The teacher's task is not easy, but it's important not to single out even one student.

Preparing Students for lifelong learning

Promoting lifelong learning is a way to make students socially aware by engaging them in activities that refine their thoughts, helping them to become successful adults. The students can be given the opportunity to choose and experiment with their skills. Problem-based learning and research projects where students hypothesise, explore and discover will enhance critical thinking and problem solving skills on their own.

Addressing different levels of learning

The increasing demands for showing better performance of every child in a class every year have placed the teachers at crossroads. It is mind blogging for them to decide which way to move, especially when they are in hurry to complete the syllabus while at the same time are on everyday treadmill to make students learn by all means even if the understanding levels are low. Bloom's taxonomy (1984) provides a direction to teachers to think about their teaching and subsequent learning of their students. The taxonomy provides six levels of learning as arranged in a sequential order starting from remembering, understanding, applying, analysing, evaluating and eventually creating. It helps in developing a newer insight, allowing students to follow a ladder for learning at their own pace that is more sustainable and enduring.

The taxonomy teaches a teacher to think critically about the students capabilities and accordingly plan for teaching different topics, prepare lesson plans, diagnose the problem areas in all the subjects, identify differential learning needs, analyse teaching strategies followed by regular assessment with multiple techniques. The mantra is to find ways of engaging the students all year round and repeating again and again until the concepts are retained in the minds of students while at the same time map learning around projects, experimentation and exploration. The taxonomy helps the teacher in establishing a connect between students and classroom instruction, and both become co-learners in this journey of learning. Regular assessments help to ensure that all the teachers and students are deeply engaged. Assessment-based feedback sheets work well, quizzes help and group tasks make understanding of concepts easier. A

The Six Levels of Bloom's Taxonomy

L1: Remember *(Example activities Memorize a poem, recall state capitals, remember math formulas)*

L2: Understand *(Example activities Organise the animal kingdom based on a given framework, illustrate the difference between a rectangle and square, summarise the plot of a simple story)*

L3: Apply *(Example activities Use a formula to solve a problem, select a design to meet a purpose, reconstruct the passage of a new law through a given government/system)*

L4: Analyse *(Example activities Identify the 'parts of' democracy, explain how the steps of the scientific process work together, identify why a machine isn't working)*

L5: Evaluate *(Example activities Make a judgment regarding an ethical dilemma, interpret the significance of a given law of physics, illustrate the relative value of a technological innovation in a specific setting—a tool that helps recover topsoil farming, for example)*

L6: Create *(Example activities Design a new solution to an 'old' problem that honours/acknowledges the previous failures, delete the least useful arguments in a persuasive essay, write a poem based on a given theme and tone)*

Source: https://www.teachthought.com/learning/what-is-blooms-taxonomy-a-definition-for-teachers/

blend of teaching a particular concept followed by a simple assessment after every class enriches learning at every level of learning. Students are measured against their own progress than in competition with others, backed with immediate feedback and reinforcement for further learning until one attains mastery in learning.

Correct problematic behaviour of students

The teacher divides the target behaviours into small, easy to achieve steps, arranged in logical sequence that would build a complete behaviour. There are common set of rules every student is expected to follow. The teacher creates opportunities for students to learn, maintain regulation, discipline and mechanisms for students to monitor their own learning and pace of learning and cycles of review, reflection and feedback. Sometimes positive reinforcers help, but many a times fail if not properly executed. The cause of certain behaviour needs to be understood and then an effective way to handle the problems needs to be designed. One way is to involve students in framing draft rules for themselves, supported with statements for justifications. The draft can be placed for discussion with the school learning community that becomes accepted norms for the entire school to follow. It is equally important to have a strategy appropriate to the nature of misconduct or indiscipline. In some instances, parent training in application of behavioural techniques work, while in others, techniques like social praise, or role-play or by

creation of hypothetical situations where students participate in setting the rules for appropriate behaviour.

Improve cognitive abilities

Anderson (1983) stressed on the importance of mental associations inferred by the learners in the instruction. The role of a teacher becomes crucial in maximising learning where learners' attention is directed to critical features of information by increasing the memory storage using strategies including analogies, examples, clear definitions, focused attention of students by highlighting in bold the main ideas, essence and abstractions. Content can be presented in concept maps or flow diagrams. The prime idea is to make information more meaningful and relevant for learners by helping them to develop mental associations. In the entire learning pathways, instructional practices can be presented in hypertext and hyper media.

