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BOOK REVIEWS

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Assessment of Students' Performance by Self, Peer and Teacher in Fashion Education: A Comparative Perspective

Gudimetla Chiranjeevi Reddy*
Karanam Pushpanadham#

Abstract

Assessment is an integral part of the teaching learning process and it is very important for improving the quality of teaching and enhancing the learning outcomes of the students. Researchers have conducted experiments of involving students and their peers in the assessment process along with the teachers to study the assessment results. The findings are useful to view assessment as learning in the higher education and thereby orienting teachers and students towards it. The paper highlights the need and importance of involving students in the assessment practices in higher education, especially in the field of fashion education.

* Fashion and Lifestyle Accessory Design Department, National Institute of Fashion Technology, Opp: Cyber Tower, Madhapur, Hyderabad - 500081, Telangana, India, Email: gudimetla.reddy@nift.ac.in

Department of Educational Administration, Faculty of Education and Psychology, The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat-390002, India, Email: pushpanadham@gmail.com

Introduction

Teaching and learning process in higher education requires to be understood in a different way when compared with the processes of school education. It requires versatile pedagogy based on its knowledge domain and the purpose of the education. Making the students self-sustained, self-determined and lifelong learners has gained significant importance in the 21st-century education. According to Li (2010), critical thinking skills, creative thinking skills, communication skills and meta-cognitive ability have been emphasised in the present era, in different content areas at different learning stages in both Western and Asian educational systems. Students' evaluation is one of the important aspects and integral parts of the teaching and learning process. The United States has a hybrid of examination-driven and performance-driven culture; Canada has a performance-driven culture, and Asia has predominantly an examination-driven culture in their educational systems (Hudson, 2009). In the evaluation process of any formal education, assessment is an essential component. According to Harlen *et al* (1992), assessment is in education the process of gathering, interpreting, recording, and using information about pupils' responses to an academic task, whereas in the evaluation process the parts, processes or outcomes of programmes are examined to see whether they are satisfied with reference to the stated objectives of the programme (Tuckman, 1975). Facilitating students' effective and unbiased assessment are always major concerns for all the thriving educational institutions. It is very challenging in design and fashion education where aesthetics, creativity, innovation and forecast of future trends need to be assessed mainly based on outcomes in the visual format. Fairness, accuracy and consistency of assessment are the main concern of the students. The accountability and success of any educational process and the students' achievements are apparently determined based on the marks/grades obtained by the students. Formative and summative, and internal and external, are the two broad classifications established in the students' assessment practices of any education.

Components of assessment (knowledge, skill, attitude and beliefs), assessment criteria (context, procedures, guidelines and weightages), medium of assignment outcome (written exam, report, presentation, submission, viva voice, jury, virtual, etc) and the assessor (tutor, expert, student, peer, etc) are four important aspects of any assessment practice. Based on the learning objectives of the course, these four components need to be appropriately designed. The clarity in the above components provides the base for effective assessment. Assessment as a learning requires active engagement of the learner and the tutor (Pushpanadham, 2018). In the last few decades, some studies found that self and peer assessments are also used as effective tools of learning (Boud 1989; Sluijsmans *et al*, 1998; Gonzalez & Godino, 2014).

Important benefits of self and peer assessment of students were identified by various researchers. These include critical thinking, responsibility of learning, motivation, range of perspectives, depth of understanding, clarity on concepts and theories, evaluation capability, meta-cognition (Boud, 1989; McDowell 1995; Paris & Cunningham, 1996; Searby & Ewers, 1997; Black and William, 1998; Sluijsmans *et al*, 1998; Paris & Paris, 2001; Taras, 2001; Carless, 2009; Hattie, 2009; Gonzalez *et al*, 2014). According to Stefani (1994) the benefits of self and peer learning will help the students to be successful in their professional career. The limitations identified in these assessments by various authors are reliability and validity of these methods, procedural complexity, teachers' competency in administering, fear of

teachers' authority, students' reluctance in participation, and confidentiality of result (McDowell, 1995; Dochy *et al*, 1999; Lew & Schmidt, 2006). According to a study conducted by Fletcher *et al* (2012), the conceptions of teachers and students are very different about students' assessment in higher education. According to the findings of this research the teachers perceived that the assessment aids in teaching and learning whereas students contemplate this to be primarily about accountability, and irrelevant or ignore in the teaching and learning process. Majority of the higher education institutions in India follow traditional approaches for students that are recommended by a competent authority or practiced over the years. Innovations are hardly found in the students' assessment in the Indian higher education system (Pushpanadham, 2018).

Significance of the Study

In the progression of learning processes, a breakthrough from a knowledge-based, examination-driven system to student-centred, performance-driven concepts with meta-cognition has been widely required across different higher education systems in Indian fashion education. As a result of the recent rapid technological revolution and globalisation, sources of information and knowledge have been exponentially growing and almost freely and instantly available to all the aspirant learners with a variety of expositions. This has been creating demand for student-centred approaches in all aspects of teaching and learning process to make them individual learners and evaluators. Which in-turn creates demand for self and peer assessment capabilities.

Fashion education is an interdisciplinary and vocational in nature is having a wide variety of assignments and need different assessment approaches. Small class size (1:35, teacher student ratio), real-life orientation, continuous thriving for creativity and innovation are important aspects of the fashion education. Collaborative and group working culture is an important feature in the curriculum and its transaction of the fashion education. Project-based learning in fashion education demands individual interaction of the student with teacher. Approaches of self and peer assessments are much more relevant and informally practiced in the fashion education domain. According to Reddy (2014), fashion design education programmes provide ample scope for interdisciplinary knowledge base; opportunities in new evolving design areas; portfolio working career occupations and self-employment. The benefits of self and peer assessment have long been identified in the higher education sector. They are more relevant and appropriate in the 21st century of web 2.0, web 3.0 and advanced technologies. Despite the wide scope of self and peer assessments, there were no studies found specific to fashion design education to understand the practicality of such approaches and students perceptions and opinions on them. The purpose of the present study is to examine the variations of self and peers with respect to teacher assessment and to seek the perceptions of students on these alternative assessment practices.

Objectives of the Study

Based on the above purpose. the following two objectives were formulated:

1. To study the outcomes of self, peers and teachers assessment in the fashion education.
2. To study the perceptions of the fashion education students with respect to self, peer and teacher assessment practices.

Research Methodology

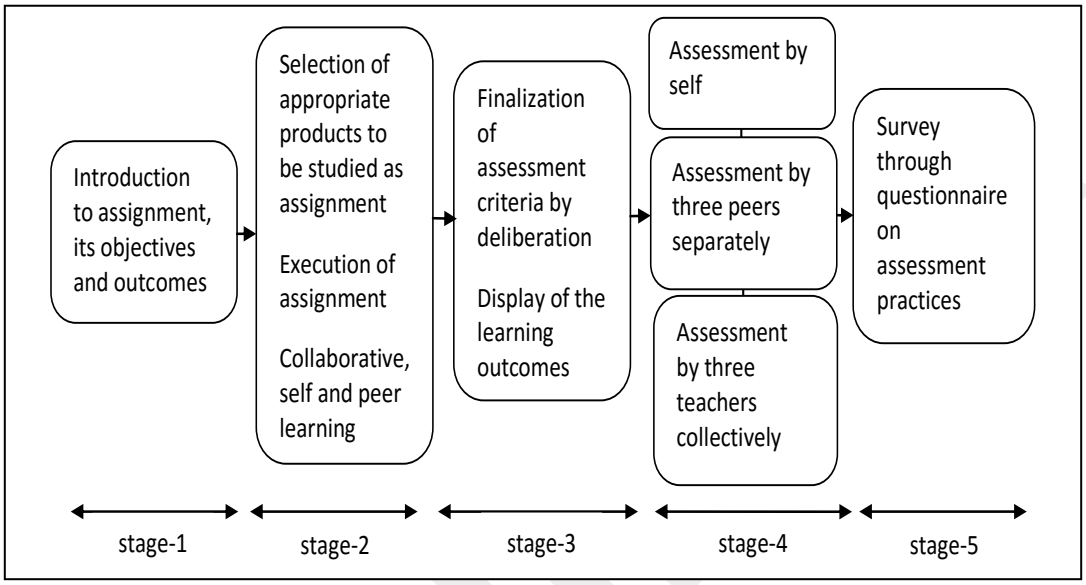
It was an experimental study. Second year undergraduate students of Fashion and Life Style Accessory Design of the National Institute of Fashion Technology were chosen as sample for the study. Sampled students were in the age group of 18-20 years. The concerned teachers were included in the study. The study was conducted on two classes of total 49 students (8 male and 41 female). The sampled students willingly and actively participated in the study.

Procedure of Study

The study was conducted by selecting an existing assignment from Technical Studies-1 subject of Fashion and Lifestyle Accessory Design programme. The study was conducted in the regular class hours and as per the scheduled academic calendar. It was an individual assignment wherein which each student was required to present their learning outcomes separately. The chosen assignment for the study was carefully framed, formulated and explained to the students for necessary execution. In the assignment, students need to identify any lifestyle accessory or allied product and explore the materials, manufacturing processes, surface finishes and assembly techniques that were undergone to make the finished product. The main objective of the assignment was to make the students understand application of various materials and processes involved in making of different real life products related to their specialisation of fashion and lifestyle accessories. The disassembled product and the findings in the form of an illustrated A2- ivory sheet were outcomes of the assignment. The assignment was conducted as a full day running module for one week duration. The pictorial representation of the important stages of the study is given in Fig 1 below.

FIGURE 1

Pictorial Representation of Important Stages in the Study



Students were encouraged and briefed about different available resources like; subject expert teachers, internet, resource centre (library), periodicals etc and were free to access or refer during the formal class time with the teacher's permission. Important strategies applied in the curriculum transaction during the assignment execution were

1) Autonomy for students to choose their interested product.
2) Self and collaborative learning to understand the product material and manufacturing details.
3) Assessment criteria and schedules through deliberations.
4) Peer learning (sharing the novel experiences) throughout the assignment.
5) Emphasis on motivation, introspection and capability development.
6) Formative evaluation by teachers and peers.

Procedure of Conducting Assessments

To record the students' performance during the assignment, three formats were prepared and used. Assessed marks as per the finalised criteria were collected from three modes of assessment. The three modes of assessments were by self, by three randomly selected peer students, and by two subject teachers and a lab assistant (stage-4 of the study). The total weightage of the selected assignment in the subject was 20 per cent (20 marks). The evaluation criterion was bifurcated, into four categories; choice of the product, the depth of the study, composition, and presentation. Therefore each bifurcated criterion had weightage of 5 marks. Each student was asked to give marks confidentially for three

randomly selected peers. The average peer assessed mark of each student was calculated and rounded-off to 1/2 mark whereas the teachers gave consolidated marks for each student with mutual concern. Teacher assessment was, helped by a Machine Mechanic, to make it more precise, who assisted the students in the studio to complete their assignments. All the students and teachers were thoroughly briefed about the assessment criteria and the context of the assignment. The institution is following an eight point grading system for the conversion between grades, grade points and descriptive grades. Details of the same are given below as Table 1.

TABLE 1

Assessment Grade Points, Grades and Their Description

Grade	*A*	*A -*	*B*	*B -*	*C*	*C -*	*D*	*F*
Grade point	10	9	8	7	6	5	4	< 4
Description	Excellent	Very Good	Good	Fair	Satisfactory	Average	Low Pass	Fail

Based on the second objective of the study a questionnaire was designed and administered to students. It has total of 11 items; 5 on self-assessment, 5 on peer assessment and 1 on their preference of choice out of the three modes of assessment. Each questionnaire had 5 point scale rating from poor to outstanding, barely to strongest or never to always. These questionnaires were distributed and collected back after being filled by the individual students in the class during the stage-5 of the study. In the paper teacher assessment means an assessment by two teachers and one machine mechanic together.

Results and Findings

The results were analysed and presented in two sections according to the objectives of the study. In the first section significance of Pearson's correlation and the comparative study findings are presented, and in the second section opinion of students were presented.

Coorrelation and Comparison between Assessed Marks

In order to find the first objective of the study the collected marks of the sample were analyzed through desscriptive and infrential stasticks. To compare the assigned scores by the three modes of assessment are presented below along with the their descriptive statistics as Table 2.

TABLE 2

Descriptive Statistics of Assessed Marks (Maximum Marks: 20)

Assessment by	*Range*	*Minimum*	*Maximum*	*Mean*	*Std. Deviation*
Teacher	5.5	13.5	19	16.01	1.35
Self	6	12	18	15.57	1.32
Peers	5.5	12.5	18	14.95	1.24

From Table 2, the mean values of the obtained marks are more in teacher assessment (16.01), moderate in self assessment (15.57) and low in peer assessment (14.95). The standard deviation is more in the teachers assessed marks (1.35) followed by self assessed marks (1.32) and pears assessed marks (1.24). In order to find a corelation, the three modes of assessemnt the collected marks of the sample were analyzed through Pearson's Correlations Coefficient. The findings were tabulated below as Table 3.

TABLE 3

Pearson's Correlations Coefficients of Assessed Marks (N = 49)

	By teacher	*By self*	*By peers*
By teacher	1		
By self	.531**	1	
By peers	.522**	.497**	1

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

From Table 3 it was found that there was a significant corelation at 0.01 level between all thee combination of assessed marks.

To understand the marks distribution pattern a frequency line graph of the assessed marks by self, peers, and teacher were represented in the following Figure 2. To study the percentage of students falling in different grades as per the institution grading system by different modes the following Table 4 has been computed.

FIGURE 2

Line graph representing the frequency of students against assessed marks

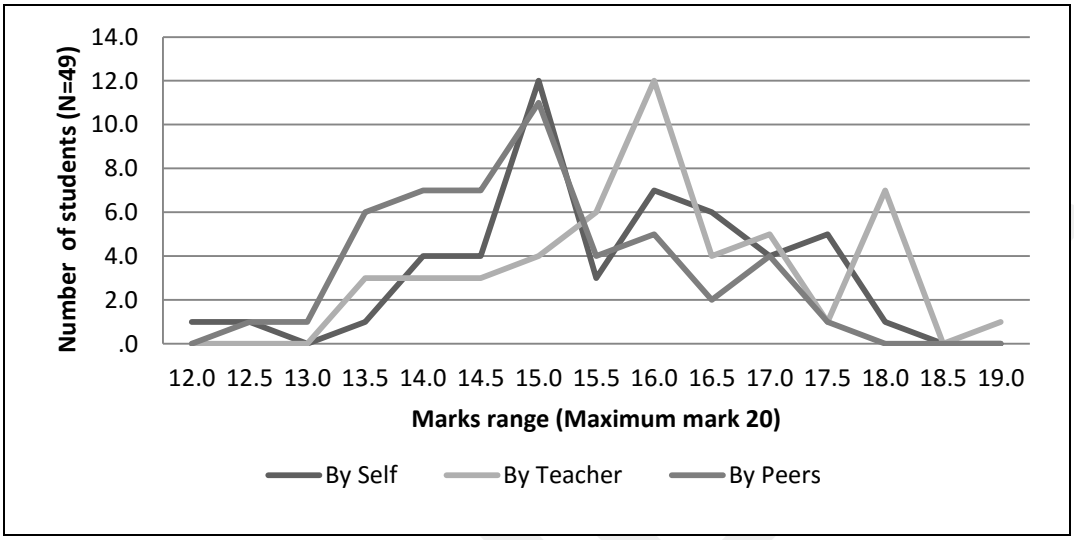


TABLE 4

Description of Students' Grades in Percentages (N = 49)

Assessed	*Excellent*	*Very Good*	*Good*	*Fair*
By self	2.0 per cent	44.9 per cent	46.9 per cent	6.1 per cent
By peers	Nil	24.5 per cent	59.2 per cent	16.3 per cent
By teacher	16.3 per cent	44.9 per cent	32.7 per cent	6.1 per cent

From Figure 2 and Table 4 it was found that the highest frequency mark (15) is same for self and peer assessment, whereas for teacher assessment it is 16 marks accounting to 5 per cent higher than the others. In the peer assessment none of the students got the excellent grade, whereas only 2.0 per cent and 16.3 per cent students got the excellent grade by self and teacher assessments. In all the modes of assessment more than 80 per cent of the students are falling in *Very Good* or *Good* grades only. None of the students got below the fair grade. Below the fair grade there are four descriptive grades namely; *Satisfactory, Average, Low Pass* and *Fail.*

To study the parameters of the normal distribution, a histogram with normal distribution curve of each self, peers and teacher assessed marks are presented in the following Figure 3 and skewness and kurtosis values are tabulated in Table 5 below.

FIGURE 3

Histogram of self, teacher and peer assessed marks from left to right

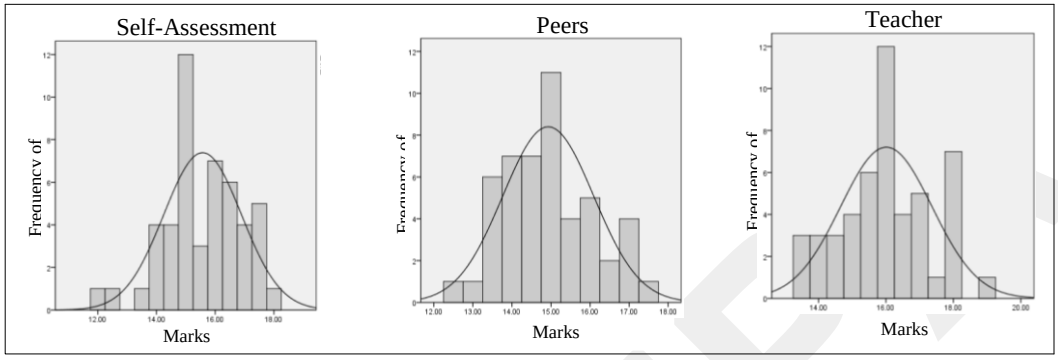


TABLE 5

Skewness and Kurtosis of Assessed Mark's by Self, Peers and Teacher

Assessed by	*Skewness*		*Kurtosis*	
	Statistic	*Std. error*	*Statistic*	*Std. error*
Self	- 0.365	0.34	+ 0.090	0.668
Peers	+ 0.313	0.34	- 0.473	0.668
Teachers	+ 0.03	0.34	- 0.488	0.668

From Figure 3 and Table 5 it was found that the statistical mode of the assessed marks of the self, peers and teacher were 15, 15, 16 with a frequency of 12, 11, 12 respectively. The frequency at statistical mode in all three cases are outranged from the normal distribution. The frequencies at 17.5, 17 and 18 marks of teachers, self and peers were also respectively outranged from the normal distribution. The teacher and peers assessed marks were positively skewed with a value of 0.03 and 0.313, whereas self-assessed marks were negatively skewed with a value of 0.365. However, kurtosis values were below the normality in peers (- 0.473) and teacher assessment (- 0.488) and above normality in self-assessment (+ 0.090).

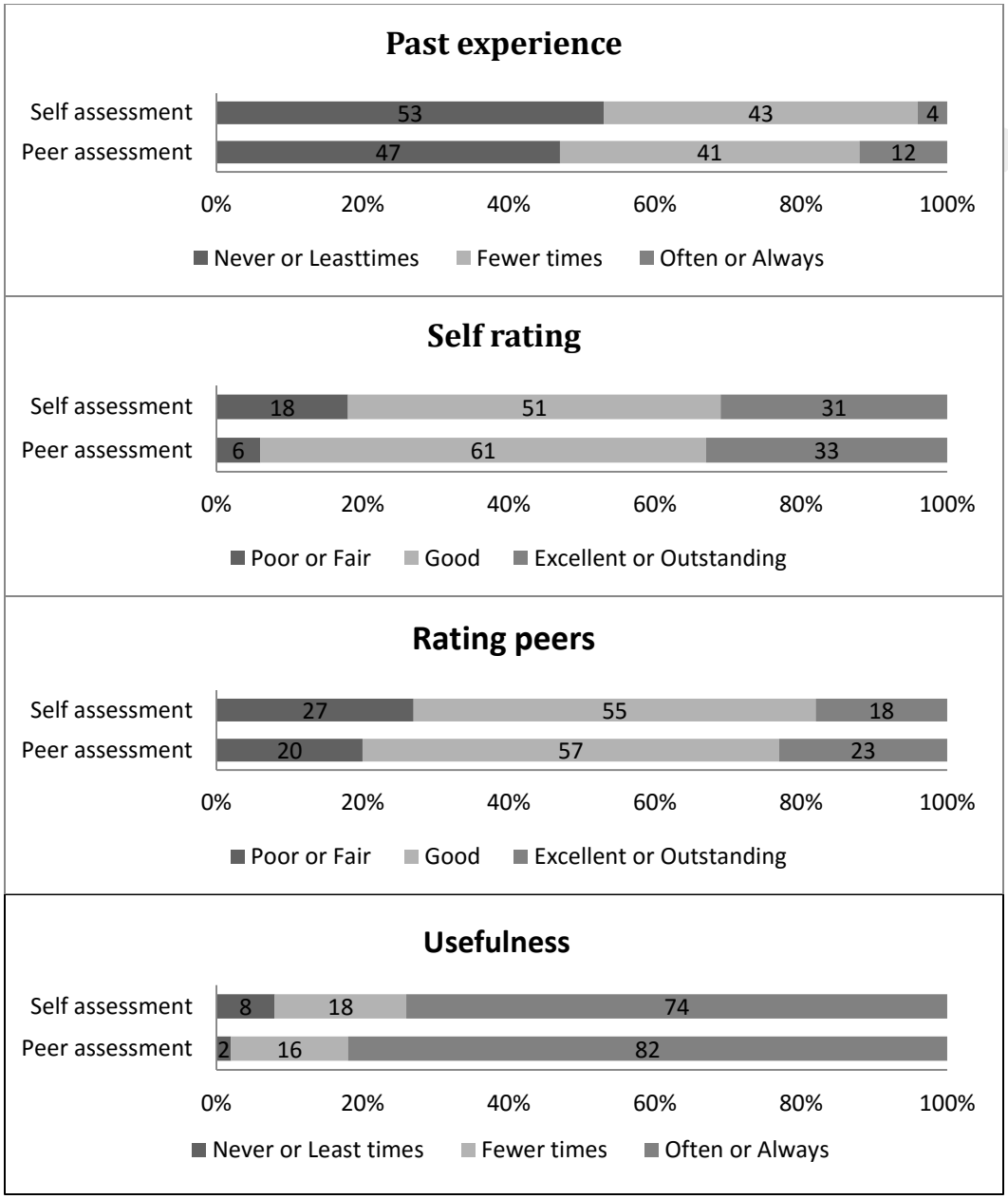
The study revealed that the three modes of assessment followed the same pattern with respect to the students' performance. Those students who were assessed high by self were also rated high by peers and teacher. The assessed marks in all three modes exhibited normality.

Students Perceptions on Assessments

In order to realise the second objective of the study, a survey was conducted after the completion of the assessments of the assignment (step-5 of the study). The opted data of all fourty-nine (49) students were analysed with descriptive statistics in percentages. The result so obtained were presented in bar graphs as Figure 4.

FIGURE 4

Clustered bar graphs representing the perceptions of students in percentages on past experience, self rating, peer rating and overall usefulness of self and peer assessment in percentages.



