

ISSN 2277-3819

Indian Journal of
Educational Research
(Peer Reviewed)

Volume V

March 2016

INDIAN JOURNAL OF EDUCATIONAL RESEARCH (PEER REVIEWED)



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Published 2016

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Published by Department of Education, University of Calcutta, 1, Reformatory Street, Kolkata-700027, and **Printed** by Dr. Aparesh Das, Superintendent, Calcutta University Press. 48, Hazra Road, Kolkata-700019

No. 2776B

Price : 200

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Editor's Note

Dear friends,

Heartfelt welcome to the fifth volume of '*Indian Journal of Educational Research*'.

Like other volumes, this volume is also furnished with research articles by persons well acclaimed in their own field at one hand and by new researches on the other. It is comprised of twenty five articles and three Ph. D. thesis abstracts to good quality research covering various aspects of education. The topics include diverse issues like environmental education, teacher education, woman education, special education, medical education, curriculum studies, educational technology, language education, adult & non-formal education, primary education, secondary education and higher education, Articles in philosophical, psychological, sociological and anthropological researches have also been included leading to the holistic approach of the journal.

We hope that this volume will develop an academic commitment of our esteemed readers them to more research works in the field of education. It is to be noted that our journal can be seen at present in our university website (calcuniv.ac.in) through 'Education' Department.

Our hearted thanks to the authorities of the University, our colleagues the contributors, the panel of reviewers and the readers. We are fortunate enough to have a highly esteemed peer review committee for their continuous endeavours in publishing this issue. Dr. Md. Kutubuddin Halder dererves for specially appreciation his silent work to the journal. We are tying our best to enhance the quality of the journal. In spite of utmost care, some limitations may crop therein. It is all due to our constraints to shoulder the responsibility to the perfection.

With warm regards,

Dr. Nimai Chand Maiti
Professor, Department of Education,
University of Calcutta

Attitude towards Aids of College Going Students in Respect to Certain Demographic Features

Amit Kumar Maity and Bishnupada Nanda***

Abstract

The purpose of the study was to measure the attitude of HIV/AIDS among the college students of West Bengal. 1146 undergraduate students from different colleges of West Bengal were purposively selected. For collection of data a self-designed demographic data sheet and adapted Bengali version of “AIDS attitude scale of students” by Shrum, Turner and Bruce (1989) was used. For analysis descriptive statistics were used. It was found that the boys possess more positive attitude towards AIDS than the girls, Commerce and science stream learners possess more positive attitude towards AIDS than the Arts stream students, semi-urban students possess more positive attitude towards AIDS than students from rural and urban habitat. Students from nuclear families possess more favourable attitude than the students from rural and joint family background, students from socially backward class and students from Hindu faith possess more positive attitude. Further in depth study is recommended.

Key words: Attitude of HIV/AIDS, U.G. Students.

Introduction

AIDS is most harmful disease caused by Human Immunodeficiency Virus (HIV). It spoiled our most young productive generation who are little ignorant and their attitude towards this disease is not positive. The teenage adolescent college going students are more vulnerable and risk-prone group of our society for transmission of HIV/AIDS (Tiwari, 2006). According to Ebeniro (2010) the risk of HIV/AIDS infections among youths in the tertiary institutions has increased in recent years. Generally attitude is reflected through the level of knowledge. Some studies showed that the youths possess poor attitudes and practices towards protection from HIV/AIDS (Mehajeb, 2007). Another study also revealed that adolescents possess lower knowledge on the various sexual modes

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of HIV transmission (Paul, 2011). Adolescents have lack of scientific knowledge and attitude towards disease, health and hygiene and certain percentage of students do not have proper awareness, knowledge, attitude and beliefs towards HIV/AIDS (UNFP, 2007).

Murtala (2009) found that 96% adolescents know about what HIV/AIDS is but only 52.5% of them believed that HIV/AIDS has cure. But most of them will not boycott HIV/AIDS infected friends from their society. It means that a large percentage of adolescent learners possess a positive attitude towards HIV/AIDS. A study conducted by Lau and Lee (2004) showed that a healthy attitude towards AIDS has been documented in students who possess good knowledge of HIV and AIDS. Imogie et. al. (2002) revealed that 88% secondary school students had heard about AIDS, and also showed positive attitude towards HIV/AIDS campaign strategies.

Nagdeo et. al. (2010) found that most of the college going students was aware of AIDS as a disease since it is included in school syllabus. But only 66.81% could give the full form of AIDS and 44.69% knew full form of HIV. They observed that 84.95% students knew that causative agent is a virus. 87.61% stated that HIV could be transmitted from mother to baby. 18.41% students think that just by looking at someone we can tell whether he has HIV infection or not. According to Kore et.al. (2004) HIV/AIDS prevention is possible through awareness among the college students. They suggest that there is immense need to conduct awareness programme about HIV/AIDS at school and college curriculum. According to Yazdi et. al. (2006) adolescent learners reported that TV (84%) and school teachers (66%) were the best sources of HIV/AIDS information instead of parents (27%) and school books (15%). Only 53% were aware that condoms protect against infection through sexual intercourse.

Abrar & Ghorai (2010) observed that adolescents of developing countries have minor knowledge about HIV/AIDS and less than half of young people can correctly identify two ways to avoid HIV/AIDS (Population Reference Bureau, 2006). Population studies revealed that adolescents of 10-24 years comprise 27% of the global population and that figure sore up to 30% in less developed countries (Population Reference Bureau, 2006). HIV/AIDS infection rises dramatically in many countries (the Columbia Encyclopedia, 2008) and sexually transmitted infections are a major international health issue and adolescents are particularly vulnerable (East et. al., 2007), yet in our country awareness building in this issue is poor and in school and college curriculum discussion about HIV/AIDS/ STIs are not included till date. Lindberg et. al. (2006) observed that male adolescent's risky behaviour put them at risk for STD, HIV and AIDS. Baldwin and Baldwin (1988) observed that young sexually

active students are potentially at risk for contracting HIV/AIDS/STIs due to their sexual behaviour as well as drug taking behaviour.

India is fertile ground for HIV/AIDS epidemic because of uncertainty of young people, rapid westernization, drug addiction, economic frustration of young generation, negative peer pressure (Nathak & Nanda, 2013), family problems and curiosity about sex. Lack of effective prevention programmes and limited scope of treatment of HIV/AIDS makes young generation more vulnerable to this most harmful disease. The present study was undertaken to investigate the attitude towards HIV/AIDS of adolescent undergraduate learners of West Bengal after media, social network and internet revolution.

Major Research Questions

- ◆ Whether adolescent's gender influences the level of attitude towards HIV/AIDS?
- ◆ Whether class/stream of study influence the attitude towards HIV/AIDS?
- ◆ Whether age of samples influences the attitude towards HIV/AIDS?
- ◆ Whether religion has any influences on the attitude towards HIV/AIDS?
- ◆ Whether habitat factor influences the attitude towards HIV/AIDS of respondents?
- ◆ Whether family structure influences the attitude towards HIV/AIDS?
- ◆ Whether caste influences the attitude towards HIV/AIDS?

Objectives

- ◆ To study the college going students' attitude towards HIV/AIDS.
- ◆ To compare the attitude towards HIV/AIDS among certain demographic social groups.

Method

Sample

For collection of relevant data 1146 Under Graduate students from ten Govt. sponsored colleges of West Bengal were considered as the sample of the present study. The demographic variables of the selected samples were shown in the following table:

Table-1: Showing the Demographic variables of the Selected samples

Demographic variables	Dimensions	Total (n)	%	Male	%	Female	%
SAMPLE		1146		574	50.09	572	49.91
CLASS	B.A.	554	48.34	304	52.96	250	43.55
	B.Sc.	382	33.33	170	29.62	212	37.06
	B.Com	210	18.32	100	17.42	110	19.23
AGE	17-18	317	27.66	165	28.75	152	26.57
	18-19	429	37.43	209	36.58	220	38.46
	19-20	400	34.90	200	38.84	200	34.97
SEX	Male	574	50.08				
	Female	572	49.91				
RELIGION	Hindu	971	84.73	486	84.67	485	84.79
	Muslim	175	15.27	88	15.33	87	15.21
CASTE	GEN	546	47.64	249	43.38	297	51.92
	SC	291	25.39	163	28.39	128	22.38
	ST	145	12.65	80	13.94	65	11.36
	OBC	164	14.31	82	14.29	82	14.34
HABITAT	Rural	446	38.92	214	37.28	232	40.56
	Urban	408	35.60	208	36.24	200	34.97
	Semi-urban	292	25.48	152	26.48	140	24.48
FAMILY	Nuclear	517	45.11	260	45.30	257	44.93
STRUCTURE	Joint	499	43.54	259	45.12	240	41.96
	Broken	130	11.34	55	9.58	75	13.11

Tool

For collection of relevant data from the respondents a structured demographic data sheet and “AIDS attitude scale of students” were used. This scale was developed by Shrum, Turner and Bruce (1989) and adapted in Bengali by Maity and Nanda (2009) in collaboration with other experts. The scale is to measure attitudes of adolescents and Post adolescents towards AIDS and people who have AIDS or HIV infection. This scale addresses domains like fears related to HIV contamination and causal contact, moral issues and topics related to legal and social welfare issues.