Hypertext: Concepts linked to one another are well organised but in unique or creative ways.

Hyper media: Mimics the ideas and thoughts; but associations are established when these are consistent as well.

The capacity to learn seizes when too many demands are made right before examination time. Instead of being able to concentrate on probable test questions, the students tend to divide attention among multiple perceptions around and therefore, the learning capacity gets lost in anxiety and stress on what and how they would fair. Site maps can be used to help mark the position and path for the learner to give a direction to learning.

Improve metacognition in learning

When learners are given charge of the directing course of their learning, they master their own thought processes and self-guided understanding levels. In metacognition model, the teacher directs his/her own learning by demonstration on how thinking and practice works by solving a problem or problems in the class in the presence of students. In this model, the students are involved in setting goals, making decisions and evaluating the entire process in a continuous manner. The students construct their own learning, work on a continuum from prior/simple knowledge on the understanding of existing knowledge, link with new knowledge and draw on the context of the learning situation. In the process, the learner becomes aware of all learning and guides the process of storage, filter through divergent views and retrieves the learnt concept, familiarised with the process of thinking that leads to learning. These are built into the regular activities of the class. One can say with all conviction, learning becomes more enduring when it originates from interactions of personal characteristics, behaviour and environmental factors.

Multiple evaluation techniques closer to learning levels of students

As the learning progresses in students, the more connect with classroom instruction gets established. The teacher can devise multiple techniques of evaluation which essentially need to be creative as well assessing a variety of learning among students. The workload of teachers might increase but by end of the day, they will feel more content when they get much higher rewards than the time invested in deciding the techniques. Trigger think-pair-share model is one where frequent questioning happens after sharing a presentation where other students pose questions seeking further clarifications. Another method is what Angelo and Cross (1993) calls "minute papers" in which opportunities are provided to learners to get feedback on their level/degree of understanding.

Sustaining the culture of learning

Fullan (2002) vehemently pointed out that *most changes are structural and superficial* until culture is transformed to make change more enduring and everlasting. Today when the entire social and educational matrix is changing, the conventional belief system does not simply work. In the present context, quoting Kotter (1996) who describes culture as "the norms of behaviours and shared values among a group of people" (p. 148), one can foresee a need to create a new belief system by aligning perceptions, behaviour, attitudes with the transformed belief system. When learners are made to believe that they can learn, they also start working harder. A deeper impact for sustainability of a change becomes more stronger when all the stakeholders are locked in a continuous cycle of re-culturing. The major onus for initiating and sustaining the process depends on principal and teacher leadership.

Box 3: Key Ideas

- ✓ Students to be engaged with instructions, giving enormous opportunities for involvement in various activities of choice, interests, reinforcing their thinking, bringing clarity that eventually leads to learning.
- ✓ Instruction to be coupled with motivation, caring environment, safety, creativity, constructive thinking and empathy.
- ✓ Students do better when one believes they can; they also do better when they can and therefore work harder and harder, and efforts too get linked with student learning. Their confidence enhances when their efforts to learn do not go unnoticed or futile.
- ✓ Beliefs can be made stronger by creating a strong belief that beliefs may not be "seen" but structures that create beliefs can be seen. tested, measured, understood and lessons derived.

The process starts with setting of a new vision, supporting the new belief, followed by a strong commitment to a new belief. The principal and teachers together work on a new approach and partnerships for distributed accountability and new strategies to push learning as an experience that remains lifelong with the students. It's all about training the minds that becomes a habit. Over the years, if followed seriously becomes the culture of an institution, deeply embedded and ingrained as a necessary condition for ever lasting impact.

Conclusion

NEP 2020 articulates the need for creating a climate conducive to learning with a hope that a roadmap for principals and teachers will help create an ecosystem that supports learners and learning. The promotion of learning in schools would largely depend on sustenance of a climate conducive to learning. It is not enough to provide signposts to the leadership pathways, but a realisation that proactive action taken by the principals and teachers helps transform schools into Schools of Excellence.