From Figure 4 it may be observed that about 50 per cent of the students were not at all formally exposed to self and peer assessment. More than 80 per cent of the students perceive that they were *Good* or above grade in self and peer assessment. More than 70 per cent of the students perceived that their peers were *Good* or above grade in self and peer assessments. More the 70 per cent of the students opined that often or always self and peer assignments were useful in the teaching learning process. The survey findings on peer assessment discrimination and assessment criteria development are presented in Table 6 below.

TABLE6

Peer and Self-Assessment

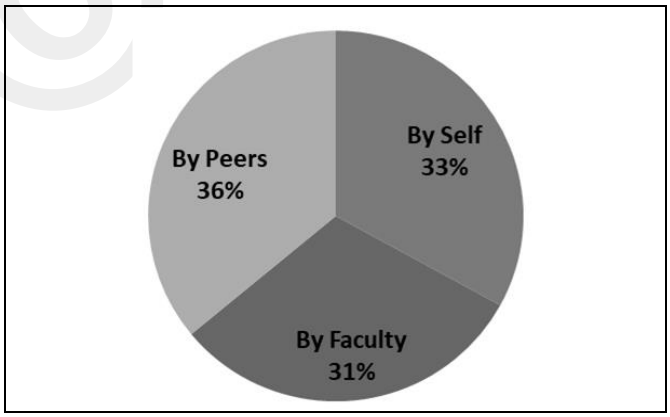
S.no	*Perception*	*Never or Least times*	*Fewer Times*	*Often or Always*
1	Chances of discrimination in peer assessment	19	55	26
2	Development of evaluation capability through self-assessment	11	44	45

From Table 6 above it can be observed that only 26 per cent of the students opined that there are often or always a chance of discrimination during the peer assessment. Some 45 per cent of the students have perceived that self-assessment develops evaluation capability of students in the learning process.

The first preference of the students on assessment is shown as pie graph in Figure 5. A maximum of 36 per cent students opted for peer assessment it is 5 per cent more than teacher assessment and 3 per cent more than self-assessment.

FIGURE 5

Students' 1st preference of assessment choice



Major Findings

The study found that graduating students of fashion and lifestyle accessory design have competency to do self and peer assessments. The students' assessed marks by self and by peers have significance at 0.01 level followed the pattern of marks given by the teachers. There was a marginal difference in the values of range and standard deviation of the marks among the three types of assessment, whereas as per the descriptive grades the differences between the three types of assessed marks have a considerable difference. In the peer assessment, the maximum percentage of students (59.2 per cent) obtained *Good* grade. But in both; by self and by teacher assessment maximum percentage of students (44.9 per cent) obtained *Very Good* grade. Overall the peer assessment was found stricter compared to self and teacher assessment. In all the three types of assessments the marks have majorly followed normal distribution curve indicating a high validity of the assessments but at two different levels of marks the normal distribution frequency values are outranged.

It was found that majority of the students were not exposed to alternate assessment formal practices. However, they perceived that they are capable to undertake such assessments. Similarly, most of the students also perceive that their peers are also competent to assess themselves and their peers. Most of the students were of the opinion that these alternate assessment practices are always useful for effective learning. Some of the students have apprehended that there is a possibility of discrimination while doing self and peer assessments. After getting the formal exposure to peer and self-assessment, 36 per cent of students' first preference was peer assessment which is 3 per cent and 6 per cent more than self and teacher assessment respectively. Almost all the students were delighted and open to self and peer approaches of assessment during the study. In the present and future education of information technology and easy access to knowledge, imbibing these qualities among the students has been one of the essential aspects of higher education in the evaluations.

Conclusion

Assessment is an important and an integral part of any learning process. Learners need authentic feedback on how successfully they have managed to achieve the aims of the process or what needs to be done in order to master all requirements. Higher education needs to provide proofs of the outcomes and that is typically organised through exams and continuous assessment of the course. The course needs to display clearly and explicitly what is expected from the students and how they are going to be assessed. The teachers in higher education needs to keep in mind the appropriate balance of the assessment methods chosen for a particular course since one assessment method cannot demonstrate all student´s achievements in all aspects. The feeling of fairness in assessment practice is very important to enhance faith and trust in the examination system.

In fashion education, the students undergo various stages in the learning process of each module. Each stage in the learning process is a prerequisite to the next stage and the success of the preceding stage determines the level of achievement in the next stage. The students' assessments are mostly practical and subjective. Each student has to explore their ideas to convert into products or services through different stages. Providing individual feedback and helping the students to judge themselves is always a challenge for the teachers in the fashion

education. Unless otherwise students' understand the evaluation criteria, and practice of self-evaluation and peer evaluation, it is very difficult to engage students in the assessment process.

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Understanding Growth and Development of Primary Education in North-East India[#]

Komol Singha[*]
Rajesh Raj S N[**]
Khangembam Indira[***]

Abstract

Primary school education in North-East India (NEI) seems to be quite complex due to its socio-economic, cultural and geographical diversity. Though there has been a marked improvement in school level education performance in the recent past, a wide inter-state variation is found in the region. Using secondary data and employing descriptive statistics, this paper analyses the growth and trends of primary education in NEI. Further, with the help of composite index and regression analyses, this paper probes the role of physical infrastructures and investment on the primary school performance in the region. Improvement in the physical infrastructures and the development in teacher related factors lead to reduction in primary school dropout rate in NEI. As expected, an increase in the expenditure on education leads to an improvement in the children's transition rate from the primary to upper primary level. It is also found that the private English medium school per se does not guarantee school performance.

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[*] Department of Economics, Sikkim University, Gangtok-737102, India,
Email: komolhijam2@yahoo.com

[**] Department of Economics, Sikkim University, Gangtok-737102, India, Email: rraj@cus.ac.in

[***] Department of Sociology, Sikkim University, Gangtok-737102, India, Email: kindira@cus.ac.in

Introduction

Quality education starts from the primary level, and no higher education can be achieved effectively without completing primary school education (Singha 2010). A well-known education system in the world is complementarities of three levels, which are sequentially connected in a bottom-up manner as: elementary/primary school — middle/high school — higher education (Agarwal and Ramesh 2013: 180; Hoxby 2004: 229). The basic objective of the school education is to make children start learning their social, cultural and cognitive skills from the early age. As the level of competition is getting tougher day after day, children must be prepared with skills and knowledge from the starting phase of their lives. In India, government owns around 75 per cent of the total elementary schools and not less than 65 per cent of the children are enrolled in government schools (NEP 2016: 64). However, the push for privatisation and commercialisation of education reflected in the New Education Policy 2019 seems to have defeated the national objective of promoting and strengthening public education (Bhushan 2019: 13).

Most of the traditional theories (NEP 2016: 17; United Nations 2016; World Bank 2005; UNESCO 2003) on elementary education attach a significant importance to mother tongue-based medium of instruction. A numbers of studies have also shown that children learn the best in their mother-tongue (NEP 2019: 79; Mody 2019; UNESCO 2003; Yip, Tsang and Cheung 2003; Adetula 1990: 360). However, the effects of globalisation and the growing demand for English education have led to English medium schools occupying a major role in education sector in the world today, especially in the developing countries. There is a practical reason for this. Most of the study materials, around 94 per cent, for the technical subjects and academic research at the higher education are published in English language (Galloway 2017; Al-Bakri 2017). But, in the recent past, many English-medium public schools in the state of Assam shut down due to poor enrolment (Kalita 2019). As a result of which, Assam government has been converting government schools into multilingual ones to attract more students (Konwar 2014). Despite this initiative, Assam recorded the highest school (grade I-V) dropout rate at 10.1 per cent in 2017-18 in the country (The Indian Express 2020). Similarly, in Manipur, with an objective to develop public schools and protect regional language, the state government warned its employees of strict action if their children are not sent to public schools (Kangla Online 2017). Interestingly, in the recent past, the same government has taken initiatives towards amalgamation of 237 public schools for enhancing the quality of education in schools (E-Pao 2019a; Kangla Online 2017). Despite this initiative, the state tops the enrolment of students in private schools in the country (E-Pao 2019b). In this manner, the policy makers and the state governments of North East India (NEI or region hereafter) are finding it difficult to identify the factors influencing elementary education performance.

Literature Review

Since the early 1960s, from the seminal works of T W Schultz to Gary S Becker, the importance of education on human as well as economic development has been extensively studied. The growth of human capital, other than the conventional non-human capitals, is the most basic feature of the economic growth (Schultz 1960). The effective number of years of schooling is also considered as one of the important measures of human development

indicator. Investment in human capital has a direct effect on observed earnings primarily due to the earnings tend to be the net of investment costs and gross of investment returns (Becker 1962: 43). Longer the years of an individual's education and/or training, the better is his earning capacity. Opportunity cost of attending school and workers acquiring on-the-job training are clear examples of better earning capacity (Schultz 1960). Differentials in earnings between two individuals are basically due to investment differentials in education (Schultz 1961: 4). Therefore, investment in education definitely makes a great difference in a country's overall development in the long run. Though India consistently failed in increasing education spending to at-least six per cent of GDP in the past (Govinda and Bandyopadhyay 2011: 32), the union budget 2020 has proposed an increase in allocation to six per cent, in line with the NITI Aayog's suggestion of improving education quality (Business Today 2020).

Akareem and Hossain (2016: 62) found that the "education quality is heavily influenced by the university they study at, scholarship status, extra-curricular activities, parents' education, age, and previous educational success." For achieving better quality higher education, an integrated approach in education planning is needed, starting from the elementary level (Darling-Hammond et al 2019; Persaud 2016). While a study conducted by the Centre on Education Policy found that the children of the low-income category studying in the urban public schools perform better than the private schools (CEP 2007). According to Mythili (2002: 2349), for achieving quality education, apart from providing basic and appropriate physical infrastructure including teachers and other socio-economic background of the parents, the role of the community and their active participation are equally important. Another study by Lee and Barro (1997: 30), using cross section of the countries' school children test score proved that both family and school inputs do have equal influence on the children's school performance. To evaluate performance and identify the strengths and the weaknesses of school education system in India, using 30 critical indicators, NITI Aayog developed an index, the School Education Quality Index and found that there are large variations in the outcome scores in the country. The smaller states and Union Territories, especially the NEI, outperformed the bigger states of the country (NITI Aayog 2019: 4 - 8). When the global rankings of school student performance (math, reading and science) slipped down in United States of America (USA) in 2015, a five step measures were suggested for improving students' performance. They are — a) improve classroom ambience by reducing overcrowded classrooms, b) prioritise in funding schools, c) check dropout by reducing student punishments and other restorative justice works, d) raise standards for teachers, and e) put classroom running and curriculum designing decisions in the hands of the community (American University 2019). Similarly, Hoxby (2004: 219 - 225) suggested for making school accountability and raising teachers' quality for the declining trend of school education performance in the USA from 1970 to 2000. In the early 1990s, three basic key performance indicators that consist of many more sub-indicators have been developed to measure school performance in Europe. They are — context, resource development and outcomes (Strand 1997: 147). McKinsey & Co (2007) also suggested for improving teachers' quality and ensuring that schools deliver high quality instruction consistently to children. In a recent study in India's NEI, Thangjam and Singh (2018: 200) found that mother's education and socio-economic conditions of the children have a positive impact on performance of the school level education. The National Policy Education 2016 emphasised on the basic infrastructure facilities— appropriate class rooms, toilets and drinking water. Once these basic infrastructures are in place the children's dropout rate,

transition rate and overall quality of learning in the school education can be significantly improved (NEP 2016: 64).

However, in a multilingual state or country, the medium of instruction in the schools is also an important issue. In this regard Milligan and Tikly (2016: 277) mentioned that the "language is central to learning, but is rarely given sufficient prominence in international debates." But, the larger question is — can education be provided to all when it is packaged in a language, spoken by a dominant community? In this regard, Mohanty (2016) warned parents that "studying in English medium school does not automatically make your child proficient in English." The New Education Policy 2019 suggested an important strategy that apart from the teaching our children in the their mother tongue or regional languages the "English must also be made available and taught in a high quality manner at all government and non-government schools, but it must be merely for functionality and fluency, not as a medium of instruction" (NEP 2019: 82). However, with the passage of time, the importance of English language has been increasingly felt by everyone. According to Kinyaduka and Kiwara (2013), proficiency in the language of instruction in English has great impact on the learner's academic performance in Tanzania. Even nine of the renowned economists[1] expressed their regret over dropping English as a medium of instruction in the school level in West Bengal (Banerjee et al 2002: 4206). Similarly, in the country's NEI, especially among the tribal areas, the English education has been one of the most important driving forces for their fast pace of development in the recent past (Singha 2010). Even the parents are almost obsessed about their children's education in English, and proficiency in English is also perceived as a way for upward social mobility. This led to mushrooming of self-financing English medium private schools in the country, and the preferred option even among the low income parents, which in turn eroded quality of education to a great extent (Sebastian 2010: 72). This increasing obsessed among the parents about the English medium school is even seen in the villages. In Haryana, a very significant enrolment growth was witnessed in government schools after the introduction of English-medium of instruction in those schools. As a result of which, a large number of children have started shifting from the neighbouring private English medium schools to government/public English medium schools in Haryana (Narwana 2019: 198).

Objectives and Methods

The conflicting policies and the indecisive initiatives of the state governments in NEI have convoluted the school education system. The policy makers are very much confused in making a concrete decision on whether to adopt the regional/mother-tongue or the English medium of instruction in the school level education. Whether the performance of primary education is influenced by physical infrastructures like building, classrooms, toilet facilities, etc or the soft infrastructures like teacher related factors and other innovations is another issue less debated in NEI. With the help of secondary data, the present study makes an attempt to explore the factor(s) responsible for development of primary education in the region.

[1] The nine renowned economists are: Abhijit Banerjee, Pranab Barshan, Kaushik Basu, Mrinal Dutta Chaudhuri, Maitreesh Ghatak, Ashok Sanhay Guha, Mukul Majumdar, Dilip Mookherjee and Debraj Ray.

The specific objectives are:

1. to assess growth and development of primary education in NEI,
2. to identify the factor(s) responsible for enhancing the primary education performance in NEI, and
3. to explore the growth and the importance of English medium of education in NEI.

In this study, the term "school" implies educational institutions catering to elementary/primary level education (Class I-V) and the "private school" implies English medium schools run by the private individuals/agencies. The study is based on secondary data. The data on the primary schools for the period 2001 to 2016 are drawn from the different reports/agencies, namely National Sample Survey (NSS), PRATHAM's Annual Status of Education Reports (ASER), State Report Cards (SRC) of National University of Educational Planning and Administration, population census reports, Reserve Bank of India and basic statistics of North Eastern Council. Data are gathered mainly on variables such as literacy rate, investment and so on. With the help of descriptive statistics, growth and trends of primary education system including English education in the region have been assessed. Thereafter, by employing min-max normalisation technique, the state-wise five composite elementary education indices — Elementary Education Performance Index, Infrastructure Index, Teacher Index, Expenditure/Investment Index and Extra-curricular Index, have been constructed. While constructing composite indices, to capture long term effects, the averages of the different components/variables for the period from 2001 till 2016 have been considered. Detail of the index is given in Section 5.2. Lastly, using different explanatory variables two regression models — Ordinary Least Squares Regression (OLS) and Panel Data Regression — have been analysed. The dropout rate has been taken as proxy for elementary school performance, and through the regression analysis, this paper identifies the factors which might have influenced dropout rate. Details of the regression models' specification, variables and techniques are given in respective sections.

Growth of School Education Infrastructure

Basic Statistics and Literacy Rate in NEI

The NEI consisting of eight states — Arunachal Pradesh, Assam, Manipur, Mizoram, Meghalaya, Nagaland, Sikkim and Tripura — is considered as a mosaic of different languages, cultures and communities. Approximately 220 languages are found to be spoken in this region (Northeast Today 2019).

From Table 1 it is evident that the state of Arunachal Pradesh is the largest state in terms of geographical area, followed by Assam. Sikkim is the smallest state in the region. In terms of density of population, Arunachal Pradesh turns out to be the smallest state with 17 people per sq km of land area, while Assam the highest with 398 people per sq km, even higher than that of the national level of 382/sq km. It is followed by Tripura with 350 people/sq km. Mizoram, Nagaland, Meghalaya and Arunachal Pradesh are identified as tribal states with Scheduled Tribe (ST) population accounting for 94 per cent, 87 per cent, 86 per cent and 69 per cent of the total population respectively.

TABLE 1

Basic Statistics of NEI (based on 2011 census)

Items/Components	*Arunachal*	*Assam*	*Manipur*	*Meghalaya*	*Mizoram*	*Nagaland*	*Sikkim*	*Tripura*	*India*
Geographical Area (in '000 sq. km)	83.74	78.44	22.33	22.43	21.08	16.58	7.10	10.49	3287
Population (in lakh)	13.8	311.7	27.2	29.6	10.9	19.8	6.1	36.7	12109
Sex Ratio (in No.)	938	958	992	989	976	931	890	960	940
Population Density/sq km	17	398	115	132	52	119	86	350	382
ST Population (in %)	68.8	12.4	35.1	86.1	94.4	86.5	33.8	31.8	8.6
SC Population (in %)	0.01	7.2	3.8	0.6	0.1	0	4.6	17.8	16.6
Literacy rate (in %)	65.4	72.2	76.9	74.4	91.3	79.6	81.4	87.2	74.0
PCI at Current Prices (Rs in '000)	84.9	46.4	36.9	58.5	63.4	77.5	176.5	61.0	63.7
Surfaced Road Density*	0.16	0.68	0.47	0.35	0.38	1.02	0.68	1.39	0.77
Household Electrified (in %)	55.5	28.4	61.2	51.6	68.8	75.2	90.2	59.5	55.2
Village Electrified (in 2013 in %)	75.5	96.2	86.3	86.3	93.5	70.1	100.0	92.9	94.5

Source: Authors' Estimation

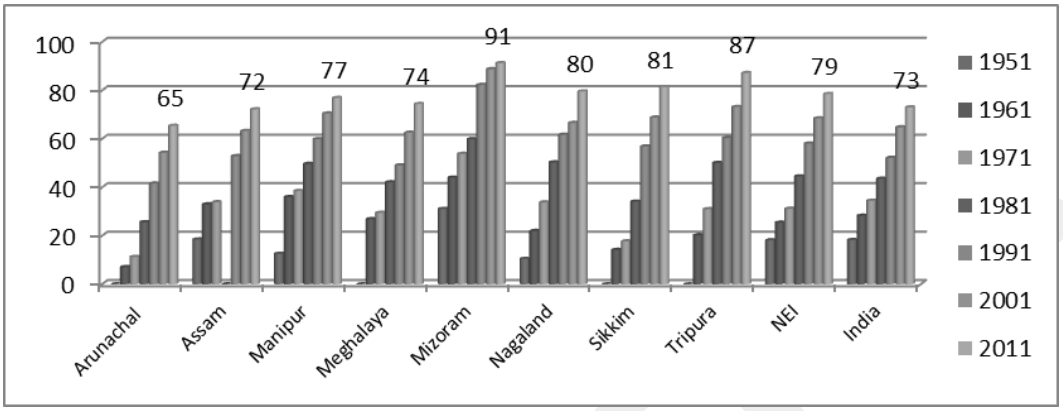
*Excluding JRY roads, and the density in terms of the km of surfaced road/sq. km. of land area

In terms of per capita income (PCI) at current prices, Sikkim ranks the highest in the region with Rs 177 thousands of PCI, plausibly due to its small population size. The four states of the region — Assam, Manipur, Meghalaya and Tripura — have the lowest per capita income in the region, lower than the national average PCI of Rs 64 thousand.

Of these states, Manipur ranks the lowest with a PCI of Rs 37 thousand. As for the literacy rate, most of the states performed better than the national average barring Assam with 72 per cent and Arunachal Pradesh with 65 per cent. In number of villages electrified, majority of states in the region lag behind the national average; only the states of Assam and Sikkim outperformed the national average. When it comes to the percentage of households electrified, barring Assam and Meghalaya, all states have reported household electrification rates above the national average (Table 1).

FIGURE 1

Literacy Rate (all level) in NEI and India (in %)



Source: Authors' Estimation

Notes: Data were unavailable for Arunachal Pradesh, Meghalaya, Sikkim and Tripura for 1951. The population census exercise was not carried out for Assam in 1981.

Figure 1 reflects the literacy rate across the states from 1951 to 2011 and also makes a comparison with the national average. It is clearly visible that the bigger states in the region (Arunachal Pradesh and Assam) lag far behind the smaller states. The smaller states of the region, namely, Mizoram (91 per cent), Tripura (87 per cent), Sikkim (81 per cent), Nagaland (80 per cent), Manipur (77 per cent) and Meghalaya (74 per cent), have reported literacy rates above the national average of 73 per cent. However, states like Assam (72 per cent) and Arunachal Pradesh (65 per cent) are much behind the national average of literacy rate.

Expenditure on Education

The public expenditure on education as a share of GDP in India has increased very slowly, from around 1 per cent in the 1950s to 3 per cent in 2020 (RBI 2019). This share includes expenditure on education incurred both by the states and centre. However, the share of the centre has never exceeded 1 per cent throughout the period (MHRD various reports). When we look at the share of primary education expenditure as a share of total public expenditure on education at the national level, it reported a decline from 30 per cent in 1999 to 28.4 per cent in 2013. The per student education expenditure at the primary level as a share of GDP per capita was found to be 11.9 per cent in 1999 and later declined to 9.8 per cent in 2013 (World Bank 2019).

TABLE 2

State's Expenditure on Education as Ratio to Aggregate Expenditure (in %)

States	*Arunachal*	*Assam*	*Manipur*	*Meghalaya*	*Mizoram*	*Nagaland*	*Sikkim*	*Tripura*	*India*
2001-02	13.3	21.9	13.7	17.9	16.0	11.0	8.0	18.6	16.2
2002-03	12.1	22.4	13.3	15.3	14.5	11.0	7.6	19.2	15.1
2003-04	9.1	22.3	13.1	15.2	12.0	10.8	11.8	18.3	12.6
2004-05	10.7	17.0	15.3	15.0	13.8	11.0	8.8	20.0	12.7
2005-06	9.9	20.8	15.4	15.5	13.4	11.6	10.4	15.3	14.2
2006-07	10.7	20.4	11.9	14.1	13.8	12.3	10.5	15.1	14.0
2007-08	10.8	20.1	14.2	15.5	13.2	11.4	9.2	15.1	13.8
2008-09	11.4	18.8	12.0	12.8	14.1	11.2	10.6	14.4	14.3
2009-10	12.2	16.4	11.9	14.8	14.9	11.3	12.4	16.2	15.3
2010-11	10.8	22.0	10.7	16.1	14.9	13.4	17.3	17.2	16.6
2011-12	11.4	20.3	10.6	17.3	15.7	12.1	14.0	17.0	16.3
2012-13	12.2	20.6	11.7	15.8	15.7	13.2	15.0	15.9	16.4
2013-14	11.5	22.6	12.8	16.6	17.1	15.3	15.6	16.4	16.5
2014-15	13.2	24.7	14.0	17.1	17.4	13.7	15.8	15.5	16.0
2015-16	11.6	25.5	12.5	16.2	17.6	14.0	17.6	15.5	15.3
2016-17	12.3	22.0	12.2	16.1	15.8	12.9	17.1	15.8	14.7
2017-18	12.3	21.6	12.3	17.8	14.3	12.6	15.7	18.5	15.0
Average	11.5	21.1	12.8	15.8	15.0	12.3	12.8	16.7	15.0
CAGR	0.7	0.7	-0.9	0.6	1.2	1.6	5.1	-0.7	0.8

Source: RBI (2019)
Note: Expenditure on education includes expenditure on Sports, Art and Culture under revenue expenditure and capital outlay, and CAGR implies Compound Annual Growth Rate

Now we turn to a discussion on the inter-state differences in education spending (ratio of expenditure on education to aggregate expenditure). The spending on education sector is found to be 16 per cent and above in Assam, Meghalaya, Mizoram and Tripura in 2001-02 while the other four states, Arunachal Pradesh, Manipur, Nagaland and Sikkim, reported to have spent less than 16 per cent on education sector. However, the shares of expenditure on education for the states of Assam, Meghalaya and Tripura have been very high throughout the period, higher than that of the all India level. Since 2001-02, the states of Arunachal Pradesh, Manipur, Nagaland and Sikkim have been expending less on education as a share of state's aggregate expenditure. The four states — Assam, Meghalaya, Sikkim and Tripura — have registered higher share of spending, above the national level in 2017-18 (Table 2). But the growth rate (CAGR) of the other four states — Arunachal Pradesh, Mizoram, Nagaland and Sikkim — have been much higher than the national level throughout the period of study.