Results**Table-2: Showing Students attitude about AIDS on the basis of their Gender**

Gender	Total no. sample	Total score	Mean	SD	Standard error	df	t-test	Significance
Boys	574	93889	163.57	15.493	.647	1144	.533	.034
Girls	572	93293	163.10	14.216	.594			P<0.05

From Table-2 it is found that boys possess more positive attitude about AIDS than the girls and this difference of knowledge is significant at .05 level of significance.

Table-3: Showing Students attitude about AIDS on the basis of their Class or Stream

Class stream	Total no. sample	Total score	Mean	SD	Standard error	df	F-test	Significance
B.A.	554	89731	161.97	14.495	.616			.010
B.Sc.	382	62805	164.41	14.292	.731	2/1143	4.642	p>0.05
B.Com	210	34648	164.99	16.508	1.139			p<0.01

It is observed that B. Com. and B. Sc. students possess more positive attitude about AIDS than the B.A. students and this difference of attitude is significant at .01 levels. The same result was established in t-test also.

Table-4: Showing Students attitude about AIDS on the basis of Age

Class stream	Total no. sample	Total score	Mean	SD	Standard error	df	F-test	Significance
17-18	317	52089	164.32	15.187	.853			.006
18-19	429	69288	161.51	14.859	.717	2/1143	5.221	p>0.05
19-20	400	65808	164.52	14.451	.723			p<0.01

It is also found that students in the age group 19-20 years possess more positive attitude about AIDS than the students in the age group 17-18 yrs and 18-19 yrs. and these differences are found significant at 0.01 levels. The same result was established in t-test also.

Table-5: Showing Students attitude about AIDS on the basis of Habitat

Habitat	Total no. sample	Total score	Mean	SD	Standard error	df	F-test	Significance
Rural	446	72051	161.55	14.604	.692			.002
Urban	408	66855	163.86	15.282	.757	2/1143	6.196	p>0.05
Semi-urban	292	48282	165.35	14.399	.843			p<0.01

The table shows that Semi Urban students possess more positive attitude about AIDS than rural and urban students and this difference is significant at .01 levels. Same result was established in t-test also.

Table-6: Showing Students attitude about AIDS on the basis of Family Structure

Family structure	Total no. sample	Total score	Mean	SD	Standard error	df	F-test	Significance
Nuclear	517	84519	163.48	14.945	.657			.819
Joint	499	81532	163.39	14.957	.670	2/1143	.200	p>.05
broken	130	21134	162.57	14.264	1.251			p>.01

When knowledge of students of from joint family, nuclear family and broken family were considered it was also found that students coming from nuclear family possess more attitudes about AIDS than students from joint and broken family, and this difference is found not significant. Same result was established in t-test.

Table-7: Showing Students attitude about AIDS on the basis of Caste

Caste	Total no. sample	Total score	Mean	SD	Standard error	df	F-test	Significance
General	546	88851	162.73	14.491	.620			.560
SC	291	47727	164.01	14.837	.870	3/1142	.688	p>.05
ST	145	23819	164.27	16.314	1.355			
OBC	164	26.781	163.33	14.847	1.159			p>.01

It is observed that ST students possess more scores on attitude about AIDS than that of General, SC and OBC students and these differences is found *not significant*. Same result was established in t-test also.

Findings

From this study it is observed that:

1. Boys possess more positive attitude about HIV/AIDS than the girls.
2. Students from Commerce and Science stream possess more favourable attitude about HIV/AIDS than the students from Arts stream.
3. Students in the age group 19 to 20 years possess more positive attitude about HIV/AIDS than the students in the age group 17-18 and 18-19 years.
4. When religious faiths of the respondents were considered it is found that the respondents from Hindu faith possess more favourable attitude about HIV/AIDS than the respondents from Islamic faith.
5. Students from semi urban habitat possess more positive attitude about HIV/AIDS than the students from rural and urban habitat.
6. Students from nuclear family background possess more favourable attitude about HIV/AIDS than the students from broken and joint families.
7. ST and SC students possess more favourable attitude about HIV/AIDS than the OBC and General Caste students.

Discussion

In the present study it was found that the boys possess more positive attitude about HIV/AIDS than the girls, though this mean difference is not significant. Attitude of HIV/AIDS are significantly correlated with exposure to HIV/AIDS education i.e. greater the exposure to HIV/AIDS education, the greater the knowledge of HIV/AIDS. In the study of Pramanik et.al. (2006) statistically significant gender differences were found in which the female respondents reported less exposure to HIV/AIDS education than did the male respondents. In their study respondents (n = 186) were taken from four New Delhi City Proper schools in the age group 18-20 years. The study of McManus and Dhar (2005) again indicated that knowledge about STIs other than HIV/AIDS was very poor among respondent girls. The majority (71%) had not heard about genital Herpes and almost half had not heard about Gonorrhoea (44%) or Syphilis (43%). This is of particular concern in developing countries like India, as STIs such as Chlamydia, Trichomoniasis, Syphilis and Gonorrhoea are second only to maternal morbidity and mortality as the cause of death, illness and years of healthy life lost among women in their child bearing years (Chen et. al.,2002). Odu and Akanle (2008) observed that undergraduate youths (15-30 years) have very high knowledge of key basic concept on HIV/AIDS but many youths have misconceptions about the cure of AIDS. They also found that most respondents

of South/West Nigeria were sexually active and were engaged in high risk sex such as casual same sex, multiple sexes and sex in exchange for money and favour. Diclement et.al. (1992) have reported that people practice unsafe sex despite their knowledge of HIV/ AIDS.

In the present study it is found that the respondents from the Commerce and science background possess slightly more positive attitude than the students from Arts and Commerce stream. Normally this result is expected as students from the science stream have more exposure to causes of diseases and its preventive measures, sexual issues, reproductive biology and health. Unlike other studies (Deshmuka et.al., 1998) which reported a better knowledge among science students (compared to other streams), present study did not find any significant difference in the attitude of HIV/AIDS across various streams. The same report was established in the study of Lal et.al. (2000). Jodati et.al. (2007) observed that medical compared to non-medical students seem to be more alert on the preventive strategies of the HIV/AIDS. Tan et.al. (2006) also found that students majoring in Medicine performed better (more knowledgeable and tolerant) than non-medical students. Meundi et.al. (ibid) found that higher HIV/AIDS knowledge scores were significantly associated with higher education, higher frequency of reading newspapers and listening to radio or watching television. Hennink et.al. (2005) found that young men collected a wide variety of information from different outside sources.

In respect to respondents attitude about HIV/AIDS students age (19-20 yrs) was found to be significant than the students in the age group 17-18 yrs. and 18-19 yrs. Macleod (1999), Naidoo (2001), Penxa (1992) found that the learners in the age group 13 to 18 years showed positive attitudes towards sex education whereas students of 19 years and above showed negative attitudes towards sex education. The finding of research question shows that there is significant difference in the attitude of HIV/ AIDS of youths who live in semi-urban, urban or rural locations. The findings of this study disagrees with NARHS (2003) and Lal et.al. (2000) which reported that, the knowledge and attitude of HIV/AIDS in youths in urban areas were higher than those in the rural but this study agrees with the study of Odu and Akanle (2008). This could be because the students from rural, urban and semi-urban locations could have come from similar types of educational and socio-economic background and therefore their knowledge might be similar. Present study also found that nuclear family background students possess more favourable attitude about HIV/AIDS than the students from broken and joint families. It may be due to the cause that everybody in the state now has equal opportunities to listen radio, watching TV and reading print media and therefore the youth of all these three locations have equal opportunities for HIV/AIDS messages. Serlo (2008) found that the

Finnish and Kenyan University students had a good level of knowledge and attitude concerning HIV and AIDS and these informations they obtained from electronic and print media. Same result was found by Hang et.al. (1996) in China and Meundi et.al. (2006) in Karnataka, India.

From this study it can be concluded that in all levels of school and college curriculum HIV/AIDS awareness should be included and education should be recommended as the best line of defense against the spread of the HIV/AIDS.

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Blending the Technologies for Qualitative Learning

Anjali Sharma and Neha Rawat***

Abstract

As human beings, the desire to learn is in our nature. It is our intrinsic desire to acquire knowledge, but the way in which we learn and reasons for our learning can be very different. Teaching and learning is a process that includes many variables. Interplay of these variables creates a highly conducive environment for learners to achieve their learning goals and enhance overall quality of learning. This paper is themed on discussing modern blended technologies supporting qualitative learning environment by merging of various teaching-learning variables. To create a comprehensive picture it is further sub-divided into following sub-themes as (1) Essentials of qualitative teaching-learning process, (2) Understanding concept of Blended learning and (3) Latest Blended technologies. Under essential of qualitative teaching-learning process it discusses variables of learning in terms of various schools of learning perspective, pillars of quality of learning, aspects of teaching-learning process and essentials of learning process. Further sections develop an insight of blended learning and technologies discussing in detail elements, formats, types and examples of blended learning. Finally paper after discussing blended learning aspects in every way leads us to envisage that it is a definitive answer to bridge modern technological teaching and traditional methods for achieving qualitative goals of learning.