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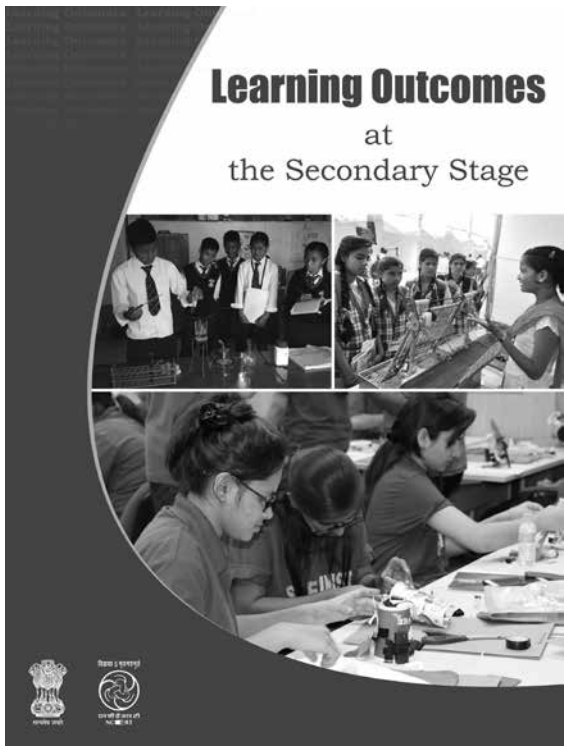

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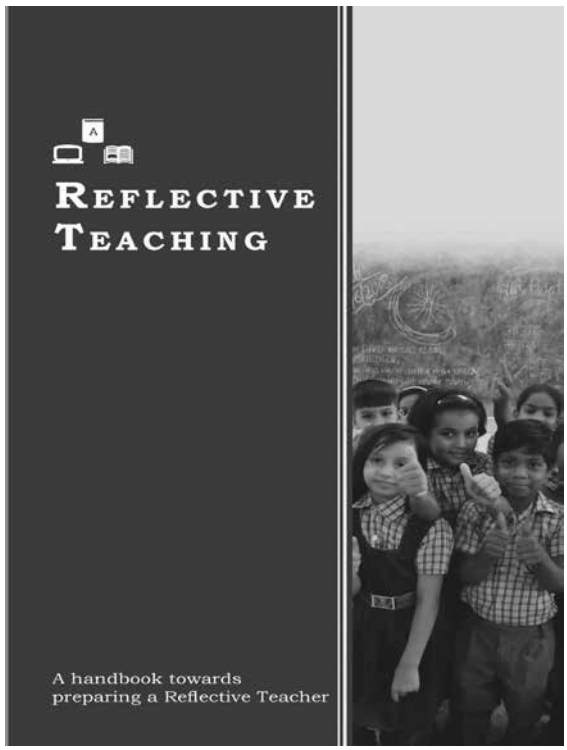

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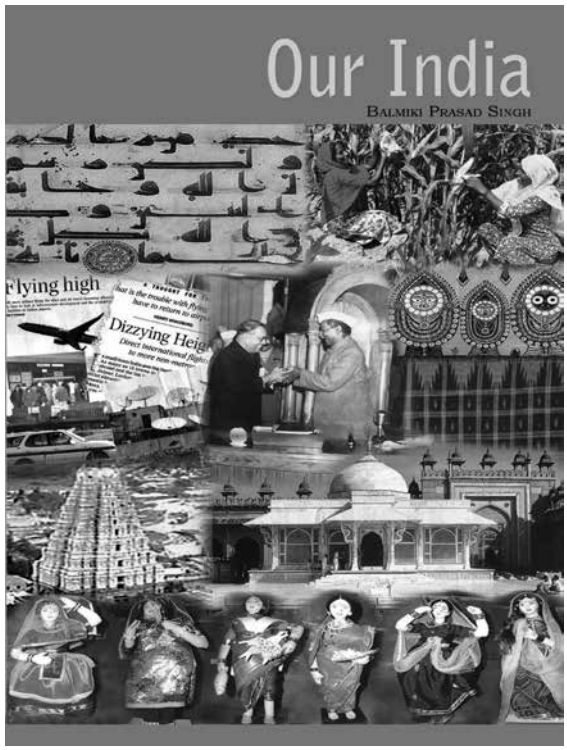

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