TABLE 3

Per Child Spending (Rs in '000) on School Education (Class I-XII)

States	*2012-13*	*2013-14*	*2014-15 (RE)*	*2015-16 (BE)*	*CAGR*
Arunachal	17.0	25.8	36.7	34.0	27.5
Assam	6.2	6.6	8.6	15.0	33.8
Manipur	3.5	3.6	21.2	21.4	105.5
Meghalaya	10.8	11.4	20.1	14.5	15.6
Mizoram	27.3	33.5	33.6	35.7	8.4
Nagaland	16.3	18.6	21.7	26.7	17.8
Sikkim	35.4	43.7	52.8	59.8	19.3
Tripura	14.8	18.4	22.5	27.9	23.4

Source: Kundu *et al* (2016: 18)

Note: RE and BE represent Revised Estimates and Budget Estimates respectively; CAGR implies Compound Annual Growth Rate

Table 3 briefly depicts per child spending for the school education of standard I-XII of the eight states of NEI. The level of per child spending for the two states — Assam and Manipur — have been extremely low for the period of 2012-13 and 2013-14. Manipur recorded improvement in child spending thereafter, while Assam remained low throughout the period. The states of Mizoram and Sikkim have done extremely well in this regard.

TABLE 4

School Education Budget (Class I-XII)

State/Nation	*2012-13*		*2013-14*		*2014-15 (BE)*		*2015-16 (RE)*	
	% of GSDP/GDP	*% of State Budget*	*% of GSDP/GDP*	*% of State Budget*	*% of GSDP/GDP*	*% of State Budget*	*% of GSDP/GDP*	*% of State Budget*
Arunachal	5.8	10.4	7.5	13.7	9.1	10.2	7.2	-
Assam	4.8	22.3	4.6	21.5	5.9	17.6	5.6	17.7
Manipur	1.7	3.2	6.4	13.0	7.8	11.2	6.8	12.7
Meghalaya	5.1	15.3	4.4	13.9	6.6	14.1	4.1	12.2
Mizoram	8.8	13.6	9.0	13.7	7.6	10.1	6.4	10.4
Nagaland	6.8	10.0	6.4	12.2	7.0	10.4	13.2	11.2
Sikkim	5.0	13.4	5.2	14.3	5.1	11.2	4.8	15.1
Tripura	5.6	17.2	5.7	18.7	5.9	14.2	6.2	14.3
India	**2.7**	**-**	**2.6**	**-**	**2.5**	**-**	**2.7**	**-**

Sources: Kundu (2017); Kundu *et al* (2016)

Note: RE & BE represent Revised & Budget Estimates respectively; - implies data not available; GSDP implies Gross State Domestic Product; and GDP means Gross Domestic Product.

Table 4 depicts the share of school education budget in terms of GSDP/GDP percentage. All the states of the region, barring Manipur, were found to be spending larger share of the respective state's GSDP on school education (standard I-XII) over the period, 2012-13 to 2015-16. As mentioned earlier, India's spending on school education (I-XII) as percentage of the country's GDP could not reach 3 per cent throughout the period. In terms of spending as percentage of the state's budget expenditure, the state of Manipur has been very low compared to its sister states of the region.

TABLE 5

Per Capita Expenditure on School Standard I-VIII (in Rs '000)

State/Nation	*2005-06*	*2006-07*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*CAGR*
Arunachal	5.18	5.55	6.15	7.52	11.38	10.89	18.93
Assam	3.59	2.68	2.62	3.46	4.42	6.54	14.63
Manipur	4.05	2.91	4.05	4.40	3.57	5.57	6.76
Meghalaya	3.58	2.89	3.23	3.43	4.41	7.51	15.45
Mizoram	6.27	5.64	6.22	7.02	8.86	13.93	16.89
Nagaland	3.89	4.06	5.31	3.84	2.06	8.55	4.61
Sikkim	7.44	7.55	9.26	10.14	13.95	11.02	11.78
Tripura	2.63	2.99	2.79	3.22	4.64	6.05	17.41
India	**4.39**	**4.51**	**5.34**	**5.52**	**7.31**	**9.39**	**16.31**

Source: Authors' modification from Gaikwad (2016: 11)
Note: CAGR implies Compound Annual Growth Rate

Table 5 depicts per capita expenditure for the level of I-VIII. The states of Assam, Manipur, Meghalaya, Nagaland and Tripura were found to be spending lower than the national level of Rs 4390 in 2005-06, and the spending of these state remained low till 2010-11. However, the states of Mizoram, Sikkim and Arunachal have done well throughout the period. The growth rates (CAGR) of Manipur and Nagaland have been very slow, compared to the national level of 16.31 per cent.

TABLE 6

Per Child vs per Student spending at the School Level (Class I-XII) in 2014-15

State/Nation	*Per Child (in Rs '000)*	*Per Student (in Rs '000)*
Arunachal	36.67	42.10
Assam	8.61	11.15
Manipur	21.24	NA
Meghalaya	20.11	29.75
Mizoram	33.62	42.20
Nagaland	21.71	26.82
Sikkim	52.81	59.71
Tripura	22.47	25.13
India	**10.70**	**13.97**

Sources: Kundu (2017) and Kundu *et al* (2016)
Note: NA implies data not available.

The level of expenditure and the share of state's expenditure on education depicted above, from Table 2 to Table 5, do not clearly reflect the picture of the expenditure per student. Taking cognisance of it, in Table 6, we report per student spending on school education (class I-XII) vis-à-vis per child spending on school education (class I-XII) for 2014-15. All the states in the region, barring Assam, were found to be spending much higher amount than the national level in terms of per student and per child spending for the school education (I-XII) level.

Physical Infrastructure

School education, especially the primary level, is basically a merit good, and providing quality elementary education at free of cost to every child in the country is the most basic responsibility of a government. In this regard, the National Education Policy 2016 suggested for making the basic infrastructure facilities — appropriate class rooms, toilets and drinking water, available to each and every child (NEP 2016: 64).

TABLE 7

Number of Primary School in NEI (I-V)

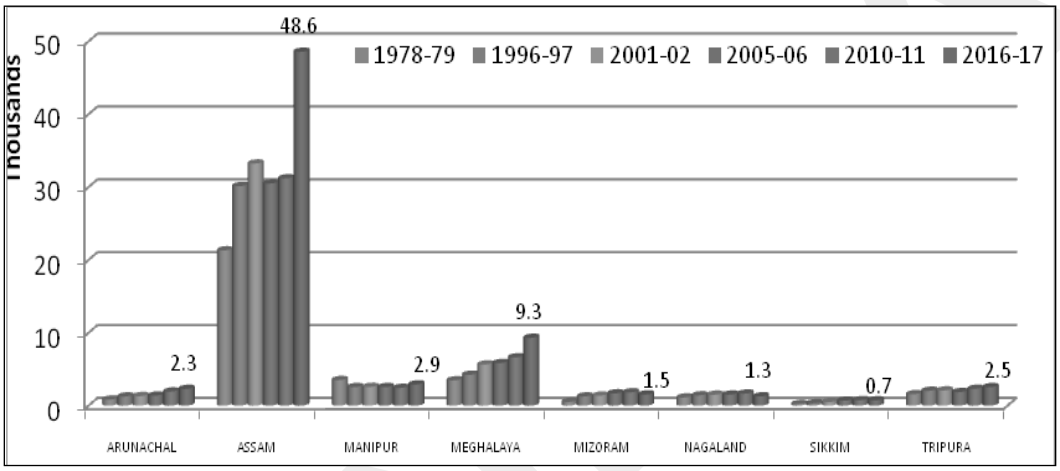
Year	*Arunachal*	*Assam*	*Manipur*	*Meghalaya*	*Mizoram*	*Nagaland*	*Sikkim*	*Tripura*
1978-79	841	21315	3516	3477	518	1114	226	1572
1996-97	1256	30140	2548	4235	1268	1414	340	2045
2001-02	1315	33236	2573	5646	1377	1499	501	2095
2002-03	1337	30045	2552	5807	1253	1352	497	2054
2003-04	1364	30068	2552	5851	1504	1495	497	2075
2004-05	1371	30068	2552	5851	1481	1520	497	1776
2005-06	1380	30499	2552	5851	1688	1520	684	1863
2006-07	1438	30094	2552	6351	1700	1520	733	2142
2007-08	1561	31042	2562	6351	1752	1662	761	2151
2008-09	3498	50756	2516	8469	1504	1598	795	2104
2009-10	1841	31202	2579	6618	1782	1662	772	2379
2010-11	1941	31202	2435	6627	1821	1662	749	2307
2011-12	2202	36293	2395	9066	1546	1911	717	2317
2012-13	2299	40959	2760	9164	1549	1834	742	2335
2013-14	2360	41647	2762	9167	1509	1806	732	2388
2014-15	2341	48478	2971	9323	1553	1428	715	2569
2015-16	2363	48529	2951	9362	1561	1265	706	2568
2016-17	2304	48567	2909	9304	1536	1274	737	2547
CAGR	**5.47**	**3.62**	**0.18**	**5.11**	**2.73**	**0.75**	**4.94**	**2.11**

Sources: Ahmed (2013: 47), NSS 64th Round (2007-08), SRC (different periods)

From Table 1 and Figure 2 we can see the growth trend of primary schools since 1978-79. The growth trend of the primary schools has been quite uniform across the states in the region, barring an unprecedented spike for the Assam and Arunachal Pradesh in 2008-09. At the national level as well, there was a significant jump in the number of primary schools from 2008 to 2009 (GoI 2014).

FIGURE 2

Number of Primary School in NEI (I-V)



Sources: Ahmed (2013: 47), NSS 64th Round (2007-08), ASRC (different periods)

However, the trend is quite different for Arunachal Pradesh, growing at the very slower rate compared to its sister states in the region. In the late 1970s, there were hardly 226 primary schools in Sikkim, 518 in Mizoram and 841 in Arunachal Pradesh, which has increased to 340 schools, 1268 schools and 1256 schools respectively by 1996-97. In 2016-17, the states of Sikkim, Mizoram and Arunachal Pradesh reported to have 1274, 9304 and 2304 primary schools respectively. The growth rates of the primary schools for the period, 1978-79 to 2016-17 ranges between as low as 0.18 per cent for Manipur and 0.75 per cent for Nagaland. During the same period, Arunachal and Meghalaya registered as high as 5.47 per cent and 5.11 per cent respectively.

TABLE 8

Single Classroom Primary Schools (in %)

States/India	*2003*	*2008*	*2013*	*2016*
Arunachal	9.5	43.5	27.8	5.2
Assam	62.7	61.0	22.9	23.9
Manipur	3.7	2.5	8.0	1.2
Meghalaya	30.8	30.4	22.4	18.5
Mizoram	1.6	1.9	1.0	0.5
Nagaland	0.3	0.1	0.5	0.2
Sikkim	18.3	1.9	1.9	1.2
Tripura	0.5	1.1	8.3	4.2
India	**15.0**	**11.6**	**7.1**	**6.1**

Source: SRC (different years)

In terms of the percentage of primary school managing with single classroom, Table 8 depicts that the states of Mizoram and Nagaland have been consistently doing well in this regard. Though it was very poor in 2003, the state of Sikkim has also showed an improved performance in the later years. However, the performance of Assam, Arunachal Pradesh and Meghalaya has been very dismal in this regard throughout the period of study. The states of Assam, Meghalaya and Sikkim were having larger percentage of primary schools with single classroom compared to the national level of 15 per cent in 2003. Of the three states, Sikkim has improved significantly after 2003, while Assam and Meghalaya continued to struggle even in 2016.

TABLE 9

Student Classroom Ratio in Primary School (in %)

States/India	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*	*2016*
Arunachal	31	30	19	18	11	10	14	10
Assam	28	26	45	53	29	28	28	25
Manipur	21	21	19	21	15	11	17	5
Meghalaya	28	26	20	20	19	19	19	18
Mizoram	25	26	18	18	16	12	9	12
Nagaland	40	39	22	21	15	10	10	10
Sikkim	26	24	10	12	8	6	6	3
Tripura	54	55	22	26	14	13	14	9
India	**33**	**32**	**31**	**30**	**29**	**28**	**24**	**23**

Source: SRC (different years)

As of the Student Classroom Ratio (SCR), the states of Nagaland and Tripura were having larger SCR compared to national level in 2009. The state of Tripura has improved significantly, and managed to reduce it to 9 students per classroom in 2016. However, Assam continued to witness an increase in SCR when other sister states of the region could bring it below the national average (Table 9). Mizoram and Manipur have reported consistent decline in the ratio over time. Whether it is due to the increase in number of school over the years or less number of enrolments is something which needs to be probed. For instance, in Manipur, hardly 0.18 per cent growth rate of primary school from 1978-79 to 2016-17 was found. However, in Sikkim, it was 4.94 per cent during the same period (Table 7).

TABLE 10

Primary School with Drinking Water Facility (in %)

States/India	*2003-04*	*2008-09*	*2013-14*	*2014-15*	*2015-16*	*CAGR*
Arunachal	60.0	56.4	79.1	80.1	80.8	9.9
Assam	60.1	63.7	79.1	82.5	85.4	10.1
Manipur	71.9	73.6	88.6	88.1	99.6	8.7
Meghalaya	39.1	48.4	61.4	62.9	62.5	12.8
Mizoram	66.8	78.7	94.2	90.9	92.0	8.2
Nagaland	36.8	72.2	74.3	78.6	81.9	18.4
Sikkim	63.4	85.8	97.2	97.2	98.5	10.6
Tripura	68.1	73.2	84.5	88.8	89.7	7.7
India	**77.9**	**86.8**	**95.3**	**96.1**	**96.8**	**5.5**

Sources: GoI (2018: 79), SRC (different years)

As for the drinking water facility in the primary schools (Table 10), all the states in the region have improved significantly over the years. The state of Meghalaya has been consistently doing poor in this regard throughout the period from 2003-04 to 2015-16. In Nagaland, only 37 per cent of the schools were found to be equipped with drinking water facility in 2003, however, the state reported a significant improvement thereafter. Nevertheless, most of the states, barring Manipur and Sikkim, in the region are doing poorly in this regard, lower than the national level average of 97 per cent of primary schools with access to drinking water facility.

TABLE 11

Primary Schools with Separate Girls' Toilet (in %)

States/India	*2003-04*	*2013-14*	*2014-15*	*2015-16*	*CAGR*
Arunachal	4.9	49.1	96.0	96.4	161.4
Assam	4.9	60.7	55.4	86.6	134.5
Manipur	3.5	94.8	94.2	98.8	172.2
Meghalaya	4.3	50.6	60.4	84.0	148.3
Mizoram	4.7	72.6	95.6	99.1	156.5
Nagaland	7.3	89.8	95.2	99.9	120.5
Sikkim	3.4	96.8	97.4	99.8	175.8
Tripura	24.4	86.9	99.4	99.9	54.7
India	**28.2**	**84.6**	**87.1**	**97.6**	45.6

Sources: GoI (2018: 82); SRC (2003-04)

In terms of the schools with separate girls' toilet shown in Table 11, all the states of the region have been doing well, albeit it was very weak in the beginning. Most of the states in the region have larger percentage of schools with separate girl's toilet vis-à-vis national level of 98 per cent, but the states of Assam and Meghalaya need to improve further in this regard.

TABLE 12

Primary School with Computer Facility (in %)

States/India	*2009*	*2010*	*2014*	*2015*	*CAGR*
Arunachal	2.4	2.6	4.1	4.1	22.9
Assam	1.0	0.5	1.1	1.2	14.3
Manipur	1.1	1.6	1.8	2.2	24.6
Meghalaya	2.9	2.5	3.2	3.5	8.4
Mizoram	5.4	8.2	8.3	8.5	14.7
Nagaland	4.6	5.4	5.0	5.5	4.7
Sikkim	13.0	15.9	35.9	37.0	48.5
Tripura	1.6	2.0	4.4	4.5	47.6
India	**16.7**	**18.7**	**25.2**	**26.0**	17.7

Source: SRC (different years)

As for the primary schools having computer facility (Table 12), the state of Sikkim has been doing considerably well. Though the state lagged behind the national average in 2009, the ratio has increased to 37 per cent by 2015-16. Mizoram ranks second, followed by Nagaland in the third position. The big brother Assam remained at the bottom in this regard. All the states, barring Sikkim, in the region are found to have less than 10 per cent of the primary school access to computer facility, lower than the national average of 26 per cent.

Teacher and Training

The role of teacher and teacher's quality are very important in measuring development level of any teaching learning process. McKinsey & Co (2007) suggested that utmost effort must be made to improve teachers' quality as it is one of the most important components of school education system. Similarly, Hoxby (2004: 219 - 225) suggested for making school accountability and raising teachers' quality if we wish to improve school performance.

TABLE 13

Status of Single Teacher Primary School (in %)

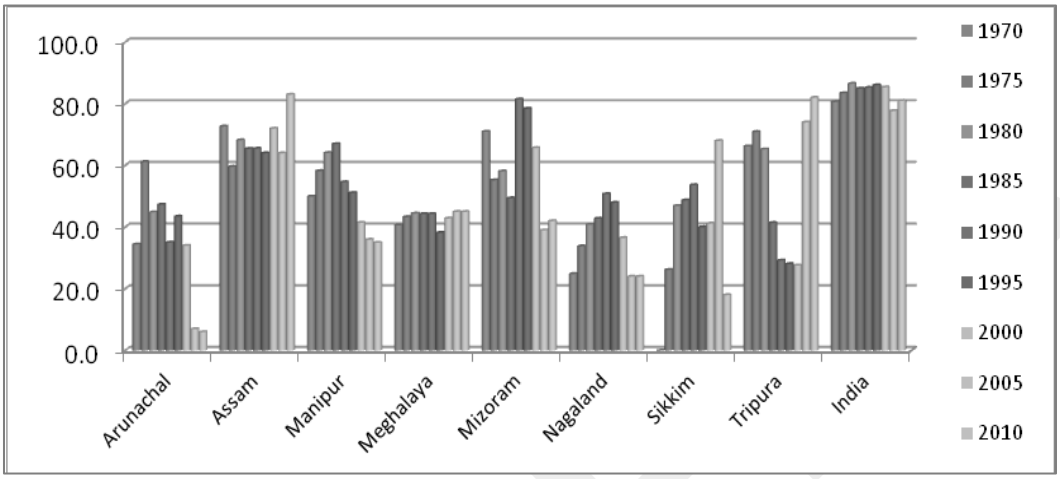
States	*2003*	*2008*	*2013*	*2016*
Arunachal	38.3	64.0	58.2	43.6
Assam	15.7	33.3	9.9	9.7
Manipur	20.0	18.0	7.4	11.8
Meghalaya	14.4	18.1	10.0	10.2
Mizoram	7.1	0.9	3.0	4.2
Nagaland	6.1	3.7	2.2	2.4
Sikkim	12.0	0.5	1.2	0.4
Tripura	2.1	1.2	2.6	0.1
India	**16.6**	**8.4**	**7.2**	**6.2**

Source: SRC (different years)

The percentages of single teacher schools in the states of Mizoram, Nagaland, Sikkim and Tripura (Table 13) have been very impressive. However, the states of Arunachal Pradesh, Assam, Manipur and Meghalaya have been very weak in this regard. Of the states, Arunachal has been extremely poor in this regard, 44 per cent of the primary schools in the state in 2016 were found to be managed by single teacher. In the initial stage, in 2003, only two states — Arunachal and Manipur — were having larger percentage of single teacher primary schools, 38 per cent and 20 per cent respectively, which was much larger than that of the national level of 17 per cent. In 2016, when all India level reduced to 6 per cent, the four states — Arunachal, Manipur, Assam and Meghalaya — have still been above the national level.

FIGURE 3

Percentage of Trained Teacher in Primary Level (in %)

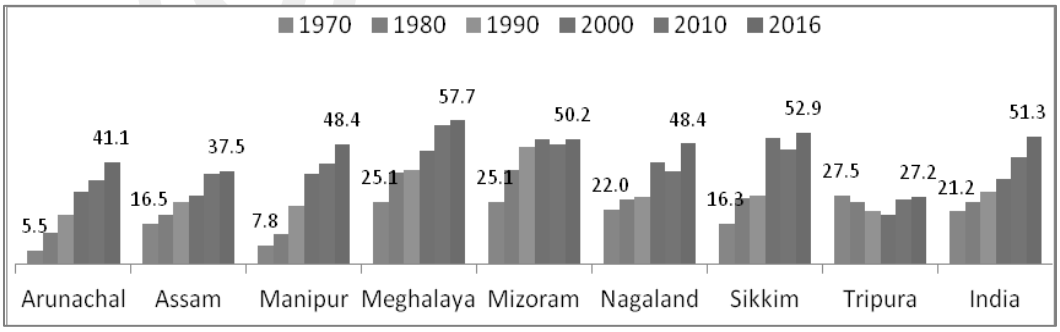


Source: Authors' Estimation

As for the percentage of trained teacher (Figure 3), the states of Assam and Tripura were at the better position with 83 per cent and 82 per cent respectively in 2010-11. Arunachal Pradesh was found to be very poor in this regard, with just 7 per cent of trained teacher in 2008 and 6 per cent in 2011. In the case of Mizoram, the state has managed to retain 42 per cent of trained teacher in the primary school in 2010-11. Similarly, Meghalaya remained at the low level with 43-45 per cent throughout period. Most of the states in the region, barring Assam and Tripura, witnessed a declining trend over time, reporting a ratio lower than the national average.