Key Words: Blended Technology, Qualitative Learning

Introduction

As human beings, the desire to learn is in our nature. God has created us to be inquisitive and creative. It is our intrinsic desire to acquire knowledge, but the way in which we learn and reasons for our learning can be very different. According to Random House College dictionary “to learn is to acquire knowledge or skill by study, instruction or experience”. Teaching and learning

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is a process that includes many variables. These variables of learning can be broadly understood under major areas of educational theory and philosophy. These are various schools of learning perspective, pillars of quality of learning, aspects of teaching-learning process and essentials of learning process. Interplay of these variables creates a highly conducive environment for learner to achieve their learning goals and enhance overall quality of learning. This paper is themed on discussing modern blended technologies supporting qualitative learning environment. To create a comprehensive picture of this theme it provides insight on following sub-themes:

- (1) Essentials of qualitative teaching-learning process
- (2) Understanding concept of Blended learning
- (3) Latest Blended technologies.

Before moving towards blended learning it is essential to understand what qualitative learning is and how an environment for it can be achieved. Following section concentrates on elaborated discussion of essential variables of qualitative learning process.

(1) Essentials of Qualitative Teaching-Learning Process

Over the past century, various perspectives on learning have emerged. Among them are—behaviourist (response to external stimuli); cognitivist (learning as a mental operation); and constructivist (knowledge as a constructed element resulting from the learning process). Instead of talking separately on each one it would be better considering all in an integrated way so that a range of possibilities can be added to the learning experiences. In this process of integration we should consider the following factors also—cognitive style, learning style, the multiple nature of intelligence and diverse cultural background. The interaction of all these factors provides unique way of teaching learning process that is often called as system approach. This approach also provides a way of looking at ourselves, the environment in which we teach, and the environment around us. Using this perspective we can examine the process in a better way and can design the process even in a better way itself (Khandai & Khan, 2011).

Technology has long been used as a support for learning, for example, the use of radio, film, film strips and overhead projectors. During past several decades, however, the advancement of technology has led to comprehensive teaching and learning via more advanced technologies like audio conferencing, video conferencing, web conferencing and online learning management system. The new technologies are rapidly changing the face of education and make learning qualitative day by day. In this changed educational environment it is essential to develop design principles and process that will lead to effective educational

experiences. These effective principles include: 1) access, 2) learning effectiveness, 3) teacher satisfaction, 4) learner satisfaction and 5) cost effectiveness (Sloan-C five pillars of Quality).

As we can understand that teaching learning process is the heart of educational system. It is the most powerful instrument of creating knowledge but now a days we are moving towards flexible way of delivering, creating and disseminating knowledge with the help of advanced technology. Before taking major discussion on blended learning first we should understand four aspects of teaching learning process (Laurillard,1994), as follows:

- i) Discussion– between the teacher and learner.
- ii) Interaction– between the learner and some aspects of the world defined by the teacher.
- iii) Adaptation– of the world by teacher and action by the learner.
- iv) Reflection– on the learner’s performance by both teacher and learner.

Gagne (1987) suggested learning tasks, from his learning theory nine instructional events and corresponding cognitive process has come out as a mile stone in the field of teaching learning making learning qualitative:

- 1) gaining attention (reception)
- 2) informing learners about objectives (expectancy)
- 3) stimulating recall of prior learning (retrieval)
- 4) presenting the stimulation (selective perception)
- 5) providing learning guidance (semantic encoding)
- 6) eliciting performances (responding)
- 7) providing feedback (reinforcement)
- 8) assessing performance (retrieval)
- 9) enhancing retention and transfer (generalization).

Today technology has totally revolutionized all walks of life with education no exception. Technological innovations have facilitated teaching-learning process by invoking learner’s all domains cognitive, affective and psycho-motor to make learning more qualitative. But as evident from human history, every boon has its negative effects so has technology also. With increasing technological invasion in education role of traditional classroom learning have come into debate about its significance in this changing scenario. In the words of Bill Gates, “Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is most important.” (Rao, 2012). Though it is unanimously agreed among educationists all across the world that no technology can replace teacher yet it remains a challenge to find out solutions for optimizing the benefits of

technology and traditional teaching for learners. This quest led us to blended learning which is discussed in the next section in detail.

(2) Concept Development of Blended Learning

Blended learning (BL) or hybrid learning describes a learning environment that either combines teaching method, delivery methods, media formats or a mixture of all these. It also refers to integrated learning activities such as a mixture of online and face-to-face learning. In other words, BL is a mixture of e-learning and traditional types of learning. It is mentioned as the integrated combination of traditional learning with web based online approaches, the combination of media and tools deployed in an e-learning environment and the combination of a number of pedagogical approaches. Among the benefits of BL reported by recent researches were to provide students with more control over learning, help foster critical thinking and effectiveness of online assessment system and computer skills.

The main objective of blended learning is improving learning effectiveness over either pure traditional classroom learning or pure e-learning. The blended technology is merging of pedagogical approaches with technology enhanced approaches to create optimum learning environment to make the learning qualitative.

◆ Elements in Blended Learning

To understand comprehensively, it is essential to go through with elements of Blended learning. Blended learning includes a combination of computer-based and/or on-line and face-to-face elements and a mix of formats, media and methods so the most appropriate and effective approach can be used for each part of the learning experiences.

Formats

- ◆ Teacher / instructor may work face-to-face with students or they may work independently in a self-paced way.
- ◆ The conference place could be classroom, community centre, conference hall and computer lab etc.
- ◆ Teacher and students may work at same place or other place and some of time together or separated mode. Teacher may suggest students to join on-line learning communities and discussions.
- ◆ Teacher may suggest students to join web-based tutorials or activities.

Media

Teacher may use CDs, Videotapes, audio tapes, online chat, computers websites and games. Some of them may be online or offline.

Methods

Teacher may work one-to-one with students. S/he may give group projects and s/he may put different groups together to work on similar topics.

◆ **Dimensions of Blended Learning**

Blended learning combines one or more following dimensions and there may be some kind of overlapping also. Before discussing blending of technologies first we go through with various dimensions

◆ **Blending offline and online Learning**

Blended learning combines online and offline forms of learning where online simply means use of internet or intranet and offline means traditional classroom settings .We can assume in this way a learning program provides study material and research resources over the web while instructor–led, classroom sessions as a main source of learning.

◆ **Blending self-paced and live collaborated Learning**

Self-paced learning implies solitary and on demand at a pace that is managed or controlled by the learner. Collaborated learning on the other hand offers a more dynamic communication among many learners that brings about knowledge sharing. The blending of self-paced and collaborated learning may include a new product followed by a moderate; live online, peer-to-peer discussion of the material application to the learner.

◆ **Blending structured and unstructured Learning**

All the forms of learning do not imply in structured and formal way as most of the learning occurs in an unstructured way such as meeting, all way conversations and e-mails etc. A blended program design may look to capture active conversation and documents from unstructured learning events into knowledge repositories available on demand, supporting the way knowledge- workers collaborate and work.

◆ **Blending Custom content with off-the-shelf Content**

Off-the-shelf content is by definition generic-unaware of your organization’s context and requirements. However the generic content is less expensive to buy and frequently has higher production values than custom content you build yourself. Generic, self-paced content can be customized today with the blend of live experiences (classroom or online) or through content customization. Industry standards like SCORM (**Shareable Courseware Object Reference Model**) opened the door for more flexibility in blending off-the-shelf and custom content –improving user experiences.

◆ **Blending Learning and Work**

Ultimately, the true success and effectiveness of learning in organization

is believed to be associated with the paradigm where work and learning are inseparable, and where learning is embedded in such a way that work becomes a source of learning content to be shared and more learning content becomes accessible on demand and in the context of the user's workplace need.

◆ **Categories of Blended Learning Systems**

There are three categories of blended learning programs as follows:

- ◆ **Enabling Blends:** Primarily focus on issue of access and convenience—for example, blends that are intended to provide additional flexibility to learners or blends that attempt to provide the same opportunity or learning experience but through a different modality.
- ◆ **Enhancing Blends:** Allow incremental changes to the pedagogy but do not radically change the way teaching and learning occur. This can occur at both the ends of the spectrum.
- ◆ **Transforming Blends:** Blends that allow an essential transformation of pedagogy—for example, a change from a model where learners are just receivers of information to a model where learners actively construct knowledge through dynamic interactions. These types of blends enable intellectual activity that was not practically possible without the technology.

There are many benefits of blended learning as a learner can participate any time and mean flexible classroom scheduling. Students become able to use many learning resources online and offline at their own. They can share knowledge with an instructor also. A blended learning approach can make teaching easier and making learning more effective.

(3) *Latest Blended Technologies*

Blended technologies are already being used in the education world. With the advent of e-learning and electronic and telecommunication technology, educational innovations have become a daily affair. Modern mobile telephony has increased the power of learning many fold and latest trends of learning are moving towards a social learning environment. The concept of blended learning is one of them and the next section discusses some prominent ones under two major categories namely Personalised technologies and Collaborated technologies:-

◆ **Personalized Technologies**

Personalised technologies are completely learner-centric technologies which take care of individual learner's learning objective by providing him opportunities of learning at self-pace, convenience, mobility many times and any time accessibility.

◆ **Gamification**

e-Learning courses of the future will likely resemble an interactive videogame rather than a traditional lecture. Gamification techniques strive to leverage people's natural desires for socializing, learning, mastery, competition, achievement, status, self-expression, altruism or closure. It is the use of game thinking and game mechanics in a non-game context to engage users and solve problems. **Candy Crush** and **World of Warcraft** have taught us a lot about the cognitive psychology behind engagement. Learners like games. They like challenges, interactive elements, and opportunities to develop strategies. They also like mastering concepts levelling up, immediate feedback, and characters with distinct personalities. Great courses of the future will likely include many of these elements which will make the learning experience so exciting, interactive, and fun that learners can't wait to participate and reap the benefits by mastering the content. ("e-Learning Future: What Will e-Learning Look Like in 2075?", n.d.).

◆ **Virtual Technologies**

In the 1990's and early 2000's, IMAX and 3D movies gave viewers a somewhat realistic experience. However, futuristic virtual reality technologies could actually put learners in the role of discoverer, astronaut, historical figure, businessman, etc. Technologies like Google Glass and other wearable tech devices might become so readily available that they can permeate throughout learning institutions. Sometimes called "**immersive multimedia**" the possibilities of virtual reality are endless, because if you can imagine it, you could virtually design it, interact with it, and incorporate it into the learning experience. CAD software and multimodal devices are advancing rapidly, and so a futuristic learning experience could incorporate recreated sensory experiences including virtual taste, smell, sound, touch, and visuals ("e-Learning Future: What Will e-Learning Look Like in 2075", n.d.)

◆ **Mobile-learning**

Mobile learning is the most popular form of e-learning. It is purely personalized form of learning which is completely learner-centric. Mobile learning is the most personalized form of learning as it focuses on each and every learner's learning needs fulfilling every learner's learning objectives separately. It gives learner tremendous ease of learning with features of mobile learning, instant accessibility of information, informal user-convenient environment of learning, instant feedbacks, storage and reusability of content and global information sharing from anywhere in the world. Mobile learning has enhanced upon e-learning by taking it a step further and allowing students to learn virtually anywhere a mobile signal is available. Some examples of mobile Applications useful for learner's are as follows:

◆ **Flashnotes**

Flashnotes allows students to upload their lecture notes and sell them to other students who need more help or resources. The rating system allows the best note takers to get more business and the general pool of knowledge expands as students continue to share their work with one another.

◆ **Study Blue**

This is an app that allows students to organize their coursework, store notes and flashcards, and share their materials with other students. Here smartphones becomes primary source for study materials.

◆ **Snagit, Jing, Camtasia**

These screen capture video software programs are making it easy for instructors to give online tutorials. Tech Smith offers a host of different products from a free screen capture to professional quality videos. He can record narration while capturing the screen shots as he demonstrates the action. This feature can also be used for teachers who are correcting a paper or demonstrating a math problem.

◆ **Glogster EDU**

Similar to blogs Glogster users can creatively display their research and work. Glogster allows students to collage pictures, text, video, and custom graphics to create a visually appealing presentation for their latest project. The Glogs are easy to make and share all types of resources.

◆ **Live Binders**

Using the same idea as pinning and bookmarking, the binder allows educators to collect and organize resources for lesson plans. The Live Binder can also work for students who are amassing resources for a big project.

◆ **Knewton**

This new technology company aims at personalizing content for optimal learning. The platform monitors the student's activity and uses the information to give the student the best personalized resources based on their level of performance. The technology also boasts integration among different disciplines creating a more comprehensive set of resources that interact with one another. Knewton grows more intuitive the more the student uses the software. It can follow a student through their entire education career.

◆ **Podcasting**

As described by Clark & Westcott Podcasting consists of listening to audio recordings of lectures used to review live lectures and to provide opportunities for students to rehearse oral presentations. Further McGarr, Steven & Teasley suggested about Podcasts that they may also provide supplemental information

to enhance traditional lectures. As suggested by Psychological research of Callaway & Ewen University students who download podcast lectures achieve substantially higher exam results than those who attend the lecture in person, only in cases in which students take notes(as cited in “M-learning”, n.d.)

◆ Collaborative Techniques

Collaborative techniques as the name suggests are the latest technologies and are truly harnessing the power of blended learning for learner’s benefits to the maximum. Before discussing collaborated techniques we have to understand u-learning. Whenever we talk about collaborated learning, it simply means that we are talking about ubiquitous learning. Without taking concept of u-learning we can’t complete our discussion about blended learning.

Ubiquitous learning: u-learning

According to Chang, & Sheu, (2002) Ubiquitous learning or u-learning is a new learning paradigm. It is said to be an expansion of previous learning paradigms as we move from conventional learning to electronic-learning (e-learning) and from e-learning to mobile-learning (m-learning) and now we are shifting to u-learning. The ubiquitous learning environment provides an interoperable, pervasive, and seamless learning architecture to connect, integrate, and share three major dimensions of learning resources: learning collaborators, learning contents, and learning services (Cheng, et.al., 2005; Haruo, et.al., 2003). Ubiquitous learning is characterized by providing intuitive ways for identifying right collaborators, right contents and right services in the right place at the right time based on learners surrounding context such as where and when the learners are in terms of time and space (as cited in Yahya, Arniza Ahmad & Abd Jalil, 2010)

Some of the major newest names of collaborative techniques are:

◆ Flipped classrooms

The flipped classroom is a pedagogical model in which the typical lecture and homework elements of a course are reversed. Short video lectures are viewed by students at home before the class session, while in-class time is devoted to exercises, projects, or discussions. The video lecture is often seen as the key ingredient in the flipped approach, such lectures being either created by the instructor and posted online or selected from an online repository. While a pre-recorded lecture could certainly be a podcast or other audio format, the ease with which video can be accessed and viewed today has made it so ubiquitous that the flipped model has come to be identified with it. The notion of a flipped classroom draws on such concepts as active learning, student engagement, hybrid course design, and course podcasting. The value of a flipped class is in the

repurposing of class time into a workshop where students can inquire about lecture content, test their skills in applying knowledge, and interact with one another in hands-on activities. During class sessions, instructors function as coaches or advisors, encouraging students in individual inquiry and collaborative effort (“Things You Should Know About...Flipped Classrooms”, 2012).

◆ **MOOC (Massive Open Online Course)**

A massive open online course is an online course aimed at unlimited participation and open access via the web. In addition to traditional course materials such as filmed lectures, readings, and problem sets, many MOOCs provide interactive user forums to support community interactions between students, professors, and teaching assistants (TAs). MOOCs are a recent and widely researched development in distance education which was first introduced in 2008 and emerged as a popular mode of learning in 2012. (“Massive Open Online Course”, n.d.). MOOCs allow millions of people to take the same course at once from just about anywhere in the world. Someone may be in Australia chatting with their classmate in Canada in real-time. Online courses and MOOCs are similar in a lot of ways. The one main difference between them is interaction. Online courses are not interactive and they involve a single learner, almost at all times. On the flip side, MOOCs are very interactive involving a pool of learners, learning at the same time. The interaction is very useful for clearing doubts and sharing ideas. (“e-Learning Future: What Will eLearning Look Like in 2075?”, n.d.)

◆ **Learning Management System (LMS)**

A learning management system (LMS) is a software application for the administration, documentation, tracking, reporting and delivery of electronic educational technology (= also called e-learning) courses or training programs. Most LMSs are web-based to facilitate access to learning content and administration. They are also used by educational institutions to enhance and support classroom teaching and offering courses to a larger population of learners. LMSs are used by regulated industries (e.g. financial services and biopharma) for compliance training. Student self-service (e.g., self-registration on instructor-led training), training workflow (e.g., user notification, manager approval, wait-list management), the provision of on-line learning (e.g., computer, read & understand), on-line assessment, management of continuous professional education (CPE), collaborative learning (e.g., application sharing, discussion threads), and training resource management (e.g., instructors, facilities, equipment), are all-important dimensions of learning management systems. (“Learning Management System”, n.d.)

Conclusion

Learning needs are intrinsic to all human beings. To make this teaching-learning qualitative it is essential to improve and ultimately merge various factors involved in learning. Blended learning is one such solution which creates a complete environment making teaching-learning process highly conducive. It is an integrated holistic teaching-learning approach to create a learning environment that either combines teaching method, delivery methods, media formats or a mixture of all these. The BL is an umbrella concept for present and future trends of learning-teaching as it is just not learner-centric but also teacher-centric. It is that solution which defines teacher's role clearly while facilitating learner's needs. It is apt to conclude that it is an ultimate solution bridging modern technological teaching and traditional methods for achieving qualitative goals of learning.