FIGURE 4

Percentage of Female Teachers in Primary Schools (in %)

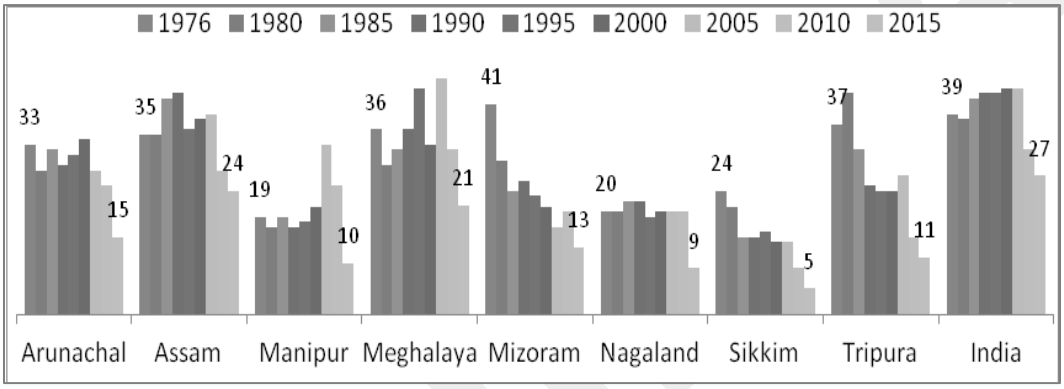


Source: Authors' Estimation

In the case of percentage of female teachers (Figure 4) in primary school, all the states in the region, barring Tripura, have reported consistent improvement since 1970. Despite the improvement, the ratio stood below the national average of 51 per cent in all states, barring Meghalaya and Sikkim. The importance of female teacher in the primary education, like a mother in the school, has been well described by James (2010). Therefore, rise in female teacher at the primary level is very important.

FIGURE 5

Status of Pupil-Teacher Ratio (PTR)



Source: SRC (different years)

In terms of pupil-teacher ratio (PTR), all states have seen a consistent decline over time. For the states of Nagaland and Sikkim, 9 students and 5 students respectively per teacher were noticed in 2016. As in 2015, the PTR in all the states of the region were found to be much lower than that of the national level of 27 students per teacher.

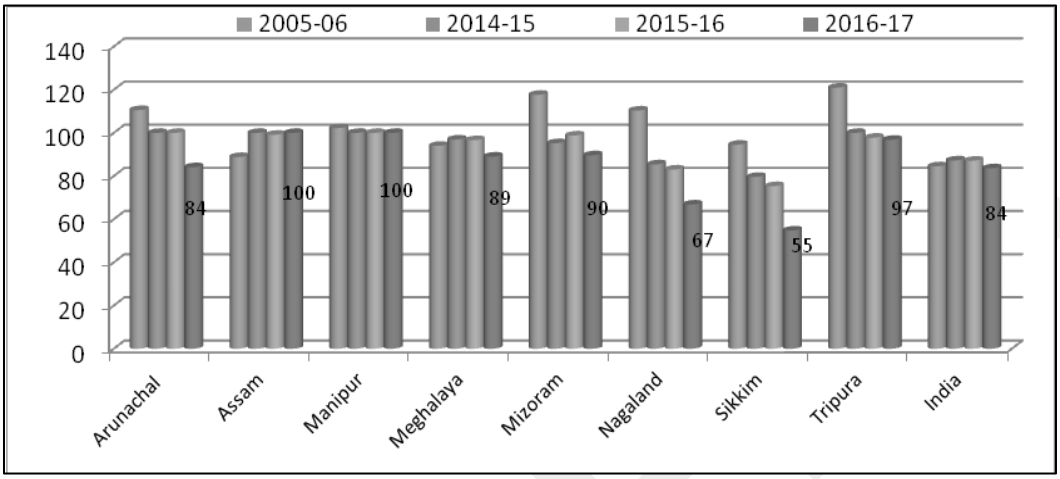
School Performance Indicators in NEI

Measuring Performance through Individual Indicators

When we talk about the performance, traditional wisdom envisages the process of evaluating progress of the system. Primary education performance is basically measured by how well education indicators do improve over time. A number of studies in the past have shown different indicators for measuring school education performance across the globe. As the concept of performance is a relative term, an increase in some indicators like gross/net enrolment ratio, girls' enrolment ratio, students' transition rate/passed out rate, etc. are considered as improvement in the system. At the same time, the decrease in some of the indicators like dropout rate, single class/teacher, pupil-teacher ratio, etc. are also considered as improvement of the school education system.

FIGURE 6

Net Enrolment Ratio (NER) for Primary Education



Source: SRC (different years)
Note: NER may exceed 100% due to inconsistencies between population and enrolment data

From Figure 6 we can see that most of the states in the region, barring Sikkim and Nagaland, have better NER value of the primary education compared to the national level in 2016-17. Of the states in the region, Assam and Manipur have been consistently doing well, maintaining at around 100 per cent NER level. Though the states of Tripura, Mizoram and Meghalaya have slightly declined over the period, they are still maintaining at the higher level, above the national level of 84 per cent in 2016-17.

TABLE 14

Gender Parity Index (GPI) for Primary Education

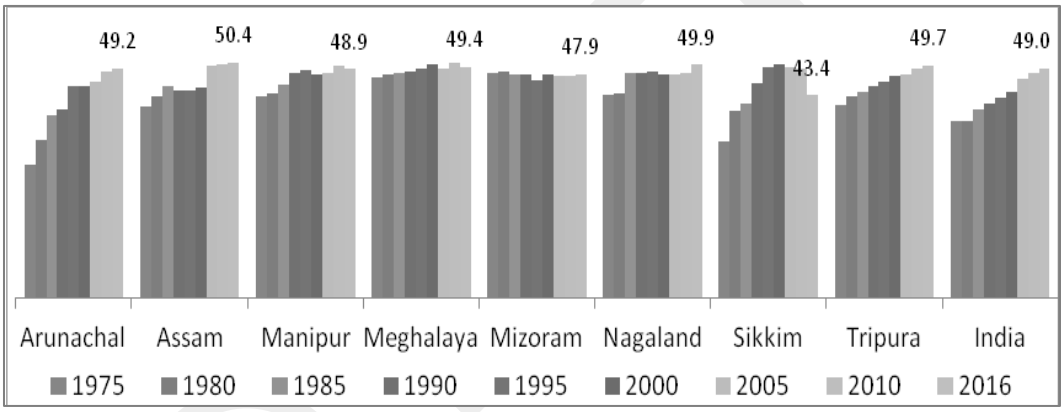
States	*2013-14*	*2014-15*	*2015-16*
Arunachal	0.99	0.99	0.99
Assam	1.03	1.03	1.03
Manipur	1.05	1.03	1.03
Meghalaya	1.04	1.03	1.03
Mizoram	0.97	0.97	0.97
Nagaland	1.04	1.03	1.03
Sikkim	0.94	0.92	0.92
Tripura	1.01	1.01	1.01
India	**1.02**	**1.03**	**1.03**

Source: GoI (2018: 67).

The GPI reflects the relative access of the girl/female and boy/male into the respective education level. As per the definition of the United Nations Educational Scientific and Cultural Organisation (UNESCO), the GPI value equals to one implies equality of access to education between boy/male and girl/female. If its value is less than one, the gender parity favours boys, and if it is greater than one, the gender parity favours girl. From Table 14, it is seen that the states like Arunachal, Mizoram and Sikkim are slightly lesser than one. In these states, boys are slightly being favoured. The four states — Assam, Manipur, Meghalaya and Nagaland, do favour girls, and slightly higher than that of the national level GPI value of 1.03. However, the state of Tripura shows a favourable sign towards girls in this regard, but the GPI value is slightly lesser than the national level. In totality, the states of the region are very much at par with the national level, and the GPI values are also very much close to one, implying a lesser inequality in this regard.

FIGURE 7

Percentage of the Girls Enrolled in Primary Education

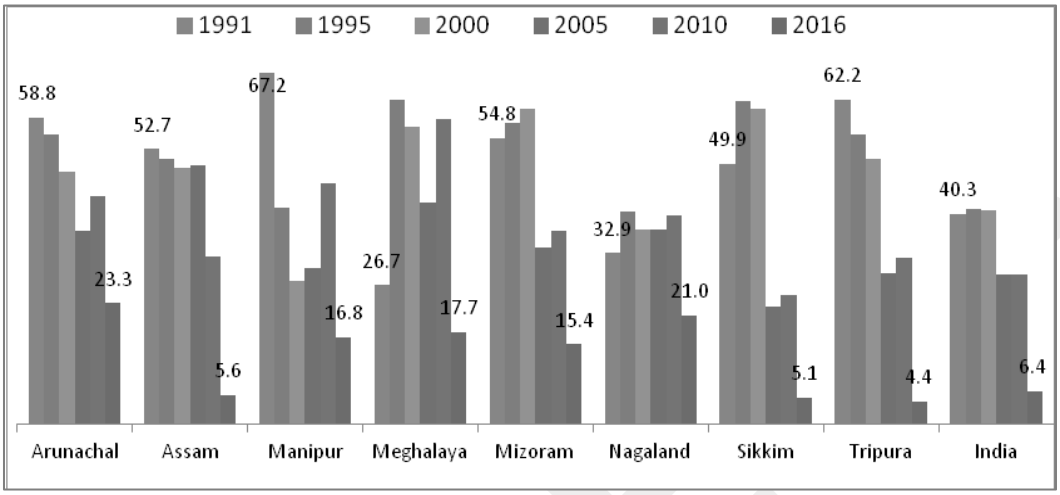


Source: SRC (different years)

As for the percentage of the girls enrolled (Figure 7) in the primary education in the region, all the states have done well in this regard, better than the national level. Barring Sikkim, which has seen a marginal drop in the ratio to 43.3 per cent in 2016, all other states of the region have registered a consistent improvement in the ratio over time. The states of Assam, Meghalaya, Tripura, Nagaland and Arunachal Pradesh have registered a higher percentage of girls' enrolment at the primary school level vis-à-vis national level of 59 per cent in 2016-17.

FIGURE 8

Dropout Rate for Primary Education

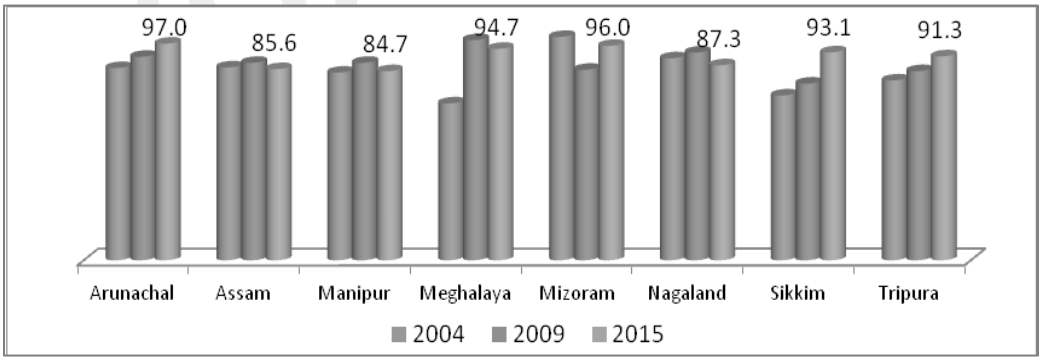


Source: SRC (different years)

In terms of the dropout rate (Figure 8), the states of Assam, Sikkim and Tripura have been doing well in this regard, managed to register a lower dropout rate much lower than the national average of 6.4 per cent in 2016-17. The dropout rates at the primary level of school education in Arunachal Pradesh and Nagaland are still as high as 23 per cent and 21 per cent respectively in 2016. Even the best performing state in the region, Mizoram, was finding difficult to contain dropout rate from rising at the elementary level, which registered at 15 per cent in 2016, of course, it had significantly reduced from 55 per cent in 1991.

FIGURE 9

Students' Transition Rate from Primary to Upper Primary level



Source: SRC (different years)

As for the student transition rate from primary to upper primary level, the states of Assam and Manipur do perform poorly in this regard (Figure 9). The state of Arunachal Pradesh, which had exhibited a very poor performance on other parameters, is now doing well in this regard, recorded a 97 per cent pass out or transition rate from primary to upper section in 2015-16. Barring the states of Assam and Manipur, other states of the region registered a higher primary students' transition rate above 90 per cent in 2015.

Measuring Performance through Composite Index

In previous sections, using different indicators, we assessed the performance of the primary school education in the region. The results showed significant inter-state differences in performance. This does not provide a clear picture by which factor(s) influenced primary education performance across the states in the region. In this section, by constructing different indices, an attempt has been made to identify some composite factors that might influence primary education performance.

With a slight modification from the method of student outcome index constructed by Sharma (2019), five composite indices — 1) Teacher index, 2) Extra-curricular index, 3) Infrastructure index, 4) Expenditure index, and 5) Performance index, have been constructed. By juxtaposing the performance index (output value) along with the first four composite indices (input factors), we can roughly understand the status of primary education performance in NEI and its weakness areas. In doing so, the min-max normalisation process was employed as:

$$\text{Index} = \frac{\text{Actual value} - \text{Minimum value}}{\text{Maximum value} - \text{Minimum value}}$$

While constructing the composite indices, 17 components related to the primary school have been used for the period from 2001 to 2016. Before doing normalisation process, every component used in the respective composite index was averaged. For construction of the *Teacher Index*, three components — pupil-teacher ratio, percentage of female teachers and percentage of trained teachers — have been included. In the similar manner, for the construction of *Extra-curricular Index*, three components — percentage of school with computer facility, percentage of school with playground and percentage of teacher involved in non-teaching activities (as a proxy for extra-curricular activities of teacher) — have been included. In the case of *Infrastructure Index*, three components — percentage of school with drinking water facility, percentage of school with separate girls' toilet and student classroom ratio have been included. For the *Expenditure index*, three components — percentage of state's expenditure on education (all level), per child expenditure and mid-day meal — have been included. Finally, for construction of the Performance index, five components — Gross enrolment ratio, Girls' enrolment ratio, Mathematics performance (rural), literacy rate and transition rate — have been used. However, the justification and reliability of the 17 variables used in the index construction have been drawn from the research studies of Sharma (2019), NITI Aayog (2019), NUEPA (2009-10), ASER (2005-18) and IAMR (2001), and as all the variables happen to be positive sign, it implies — larger the index value better is the result.

TABLE 15

Primary Education Performance Index

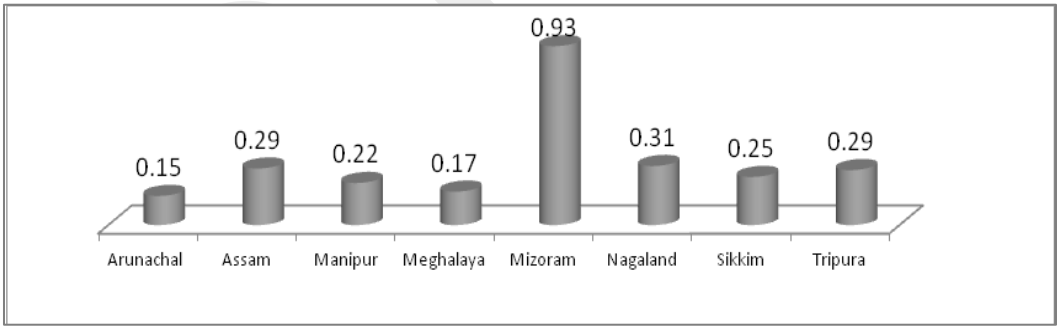
State	*Teacher Index*	*Extra Curricular Index*	*Infrastructure Index*	*Expenditure Index*	*Performance Index*
Arunachal	0.65	0.67	0.38	0.67	0.15
Assam	0.19	0.57	0.15	0.57	0.29
Manipur	0.35	0.67	0.38	0.36	0.22
Meghalaya	0.47	0.80	0.33	0.72	0.17
Mizoram	0.39	0.33	0.31	0.60	0.93
Nagaland	0.28	0.33	0.33	0.35	0.31
Sikkim	0.33	0.33	0.33	0.35	0.25
Tripura	0.94	0.33	0.33	0.58	0.29
NEI	**0.45**	**0.50**	**0.32**	**0.52**	**0.33**

Source: Authors' estimation

Table 15 shows that most of the states in the region are weak in infrastructure index and teacher index, their values turned out to be 0.45 and 0.32 respectively. This indicates that the education performance can be enhanced in the region by boosting these two factors — infrastructure and number of teachers. When we look closely at the state level, the states of Assam, Arunachal Pradesh, Meghalaya, Mizoram, Sikkim and Tripura are found to be performing poorly in infrastructure index. The states of Assam and Nagaland need to improve teacher index to a great extent. In terms of the extracurricular and expenditure indices, the states have done more or the less equally well.

FIGURE 10

Primary Education Performance Index



Source: SRC (different years)

From Figure 10 and the last column of Table 15 we can see that Mizoram outperforms other states in terms of performance index in the region, and the gap between Mizoram and rest of the states in the regard is found to be very wide. The primary education performance of Arunachal Pradesh and Meghalaya has been very poor. While other states of

the region — Tripura, Sikkim, Nagaland, Assam and Manipur — managed to maintain more or less the same value in this regard.

Regression Result

School transition rate (e.g. passing from primary to upper primary) can be considered as an opposite of dropout rate, and it can also be considered as one of the school performance indicators (Felter 1989). Further to validate the factors responsible for the development of primary school education in NEI, regression exercise has been done. In this section, dropout rate of the primary school children (Class I-V) is considered as performance indicator. To understand influencing factors of the dropout rate of students in schools (Class I-V) across the states in NEI, a multivariate regression analysis is performed. The generic form of the regression model estimated in the study takes the following form:

$$DR_{st} = \beta_0 + \beta_1 FEM_{st} + \beta_2 EXP_{st} + \sum_{k\geq 1} \gamma_k INF_{st} + \delta_s + \varepsilon_{st} \quad (1)$$

Where, DR, school dropout rate, is the dependent variable. We include **a** host of explanatory variables that are likely to influence school dropout rates. These variables include the percentage of female teachers (FEM), the share of state's expenditure on education (EXP) and a vector of variables representing the level of primary school infrastructure of the states in the region. Following Dossa and Roy (2017), we believe that female teachers' presence in schools could significantly contribute to the reduction of dropout rates, especially the girl students. By including state's expenditure on education as one of the correlates of dropout rate, we are broadly in agreement with the available evidence in the literature that increase in school expenditures result in decline in dropout rates (see Lee and Polachek 2018, Hanushek *et al* 2008).

TABLE 16

Correlates of Dropout Rates Dep. Variable = Dropout Rate (DoR)

Variables	*OLS*		*Panel Data Regressions*	
	(1)	*(2)*	*(3) FE*	*(4) RE*
COMTOI	-0.225*** (0.051)	-0.108* (0.064)	-0.129** (0.053)	-0.243*** (0.050)
DWTR	-0.202** (0.088)	-0.088 (0.107)	-0.050 (0.108)	-0.147* (0.087)
SCLROOM	0.132 (0.094)	0.369*** (0.119)	0.596*** (0.191)	0.374*** (0.125)
STCR	-	-	-0.154* (0.307)	-0.308*** (0.109)
FEM	0.104 (0.133)	-1.682*** (0.456)	-1.731*** (0.390)	0.031 (0.031)
EXP	-0.858** (0.416)	-1.406*** (0.521)	-1.496** (0.627)	-1.711*** (0.504)
State dummy	No	Yes	Yes	Yes
Constant	60.783*** (8.926)	106.528*** (14.634)	130.688*** (15.593)	74.460*** (9.913)
Observations	112	112	112	112
R-squared	0.428	0.585	0.560	0.468

Notes: Robust standard errors are given in parenthesis.
***, ** and * indicates 1%, 5% and 10% level of significance respectively.

As mentioned above in equation (1), the vector INF contains variables that proxy for primary school infrastructure. These variables include percentage of school with common toilet (COMTOI), percentage of school with drinking water facility (DWTR), percentage of school with single classroom (SCLROOM) and percentage of school with single teacher (STCR). There is a strong evidence in the literature that high-quality infrastructure facilitates better instruction, improves student outcomes/transition rate, and reduces dropout rates, among other benefits (Teixeira *et al* 2017). In other words, our conjecture is that states with better primary school infrastructure should see a reduction in dropout rates. Of course, there could be many state level factors and unobserved variation across states influencing our main results. In order to control their influences, we also introduce state dummies (δ_s) given in equation (1).

We estimate equation (1) using OLS and panel data regression models in Table 16. Columns (1) and (2) report the results of OLS estimations. In column (1), we exclude state dummies, but included in column (2). The columns (3) and (4) present the results of panel data regression estimations as fixed effects (FE) and random effects (RE) respectively. When we look at the direction and significance, all specifications yield more or less similar results. The results unambiguously point to the fact that improvements in physical infrastructure leads to a reduction in dropout rates in the schools of NEI.[2] For instance, take the coefficient of percentage of schools with toilets. The variable yields a negative coefficient across models, suggesting that the dropout rate is lower among schools with toilet facility. Similarly, the coefficient of percentage of schools with single classroom carries a positive sign supporting our conjecture that dropout rate tends to decline with the fall in percentage of single classroom school. In the case of teacher specific variables too, the results are in line with our expectations. Our result shows a significant decline in dropout rate in region with the higher share of female teacher in the school. As expected, an increase in the share of expenditure on education lowers the dropout rates. This calls for a substantially increasing investment in school education in the north-eastern states of India.

Growth of English Education in NEI

The foundation of modern education in NEI was laid by the American Baptist Mission with the establishment of an English school at Guwahati in June 1835 under the Headmastership of Mr Singer (Barpujari 1994). In fact, the genesis and demand for English education in the region may be traced back with the spread of Christianity in the hill areas of the region and the expansion of the British colonial economic activities in the erstwhile undivided Assam. The Christian Missionaries also introduced the system of secondary education in Assam. Prior to 1835 there was no such school in the state (Deka 1991). According to Jeyaseelan (1996), the earliest known Christian contact with this region was made by the Catholic Missionaries in the seventh and eight centuries. In 1872, Major General W E Nuthall, the then political agent opened an English medium school at Imphal. But, the school could not function properly due to lack of local support, especially among the Hindu Meiteis.

With the passage of time, deep feeling of untouchability about the British was slowly getting disappeared among the youths in the valley parts of Manipur. At the same time, the activities of English missionaries became very active and the necessity for education was increasingly felt. Sir James Johnstone established an English school in 1885 at Imphal, which is now known as Johnstone Higher Secondary School. With the resolution taken at the Synod of Allahabad in 1887 to create the Prefecture Apostolic of Assam, the seed of Catholic Christianity was sown. The entire north-east was designated as the province of Assam, of course barring Manipur and Tripura. Fr. Otto Hoffenmuller was chosen to be the first mission superior. He, together with Fr. Angelus Muenzloher and two Brothers, Marianus Schumm from Bavaria and Joseph Baechle from Beden reached Dhubri, Assam on 1st March 1890. St. Anthony's School in Shillong was opened on 1st May 1908, mainly to cater education to the Catholic children. Later on, the Loreto Sisters also joined the mission on 8th

[2] The findings are consistent across models, i.e., the variables in the analysis are found to carry same sign and significance across models.

May 1909 to educate the girls of the region. St. Edmund's college was inaugurated in the beginning of 1916. It was no wonder that up to 1941 high schools were conspicuous by missionary institutions in the Naga Hills (now Nagaland). In the Khasi and Jayanti hills (now Meghalaya), there was only one high school which was established in 1878. The Christian Missionary Societies at Shillong made an attempt to impart collegiate education after 1930s (Barpujari 1994). However, despite strong opposition/resentment from the local communities, Christianity emerged as a prominent religion among the hill people of the region. Consequently, English education became very popular in the region (Singha 2010: 368). Nevertheless, the influence and activities of Christianity have had little impact in valley and non-tribal pockets.

According to Barpujari (1994), in the hills of NEI, until the appointment of Education Commission 1882 (Hunter Commission), education received only a step-motherly attention from the British administration. The commission, while appreciating the role of the Christian missionaries, laid stress on the need of private agencies for undertaking educational activities amongst the backward people. It did not object the policy of the government in giving grants-in-aid to the missionary institutions, but suggested that the institutions run by the missionaries should be brought under the general supervision of the government. But the spread of education in a secular nature was not the primary objective of the Christian missionaries (Barpujari 1994). Nevertheless, people of the NEI are greatly indebted to the Christian missionary institutions for their contribution in the field of education, especially the English education (Singha 2010).

TABLE 17

Private English School and Enrolment in English Medium for Class I-V (in %)

State	*2004*		*2006*		*2010*		*2016*	
	School	*Enrolment*	*School*	*Enrolment*	*School*	*Enrolment*	*School*	*Enrolment*
Arunachal	3	95	2	99	4	99	6	99
Assam	1	2	9	1	2	2	2	2
Manipur	10	31	19	31	20	45	16	72
Meghalaya	39	7	53	7	37	17	42	24
Mizoram	9	19	9	25	12	39	16	41
Nagaland	10	99	11	99	9	99	9	99
Sikkim	24	97	30	98	25	98	31	98
Tripura	2	1	2	1	3	4	6	10
NEI*	**12**	**44**	**17**	**45**	**14**	**50**	**16**	**56**

Source: Authors' Compilation

Note: School in this case is the *Private English Medium Primary School* having at least Class I-V, while Enrolment implies the percentage of children enrolled in English Medium for Class I-V irrespective of the school affiliation/categories — public/private/aided.

*Average of the eight states

From Table 17 we can see that the percentage of private English medium primary school (Class I-V) was turned out to be 12 per cent of the total schools, having Class I-V, in the region in 2004. Within the region, in 2004, this kind of schools in the states of Assam, Arunachal and Tripura were found to be very small, registered at 1 per cent, 3 per cent and 2 per cent respectively. However, the percentage of such schools in Meghalaya was found to be the highest with 39 per cent, followed by Sikkim with 24 per cent. In the same year, the percentage of primary level students (I-V) enrolled in English medium (irrespective of the type of school) education in the region was found to be 44 per cent. But the percentages of students enrolled in the states of Assam, Meghalaya and Tripura were found to be 2 per cent, 7 per cent and 1 per cent respectively in 2004. The percentages of children enrolled in the English medium education in the states of Arunachal, Nagaland and Sikkim turned out to be extremely high with 95 per cent, 99 per cent and 97 per cent respectively in 2004. Though there has been a lot of discussion on the mushrooming of private English schools, the growth of it was not very high in NEI. The percentage of such schools stands at 16 per cent in the region in 2016. However, the percentage of children (I-V) enrolled in the English medium education (irrespective of the type of school, private or public) has reached to 56 per cent of the total primary school in the region. Within the region, the states of Assam and Tripura remained at the low in terms of enrolment in English medium primary level education, registered at 2 per cent and 10 per cent respectively in 2016. In the same year, the percentage of children enrolled in English medium primary level in the states of Arunachal, Nagaland and Sikkim has reached to around 99 per cent.

Discussion and Retrospection

If the private English medium primary school or the children's enrolment in English medium alone does not simply ensure better school performance, why we see the children and parents attach significant importance to English medium of instruction, especially in the schools run by private sector? According to Sinha and Reddy (2011: 166 - 204), education is an intergenerational system that requires concerted effort and well-thought planning. No individual policy or planning in isolation can make school education system effective. It is very disheartening to know that the dropout rate for the primary level in NEI is as high as 21 per cent in Arunachal and 23 per cent in Nagaland in 2016 when the all India level reduces to 6 per cent (Figure 8). At the same time, the very two states have reached primary children's enrolment rate in the English medium education to 99 per cent in 2016 (Table 17). This section tries to explore some possible reasons for opting private English medium schools and the probable factors for high rate of children dropping out at the primary level.

Table 18 depicts some probable reasons — why do children and parents go to private schools? Based on the evidence available from the NSS 71st round, it is clearly evident that most of the children, around 56 per cent of the children at the primary level going to private English medium schools in India in 2014, reports that the private schools provide better learning environment. The result is more or the less same in NEI as well. In the states of Arunachal Pradesh and Sikkim, 75 per cent of the children going to private school children feel that the private English medium schools can provide better learning environment. Similarly, 72 per cent of the children going to private English medium schools in Assam feel that they are opting for such schools because of the better learning environment.

TABLE 18

Probable Reasons for Opting Private English Schools in 2014 (in %)

States/ Nation	*Govt. school not available nearby*	*Better learning environment in Pvt. school*	*English is the medium of instruction in Pvt. school*	*Quality in Govt. school not satisfactory*	*Could not get admission in Govt. school*	*Others**	*Total+*
Arunachal	-	74.9	8.5	12.5	-	4.1	100
Assam	5.8	71.9	18.0	3.7	-	0.5	100
Manipur	5.1	55.9	2.0	34.2	-	2.7	100
Meghalaya	13.8	58.1	2.7	13.1	4.5	7.9	100
Mizoram	-	32.5	52.6	12.5	-	2.4	100
Nagaland	2.2	40.4	-	56.2	-	1.3	100
Sikkim	1.3	75.2	9.6	13.1	-	0.8	100
Tripura	15.0	26.3	36.8	16.5	-	5.4	100
India	**5.3**	**55.7**	**14.7**	**20.7**	**0.6**	**3.0**	100

Source: NSS 71st Round (2014: A192-93)
*Students cannot say the exact reason for opting private school, + Total may not be matching due to decimal round up,
Note: Private school implies private English medium schools.

In Nagaland, 52 per cent of the private English school goers feel that the government schools do not maintain quality education, and 21 per cent of such school goers in India also reveal for the same reason. When around 5 per cent of the private English school goers in India reveal that they are going to such schools due to unavailability of the government school in their vicinity, around 14 per cent and 15 per cent of such school goers in Meghalaya and Tripura respectively are also opting for the same reason. Around 15 per cent of the private English school goers in India are opting for such schools due to the English as a medium of instruction. Within the region, majority of the private English medium school goers in Mizoram, around 53 per cent, are opting such schools because English is the medium of instruction.

TABLE 19

Probable Reasons for Dropout from Primary Education (in %)

States/ Nation	*Parents not Interested*		*Financial Constraints*		*Child not Interested*		*Unable to Cope with the Study*		*Others**	
	2007	*2014*	*2007*	*2014*	*2007*	*2014*	*2007*	*2014*	*2007*	*2014*
Arunachal	13	25	-	26	-	10	-	4	87	35
Assam	9	28	25	30	57	18	-	10	10	14
Manipur	6	30	47	31	28	15	-	4	19	20
Meghalaya	-	21	-	24	31	20	69	9	-	26
Mizoram	-	25	-	17	-	34	-	9	-	15
Nagaland	41	19	13	13	4	30	13	5	29	33
Sikkim	-	7	23	9	22	37	55	8	-	39
Tripura	15	6	74	65	-	7	11	15	-	7
India	**13**	**23**	**25**	**30**	**45**	**28**	**4**	**8**	**10**	**11**

Source: Modified from NSS 64th Round (2007-08: A396 - 98), NSS 71st Round (2014: 119 - 122)
Note: For data of 2014, children engaged in domestic activities are used as a proxy for "Parents not interested". There may be some mismatches while adding to total due to decimal rounding up
*Others include timings of educational institution not suitable, school unfriendly environment, language/medium of instruction used unfamiliar, inadequate number of teachers, the quality of teacher not satisfactory, unfriendly atmosphere at school, school is far-off, non-availability of female teacher, non-availability of girls' toilet and others.

Table 19 depicts some of the probable reasons for children dropping out of the primary schools in 2007 and 2014. In India, in 2007, around 45 per cent of the dropped-out children say they do not have interest in the study, followed by financial constraints with 25 per cent and parents not interested with 13 per cent. The reasons for dropping out of the schools are more or the less same in 2014 as well that 23 per cent, 30 per cent and 28 per cent of the dropped-out children in India are the result of the parent's not interested, financial constraints at home and child not interested respectively. Within the region, the state of Tripura, financial constraints was the major factor explaining for the children's dropping out of the school both in 2007 and 2014. In the states of Sikkim, Assam, Arunachal, Manipur and Meghalaya, the factors like the children not interested, unable to cope with the study and financial constraints are found to be the major factors for the children's dropping out of the schools.

In a simple rational theory, the children are not interested in the study and they do not want to go to schools indicate that the school has some weaknesses, either the infrastructure or the teacher. In fact, if the school provides good learning environment to the children, other factors may not be responsible for pushing them out of the school. The children in India are often pushed-out of the schools for no fault of theirs. It is primarily due to either failure in school system, which is not sufficiently equipped with the basic infrastructures and insensitivity of the system towards children, or the socio-economic factors of the parents

(Sinha and Reddy 2011: 166 - 204). Therefore, the role of the basic infrastructures (both soft and hard) and the teachers are very important to enhancing the primary school children's performance.

Summary and Conclusion

Primary school education in north-east India is very complex due to its socio-economic, infrastructure and geographic diversity. Though there has been a slight improvement in the primary school education performance in the region compared to the all India level, a wide inter-state variation is still visible. From the analysis made above, when compared to the bigger states like Assam and Arunachal Pradesh, the smaller states like Mizoram, Sikkim and Tripura have done far better in terms of primary education performance in the recent past. Among the tribal and hilly states of the region, the states of Arunachal Pradesh, Meghalaya and Nagaland are still lagging behind their counterparts like Mizoram, Sikkim in terms of primary school performance. Nevertheless, investment in the primary education in the region is found to be quite satisfactory in NEI.

With the help of descriptive statistics and composite index analyses made above, we found that the basic physical infrastructures and teacher related factors are found to be weak in the region. This finding is also supported by the regression analyses. Improvement in the physical infrastructures and the development in teacher related factors led to reduction in primary school dropout rate in NEI. As expected, an increase in the expenditure on education led to the improvement in the children's transition rate from the primary to upper primary level.

It is also clear from the analysis that the percentage of private English medium school in the region is still relatively small, but the enrolment rate in English medium of instruction, irrespective of the type of schools, is found to be extremely high. However, one thing is also cleared that the English medium of instruction and the private English school per se do not guarantee better school performance. Children and parents are opting for private schools mainly to get good education, not for the sake of English as a medium of instruction. In totality, public schools fail to provide effective learning ambience for the school children, and the children from the socio-economically weaker sections of the society cannot be protected by the public education system in the region.

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Students with Physical Disabilities in Higher Education: Factors Influencing Their Experiences

Harleen Kaur*

Abstract

Higher education is an important avenue in an individual's life as it significantly influences one's future. People with disabilities have historically been marginalised in the society, given the subtle forms of exclusion that restrict their full participation. Accessibility to higher education systems has significantly increased following their massification and rising demand among marginalised groups. However, students with disabilities have to cross two hurdles — academic and impairment-related — in higher education designed for the "typical" student. Employing the relational and social models of disability to situate educational experiences as interactivity between individual impairment and imposed barriers or restrictions in the curricular and physical spaces, this paper attempts to develop an ecological model of the factors influencing the educational experiences of disabled students in higher education. Students with physical disabilities experience disabilities in higher education since the physical space, the dominant forms of teaching-learning and extra-curricular activities are designed for "normal" students. Students face reluctance on the part of administration to reasonably accommodate them, as the onus of seeking support is on the students. The minimal support systems that are available are not properly accessed owing to the lack of communication or awareness. Hence the recommendation that attempts at inclusion should be subject to critical examination as they may still promote segregation.

* National Institute of Educational Planning and Administration, 17-B, Sri Aurobindo Marg, New Delhi – 110016, Email: harleen.inquilab@gmail.com

Introduction

Disability transcends the boundaries of class, nation, wealth and affects all; however the responses to disability are culturally related. Disability has historically been considered synonymous to impairment, implying a personal tragedy that inflicts damage upon mind and body, and requiring treatment, rehabilitation or cure (Barnes, 1990). Disability, therefore, has been considered either as a moral condition — a punishment from God — or as a medical condition — a physical, sensory or cognitive failing that tragically 'handicaps' those 'afflicted' (Goodley, 2011). Although, impaired bodies and minds have always been part of everyday life, but the eugenics movement of the early twentieth century located the burden of disability in the 'unproductive flawed individual'(Fernald, 1912). Both the moral and medical model promoted an individual model of disability — an ideology which held that 'problem' lies in the individual. These approaches have, therefore, benefitted either the religious and charity-based entities or the medical and paramedical professionals, who know the cure of the 'problem.'

The disability rights movement (DRM) that started in the 1970s with the philosophy of self-advocacy and politics of recognition embedded in the notion of civil rights (Chander, 2016) led to the emergence of a new perspective on disability. It has significantly contributed to the shift of focus from individual impairment towards an analysis of how society disables and oppresses its impaired members. This conceptualisation proposed disability as one aspect of human difference, thereby redefining disability as a social/political category of people bound by common social and political experience (Linton, 2006).This shift from medicalisation or individualisation to politicisation of disability has sought an important transition in the societal response to disability as the DRM demanded full inclusion asserting that, "segregation hurts" (Antony, 2012). Since the 1970s, therefore, the United Nations and national governments are attempting to ameliorate the status of disabled population (Addlakha, 2016). From the 1980s onwards, disability has become a more central policy concern. The year 1981 was declared the International Year of Disabled Persons and the period of 1983-1992 was declared as the United Nations Decade of Disabled Persons. The World Conference on Special Needs Education, held in Salamanca in 1994, called the national governments to "adopt as a matter of law or policy the principle of inclusive education." Various nations followed suit to commence regional initiatives.

In India, a sustained campaign for a comprehensive legislation for persons with disabilities since the early 1980s led to the enactment of The Persons with Disabilities (Equal Opportunity, Protection of Rights and Full Participation) Act, 1995. This PWD Act was a combination of service-oriented and right-based legislations. It aimed to bring persons with disabilities into the mainstream and provide them with equal opportunities in education, employment, and access to essential services through positive discrimination, grant of relaxation/concession and specific policies and programmes (Singh & Mehmi, 2008). Section 39 of the Act stipulated 3 per cent reservation for people with disabilities in government educational institutions and those receiving aid from the government. Nevertheless, the PWD Act, 1995 had many limitations. It was modelled on the medical definition of disability (Mohit, Pillai & Rungta, 2006). It did not have a clear articulation of equality and failed to take into account that people with disabilities go through a very wide range of differing life experiences and physical and mental states (Kothari, 2010). Additionally, the affirmative action as suggested in the Act, was limited to the public sector

(Kothari, 2012), while also explicitly leaving out the persons with mental illness or mental disability.

The United Nations Convention on Rights of Persons with Disabilities, 2006 (UNCRPD) embraced the notion of universality, indivisibility, interdependence and inter-connectedness of all human rights. By acknowledging the inherent dignity and worth of all humans, UNCRPD emphasised that discrimination on ground of disability is a violation of dignity and worth. It thus brought about a formal shift in the understanding of disability by stating that "disability is an evolving concept" and it "results from the interaction between persons with impairments and the attitudinal and environmental barriers that hinder their full and effective participation in society on an equal basis with others." UNCRPD brought about a movement for law reform in India (Kothari, 2012) and led to the enactment of the Rights of Persons with Disabilities Act in 2016. Section 32 of the Act states,

> (1) All Government institutions of higher education and other higher education institutions receiving aid from the Government shall reserve not less than five per cent seats for persons with benchmark disabilities.
>
> (2) The persons with benchmark disabilities shall be given an upper age relaxation of five years for admission in institutions of higher education.

Interestingly, however, despite a huge expansion in the Indian higher education system and despite there being a law for positive discrimination, Table 1 shows that the percentage of students with disabilities enrolled in higher education has remained significantly low. Moreover, higher education may still be denied to the small proportion of students with disabilities who get access to the system "through series of intersecting obstructions in knowledge, technology, and infrastructure, reproducing and deploying segregations within institutional spaces and reinforcing ableist and other hegemonies" (Kannabiran & Vinayan, 2016) and result in their internal exclusion (Young, 2000[2]).

[2] For Young (2000), exclusion is inherent within inclusion; thus, despite statistical inclusion people may continue to experience other forms of exclusion such as stereotypical remarks, segregation or discrimination.

TABLE 1

Enrolment of Students with Disabilities in Higher Education

Academic Year	*Total Enrolment*	*Total PWD Enrolment*	*Percentage of PWD Students Enrolled in Higher Education to Total Enrolment*
2010-11	27499749	53975	0.196 per cent
2011-12	29184331	65552	0.225 per cent
2012-13	30152417	54119	0.179 per cent
2013-14	32336234	51954	0.161 per cent
2014-15	34211637	64298	0.188 per cent
2015-16	34584781	74435	0.215 per cent
2016-17	35705905	70967	0.199 per cent
2017-18	36642378	74317	0.203 per cent

Source: AISHE Reports (Various Years)

Purpose of the Study

The purpose of the phenomenological study was to investigate what happens when students with disabilities enter higher education. It aimed to document their day-to-day experiences of interactions with people and support systems in the college/university to understand how they perceive inclusion/discrimination in the higher education system. The study was carried out from November 2017 to March 2018. Individual educational experiences of ten students with physical disabilities,[2] who were enrolled in undergraduate courses in various colleges of the University of Delhi were captured through in-depth interviews[3] that lasted for around 1.5 hours and two follow-up meetings or telephonic

[2] According to RPWD Act, 2016, there are four categories of impairments which are referred to as physical disabilities, namely, visual impairment, locomotor impairment, hearing impairment, speech impairment.

[3] This was guided by an interview schedule which had a total of 16 open-ended questions under three broad themes. Theme 1 was on choice of subject and university/college and sought to understand whether disability is an intervening factor in these crucial choices. Theme 2 sought to capture the experiences with and awareness about support systems available in higher education. Theme 3 was related to interactions with people and physical space and intended to understand the barriers/bridges which restrict/facilitate the experience of students with physical disabilities in college. It also contained an element on the role of family as a support system for disabled students in higher education.

conversations with each participant. Of the ten participants, 5 were visually impaired, 4 were locomotor impaired and 1 was hearing impaired. Table 2 presents a more detailed profile of the participants. Informed consent of all the participants was taken prior to the interviews.

TABLE 2

Participants' Information

Participants	*Nature of Disability*	*Course*	*Year*	*Accommodation*	*Financial Support*
P1C1	Total Blindness from Birth	B.A. (Hon.s) Hindi	Re-Appear Candidate	Hostel of a Blind Institute	Government Pension
P2C1	Low Visibility	B.A. (Hon.s) Hindi	III Year	Rented Apartment (With Elder Brother)	Family
P3C2 (F)	Total Blindness acquired at the age of 5-6 years	B.A. (Hon.s) Hindi	III Year	College Hostel	Family
P4C3	Total Blindness from Birth	B.A. (Prog.)	III Year	College Hostel	NIVH, Dehradun
P5C4	Total Blindness from Birth	B.A. (Prog.)	III Year	College Hostel	NIVH, Dehradun
P6C4 (F)	Absent Upper Right Limb from Birth	B.Sc. (Hon.s) Botany	I Year	With Family	Family + Tuitions
P7C4 (F)	Dysfunctional Upper Right Limb due to Paralytic Attack at the age of 5-6 years	B.Sc. (Hon.s) Botany	I Year	College Hostel	Family
P8C4	Dysfunctional Lower Limb since Birth	B.A. (Prog.)	III Year	College Hostel	Family
P9C4	Dysfunctional lower right limb	B.A. (Hon.s) Economics	I Year	College Hostel	Family
P10C4	Hard of Hearing	B.Sc. (Hon.s) Zoology	I Year	College Hostel	Family

Conceptualisations

Disability, as per the relational-social approach, is conceptualised as interactivity between an individual's impairment and their environment — barriers/restrictions imposed by the society. Thus, "experience is a matter of the interaction of organism with its environment, an environment that is human as well as physical, that includes the materials of tradition and institutions as well as local surroundings" (Winn, 1959). Given the wide-ranging and interacting influences on a learner's participation in higher education (Hewett et al, 2016), ecological systems theory may provide an 'invaluable framework within which to organise the environmental factors and understand their influence on inclusivity by placing the learner at the centre' and locating each contributory factor 'in relation to the learner's educational ecosystem' (Anderson, Boyle & Deppeler, 2014). Educational experiences are therefore defined as the experiences of interaction of students with physical disabilities with their ecological environment — a nested arrangement of concentric structures — micro-, meso-, exo- and macrosystems — each contained within the next (Bronfenbrunner, 1976). Hence a conceptual framework was modelled which was used as a guide at each level of research: construction of tool, data collection and interpretation.

Microsystem	—	Institution-level factors that directly impact the learner
Mesosystem	—	Interactions between the factors in the microsystem
Exosystem	—	Factors not present in the learner's immediate environment, but may still affect her experience. Factors related to the affiliating university, regulatory bodies and/or the decisions taken by the ministry of education
Macrosystem	—	Factors external to higher education: society, policies and laws
Chronosystem	—	Factors which facilitated the learner's transition into higher education

Findings and Discussion

Microsystem and Mesosystem

While the commonest obstacle — inaccessibility of the environment — caused due to architectural barriers (Pierce, 1998) limits the physical movement of students with disabilities, integration of people with disabilities in public realm, work and school is more difficult owing to the prejudices that they confront (Keller & Seigrist, 2010). Students with disabilities have limited social interactions at university (Papasotiriou & Windle, 2012), owing to attitudinal barriers among peers, faculty and staff or due to their own chosen indifferences to the peers.

Teachers and Teaching Practices

Educational experiences of the students with physical disabilities in terms of their interactions with teachers and the teaching practices adopted by them as is reflected from the data can be seen at two levels. First, faculty members, according to the students with physical disabilities are reluctant in modifying teaching practices so as to facilitate disabled students' learning experiences. Secondly, faculty members may have low expectations from

students with physical disabilities; that translate into attitudinal barriers confronted by these students. Additionally, there appears to be a limited flow of information from administration to the teaching departments in the colleges of the university.

Although teachers have sensitive behaviour — "being very helpful, or providing help when asked by a student" — towards students with disabilities (Saksena and Sharma, 2014) it may not translate into providing reasonable accommodation(s) in classroom teaching-learning and assessment practices.