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Cultural Diversity: A Challenge in 21st Century School Curriculum of India

*Piyali Ghosh**

Abstract

This paper is concerned with cultural diversity as a challenge to form school curriculum in India. It examined the influence of multi-culturism on curriculum development in Indians School. Education is regarded as the transmission of culture in a process known as enculturation. It is a process of initiating the growing and inexperienced persons into the way of life in his society based on factors of culture. The school does not work in a vacuum, but has to operate in co-operation with the home, and all other socio-political forces that influence the development of the child. One of the primary tasks of the teacher is to use the culture and school curriculum in helping pupils to make satisfactory adjustments with the help of curriculum components and programs designed. This paper was concerned with the question whether curriculum in the school is in any way based on culture. Has curriculum any connection with culture of the society? Can social, political, psychological dimensions of curriculum in terms of educational aims bring desirable cultural values among the learners? This task is impossible unless the school teachers initiate to inculcate appropriate outlook among the students. The paper therefore dealt with the meaning of culture; its relation with curriculum development; influence of socio-political forces and culture on children's development to fulfill educational aims.

Key words: Influence, multi-culture, cultural diversity, socio-political forces, curriculum development.

Introduction

Culture is a complex whole which includes knowledge, beliefs, arts, morals, customs and any other capabilities acquired by man as a member of the society. It is the sum total of a given society's way of life moulded and shaped by prevailing circumstances and environment (Brown, 1990). This implies that culture is not static but dynamic and it responds to external influences, which bring about changes and influences curriculum development in schools. Culture includes intellectual and socio-political aspects of human beings. It also takes account of the aesthetic instinct as well as the spiritual impulses of human being.

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It has also an appeal to the subconscious as a force making for the formation of character.

India is a vast country with a lot of diversity in her physical and social environment. But within all these diversities there is an underlying unity which acts as a cementing force. Diverse cultural practices should also be looked at as resources. An understanding of these practices would help teachers not only in understanding how to relate to the learners' perspective of the social and physical world around them, but also in building diverse perspectives and in developing a respect for plurality.

In India, curriculum development in the schools is greatly influenced by the culture of the nation. Curriculum was originally defined as a cost of study or training and a product. (Wiles and Bondy, 1979). It is a sequence of potential experiences set up in the school for the purpose of discipline of children and youths in various activities. In fact, education is seen as the transmission of culture from one generation to another known as enculturation. Enculturation is the process of initiating the growing and inexperienced person into the way of life of his society. Enculturation is similar to socialization, but more embracing that it, as it influences curriculum in the school system. The school is a formalized and systematized institution, built in the society for the society. Therefore, the school is a specific, local and a dynamic institution in the society; and curriculum is generally considered to be all of the experiences that learners have under the roof of the school. At school level, what is generally regarded as the curriculum is the syllabus, which contains a list of subjects taught in the school. The syllabus is primarily concerned with the exploration of culture. It was this emphasis of the syllabus on culture that made earlier curriculum workers believe that the school was built basically to "transmit the cultural heritage" which implies accumulated human experiences (Jenkins, 1974). Since the paper is mainly concerned with cultural basis of curriculum, it questions whether culture is in any way connected with curriculum including its socio-political, psychological and philosophical dimensions. It will also embrace the issue of cultural relativism in diverse cultural society like India and intend to suggest the universal criteria to decide educational aims to build a desirable society.

What is Culture

The term culture actually came into use during the middle ages. It derived from the Latin word for cultivation. Culture is the way of life of a social group and it includes actions, values and beliefs that can be communicated with necessary modifications from one generation to the succeeding one. Culture varies from one society to another and even within the same group of people depending on the period. This means that culture is not static but dynamic and it is expressed

in terms of human behaviours, shared among a people and it is learnt rather than inherited. Therefore, the fundamental aspects of culture as it influences curriculum in the school system in India include belief, values, and customs. Culture is practiced by a whole group of people from generation to generation (Bhaba, 1990). Culture is maintained or modified through education by way of curriculum development.

What is Curriculum

The word curriculum has a Latin origin “currus” which means “course” and by the 19th century, the word curriculum had come to be used in reference to education. Curriculum is now taken as a course which students or pupils undertake as they compete for their academic works. The term “curriculum” is an organized instruction.

Aspects of Culture in Curriculum Development

The fundamental aspects of culture include beliefs, values, routines and customs (Itedjere, 1993).

Beliefs: Every culture has some beliefs which are accepted as true. These beliefs are valued and so are accepted by majority of people in the community.

Values: Values are those aspects of cultural practices, actions or objects that are valued in high esteem in the society. The values of a society are also those aspects of the culture that society wants to preserve because their traditionally valued and they want to pass it from generation to generation.

Values and judgments are not only important elements of culture but they are also relevant to modern society.

Routines and customs: Routines and customs are also very important aspects of culture. Ezewu (1983) explained that three concept are interrelated-recipes, routines and customs. Routines and customs refer to the actual doings and the regularities of those cultural actions or elements. Customs serve as recipes and routines to which people regularly resort for recurring purposes (Ezewu, 1983).

Influence of Family Culture on Curriculum and its Development

The family is still the main institution affecting the life and growth of the child. The family exerts significant influence on the social, emotional and moral development of the child. His personality and values are affected by the family. In planning any relevant curriculum for the learners, the planner should be familiar with the family and home conditions of the learner. The intellectual climate of the home and attitudes of the parents towards education affects the individual’s behaviour and accomplishment in schools. A study of the family at close range reveals much information for a more complete and sympathetic

understanding of children. The Indian family is changing in its size, its stability, its mobility, and its culture. Several factors are causing these changes and are putting more pressures on children and youth. One factor is the rapid urbanization of our society, which takes children from a simpler rural situation into a more tense and complex urban style of living.

Cultural Determinants of the Content of Curriculum in Schools of India

Okeke (1991) sees education as the process by which society deliberately transmit its cultural heritage through schools. This means that the content of the curriculum in schools must be loaded with cultural elements of the society. Since educational system is supposed to be a reflection of the society's culture, needs and aspirations, the nature of the knowledge available in any given society should be sought in the nature of a society's institutions and culture. Katoke (1982) asserts that it is essential that any kind of educational policy and planning which is a key to development or an eye opener to the learner's self awareness and that of his surroundings make culture its base . Okeke (1991) asserts that "aspects of society's culture are not found adequate for the survival and progress of society. It is the culture of the society that should determine the knowledge in the school curriculum. According to Ezewu (1987), culture is made up of speech, material traits, arts, mythology, scientific knowledge, religious practices, family and social practices, real and personal property has a corresponding body of knowledge packaged in the components of the school curriculum. The content of education includes those forms of knowledge, skills, values and attitudes which motivate and control conduct of children in the school community. As curriculum is based on culture or as curriculum would be shaped by the culture of the society in which it operates, the content should enable the young citizens to conform with the expectations of the groups in everyday life (Herzfeld, 1997).

India is a multicultural society made up of numerous regional and local cultures. People's religious beliefs, ways of life and their understanding of social relationships are quite distinct from one another. All the groups have equal rights to co-exist and flourish, and the education system needs to respond to the cultural pluralism inherent in our society. To strengthen our cultural heritage and national identity, the curriculum should enable the younger generation to reinterpret and re-evaluate the past with reference to new priorities and emerging outlooks of a changing societal context. Understanding human evolution should make it clear that the existence of distinctness in our country is a tribute to the special spirit of our country, which allowed it to flourish. The cultural diversity of this land should continue to be treasured as our special attribute. This should not be considered a result of mere tolerance. Creation of a citizenry conscious

of their rights and duties, and commitment to the principles embodied in our Constitution is a prerequisite.

Challenges Faced to Establish Universal Criteria to Fulfil Aims of Education

It is in this context that the reconstituted CAGE's Committee of 'Integration of Culture Education in the School Curriculum' was given the rather broad mandate: to look into the 'what', the 'why' and the 'how' of inculcating cultural values through the School Curriculum.

The challenges faced by the curriculum developers are

- a) To suggest ways of enhancing the quality of cultural awareness among school going children.
- b) To suggest ways of introducing both in curricular and extra curricular ways, the learning of our traditional, folk, classical and contemporary art forms
- c) To suggest ways of helping the students to appreciate the world of arts, music and literature

Suggestions to Minimize Tension in Culturally Diverse Society

The author's suggestions for improving the quality of cultural awareness, would, therefore, include:

- The entire schooling should be based on the culture of the locality/ community. Learning should be made 'culture sensitive'
- The school curriculum should be process based, and experiential, with sufficient flexibility to integrate local culture. The curriculum should have sufficient flexibility to accommodate the hopes, aspirations, needs and culture of the local community.
- Conscious efforts should be made to ensure that the Teaching-Learning process does not become culturally sterile: consciously or unconsciously promoting one particular culture/sub-culture.
- The teacher should become a friend and facilitator encouraging different cultural patterns and processes.
- The Teaching-Learning process should make use of a variety of 'mother-tongues', dialects and other local languages. The Teaching-Learning process should make the best use of the diversity of local challenges. What is relevant from the cultural point of view is that the teacher should be carefully guided to acquire attitudes, understanding and skills for *utilizing* the cultural and language diversity creatively (through even multi-lingual learning activities including drama, music and so on).
- For the pre-primary and elementary stage of school education the mother

tongue shall be the medium of instruction so that children do not feel 'threatened' by an alien language thrust upon them.