One participant with low vision informed:

> *I have protested for things although at individual level… Teachers ask for written assignments so, I have to protest that it is not possible for me, some of the teachers are helpful, they agree on adjusting marks in viva, but most are reluctant…*

A student with blindness pointed:

> *suggested readings should be provided in e-text/audio formats… as not everyone has the social capital and is not good technologically, and the readings given to all students are not in an accessible format for us, so we have to struggle first to make the readings accessible for us… and if the teacher asks you to read it on a short notice then the trouble increases.*

Another participant with blindness asserted:

> *I usually don't attend classes, as no teacher teaches the way that accommodates me, I don't feel a part of the class.*

However, the same respondent's experience with one of his teacher has been phenomenal, and he mentioned:

> *Sir would send me all the readings as e-text, and had asked from day one to bring a laptop to the class, I have been my best in his classes.*

Lecturers' reliance on normative teaching-learning practices exclude and marginalise students with disabilities by constructing definitions of 'ideal' student and determining what accounts for academic success (Ryan, 2005). And this unwillingness [to modify their teaching practices] on part of faculty members in providing accommodations could present additional problems for students with disabilities (Murray et al, 2008).

The prejudiced and stereotypical attitude of teachers towards students with physical disabilities resonates in the form of low expectations. A respondent with locomotor disability enrolled in a science course provides an account:

> *One of the teachers told me that I need not carry this burden of doing Botany Hon's unnecessarily and may think of shifting to B.A (Prog) if I feel so if I face a problem… I literally cried that day… and I had to tell her, Ma'am, I am not emotionally strong, please don't say like that to me.*

However, low expectations do not always appear to be stereotypical, and may rather be perceived as a help extended by the teacher, as the respondent further adds:

During my final practicals for semester one, the HOD came over to me to ask if I was comfortable to do the practicals assigned to me, so I felt she is concerned about me.

Such attitudes and helps offered by teachers to the students with physical disabilities maintain and promote the hegemony of ableism in higher education. Ableism is discrimination in favour of the able-bodied (Tulloch, 1993), and may be described as the general attitude that devalues or differentiates disability through the valuation of able-bodiedness (Ho, 2008). Ableism therefore consists of social biases against people whose bodies function differently from those bodies considered to be 'normal' and beliefs and practices resulting from and interacting with these biases to serve discrimination (Wendell, 1996).

Furthermore, when a student enrols in any college against the reservation quota, thereby declaring her/his disability, it implies that the administration is aware of the nature of student's disability and the department in which s(he) has taken admission. However, the information available with the administration does not seem to be communicated to the relevant department. In such a scenario, two things may happen: one, that the teachers are unaware about the accommodations required to be made for the student, and two, when the disability of a student is not visible, her particular needs might go completely unnoticed until she herself intervenes in the matter. The following accounts produced by a participant having dysfunctional upper right limb due to paralytic attack at the age of 5-6 years provides a glimpse of this lack of communication:

...once we were doing a practical, and I was still working on it while all others had finished, so my teacher asked me why I am not able to do it, so I told him about myself, so he said, you should have told me earlier...

Another respondent with hearing disability explained:

I informed my teachers and also my parents came along in the initial days of my college, and they met all of my teachers and informed that I have a hearing impairment and so, I should be made to sit in the front of the class.

The participant with low vision told:

The reading material is not available in the college so I go to EOC, North Campus to get them, but no one really tells you about this, you have to figure it out yourself... the problem is that my disability is not visible... So I asked a teacher, who was Blind himself, and he told me to visit EOC, North Campus but I got to know about this when my first semester was almost about to end.

However, the time and attention that students with disabilities are forced to devote in attaining adjustments and supports may prevent them from fully realising their [academic] potential (Brandt, 2011).

Peers and Assistants

The experiences of students with physical disabilities in terms of their perceptions of interaction with peers (classmates and others) can be understood at two levels. First, there is hesitation on the part of students with physical disabilities in making friends with the non-

disabled peers in class and college, specifically when they come from segregated school systems as one of the participants responded:

> *...there may be a reluctance on our part too, we come from special schools, and now when we are placed among sighted students, we feel anxious about whether we would be able to survive here.*

Limited interactions with peers may lead to making students with disabilities less appealing for their non-disabled peers (Engelbrecht & de Beer, 2014). A participant with blindness, who has studied in a mainstream school through his post-elementary education said that his primary concern upon entering in the college was:

> *How would people know me... what should I do that people know me... and talk to me.*

However, the likelihood of making friends increases with participation and engagement of students with physical disabilities in co-curricular or disability rights activities in college.

Secondly, the peer group seems to be an informal support system that is banked upon by the students with physical disabilities in order to make teaching-learning and assessment practices accessible to them and is trusted by them in manoeuvring the infrastructure built for the non-disabled. In day-to-day college routine, students with visual impairments are forced to depend upon their peers for recording or reading the course material to them, particularly if there is neither an institutionalised provision of providing assistants on a regular basis in the college, nor is the college equipped with other assistive technologies which ensure their independent participation. The students noted that:

> *The teachers ask for written assignments, so any of my friends write that for me.*

> *I make my notes in Braille, I write everything in Braille, if teachers give any readings, I ask a friend for a reading and write it simultaneously in Braille, or I get things recorded.*

The assistants (student volunteers) are provided to the students with physical disabilities during examinations or else a pool of volunteer readers may be maintained by the college to read or record course material to a visually impaired student. However, with regard to trusting the volunteering assistants in writing examination in the face of no long-term acquaintance, the participant students pointed out that they generally bank upon their own peer group, rather than depending upon scribes arranged by the university who may to be adequately proficient. Nevertheless, not changing the dominant mode of assessment and providing such forms of support is only less explicit cultural coding that reinforces the naturalisation of the non-disabled world thereby further legitimating rather than challenging dominant pedagogies (Byre, 2014).

Institutional Infrastructure and Facilities

The situation of infrastructural support for students with disabilities in the colleges of the University of Delhi is grim (Jain, 2011) and there is low satisfaction among students with disabilities with regard to the physical accessibility to college and university campus

(Saksena and Sharma, 2014). The Access Audit-Report[4] of the University of Delhi found severely poor physical access across university campus. Apart from emphasising on the lack of physical access to the college infrastructure, the participants revealed that facilities like library, canteen, sports and all the cultural spaces available within higher education institutions either favour normalcy, or promote segregation, thereby, neglecting the specific accommodations that should be made to make these spaces inclusive.

The following observations made by the participants highlight this concern:

— participation of students with disabilities in cultural activities is restricted mostly to solo events, or no participation. In this context, Kannabiran & Vinayan (2016) aver that the normal peaks and troughs in participation and performance are denied to students with disabilities and only performances evoke praise.

— segregated sports events are organised by the university,

— the libraries as told by the participants either have a separate section for scanning or otherwise scanners are available in enabling unit rooms.

Support Systems within the College

Following the twelfth plan guidelines, each college of the university should have an Enabling Unit which shall majorly function to facilitate admission, provide guidance and counselling, assess educational needs of students with disabilities, maintain assistive devices procured by the institute and conduct awareness programs for the teachers about teaching and assessment practices among others things. However, the students' experiences with such units in the colleges were varied. Some students with physical disabilities had no awareness about the enabling unit while some colleges have completely dysfunctional unit. Also, there were students who actively engage not only in making the college Enabling Unit functional, but also demand from the administration to procure additional assistive devices and make the facilities provided by the college universally accessible.

While establishment of Enabling Units is a very recent development in the colleges, most of the colleges in the university had been maintaining a pool of volunteers for the students with disabilities as part of their NSS activities. And colleges continue to provide volunteers through one or the other committee. In either way, the volunteers are not permanently available assistants to the students with physical disabilities, and thus it was noted by the participants that such facility is not really beneficial for them. Furthermore, in colleges where enabling units are functional, the participants highlighted that the primary activities are only limited to celebration of a few days. The participants further highlighted that such units may however work in coordination with faculty members to facilitate academic and spatial accommodations in course transactions, assessment procedures, and even the material arrangement of the lecture halls/rooms.

[4] Available at http://eoc.du.ac.in/access-audit-report.pdf

Exosystem

Equal Opportunity Cell, DU

The Equal Opportunity Cell [EOC] of the University of Delhi was established in 2006 to address the issues related to SC/ST, the OBC and minorities and the physically challenged on a continual basis. It is located in the Arts Faculty in the North campus of the university. Among other activities the EOC maintains a pool of volunteers, organises extra-curricular activities for students with disabilities, organises sensitisation programs, runs short term courses, issues guidelines on examination, admission etc., provides facilities for conversion of reading materials into accessible formats, provides guidance and counselling and training in assistive technology to disabled students. The major interaction of undergraduate students with EOC is in terms of getting accessible course material, which is otherwise not available in their respective college libraries.

The participants highlighted administrative issues in accessing the EOC, while also stressing the travel experiences of visiting EOC in the open campus of the University of Delhi.

One of the respondents mentioned:

> *One can register there [with EOC] to receive readings through internet, but I did not carry my disability certificate with me, so I had to go there again, but even after submitting all my documents, I did not get registered till the third semester… the problem is that ok there are facilities available in university, and not in college, but no one really bothers to inform you about them and facilities are not easy to tap too,*

Another participant with visual impairment described how he travels to EOC:

> *EOC is located in the north campus, and to reach there from my college I have to take metro. While metro has made our travel quite easy, I still have to take someone along with me.*

The need for disabled students to be able to "cope" in a mainstream environment renders the students face difficulty in finding out about available advice and support (Fuller, Healey, Bradley & Hall, 2004) leading to frustration due to lack of coordinated approach to assist them and the amounts of time spent seeking extra provisions for themselves (Holloway, 2001). The frustrations of negotiating university bureaucracy may colour and potentially limit social experiences of disabled student at the university (Papasotiriou & Windle, 2012).

It was found that the services provided by EOC are largely accessed by students with visual impairments. Most of other students with disabilities are not aware of the provisions laid down for them by the Equal Opportunity Cell of the university. The following conversation among the researcher and two respondents conveys that

Researcher:	*Would you like to avail a lab assistant, if there is any such provision?*
Respondent 1:	*No, my problem is curable, if only I give proper time for physiotherapy, do exercises prescribed to me, and give ample amount of rest to my arm…*

Respondent 2: *Is there any such provision? Why not, if we can avail assistants then we would not have to rely on classmates for help during finals. How can we get them?*

Respondent 1: *Is it a provision?...But I personally do not need any, I suppose, but there should be such facility.*

DU Policy Statement on Disability

The University of Delhi adopted a Policy Statement on Disability in 2006, subsequent to the establishment of Equal Opportunity Cell, and identified some key operational areas. The operational areas included: sensitisation through self-advocacy programs, providing barrier free environment, building Resource, Research and Rehabilitation Centre (RRRC), providing special funding for fellowships, adequate arrangement for the use of computer for written exams, and providing accessible reading material. The participants interviewed had absolutely no awareness about such a policy document, except for two students who have been actively engaged in accessibility issues within their respective colleges.

UGC Guidelines: Higher Education for Persons with Special Needs

The University Grants Commission (UGC) regulates and issues guidelines for higher education. It launched the Higher Education for Persons with Special Needs in the ninth five year plan after the enactment of the PwD Act in 1995. The scheme is continuing since then with fresh guidelines issued in light of the twelfth five year plan. The guidelines are based on three components: establishment of enabling units; providing access and; providing special equipments to augment educational services. In addition UGC provides a one-time grant of Rs 5 lakh and Rs 1.5 lakh per college respectively for making campus disable friendly and to procure assistive devices.

Two participants who were aware of the scheme revealed about their institute's position in response to the guidelines on providing accessibility. One of the respondents informed that:

> *Our college made tactile path only a year ago, that also when we were having NAAC visit, but the reality is that the path is only present in main building but does not extend to the entire campus of the college. Moreover, it does not even connect to our college hostel.*

Further, the convenience level of the physical accessibility indicators is abysmally low (Saksena and Sharma, 2014).

Macrosystem

Macrosystem consists of those factors which otherwise lie outside the ambit of higher education institution (college and university), but still have an influence on the educational experiences of students with physical disabilities.

Ableism

An ableist society treats the non-disabled individuals as the standard of normal living. Since public and private places, services, education, and social work are built to serve

the 'standard' people, therefore they inherently exclude those with disabilities. Such a society favours certain abilities and considers those lacking them as 'others' in the society. While the non-disabled people have ability privileges, the people with disabilities may internalise ableist attitudes emerging out of these privileges. Since, higher education systems are part of the larger society which promotes various hegemonies, therefore, the academy can very well serve as a locus for quiet conservatism rather than transgressive social and political change (Barnes, 2007). In higher education ableism may take the form of everyday eugenics— that heralds a non-disabled as the "ideal" norm (Madriaga et al, 2010). Further the institutions of learning may promote ableism by denying the experience of ordinary everyday to persons with disabilities (Kannabiran & Vinayan, 2016).

To investigate the educational experiences of students with physical disabilities in higher education, it is essential to explore if the narratives of their educational experiences are located within subtle forms of ableism. Although the interview schedule did not contain any direct question connected with this theme, it was the researcher's task to explore (if any) subtle forms of ableism are confronted or internalised by the participants from their responses.

In this queue, a student with locomotor disability who had been playing cricket through his school education revealed that

> *there is no relevant facility so that I could have continued with my passion in one of the prestigious colleges of the university.*

Another student with low vision revealed how a seemingly simple task of attending a classroom can be denied to students with disabilities. He informed that

> *I face difficulty in accessing classroom, when lectures are scheduled in rooms located in the basement.*

Further, it was found that students with disabilities too have internalised ableist attitudes. A participant with locomotor disability said:

> *I want to do work for disabled people, we can still see, blinds face so many problems that we cannot even think of, I want to work for them, therefore I attend all the programs conducted by Enabling Unit.*

Legislative Policies PWD Act, 1995 and RPWD Act, 2016

Two legislative policies, PWD Act, 1995 and the recent RPWD Act, 2016 guide the provisions for students with physical disabilities in higher education. While the PWD Act, called for 3 per cent reservation in educational institutions, the RPWD Act has recently enhanced it to 5 per cent along with calling for reasonable accommodations for persons with disabilities. RPWD Act, 2016 defines reasonable accommodation as "*necessary and appropriate modification and adjustments, without imposing a disproportionate or undue burden in a particular case, to ensure to persons with disabilities the enjoyment or exercise of rights equally with others."*

In response to the enactment of RPWD Act in 2016 the University of Delhi had immediately recognised to increased the reservation quota from the year 2017-18, however, the university and its colleges stand far behind in providing reasonable accommodations to their students with disabilities. Further, The RPWD Act, 2016 defines barrier as *"any factor*

including communicational, cultural, economic, environmental, institutional, political, social, attitudinal or structural factors which hampers the full and effective participation of persons with disabilities in society."

All of visually impaired student participants of the research work said that visually impaired students have been demanding for a dog-free campus of colleges and entire university, as they are frequently bitten by dogs. But, this issue is yet to be seen as a barrier by the administration.

But apart from this, all participants do not seem to be fully aware of their legislative rights. As, one of the students with locomotor disability responds:

> *I cleared MBBS prior to taking admission in DU, I also dropped a year for preparations, but then I was told at the time of counselling that they cannot take me in, as I will not be able to perform surgeries (sighs)…*

On further probing by the researcher to ask whether she approached the court for this denial of admission she said:

> *I was not aware that I can, we rather thought that they were true, also we do not have any support system, we do not know any organisation…*

Chronosystem: Transition from School to Higher Education

Chronosystem involves the environmental events and transitions that occur throughout the life of an individual. It therefore, connects the present status of an individual's development with his/her life course. For the purpose of the research study, the effect of family on transition of students with physical disabilities from school to higher education and the role of family in augmenting educational experiences while in higher education were identified as factors to be studied. However, during the course of data collection and interpretation, "effect of school" also appeared to be an important factor. So, both the school effect and influence of family on the experiences of students with physical disabilities are being discussed here.

School Effect

In relation to higher education choice, 'a school effect' — institutional habitus — is an intervening variable (Reay, Davies, David & Ball, 2001). And the data collected in the current study shows that apart from influencing the higher education choice (university/college/course), the institutional habitus of the school attended may also have an effect on the personal development of students. This was specifically the case with visually impaired students who had been studying in special schools for the reason that, special schools have been the only place where blind children are "enabled to blend into an everyday life of dignity and self-sufficiency."[5] The following narrative of a participant throws light on this:

[5] Photo Feature: Living and Learning in India's Blind Schools available at https://thewire.in/99907/photo-blind-school/?utm_source=alsoread

My preparation for higher education started from school itself --

During the phase of admissions he was staying in the hostel of Blind Relief Association (BRA) because:

I was already aware [through feedbacks from seniors] that Braille books or audio format were not available in abundance, so I was doing a computer course from BRA… so, that I was technologically prepared.

Now, as the General Secretary of the college union in his third year he believes that school education immensely impacts on developing self-advocacy in individuals with/without disabilities

In school we would go on strikes… I started doing this from 6th-7th grades… we demanded for teaching of Maths and Science till class 10th, because the school only taught English, Hindi, Social Studies, Music and Sanskrit from 8th onwards… and some of us were not interested in studying Music auditand Sanskrit. Although we could not study, but our juniors did get a chance to opt for these subjects till 10th."

He furthers adds:

> *Now in college also I am very active as a student, we go on protests to put forward our demands, we are also raising concerns towards physical accessibility for the wheel chair bound students, we have demanded a Braille printer and collected fund for that, we have demanded for a room for the enabling unit as well.*

He claims that the college responds to their demands and says:

> *In college, EOC was not active in the initial phase… Enabling Unit was made functional… we worked towards it… now it has an enabling unit, two rooms assigned for its activities, staff and a computer… earlier a room was earmarked in the library, where scanner was provided… books in the library had to be scanned so, course material had to be produced on our own…"*

Our college is working toward inclusion because we intervene, and they respond to our demands, like the college website is being made accessible for us.

However, in addition to the institutional habitus of the school, interactions with fellows in the schools also have an impact on their educational experiences. One respondent who had some school seniors in the university said that:

> *I was already aware that EOC provides the course material accessible to blind students, so I would go there and get all the material in the beginning of semesters, but I never went to EOC to avail reading facility… rather I would record all the lectures.*

Another respondent with visual impairment claims that her college is the best for visually impaired girls and said:

I had a feedback from some of my seniors from school, so this college was my first choice and it is very inclusive too.

This finding resonates with Kannabiran and Vinayan (2016) who found a clearly evident role of social networks in the selection of institution.

Further, the possible bias towards opting for Arts and Humanities courses in higher education (Jameel, 2011; Saksena and Sharma, 2014) may be explained in terms of school effect, however it requires to be confirmed through future research efforts. The five visually impaired participants revealed that their choices of subjects are restricted right from the post-elementary level of education, after which the schools do not [for whatever reasons] teach them science subjects. This imposed restriction in the schools, severely limits their choices in the higher education. One student with visual impairment who was one of the first students in NIVH to study Maths and Science in secondary classes said that:

I wanted to study Maths, I really like the subject, but we can not afford to study it… the schools do not teach, and most of us can not afford individual learning.

Family Support

The role of family on educational choices and education attainment is well known. But

Family members are a primary source of support for people with disabilities…. Parents play major roles as caregivers, advocates, and system navigators. As their children grow through adolescence and into adulthood, parents continue to advocate, and also share that activity with children who grow into the self-advocate role. In adulthood, families also provide a broad range of assistance, helping individuals to lead meaningful lives in the community, including educational attainment and employment, and to avoid unnecessary and undesired institutionalisation(Grossman & Magana, 2016).

The families of students with physical disabilities remain a constant support system available to them through transition to higher education and in the subsequent adjustments required to 'cope' and survive a higher education system designed for the 'ideal' student. The various levels of supports provided by family members, as identified by the participants of the research study may be seen as:

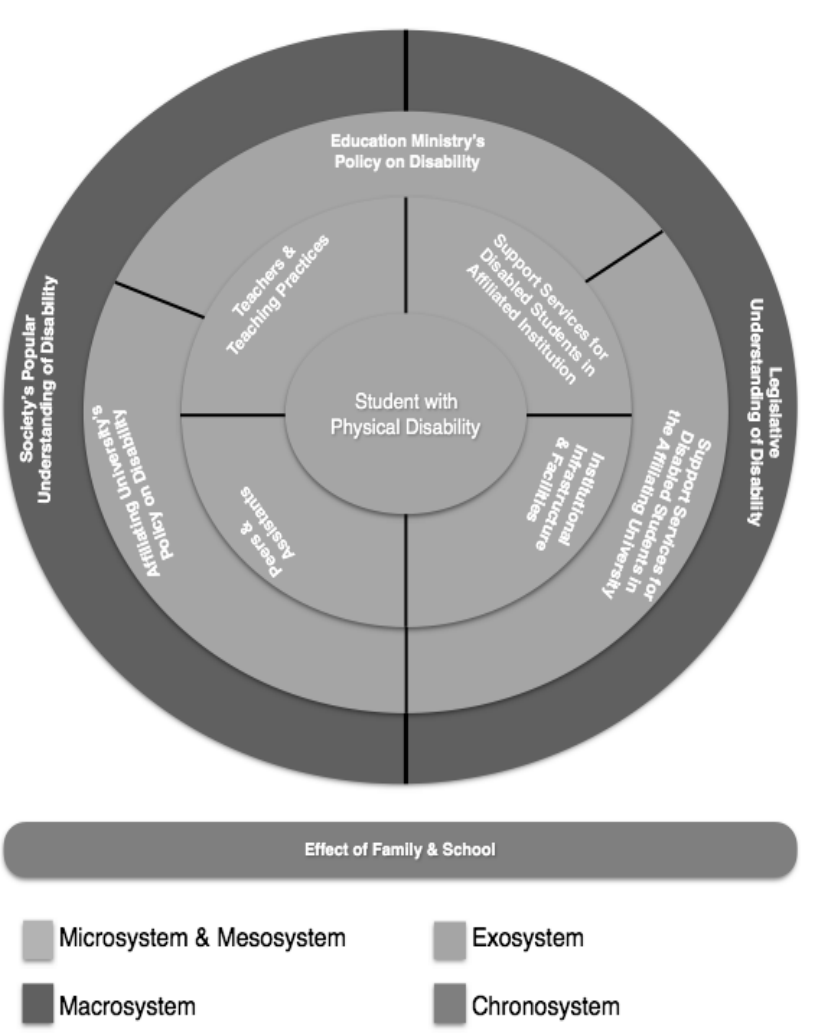
— Advocates of the needs of students with physical disabilities
— Providers of assistance in various activities
— Support systems: emotional and financial support

Ecological Model

From the above discussion a model corresponding to factors that have an impact on the experiences of students with physical disabilities in higher education may be derived.

FIGURE 1

Ecological Model of Factors Influencing the Experiences of Students with Physical Disabilities in Higher Education



Implications

The current study was conducted on a small number of students with disabilities enrolled in only one university, hence any sort of generalisation of the study is severely impossible. However, through the narratives of the students with physical disabilities the

study does provide a peep into the lives of atypical higher education students. Inclusion of students with disabilities is a desired process for an equitable higher education. And substantive inclusion is much more than mere external inclusion (Young, 2000) — affirmative action to increase access. Additionally, for any sort meaningful inclusion, the students with disabilities require reasonable accommodations in higher education. But as the institutions of higher education have for long left the responsibility of seeking accommodations onto the disabled students themselves, the institutional responses to their inclusion have primarily been reactive to the demands raised by disabled students. However, to facilitate positive experiences of/in higher education for students with disabilities, the institutions are required to respond in a proactive ways (Morina, 2017). Thus, the whole system of higher education, from ministry to the institution, shall undertake a process of anticipatory and dialogic approaches to respond to the various needs of students with disabilities. Further, the experiences of students with disabilities in higher education are the most affected by teachers' attitudes and their normative teaching styles. It is therefore, required that the faculty be trained in disability: laws, policies, social-institutional responsibility towards inclusion, supports available, types of disability with their distinct needs etc. Various types of training programmes — long duration, short duration, intermittent — shall be conducted by constant efforts by higher education institutions in collaboration with other specialised institutions on various disabilities. Additionally, the attitude — self-determination and self-advocacy — of the students with disabilities helps them in manoeuvring the difficulties in higher education, hence, students groups/organisations or disabled student leaders should make collective and organised efforts to raise the issues particularly concerning students with disabilities.

Conclusion

Higher education systems across the world are becoming diversified following their immense massification. However, the formal admission of disabled students into the higher education institutions engenders an exposition of its state of affairs. The experiences (voices) of disabled students expose the implicit inequalities of the system. As the discussion above suggests the factors that affect the experiences of students with physical disabilities in higher education belong to the most immediate environments — college and university. Additionally, the factors external to their HEI; the legislations, policies on disability and inclusion in education systems also affect their experiences in two ways. First, the individuated conception(s) of disability in the policies and legislatives or ineffective implementation of right policies and legislations both colour their experiences. Secondly, in the face of current system, where the onus to seek support on the disabled students, an unawareness of policies and legislations concerning their rights also affects their experiences and may instil in them a sense of failure. However, the experiences also reflect that the societal and cultural discriminatory notions about disability and people with disabilities permeate higher education institutions.

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Emotional Intelligence of Primary School Teachers in Mauritius

Sharone Ramasawmy*
Vimala Veeraraghavan#
Ananda Padhan**

Abstract

It is widely recognised that the possession of simply subject knowledge is not enough to be a good teacher. Some of the behavioural traits like motivation, interest, empathy, self-esteem, and emotional intelligence contribute significantly to the making of an effective teacher. The present study is directed to investigate the level and status of emotional intelligence of the primary school teachers in Mauritius. The emotional intelligence was measured through a standardised scale administered on 517 primary school teachers representing whole of the country of Mauritius; they were selected through a stratified random sampling. The results of the study reveal that the primary school teachers of Mauritius have a high level of emotional intelligence; that the self-motivation and empathy emerged as the top dimensions of the emotional intelligence; and that the gender as a factor has no influence on emotional intelligence.

* Educational Psychologist, Ministry of Education, Tertiary Education, Science and Technology, Republic of Mauritius, Port Louis, Mauritius, Email: sharone.ramasawmy@asu.apeejay.edu

G-15/3, DLF Phase I, DLF City, Gurugram - 122002 (Haryana), Email: vveera2000@gmail.com

** School of Education, Apeejay Stya University, Sohna - Palwal Road, Sohna, Gurugram (Haryana), Email: ananda.padhan@asu.apeejay.edu

Theoretical Orientation

IT has been widely accepted that emotion is an invisible driving force that gives meaning to our life. It can be seen as the steering wheel which often dictates our decisions and relationships. The emotion related to our intelligence or emotional intelligence can be precisely defined as the ability to correctly perceive, assess and express emotion enabling us for better adjustment in our environment, job and life. The term was first brought to attention in 1990 by Mayer and Salovey, and was later popularised by Daniel Goleman in 1995 through his book Emotional Intelligence: Why It can Matter More than IQ. In recent years, there has been a good deal of research in the area of emotional intelligence after having realised its potential on the overall development of the individual as well as in their functioning (Greenberg et al, 2003). As claimed by Goleman (1995), emotional intelligence is accountable for 80 per cent of personal success and day to day interactions whereby general intelligence predicts only 20 per cent.

Mayer, Caruso and Salovey (1999) conceptualised emotional intelligence through four aspects: (a) ability to correctly perceive, assess and express emotion; (b) ability to appraise and to assist thoughts; (c) ability to understand emotions; and (d) ability to adjust emotions for emotional and cognitive growth. Goleman (1995) talked on five social and emotional abilities which makeup emotional intelligence: (a) self-awareness (vigilant of one's emotions); (b) self-regulation (organisation of emotions); (c) motivation (proper use of emotions to achieve goals); (d) empathy (understanding how others feel); and (e) social skills (using appropriate feeling when in interaction with others).

One of the key factors which led to the creation of an enormous body of research on emotional intelligence of teachers is that their role is no longer viewed as a passive transmitter of knowledge, but consist of equipping the learners with the necessary skills to learn, boost their self-confidence and self-esteem, motivate them and set up of a conducive learning environment (Williams & Burden, 2000). The focus of teaching in classrooms has shifted to improve the quality and standard of teaching. Therefore, with such shifts, one of the elements of change would be introducing a more interactive classroom environment through understanding students' needs as well as being in line with the progress in education. Understanding such needs necessitates a more in-depth knowledge of the emotions and feelings of students and what makes them satisfied, happy and have the motivation to learn (Biggs & Tang, 2007). During the last two decades, countless research in the field of education has shown that there is a strong nexus between the emotional intelligence of teachers and the students emotional wellbeing. Being the founding block of the education system teachers are responsible for the holistic development of the students who are the citizens of tomorrow.

Article 26 of the Universal Declaration of Human Rights (1948) states: "Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedom." Accordingly, the Government of Mauritius has also put much emphasis on the importance of the holistic development of the child. However, the responsibility to materialise this vision of the Government of Mauritius rests on the shoulders of the country's teachers. In a recent interview with the local newspaper Defimediainfo (Verma, 2019), the Director of the Mauritius Institute of Education which is the teacher training college of all primary school teachers, stated that the job of a teacher is more difficult for some due to increasing number of behavioural problems shown

by certain students. He proposed that the school management, colleagues, parents and students need to work in collaboration so as to instil a safe and trustworthy climate at school. In an article titled 'Emotional Intelligence in Education,' published in L'Express newspaper, Durgahee (2003) stated that a person is only half-educa;ted without emotional intelligence. He asked for the need for college and business schools to amend their programmes and to introduce emotional intelligence as part of the learning objective to ensure the professional development of the individual which will lead to the capable person. Those individuals will be able to meet with the needs of the contemporary world by being equipped with self-awareness, human compassion and optimum performance.

Review of Literature

A myriad of studies has been conducted on how the emotional intelligence of a teacher is strongly related to their effectiveness as a teacher. For instance, in a study on evaluating and improving emotional intelligence among teachers, Alhashemi (2018) emphasised the link between classroom environment and emotionally trained teachers which would allow a space where students would be able to interact more effectively and are listened to. After having a post-training programme of the teaching faculty, the researcher noted that the teachers were more motivated and positive. She concluded in her study that emotionally trained teachers would be able to attend to the proper development of the students in terms of team spirit, communication skills and peer learning. This is supported by Hagelskampet al (2013) who postulated that the quality interactions in the class have a powerful influence on the development of youngsters since the teacher respects the point of view of the students who in turn learn to develop their individuality in the learning process.

Moreover, an emotionally intelligent teacher is one who is self-aware of his emotions, embarks in active listening, recognises and canalises the emotions of himself and the learners in a constructive way, sets up a positive emotional climate and deals with students expectations. Teachers who are emotionally intelligent can adapt the knowledge to be delivered according to the needs of the students, are self-confident in their communication and do not limit themselves in subject expertise or acquiring self-knowledge (Mortiboys 2005). In addition to this, in an analytical study of emotional intelligence and teacher effectiveness, Ramana (2013) found that that a teacher's high level of emotional intelligence was related with several positive outcomes such as enhanced physical and mental health, and better working performance. The ability of emotionally intelligent teachers to observe and regulate their own emotions lead to an increase in workplace engagement and a reduction in burnout. He further advocated that good teachers need high level of emotional intelligence in order to be aware of student's emotions and understanding.

In another study of 600 secondary school teachers on the relationship between emotional intelligence, teacher effectiveness and occupational stress Kauts&Saroj (2012) found that a high level of emotional intelligence is related to a lower level of occupational stress and a higher level of effectiveness in their teaching indicating that emotionally intelligent teachers are more apt in reducing their occupational stress and improving their effectiveness at work. Krishnamurthy and Varalakshmi (2011) identified the emotional intelligence of 200 teaching and non-teaching staff through a questionnaire prepared in six sections (personal information, adaptability, assertiveness, emotional management, self-esteem and relationship of respondents), and found that there would be an increase in the

motivation and effectiveness level of the employees if there was an improvement in emotional intelligence. Moreover, Rodeet al (2007) established that the academic performance of the students is a predictor for the level of emotional intelligence of the teacher. Academic performance was conceived as an individual journey requiring high levels of self-management.

Some studies have focussed on exploring whether the demographic variables of teachers had a significant relationship with their level of emotional intelligence. Mishra and Lascar (2013) used a standardised tool to assess the emotional intelligence of 120 teachers teaching at secondary and senior secondary schools in the Hailakandi district of Barrack Valley, Southern Assam. The findings of the study reveal that emotional intelligence was free of any gender difference, and free of difference in the level of experience of teachers --- secondary and senior secondary. Similarly, Singh (2015) explored whether certain demographic variables of teacher educators were related to their emotional intelligence and they also found that the years of experience and gender did not influence their level of emotional intelligence as compared to region and marital status which did have an influence. Same findings were obtained from a study by Venkatapathi (2015) on the emotional intelligence of primary school teachers in East Godavari district of Andhra Pradesh, reported that the age, gender and qualifications did not affect the level of emotional intelligence. Hans et al (2013) also reported of having no gender difference with reference to teachers' emotional intelligence. Although no linear relationship was found between increase in age and emotional intelligence of the teachers, higher level of emotional intelligence was found for the age group 31 to 35 as compared to the other groups. A linear relationship was found between increasing educational degree and emotional intelligence whereas there was no linear relationship between increase in work experience and emotional intelligence.

Despite the fact that there is a significant amount of research which has been conducted on emotional intelligence of teachers, no such studies have till date been conducted in the local context. The Government of Mauritius has been investing massively in the education sector and it is important to investigate whether we are equipped with an emotionally intelligent teaching staff.

Operational Definition of Terms

- **Emotional Intelligence**

  The emotional intelligence in the study represents a combination of the ten dimensions: self-awareness, empathy, self-motivation, emotional stability, managing relations, integrity, self-development, value orientation, commitment, and altruistic behaviour.These were measured through a scale devised by Anukool Hyde, SanjyotPethe and UpinderDhar (2002).

- **Primary School Teacher**

  The primary school in Mauritius constitutes grades I to grade VI. The teachers employed for teaching these grades, all of whom are trained teachers with Teachers Diploma for Primary School of Mauritius, are designated as primary school teachers.

Objectives of the Study

The following were the objectives of the study:

1. To find the level of emotional intelligence amongst the primary school teachers.
2. To identify particular dimensions of emotional intelligence which are at higher levels.
3. To identify the difference in the level of emotional intelligence between male and female primary school teachers.

Hypotheses

The following hypotheses were formulated in the study:

1. There will be a high level of emotional intelligence amongst primary school teachers.
2. Some dimensions of emotional intelligence will be higher than others.
3. There will be a significant difference in the emotional intelligence of male and female primary school teachers.

Sample

The primary school teachers working in the Government Schools and Roman Catholic Education Authority schools in Mauritius constitute the population of study numbering 6134 teachers (Education Statistics, 2018). These teachers (a) have the same entry requirements, (b) were employed as full-time teachers having completed the Teachers Diploma for Primary School at the Mauritius Institute of Education, (c) get the same salary and increments, and (d) teach the same academic syllabus to pupils from grade I to grade VI. The teachers were not restricted to geographical limits, age, gender and socio-economic status. A sample of 517 teachers, consisting of 119 males and 398 females, was selected for the study.These represented all the four zones of Mauritius and selection was done by using the stratified random sampling using zone as the strata. The table below provides the area- and gender-wise sample representation.

TABLE 1

Sampling Distribution: Region-Wise and School-Wise

Zone no.	*Regions*	*No. of primary schools (Government and RCEA*)*	*No. of school selected (20 per cent of total schools)*	*No. of teachers selected (10 teachers from each school)*
1	Port Louis and North	83	17	170
2	Beau Bassin - Rose Hill, Centre and East	74	15	150
3	Curepipe and South	60	12	120
4	Quatre-Bornes, Vacoas-Phoenix, and West	43	9	90
	Total	260	53	530

*Roman Catholic Educational Authority

Tools Used

The standardised Emotional Intelligence Scale developed by Anukool Hyde, Sanjyot Pethe and Upinder Dhar (2002) was chosen to measure the emotional intelligence of the primary school teachers because the scale was comprehensive and consisted of 10 sub-areas referring to self-awareness, empathy, self-motivation, emotional stability, managing relations, integrity, self-development, value orientation, commitment and altruistic behaviour. The scale constituted of 34 items, had a split-half reliability coefficient of 0.88 and a validity index of 0.93.

Analysis and Interpretation of Data

As mentioned earlier, emotional intelligence (EI) in the study has ten dimensions, each of which can be interpreted separately. Together, these dimensions constitute emotional intelligence of each respondent. Table below presents the scores obtained by the Mauritius primary school teachers on emotional intelligence. For comparison purposes, the normative data are also presented for EI total and its ten dimensions.

TABLE2

Mean and SD of Present Study'sData (N=517) and Normative Data (N=400)on Emotional Intelligence Scale

Factors	*Mean and SD of Present Data*	*Mean and SD of Normative Data*	*High*	*Normal*	*Low*
Emotional Intelligence Overall	M=143.76 SD=14.6	M=68 SD=16	≥85	52-84	≤51
Self-Awareness	M=17.5 SD=1.71	M=7.10 SD= 2.85	≥11	4-10	≤3
Empathy	M=21.7 SD=2.15	M=10.5 SD= 3.43	≥15	7-14	≤6
Self-Motivation	M=27.2 SD=2.21	M=12.87 SD= 3.94	≥18	9-17	≤8
Emotional Stability	M=17.9 SD=1.54	M=7.85 SD= 2.66	≥11	4-10	≤3
Managing Relations	M=16.8 SD=1.70	M=8.39 SD= 2.83	≥12	5-11	≤4
Integrity	M=12.6 SD=1.76	M=5.37 SD= 1.83	≥8	4-7	≤3
Self-Development	M=8.54 SD=1.06	M=3.78 SD= 1.46	≥6	2-5	≤1
Value Orientation	M=4.27 SD=0.63	M=3.74 SD=1.77	≥ 6	2-5	≤1
Commitment	M=8.83 SD=0.93	M=3.79 SD= 1.31	≥ 6	2-5	≤1
Altruistic Behaviour	M=8.20 SD=1.16	M=3.87 SD=1.51	≥ 6	2-5	≤1

It is interesting to note from the table above that in all dimensions of EI, the scores of Mauritius teachers are enormously more than the normative data of the scale. In none of the EI dimensions, Mauritius teachers have ever scored low or even lower than the average score. This provides a sufficient ground to conclude that the Mauritian teachers possess high level of emotional intelligence in general and also score high on almost all the dimensions of EI. This validates Hypothesis 1 which states that "There will be a high level of emotional intelligence amongst primary school teachers." The dimensions 'self-motivation' and 'empathy' emerged very high compared to the average. This validates the Hypothesis 2 which states that"Some dimensions of emotional intelligence will be higher than others."

As the sample consisted of both male and female teachers, the EI scores of both these gender groups were compared. Table 2 below provides relevant statistics of these two groups.

TABLE 3

Emotional Intelligence Scores of Male and Female Teachers (N=517)

Gender	*N*	*Mean*	*SD*	*df*	*t' value*
Male	119	145.48	12.91	515	1.49*
Female	398	143.22	14.99		

**Not significant*

The result above shows that there is no significant difference in the EI scores of male and female teachers. In other words, both male and female teachers have similar level of emotional intelligence. So the Hypothesis 3, which states that there will be a significant difference in the emotional intelligence of male and female teachers is rejected.

The results are encouraging for the local context since the literature review reveals that teachers who has high level of emotional intelligence exhibit exceptional effective teaching skills because they believe in their students and are able to empathize with their learning needs. This finding is also supported by Noriah and NorShakinah (2003) who stated that emotionally intelligent teachers have better listening skills and are more sensitive to the learning needs of the students. Their care for the students makes them feel more committed to their work. One of the reasons behind the high level of emotional intelligence of Mauritius primary school teachers could be due to continuous training being provided to Mauritian teachers. In the Education and Human Resources Strategy Plan (EHRSP) 2008-2020, the Ministry of Education (2009) had clearstrategic goals of school staff development during the period 2008-2020. The strategic goals consisted of ensuring the continuous training of primary school educators through pre-service, in-service and flexible modes to ensure professional development to enable the educators to be in tune with the emerging skills, knowledge and issues.

Conclusion

It may be concluded from the study that the primary school teachers of Mauritius have a high level of emotional intelligence with the self-motivation and empathy emerging as the top attributes. This is indeed a very good sign for the teachers and a matter of gratification for policy makers in Mauritius. This is in parallel with the findings in literature which report that self-motivation and empathy are core qualities of an emotionally intelligent teacher. As such no significant difference was observed in the emotional intelligence of male and female teachers and therefore no gender specific intervention is required in training or nurturing the attributes of emotional intelligence. It will be wise for the school managements and the government of Mauritius to capitalise upon this trait of emotional intelligence in in-service teacher training of primary school teachers in complement with other interventions like ICT, teaching-learning resources and infrastructure building so as to bring better learning outcomes in students.

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Book Reviews

MIRI, Mrinal (Ed.) (2018): ***The Place of Humanities in Our Universities***, New Delhi: Routledge, pp. 214, ISBN: 978-1-138-10638-3

Society is undergoing an unprecedented socio-economic and cultural transformation today, due to the growth of knowledge and technology. Information and knowledge intensiveness in economic activities provide legitimacy to the claims that we are in or moving towards a new era of knowledge economy. Proliferation of Information and Communication Technology (ICT) is one of the major catalysts for increasing the global interconnectedness. It helps us to transcend time and space, and paves the way for free flow of finance capital. The sum total of these causes and consequences could be better captured by the term globalisation.

The higher education sector is expected to produce new knowledge and human capital for the economy. However, what constitutes knowledge in a new economy is not defined by its intrinsic value. This is a clear deviation from the ways in which knowledge and education had been traditionally understood and operated for centuries. Hierarchisation of knowledge and disciplines, based on the instrumental value, led to growth of science, technology and management at the cost of humanities and social sciences. The book under review makes an important critique of the current system of university education by providing self-critical and diverse perspectives on "humanities." The book is the outcome of a seminar organised by the editor during his tenure as chairperson of the Indian Council for Philosophical Research (ICPR). It is a collection of 12 essays written by eminent scholars from a wide range of disciplines, along with an introductory essay.

The first two essays in the collection set the stage for the debate by providing a critical self-examination of the practice of humanities. The first essay titled "The Humanities in the English-Speaking West'' by Akeel Bilgrami discusses the perceived false dichotomy of science and humanities. The puthor provokes us to revisit the "internal trajectory" of the humanities and social sciences, and see how disciplines within humanities engage with the subject matters of mutual interest. The second essay titled "Redefining the Humanities: Place, Meaning, Function" by Supriya Chaudhuri compliments it by tracing the trajectory of humanities education since the medieval western academia. Chaudhury observes that since the European renaissance, a shift has taken place from the broader notion of "humanities" and its subject matter is the "idea of human" which also includes the study of science as a restricted discipline for the study of "non-mathematical subjects." Though both the essays are critical about universities built around the European enlightenment model, it was felt that the idea about how the vast wealth of indigenous literature and perspectives can be incorporated into humanities education in India needs a little more elaboration.

In the essay titled "The Place of Humanities," P K Mukhopadhyay provides an overview of the history and place of humanities in the university system. The scientism and relative

place of humanities in comparison with other disciplines in the university system are the central themes. The author examines the issues of scientism in two ways. First, he examines how prevailing "scientism" undermined the relevance of humanities discipline. Secondly, he examines how popular philosophy practice reproduced the orientalist construction of India as spiritual, mystic and non-scientific. The overall length of the essay and the long paragraph constructions could well have been avoided so as to make the arguments more lucid.

The essay titled "Predicament of Humanities" by Alok Rai reviews Bill Reading's influential work titled The University in Ruins. The author highlights the predicament of western universities in the era of globalisation and presents Indian universities as a parallel as well as a deviant case. It was argued that the Humboldtian model relying on practical utility resulted in substitution of philosophy by literature and led to the dominance of science and technology. The way forward is to promote a "pedagogy of dissensus," as an opportunity to dissent, which is being strongly opposed in India. However, the framework of the university that the author highlights is mostly western and it seldom engages with the social dynamics of Indian universities. It is a major limitation considering the central theme of the volume.

The essays by Amlan Das Gupta and Prasenjit Biswas discuss humanities in the digital era. Amlan Das Gupta, in his essay titled "Humanities in the Age of Their Digital Operability," discusses the opportunities and challenges associated with an engagement with digital humanities. The essay titled "Are We in for Post-Humanist Post-Humanities?" by Prasenjit Biswas addresses the implications of emerging complex transformations that are being experienced in humanities in the digital era. Drawing on the experience of developing a course on digital humanities, Gupta highlights various challenges including that of theorisation of everyday cultural experience. The concerns raised in the essay regarding the future challenges, both in ethical and legal domains, and that of human creativity during the use and processing of digital data are very much forward looking. As noted by Biswas, performative superiority of machine would not be a reason to suggest that technology can override human beings, as human consciousness is a distinctive quality.

Following Martha Nussbaum, Rajeev Bargava argues in his essay titled "The Indispensability of Humanities" that humanist aspects of education have been sidelined in contemporary education. The idea that humanities are constitutive of social sciences is often missing and we fail to recognise how philosophy, art and religion add to our understanding of the conceptual world of human beings. The author makes a serious critique of the way the study of religion has been neglected in a country like India. But the argument that social science devoid of humanities is bad is not adequately supported by the evidence of social science practices in Indian universities. The author provides little insights into how re-interweaving of humanities and social sciences is possible in its actual practice.

The essay titled "Some Staccato Observations on Interactive Studies" by Rajendra Prasad ascertains the standing of philosophy as an independent discipline focussing on an inquiry into and analysis of concepts and ideas. The essay advises those philosophers who engage in interactive studies to maintain the "intrinsic dignity" of the discipline. One needs to develop an expertise and maturity before entering into another discipline to gain new insights. This is an important point to be considered in the context of interdisciplinarity. However, the essay is silent on how a normative understanding of the "maturity" of an academic is to be defined, particularly in the context of trans-disciplinarity.

The essay titled "Imaginaries of Ignorance" by Rukhmani Bhayya Nair attempts to revisit the idea of university by critically engaging with the idea of ignorance. The author revisits two philosophical texts --- one by Plato which is as old as the 4th century BCE, and one recent work by Jacques Rancier. The author then proposes six models of universities, demonstrating how humanities are placed. They are: Standard University, the Institute, Right Based University, Internet University, Tagore's Shantiniketan and Travelling University. The author calls for a revival of university education and for revisiting the very idea of learning and scholarship by keeping humanities education as a source for empathetic political education.