- The 'terrain of culture' should have sufficient free space for all local languages and dialects.
- The school Parent Teacher Associations and Village Education Committees could be encouraged to get actively involved in providing support to teachers for accessing and utilizing local 'cultural' resources both human and material.
- The school calendar should have at least two periods a week set apart exclusively for cultural activities.
- The school library should be the nodal point for all 'cultural' learning in the school.
- Children's camps could be organized during vacations where 'cultural' activities could be freely explored in a non-threatening atmosphere.
- A new 'Common School System' should be designed and implemented, one that would bridge the cultural barriers by bringing all students together irrespective of caste, creed, location or sex, to have access to education of comparable quality. This would be one important approach to the integration of cultural values into school education.

Teacher's Role in Dealing with Cultural Diversities in Curriculum

School practice is an integral and perhaps one of the most important parts of education. It is guided by the philosophy and perspectives of the teacher, the curriculum and material developer, the educational administrator, and the community.

Three kinds of curricula are routinely present in the classroom, each of which offers different opportunities for teaching cultural diversity. The first is formal plans for instruction approved by the policy and governing bodies of educational systems. They are usually anchored in and complemented by adopted textbooks and other curriculum guidelines such as the "standards" issued by national commissions, state departments of education, professional associations, and local school districts. Even though these curriculum documents have improved over time in their treatment of ethnic and cultural diversity, they are still not as good as they need to be (Wade, 1993). Culturally responsive teachers know how to determine the multicultural strengths and weaknesses of curriculum designs and instructional materials and make the changes necessary to improve their overall quality. These analyses should focus on the quantity, accuracy, complexity, placement, purpose, variety, significance, and authenticity of the narrative texts, visual illustrations, learning activities, role models, and authorial sources used

in the instructional materials Culturally responsive teaching reverses the trends by dealing directly with controversy; studying a wide range of ethnic individuals and groups; contextualizing issues within race, class, ethnicity, and gender; and including multiple kinds of knowledge and perspectives. It also recognizes that these broad-based analyses are necessary to do instructional justice to the complexity, vitality, and potentiality of ethnic and cultural diversity. Teachers need to thoroughly understand existing obstacles to culturally responsive teaching before they can successfully remove them.

Other instructional plans used frequently in schools are called the symbolic curriculum (Gay, 1995). They include images, symbols, icons, mottoes, awards, celebrations, and other artifacts that are used to teach students knowledge, skills, morals, and values. The most common forms of symbolic curricula are bulletin board decorations; images of heroes and heroines; trade books; and publicly displayed statements of social etiquette, rules and regulations, ethical principles, and tokens of achievement. Therefore, classroom and school walls are valuable “advertising” space, and students learn important lessons from what is displayed there. Over time, they come to expect certain images, value what is present, and devalue that which is absent. Culturally responsive teachers are critically conscious of the power of the symbolic curriculum as an instrument of teaching and use it to help convey important information, values, and actions about ethnic and cultural diversity. They ensure that the images displayed in classrooms represent a wide variety of age, gender, time, place, social class, and positional diversity within and across ethnic groups and that they are accurate extensions of what is taught through the formal curriculum. Teachers have to care so much about ethnically diverse students and their achievement that they accept nothing less than high-level success from them and work diligently to accomplish it (Foster, 1997; Kleinfeld, 1974, 1975). Building community among diverse learners is another essential element of culturally responsive teaching. The process of building culturally responsive communities of learning is important for teachers to know as well. The emphasis should be on holistic or integrated learning. Personal, moral, social, political, cultural, and academic knowledge and skills are taught simultaneously. For example, students are taught their cultural heritages and positive ethnic identity development along with math, science, reading, critical thinking, and social activism. They also are taught about the heritages, cultures, and contributions of other ethnic groups as they are learning their own. Culturally responsive teachers help students to understand that knowledge has moral and political elements and consequences, which obligate them to take social action to promote freedom, equality, and justice for every one.

Effective cross-cultural communication is a fourth pivotal element of preparing for culturally responsive teaching. Porter and Samovar (1991)

explained that culture influences “what we talk about; how we talk about it; what we see, attend to, or ignore; how we think; and what we think about” (p. 21). Montagu and Watson (1979) added that communication is the “ground of meeting and the foundation of community” (p. vii) among human beings. Without this “meeting” and “community” in the classroom, learning is difficult to accomplish for some students.

How to Overcome Interference of Political Ideology in Curriculum

Education is and always has been a contested terrain. It is shaped by the politics of the day. The educated Indian middle class, however, naively believes that politics, in principle, does not and in practice should not, influence school practice. This happens because politics is often considered dirty and polluting. But the reality is that politics shapes society to a large extent, both positively and negatively. For example, the democratic Constitution that we gave ourselves at the end of the freedom movement was born out of the political struggle for freedom. This struggle continued in the political struggle for the equality of all. It is the politics of equity that has shaped the granting of various rights—the rights that we take for granted today—through legal provisioning. This struggle in some senses ‘disrupted’ and still disrupts ‘normal’ life. However, participation and leadership of such struggles can also be seen as a learning opportunity in which children and teachers can engage.

Philosophies and perspectives, as they are, are formed by cultural and political thought of the times. If political power is not acceptable directly in curriculum what should be done?

Two remedies are called for if we wish an end to Independent India’s political interference in curriculum framing at school: (1) Nurturing a respect for all academic stands and calling for civilized national debates free from demonization; (2) Lessening the dependence on textbooks: they are not just biased, but too often, uninspiring and outdated. We must move away from textbooks, fearlessly discuss multiple viewpoints and perspectives, and encourage innovative pedagogies, for instance engaging students in field visits or mini-research projects to try and make history come alive.

For example, regional history—beginning with the local fort, an old temple and its inscriptions, the village’s hero stone, perhaps a stone circle, local craft traditions or some heritage site—should run in a stream parallel to national history: students will relate to it more intimately and will therefore take much more interest in it.

Education can work towards transforming society or towards maintaining the status quo—it can be either transformative or conserving. It depends on what

is the political philosophy of those that impact education. The teachers or educationists, need to understand the political philosophy of the stands they take on curriculum, pedagogy, and assessment issues, and do so with consciousness and agency. If we look at education as transformative, we can look at political change and its influence on classroom practice as opportunities for engagement in intense learning.

Content of education is always under debate—there is usually a topic on families and the family context often forms the context of literature. So what kind of family do we depict? What are the gender roles reflected in the context? Does it give scope for different children to identify with the content?

In an extremely hierarchical society like ours, inclusion of plurality, specially of the marginalized, always creates a tension. If the teachers are included in the syllabus they can plan, actually take some chapters from different, new and old textbooks, whether of history and the social sciences, language or science on the same theme or topic. They actually do some critical and creative exercises with those texts, we could create learning opportunities not available by just using one textbook as a textbook, but with the creative execution of teachers.

Trends in Curriculum Development

The curriculum field may be viewed as a formal area of academic inquiry, but as a basic human interest, its concerns are perennial. Parents and other members of society have wondered how best to help their young ones grow and mature. Their response to this problem constitutes an unwritten history of informal curriculum in thought and action. As societies became more formal and as institutions developed within them to meet specialized needs, schools/colleges evolved to help students grow more efficiently, to introduce them to the ways of their society and to help them acquire an understanding of their cultural heritage.

If we recall the earlier sections, curriculum has always been and continues to be influenced by educational philosophers, besides societal needs. In the ancient times, though a formal curriculum (of the shape it has obtained today) did not exist; young people were oriented towards meeting cultural and social demands. Depending on the influence of educational philosophies, however, curriculum-content for such orientations varied from one period to the other. Tracing the historical antecedents of curriculum may give us a framework of its gradual growth. However, for our immediate purposes we shall restrict ourselves to an overview of the twentieth century curriculum and a speculation of the possible future trends in curriculum development.

Early 20th century curriculum affirmed the shift in emphasis from sectarian education to liberal education. Traditionally, curriculum was confined to religion

–related orientations and classics. Gradually, more and more subjects were added to the curriculum. As the focus was on mental discipline, social needs, student interest or capabilities were given little emphasis. Further, during this period, compartmentalization and not interdisciplinary subject matter was considered the norm. There was an unwillingness to recognize the values of arts, music, physical and vocational education. This was based on the theory that these subjects had little mental or disciplinary value. If we pause for a moment here and think, we shall realize that even though we offer vocational, industrial and/or technical programmes now, there is a tendency to consider traditional academic programmes superior to them.

Gradually, demands were made for curricular changes. Industrial development led a growing number of educators to question changes, as well as the authenticity of the traditional curriculum and its emphasis on mental discipline. This shift was also influenced by the scientific movement in child psychology (which focused on the whole child and learning theories in the 1900's).