The essay titled "What Humanities/Social Sciences Mean: Transmuting the Two Culture Idea" by Sasheej Hegde reconceives C P Snow's classic work on The Two Cultures and elaborates the discussions on the ways in which the approaches of science and humanities may be reconciled. The author proposes that science follows the "scholastic model" wherein know how (techne) and know why (episteme) are important orientations towards knowledge. Humanities follow a reflexive model by which meaning and mechanisms of power are understood at the intersection of 'techne' and 'episteme.' It was felt that the idea that "agenatial" perspectives are significant for bridging the divide between humanities and social sciences could have been elaborated by the author in the context of the practices of teaching-learning and research in our universities.

The essay on Massive Open Online Courseware (MOOCs) by Apoorvanand discusses the basic premise and global and national scenario of proliferation of MOOCs within the market model. The author elaborates on the opportunities available and concerns regarding the implications of MOOCs for equity and traditional mode of teaching. It appears to be a standalone essay, if we consider the central theme of the book.

The concluding essay by Mrinal Miri begins with a critique of the National Knowledge Commission (NKC) which has made important recommendations for reforming the universities. It is argued that instrumental approaches to knowledge by NKC have failed to distinguish a university from other institutions. From the contributions made, the editor recapitulates the insights on division between science and humanities. While science is based on verification, quantification and predictability, humanities and social sciences see knowledge as understanding. Therefore, it is essential to bridge the gap between science and humanities, as the latter deepens our understanding of human condition.

Overall, the book provides a diversity of perspectives on the "idea of university" weaved together by the common thread of the "place of humanities in university." Therefore, even a standalone essay on MOOCs, which is otherwise, seemingly, a deviation from the central theme, reasonably fits well within the volume. The book is not confined to "humanities" in its narrower (mis)understanding as a faculty or group of disciplines dealing with non-mathematical subjects. Many essays in this volume critique the fragmentation of knowledge, and politics of knowledge production that perpetuate inequities and dominance of science as the only legitimate form of knowledge. The critiques of apolitical and ahistorical ideas of university and its modes of knowledge production, put forward by the contributing authors, help us to reimagine the university and connect the past with the present and future.

Incidents of prevailing poverty in its multi-dimensional form, emerging global risks such as spread of COVID 19, pollution, climate change, war and violence, and the combined and uneven forms of development demand revisiting the idea of knowledge and boundaries of

disciplines. This calls for alternative perspectives on and imagination for human life. Perhaps empathy and ethics will be the foundational premise of this new imagination. This is the crucial juncture at which the volume provides vital insights about the place of humanities in universities. This book will invite the attention of scholars from a wide range of academic disciplines. Of course, it will be an important resource for higher education leaders and policy makers. Ideas and concerns of the volume will definitely influence the future debate on structural reforms in university education in India.

Centre for Policy Research in Higher Education
National Institute of Educational Planning and Administration
17-B Sri Aurobindo Marg, New Delhi -110016

Malish C M
malishcm@niepa.ac.in

PRITCHARD, Rosalind M O: ***Neoliberal Developments in Higher Education: The United Kingdom and Germany ,*** Switzerland: Peter Lang AG, pp. 329

Neoliberalism is not a set of physical changes that occurred in most of the nations. It is a formidable but abstract virus, in the form of an ideology, that has affected the psyche of policy makers and administrators across the world. Based on the specific contexts, it has differential impacts upon nations. Margaret Thatcher, a strong proponent of neoliberalism, made a global impact through her daring neoliberal behaviour when she was at the helm of affairs. Many politicians modelled the changes brought in by Thatcher including Ronald Regan, Augusto Pinochet, and of course Manmohan Singh from India. As the neoliberalism is an all-pervasive phenomena in the current world, education has its own take. Or rather education was used as a tool for a further deepening of the philosophy of neoliberalism. Neoliberal ideology understood higher education as the most potential and powerful soft weapon for conquering the minds of younger generations. Rosalind Pritchard analyses these very nuances of higher education in the backdrop of neoliberal policies adopted by two nations, which have two different social, political, cultural and economic backgrounds. For this the author has selected two different nations, the United Kingdom (UK) and Germany, which have contrasting traditions of educational philosophy.

The book adopts a systematic comparison of the selected dimensions of higher education in Germany and Britain. The dimensions selected for comparison are the ones that cannot be neglected by any academic of contemporary society. They affect the life of academics in an all-pervading manner. The book starts with an analysis of academic freedom and autonomy in the UK and Germany. In Germany, universities are directly under state control. On the other hand, in Britain, universities are separate entities from state, though they get funding from state in most of the cases. The British definition of freedom and autonomy are more pragmatic than theoretical. The author points out that the discussion on academic freedom in to institutions blurs the distinction between freedom and autonomy of the institutions in the UK. Higher education institutions in Britain apparently enjoy a lot of autonomy. But this autonomy is different from the freedom of individual academics to carry

research and teach the courses of their choice. By sharply differentiating the words freedom and autonomy, the book alerts the readers to go deep into the meaning of the concepts which we generally take for granted.

How did the idea of academic freedom originate? The book argues that the concept of academic freedom is purely German by origin. The University of Berlin, founded by Wilhem Von Humbolt, in Prussia heralded the concept of modern university system. This very system placed academic freedom on a high pedestal. The university system established in Germany prompted the American universities to follow the German model; for example, John Hopkins University did so in 1876. The US of America imported the idea of PhD from Germany. The book has documented the genealogy of modern higher education institutions modelled after the German higher education system. Later the British were forced to adopt the German model in order to stop the flow of American students to Germany. The importance and role of the German university system in shaping the modern higher education system has been well elaborated by this book.

Freedom is not something to be given; instead it is something to be taken. The peril of academic freedom which is dropped down from the authorities is visible in the history of higher education. The case of Germany is analysed for its impact of state regulated higher education institutions. In Germany academic freedom is guaranteed by the state through legislation. But if the state is corrupted, what about freedom? Germany has suffered such restriction of freedom during the 1930s, as the academics were silenced on state actions. The counter movements which took place in Germany show that the left wing students even persecuted their professors. In spite of all these facts, the author points out that the idea of university evolved by Germany did not get nullified. It remains one of the most influential ideas across time.

The book describes the structural changes in the value system of Britain during the Thatcher regime and analyses how deeply it affected the psyche of education. Compared to the German situation, Britain was more affected by the free market forces. The discussion of freedom of teaching and freedom of learning provides insights into these two aspects in the context of the UK and German. It should be noted that the discussion is about two European nations, but one could hardly find it difficult to isolate the Indian higher education from it. All the aspects discussed here are visible at different levels of different institutions in India as well.

The book has a strong empirical base in the form of the case studies carried out for it in order to compare the higher education systems of Germany and the UK in selected aspects. In its second chapter, the book systematically compares the origin, teaching and learning, and finance of two premier universities. After a separate analysis of these aspects, a comparison has been made between these two universities. In Germany, the universities were established as a result of state decision. In Britain diametrically opposite was the case, as the universities were established by the church and other agencies who were the benefactors. It is believed that the British model ensures autonomy and is therefore the most desired form of university establishment. The book shows how, in the UK, control is systematically applied on such institutions that are supposed to be autonomous. Through state funding in the UK, there is a serious attempt to exercise control and regulation on universities. For this, agencies like the University Grants Committee (UGC), its successor, the University Funding Council (UFC), and the accreditation agencies like Council for the

Accreditation of the Teacher Education (CATE) were formed to exert control over higher education institutions. This type of control is quite similar to what happened in India and many other developing nations. By exposing such regulatory strategies and their role in Higher education system, the book under review offers a broad framework in which researchers and students may further analyse such attempts in various nations.

The growth of purely private universities in the UK is identified with the origin of Buckingham University. It started mainly out of the bureaucratic nature of state support and excessive political influence in education. When looking upon the case of Germany, the reason for the origin of first private university seems to be the excessive domination of technological and methodological influences that alienate man as a social, political and cultural being. To overcome the data based, objective medical sciences, the University of Witten/Herdecke was initiated as a medical institute and was made a university later. In both cases it is visible that private universities emerged due to a decay of the existing system and offered great hopes for the people in terms of freedom and autonomy, which were irresistible values for the modern society. The reasons for the creation of a new private university were principles and ideals rather than pragmatic considerations. This is quite true in the case of aided school system in Kerala and elsewhere in India. Initially, they all were initiated to educate and empower the native populations. But over a period of time these institutions drifted away from the basic idea upon which they were built, and descended to the level of profit seeking organisations.

The University of Witten/Herdecke charged no money from the students, but the students were encouraged to have state aid in the form of education loans, etc. Different was the case of University of Buckingham. Both these universities collected fees from students and attracted only the elite sections --- in line with an economic Darwiniansm. After analysing the complex origin and survival of these two private universities, the author points out that the product or 'goods' produced by universities, be they public or private, did not exhibit much difference. As the state owned universities also started producing private goods, it has resulted in a very complex mix of private and public goods. Thus the whole education system is not either public or private. The situation is very similar in case of India as well. Due to the call for autonomy and self-reliance, public universities have also started engaging in self-financing programmes. As a result, there existed a complex mix of private and public goods produced by the higher education institutions (HEIs) in India. It has now become really hard to differentiate between what is private and what is public. This is exactly a neoliberal trend which one could see in Germany and the UK. The book, though limited to the cases of the said two countries, broadens its findings to the global population of the HEIs.

In his book A Brief History of Neoliberalism, David Harvey gives a vivid picture of the transition of socialist economies to neoliberal ones. The ideals of a socialist regime were treated as binding and subjugating the freedom of the people. Neoliberalism offered freedom for the people and grabbed the mind of the liberals. As this description of Harvey is about a larger picture of economy, its implications for education have not really been carved out so far. Rosalind presents the nuances through which the transition from the public university system to a market based neoliberal organisations in Germany passed. The gradual shift from a East European socialist education system to a West European capitalist system,

through the systematic application of the market principles and efficiency reforms, have been discussed in detail here.

The structural reforms that rolled out red carpet for the neoliberal practices --- in the UK, Germany and elsewhere in the world --- faced vehement attacks from the socialist as well as conservative sides. This demanded the creation of a consensus among the people to apply the neoliberal strategies. As such, while social pedagogy was planned and implemented by influencing the middle classes, its legitimacy, ostensibly based on rules and regulations, actually involved a form of softened coercion. A set of laws and institutions to facilitate these laws was the quintessential phase of neoliberal growth. This creation of rules and regulations to legitimise neoliberalism in Germany and the UK has been thoroughly analysed in this book. The tension that existed between the state and federal governments in Germany and the similar processes and their repercussions in the UK have been discussed in detail. The role of state power in regulating the HEIs through concrete measures --- such as those relating to the student teacher ratio, the policies to stimulate competition and quality, etc --- was a common outcome in both the nations. Needless to say, the neoliberal practices countenanced only concrete outputs. Reification of consciousness and quantification of the quality indicators in higher education institutions is a common trend across the world in the aftermath of neoliberal undercurrents. It is interesting to note that policies and practices were formulated in both nations to facilitate the smooth percolation of neoliberal interests during the 1980s, the decade of neoliberalism blossoming in the flowerpot of market interests.

Coercion and power are old ideas of establishing dominance and influence. The neoliberal era sought more sophisticated measures which are soft but more stringent and penetrating means for deepening its influence. In higher education, a social pedagogy was created so as to orient the economic middle, the most prominent and dominant class in all the economies, about the advantages of open market and free trade. In case of education, an important strategy to sway the whole generation is to have a plan that would work for the upcoming generations. To bring it on the board, the best source is teacher education. In Britain the teacher education was under severe influence of neoliberal agenda makers who strove to have stringent control over curriculum, pedagogy, evaluation and other policies related to teacher education. This kind of an analysis shall open up a self-critique of teacher education institutions across the nations. In what way has teacher education become a convivial tool for the neoliberal ideals? This is an interesting yet an alarming issue to be further explained.

How do neoliberal policies impact the teachers and students of Germany and the UK? This is an important question that would draw attention to the concrete results and ground level realities of neoliberal influences. The empirical study made by the author in the seventh chapter analyses the shift of attitudes and interests in both the countries in the neoliberal period. The neoliberalism has brought in serious attitudinal and behavioural changes for the academic staff in both countries. A new surveillance strategy has been put up through accountability measures. Attempt of encroachment over academic freedom, creation of a new set of professional ethics that necessitates the staff to have positivism, which in turn force them to suppress many real challenges and predicaments --- all these have a serious impact on the process shaping the psyche of academics working in higher education

institutions. The vulnerability of academic staff in both the countries has been explained through an empirical study in this book.

How does the neoliberal turn impact gender justice in higher education? This is the question addressed by the author in the concluding chapter which has been co-authored with Mary Henkel. The issue of gender neutrality in neoliberal higher education has been analysed insightfully. The performance based indicators and their pressure on women have taken away, over time, their control over their own decisions. By taking away the decisions from one's own hand, neoliberal policies in higher education have proved more harmful to women who have to engage in child rearing and many other family responsibilities.

In all probability, the kind of inquiry made by Rosalind may prompt the educational researchers to dig out such changes that have happened in one's own nation since the arrival of neoliberalism in higher education system. The book provides a broad framework of methodology through which such enquiries may be taken forward. The book presents each of its arguments in a very insightful way. We would rather say that the sway of history is palpable in the analytical style of the author. She picks up history as an important anchor to which every argument has been appropriated by logically highlighting its contemporary implications. Raising arguments and substantiating every argument with a sufficient literature base and empirical evidences is both an art and science. Rosalind has done it in a passionate way.

Department of Education, Project Head, PMMM National Mission on Teachers and Teaching, School of Education, Central University of Kerala, Thejaswini Hills, Periye, Kasargode, Kerala, India - 671316

Amruth G Kumar
amruth@cukerala.ac.in

GANDHI, Malli (2014): ***Denotified Tribes: Retrospect and Prospect,*** New Delhi: Manak Publications Pvt Ltd, pp. 547

Labelling and social stigmatisation perpetuated through the colonial legacies since the late 19th century is among the most audacious desecrations imposed on certain social sections of the country. Even after several decades since independence, there are 1500 nomadic, semi-nomadic and 198 'denotified' tribes in the country, accounting for a substantial proportion of India's population, 'unorganised, unrecognised and scattered' even today, surviving without basic amenities of sanitation, health, and education and amidst poor living conditions, abject poverty, backwardness, and vulnerability. Social justice and human rights are alien to them and economic deprivation eventually resulted in slavery, bonded labour and poverty. With scant attention to public welfare measures, they continue to suffer from age old stigma and identity crisis.

The present book Denotified Tribes: Retrospect and Prospect by Malli Gandhi is one of the rare studies of these extremely deprived classes of India. In an apt Introduction of the

book, renowned former bureaucrat Shri PS Krishnan points out how the 'Criminal Tribes' of the British era were re-anointed as 'Denotified Tribes' (DNT) and 'VimuktaJatis' (VJ), and enlists the measures taken in the provinces by the government, in the decades following independence.

The 19th century European intellectual legacy dominated by social Darwinism, racism, and eugenics labelled the indigenous people as "biologically inferior." Due to the inability of the colonial administrators to comprehend the rich history of the nomadic, semi-nomadic, ex-criminal or denotified tribes, as the book reveals, at least 40 per cent of the people in India were classified as 'Criminal Tribes' (CT) in their Criminal Tribes Act (CTA), 1911. The whole issue of arbitrariness of falsely identifying, listing, branding this particular group of people as CT under the Act and victimising them in due process is illustrated in the book. It narrates the historical and systematic development of the so called 'criminal' and denotified tribes, particularly the Yerukulas, from the colonial era to the present, analysing their experiences, and subjugation under different regimes which excluded them from the mainstream of society and tagged them as 'criminals,' thus violating their dignity and basic rights. Classified differently as Scheduled Castes, Scheduled Tribes, and Other Backward Classes, the same community or tribe is in a further complicated mannersub classified differently in different states.

There are two major parts in the book. Part I deals with the transformation of Yerukulas, from 1871 to 1956, from the enactment of CTA to the repealing of the Habitual Offenders Act which aimed at seeking "control over all the criminals taking crime as a profession." Part II of the book illustrates the contemporary issues, such as developmental initiatives taken for their empowerment, upliftment and overall development. The book is a compilation of various articles presented by the author in different conferences, providing a renewed vision and analogy to the startlingly cold apartheid perpetrated upon the Notified and Denotified tribal communities during the pre- and post-independence period.

An exhaustive ethnographic account of the Yerukulas, of their social, economic, political and religious life, suggests that their caste duty was dongatanamu (thieving) and that before going out on a raid on any peaceful village they used to worship the goddess of sleep for an uninterrupted raid/operation over the targets. It made them habitual offenders by virtue of their caste positions which made them unable to take up any honest work easily. Along with tracing the root cause of the criminality intertwined into the psyche and cult of the tribal group, the author also focusses on the other factors prompting them to commit crime – lack of alternate livelihood source, laziness, lack of proper upbringing of their children and, finally, police assault even after giving up on crime and most importantly, ignoring any build-up of trust for the community.

The migratory tribes,which survived bypreying uponthecaravan which traded and transportedthe goods and services throughout the country, were branded by the colonial rulers as 'criminal tribes' due to their 'habitual involvement' into criminal activities from time to time and were covered under the CTA. With the new enforced economic regulations strictly regulating their trading activities, heavy customs duty and the outright plundering nature of the colonial officials, they lost their customary rights over natural resources and finally the introduction of railways destroyed their vibrant network of trade and commerce, traditional occupations and means of livelihood.

Among the different measures adopted by the government to control them, the foremost was establishing and maintaining settlements by gathering active criminals belonging to those tribes --- like in an open air jail, along with their families. A comprehensive analysis underlines the functioning of Christian Missionaries like the Salvation Army as they were entrusted with the task of managing the colonial settlements and transforming the children of the criminal classes as "decent, law abiding, and honest citizens."At one point, the author at one point calls these settlements as "islands of slavery in the midst of independent India" and also mentions them as places of reformation and not of segregation or confinement. The case study of different settlements, done extensively in the book, reveals that the measures more or less a failed due to meagre facilities provided by the government, lack of social education along with economic rehabilitation and an overall atmosphere of discontent in the settlements except for a few successful cases led by committed individual settlement officers.

The last two chapters of Part I of the book portray the provisions and issues related to education of the CTs in the Madras Presidency during the colonial rule, mainly through the 'reformatory schools.' The author is critical towards the prejudiced colonial ideology perceptualising the native brain and ear formation as "very sensitive to nervous disturbances and malfunctions," confirming the CTs and their children as "very abnormal." This inherent bias in understanding the cultural settings of the country was reflected in their repressive and predisposed measures.

For example, while narrating the formation and functioning of reformatory schools in the Madras Province, the author reveals that there was a vast difference between the culture of education in the penal, reformatory, voluntary, industrial and agricultural settlement schools, and the education of the general population. These were visibly half-hearted efforts made by the colonial government to educate and reform the children belonging to the CTs. The critical analysis shows how the children in the reformatory schools, through the strict regimented curriculum and discipline with the habit of obedience and with industrial and vocational training, became disciplined wage workers;they thus lost their freedom at home and school, and were denied opportunities for the development of imagination, cultural creation, sophisticated skills and also traditional knowledge system.

In its second part, the focus of the book has shifted towards the contemporary scenario and issues of tribal development. In his discussion on historical development of tribal groups in India,particularly in Andhra Pradesh, and through his historical and contextual research, the author critically analysesthe impact and lack of impact of government policies and programmes to ameliorate the tribal problems of poverty, land alienation, stigmatisation, cultural accommodation in contact with non-tribal population, poor health and living conditions.Then he also suggests measures for overall development of the tribal groups in the regions.

For the wholesome development of such tribal groups, the author advocates community participation and collective action as the effective measure. Government schemes, policies and institutions aimed at equalisation of opportunities through meaningful participation of downtrodden groups, for their own economic interest and enterprise, are visualised to serve the purpose of their empowerment and protection of basic human rights.

Paradoxically, the author notices a dearth of research interest till today on the lives of these people and the 'psychological barrier' still prevailing among the criminal tribes.

He, thereby, presents an intuitive and detailed description of the DNTs, their characteristics, historical perspective, anthropology, and archaeology, which is unique; this provides us an essay of its own kind in contemporary tribal literature. There is exclusive case-wise analysis of different DNT groups such as Nakkalas, Mondibandas, Nishikaris, Katikaparis, and Dommaras, giving a detailed vision of the South Indian sociological landscape. Primary experience sharing by the people from such groups where they had been thoroughly misinterpreted, manhandled and violated to be interpreted and retained as criminal classes is also thought provoking.

In the latter half of the book, there is a specific dialogue on the state and status of women and youth belonging to these DNT groups and how the previously equally participating tribal women were criminalised with the CT Act,how their conditions particularly deteriorated with atrocities committed to them by law keepers, and how for survival they were forced to accept certain occupations that attached minimal value, dignity, and respect. The criticality of empowerment of the youth and fresh mind of the DNT people is clearly comprehended and reflected in the chapter. Along with the woman and girl child development, there is an urgent need to channelise the youth potential against all stigmatisation, for a better future for these people.

As the reading continues, one of the most insightful narrations and viewpoints is presented by the author in the chapter on science and technology for the empowerment of DNTs. He advocates empowerment of the adivasis through scientific and technological advancements and innovations. There is anemphasis on linking science and technology with their traditional knowledge and culture, awareness development through modern and scientific education, and skill development in order to improve their socio-economic conditions. Participatory approach is envisaged for capacity building, involving people at all the stages of their own development, ultimately stressing onthe scientific and technological endeavour without disturbing their equilibrium ofresource zones and concomitant change in their social structure, but by improving the tribal mode of production, their surrounding environment and ways of life.

Some vital questions are kept unanswered by the author regarding their treatment as ‘habitual criminals;’ life after imprisonment; survival strategies of the women and young people where the main male earning member is sentenced for life; intent and will of governmental measures for their development and so on. These are to be addressed by the stimulated intellect and wills of the policy makers.

Throughout the entire discussion there is emphasis on the value of education for the children of nomadic, semi-nomadic and denotified tribes and the final chapter summarises how the right to education – access, participation, measures to overcome specific hindrances – can finally give way to wholesome development of such communities. The author stands in support of ‘de-stigmatisation’ and positive discrimination for the children of ex-criminal tribes and specifically talks about mobile schools, tent schools and alternative schools and mobile teachers from the same community, in the line of Nigerian experience, while suggesting measures to educational empowerment of these migrating disadvantaged communities.

Overall, the book touches those aspects of Indian society that so far remained beyond the purview of an in-depth research and efficacious government policy interventions. This is an inimitable and detailed study of the historical subjugation, stigmatisation and

sufferings of the communities labelled as 'criminal tribes' about whom not many researchers previously worked. The author's first-hand experiences from the communities, probing into the psyche of the people to understand their problems intricately and situational analysis along with recommending practical and effective measures to the challenges make the whole book an exclusive piece of work. This should be a compulsory reference for the policy planners and strategists devoted for the development of the deprived classes.

A/8. Type IV, Aayakar Abasan, 110. Shantipally,
EM Bypass, Kolkata-700107, India

Laboni Das Dutta
labonidas@yahoo.com

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