The argument that classics had no greater disciplinary or mental value than other subjects eventually appeared and meant that mental discipline (which emphasized drill and memorization) was no longer considered conducive for the overall growth and development of children. In essence, societal changes and the emerging demands there from; the stress on psychology and science; and the concern for social and educational reform made evident the need for a new curriculum. Thus, the aims of education went hand in hand with the particular type of society involved: conversely, the society that evolved influenced the aims of education.

Thus, the early twentieth century was a period of educational reform characterized by the following:

- i) Idea of mental discipline was replaced by utilitarian modes of thought and scientific inquiry.
- ii) Curriculum tended not to be compartmentalized but to be interdisciplinary.
- iii) Curriculum tended not to be static but dynamic-changing with the changes in society.
- iv) Needs and interest of students came to be considered of primary importance. And now curriculum is viewed as a science with principles and methodology not just as content or subject matter.

Keeping in view the prevalent political, economic and academic climate, it is not difficult for us to visualize future trends and the influence they may have on education, particularly on curriculum development.

Although we have been underlining the fact that social changes will have a vital role in determining a curriculum. If the present day growth of information is any indication the information flow will increase rapidly in the future. Clearly, the increasing flow of information negates the traditional notion of content-mastery. Students, therefore, will need to acquire critical thinking, and problem solving abilities rather than static and/or absolute knowledge and skills of factual recall.

Further, in the 21st centuries, the need for change will accelerate. For example, it took us more than one century to shift from an agricultural society to an industrial one. But it took hardly two decades to shift from an industrial to an information society.

As we enter the twenty-first century, however, curricula based on projects, techniques, over-simplified metaphors, and pre-made units continue to “de-skill” (Apple & Christian-Smith, 1991) teachers and students. Curriculum activities should help to generate new knowledge about everyday life-centered issues. I believe curriculum represents living processes of classroom cultures that change over time and reflect a teacher’s philosophical position and perspective (Dewey, 1938; Grauer, 1998). Ideas selected for study need to reflect the contextual meanings and values associated with our ability to hold multiple interpretations of an idea simultaneously. Dewey (1938) wrote that the value of educational experiences can be understood within the active interaction and continuity of knowledge in society and within classroom cultures. Educational experiences can be developed around personal and social knowledge across many different subject areas.

“Cultural relativism has an exclusive cross-cultural reference. It raises the question of the validity of applying the criteria that sanction the behavior and guide the thinking of the people of one society to the standards of another (Herskovits, p. 88) within any one society. Cultural relativism does not advocate individual or ethical relativism.

Cultural relativism, as a new way of seeing, is a necessary optic to perceive the socio-cultural reality in today’s multicultural, world society. It is “new” in the sense that most people tend to be socialized within an ethnocentric perspective. Such a perspective is necessary if a person is to become a “world citizen”—a person who is able to transcend his/her own racial/ethnic, gender, cultural and socio-political reality and identify with humankind throughout the world, at all levels of human need. S/he is a transcending person who is not limited by the usual social boundaries, but whose operating life-principle is compassion—the ability to take the role of the other in order to help remove suffering. This is the goal to attain as a cultural relativist to become a world citizen. The needs

of the 21st century demand nothing less. And a multicultural approach to education is the process that will make it possible.

The curriculum must reflect the world our students will inhabit. Teaching a 20th century curriculum in the 21st century prepares our students for a world that no longer exists. And it is the measure of all three of these factors that results in a high level of technology integration in our classrooms and in our schools.

What are the Standards of 21st Century Curriculum?

21st Century Standards include the followings

- Focuses on 21st century skills, content knowledge and expertise.
- Builds understanding across and among core subjects as well as 21st century interdisciplinary themes.
- Emphasizes deep understanding rather than shallow knowledge.
- Engages students with the real world data, tools, and experts they will encounter in college, on the job, and in life—students learn best when actively engaged in solving meaningful problems.
- Allows for multiple measures of mastery. 21st Century Curriculum & Instruction
- Teaches 21st century skills discretely in the context of core subjects and 21st century interdisciplinary themes.
- Focuses on providing opportunities for applying 21st century skills across content areas and for a competency-based approach to learning.
- Enables innovative learning methods that integrate the use of supportive technologies, inquiry and problem-based approaches and higher order thinking skills.
- Encourages the integration of community resources beyond school walls.
- Tolerance and respect
- Acceptance
- A wider view than just their curricula areas
- Global awareness
- Reflection
- Human values

According to UNESCO'S Delore's Commissions Report it is creating a shift in the mind sets of the students from the micro to the macro, from individual to collective goals is thus imperative. The programmes in the schools require laying more stress on cooperative living, sense of mutual understanding and

creating awareness about the interdependence of all humans in the present global scenario which is becoming increasingly multicultural.

Conclusion

Culture is maintained or modified through education and it is obvious that curriculum has a firm bases on culture since culture is substance of education. Culture is to education what current is to electricity, and any society whose curriculum is not based on its culture is in danger of being estranged by the social institution on which it should depend for its survival and the cultural heritage of its welfare is woven from many threads of history and diversity. India is a multicultural society made up of numerous regional and local cultures. People's religious, political beliefs, ways of life and their understanding of social relationships are quite distinct from one another. All the groups have equal rights to co-exist and flourish, and the education system needs to respond to the cultural pluralism inherent in our society. To strengthen our cultural heritage and national identity, the curriculum should enable the younger generation to reinterpret and re-evaluate the past with reference to new priorities and emerging outlooks of a changing societal context. As a result, the culture of any society affects its curriculum. Hence, culture includes everything that can be communicated from one generation to its successor.

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Critical Analysis on Application of Multimedia Learning and Design Principles in Higher Education

Sanju Saha and Santoshi Halder***

Abstract

Phenomenal growth of technological revolution is influencing every aspect of our life and education is not secluded from this. Ways of teaching learning is gradually changing its form from chalk and talk method to computer based learning environment. After proving the effectiveness of dual mode of presentation (combining image/text and sound), multimedia based learning is dominating our higher education sector today. Due to this situation private and government organization has been developing various multimedia based learning modules for different education level including higher education vis-a-vis emphasizing higher order learning. However this article is an attempt to explore certain aspects of multimedia based instructional strategies in order to make it economically and educationally useful and meaningful in terms of investments along with providing a theoretical aptness concerning visual and verbal information process, a meta analytical overview on the effectiveness of multimedia instruction, conditional effect of cognitive load and its obstruction in teaching learning, and finally providing a conception about overcoming substantial cognitive load and developing an effective instructional module.

Keywords: Computer based instruction, Multimedia instruction, higher education, cognitive load.

Introduction

“I believe that the motion picture is destined to revolutionize our educational system and that in a few years it will supplant largely, if not entirely, the use of textbooks...”

Thomas Edison, 1922

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The significance of education, predominantly higher education, has continuously been thriving and it inhabits the center stage in progress. Nevertheless, present growth of higher education in India gain momentarily in the last two decades. During the last 50 years, scientific and technological revolution has certainly transformed almost all part of the Indian educational system. As a result, Universities, school, and colleges perceive a metamorphosis in their outlook. The paramount contribution of science and technology is the invention of computer and its multi task nature (Guemide&Benachaiba, 2012). Henceforth, every aspect of our life is influenced with computer and education and teaching learning is not an exception. Furthermore, revolution of Information and communication technology (ICT) and computer based instruction (CBI) is leading to fundamental change of structure, management and mode of instruction amidst the whole educational environment. Consequently, the way of instructional processes has shifted from conventional chalk and talk approach to computer based “multimedia approach” in order to enhance the teaching learning process (Huang, 2011). In India since past decades different educational policies has emphasized execution of computer technology as a mode of teaching learning in higher education (NPE, 1986) accomplishing scope for refining the quality of education by opening up a whole world of information extending useful and updated information. After NPE 1986 several educational policies in India render their support and have taken various initiatives like, CLASS programme (CLASS 2002), computer literacy mission etc. The main objective of the proposed programme was antecedent of IT (Information Technology) amidst the school environment and created model schools through computer education in order to achieve the goals of universalization of computer literacy among schools in India. Since 1990, NCERT has propagated its CLASS programme, to nearly 14,000 higher secondary schools in the country (Mallik, 2001). Apart from government MHRD (Ministry of Human Resource), various private organizations like TATA group claimed to have added 175,000 literates using their Computer Based Functional Literacy (CBFL) method. Pratham Education Foundation (2012) reported that on the basis of computer based instruction 189 Computer Centres spread across 7 states in India namely Maharashtra, Delhi, Uttar Pradesh, Rajasthan, Gujarat, Haryana and Punjab since its beginning serving over 1,25,000 children and youth. Over the years, various well known organizations like International Business machines (IBM), Bharat Petroleum Corporation Ltd. (BPCL), Bharti Foundation, Syntel, Volkart Foundation, Lucent, St. Gobain, Tata Power, Sir Dorabji Tata Trust, Reliance Ballarpur Dist. (BILT), Sanchar and The Paul Hamlyn Foundation has been working for improvement of the instructional process with the help of computer based instruction. Nevertheless, different researcher and their theories have recognized the fact that students do learn better form dual mode of

presentation (picture or text and sound). Based on this theory “multimedia learning” is spreading throughout the world. In India different government and private organization is developing different multimedia based learning module and using it in teaching learning. However, this article focused on one basic question, whether really enough attention is being given to the development of instructional content and whether the investments in hardware is economically useful and educationally meaningful for proper utilization of multimedia based learning. Consideration of different instructional design principles is a matter of great concern for the educators and researchers in the field for its significant contribution in teaching-learning. Without application of proper multimedia instruction design it can impose heavy cognitive load in working memory and learner could not avail substantial benefit from the instructions causing delirious effect on learning and the learner (Mayer, 2001). In this point of view in this article an attempt has been taken by the researchers to theoretically discuss following question:

How do visual and verbal information process?

Why multimedia based instructional module is more effective (A Meta analytical overview)?

In which condition multimedia based instructional environment impose substantial cognitive load and obstructs teaching learning process (Theoretical justification)?

How do we overcome substantial cognitive load and develop an effective instructional module?

Importance of Multimedia Learning In Higher Education

Multimedia based learning material is an effective tool to optimize every student’s knowledge according to its ability and additionally produce learning environment more appealing by supplying excessive flexibility. Effectiveness of multimedia in higher education customarily emphasizes on scholastic learning environment where the content material is abstract (Van Merriënboer and Paas, 1998). A great deal of research has been carried out every year for implementing an effective multimedia based learning environment basically in higher education sector.

Yet, multimedia in its broadest sense creates democratic learning environment where instructional material could be available for all retaining the quality. In higher education multimedia can be designed to:

Provide learning opportunity in different locations and in diverse schools.

Provide opportunities for students working at different levels.

Enhance learning by repetition reinforcing skills and learning.

It can provide instruction to a large number of student by alimited number of trained and experienced teacher.

However there are various challenges faced while implementing this in real environment by the students (Mayer, 2001). Mayer et.al (2001) suggested that learning if imparted without proper designing will lead to far reaching negative consequences. The present article discusses a theoretical foundation of cognitive architecture and provides a guideline for instructional designer and cautions against the use of .multimedia based instruction without considering significant points.

Theoretical foundations of multimedia based learning environment

Pravio (1971, 1978, 1986, 1990, 1991) dual coding theory endows a cognitive architecture about how visualized instruction process in human memory. Pravio (1991) argues about how human mind is built with two independent and interconnected coding systems and explains the two ways human can elaborate any subject matter. First, elaboration emphasizes on visual code such as image, concrete object, picture or event and the Second, on verbal code such as word speech, language or semantic codes.

Two major assumptions worked behind this theory (Rieber, 1990); Firstly, information coded through both channel (visual and verbal) will have better chance to remember more easily than one channel. Secondly, verbal information will be coded by verbal channel and visual information will be coded by both verbal and visual channel. Hence the assumptions was that if the multimedia based learning material is presented in both visual and verbal form then the probability will be high to transfer information from working memory to long-term memory as compared to presenting learning material in one form (only verbal). Dual coding theory also supports that picture are better remembered than words for redundant encoding in nature (Rieber, 1991). Pictures typically results in better memorizationthan do concrete/ abstract words (Paivio, 1971). Furthermore, dual coding theory proposed that learning is more effective when content material are concrete (Paivio & Csapo, 1973) than abstract or invisible in the nature of content.

Baddeley and Hitch (1974) in his working memory model also discussed visual and verbal code as pavio proposed in his dual coding theory. Difference between these two theories is that, in verbal code Baddeley emphasizeson phonological information and pavio stresseson semantic information (Stephen, 2006). Under this working memory model, Baddeley and Hitch (1974) described about three sub system:

- (a) Visuo-spatial sketch pad: This sub-components or slave systems which

maintain and manipulate visual image such as picture, image or any other visualized information.

- (b) Phonological loop: It stores and rehearses verbal information. Baddeley, Gathercole, & Papagno (1998) proposed that Phonological loop facilitates the acquisition of language by maintaining a new word in working memory until it can be learned.
- (c) Central Executive: As proposed by Baddeley (1986, 1999) central executive is a core system in working memory controlling the other sub systems (visuo-spatial sketch pad & Phonological loop) which appoint learner in problem solving task and preserve attention. Central executive could transfer and storage task from other two selves also.

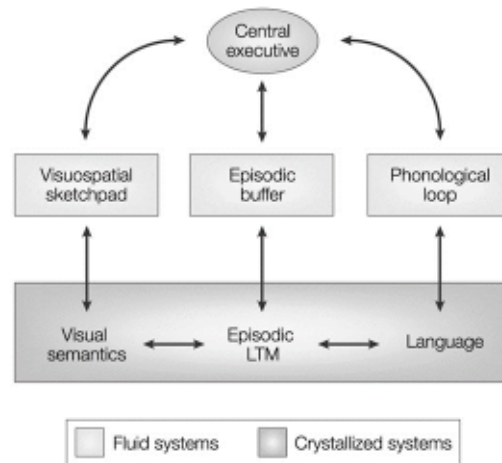


Figure 1: Baddeley's Working Memory Model

Note: From "Is Working Memory Working?," by Baddeley, (2001)

However, there were some limitation in the working memory Model as proposed by Baddeley and Hitch (1974) that they did not explain how learner can combine information from different modalities (visuo-spatial sketch pad& Phonological loop).Therefore, Baddeley (2001) proposed a third subsystem in his model, known as an episodic buffer. (d) Episodic buffer; It specifically functions as a storage structure which acts in limited capacity interface to integrate multiple sources of information from other systems. The purpose of this new component is to serve as a limited capacity store that can integrate information from the visuospatial sketchpad and from the phonological loop, creating a multimodal code.

Baddeley's (2001) revised working memory model more relevant to multimedia learning.

Further how his working memory model is supported by different researcher in their research is discussed and empirical evidence is being provided for proper utilization of multimodal code in order to reduce the cognitive load.

Sweller (1994) pointed out the main problem coordinating visual and verbal information as the rise of cognitive load in working memory. Cognitive load theory describes the limited capacity of working memory to selectively attend to and process incoming sensory data (Chandler & Sweller, 1991). Sweller (1994) described that with the help of automatic processing and schema acquisition this limitation can be overcome. Initially, Schemas functions as organization of simpler elements and it act as elements in higher order after learning take place, however, schemas are increasingly developed and way of learning are transferred from controlled to automatic processing (Stephen, 2005). Following three types of cognitive load discussed by Sweller, Van Merriënboer, and Paas (1998):

- (a) Intrinsic cognitive load: Intrinsic cognitive load depends on interaction between the nature of the material being learned and the expertise of the learner.
- (b) Extraneous cognitive load: It is based on the kind of material to be learned, such as presentation methods or activities that distracts our attention due to various information. To minimize extraneous cognitive load these should be minimized as much as possible.
- (c) Germane cognitive load: enhances learning and results in task resources being devoted to schema acquisition and automation. Intrinsic cognitive load cannot be manipulated, but extraneous and germane cognitive load can.

Cognitive load theory (CLT) states that an instructional presentation that minimizes extraneous cognitive load can facilitate the degree to which learning occurs. Mayer (2001) in his Cognitive theory of multimedia learning mainly takes into account three assumption such as human information-processing system which consists of two separate channels; an auditory/verbal channel (Dual channel assumption) proposed by Paivio's (1986) dual-coding theory and Baddeley's (1998) theory of working memory. Secondly, each channel in the human information-processing system has limited capacity (Limited capacity assumption) as proposed by Chandler and Sweller's (1991). Sweller (1999) cognitive load theory and Baddeley (1998) working memory theory and meaningful learning requires a substantial amount of cognitive processing to take place in the verbal and visual channels to take active processing assumption (Wittrock's, 1989) and (Mayer, 1999, 2002).

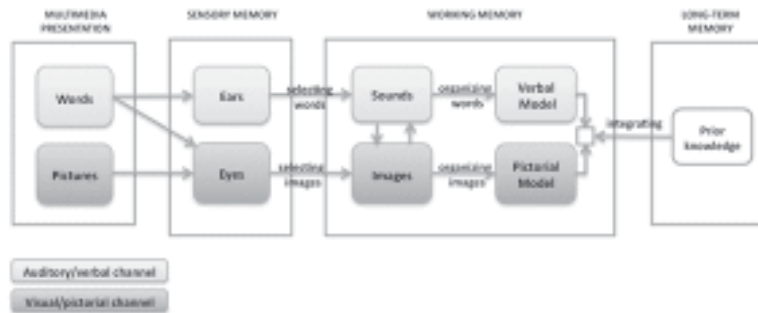


Figure 2:Mayer's multimedia model

Note: From Multimedia Learning (p.44), by R. E. Mayer, (2001), Cambridge, England: Cambridge University Press.

Mayer (2001) in his book *Multimedia Learning* described a model “How the Mind Works” (figure 2) shows how picture and word are processed in our working memory. Mayer (2001) also argued that five cognitive processes—selecting words, selecting images, organizing words, organizing images, and integrating requires in multimedia learning active processing those processes place demands on the cognitive capacity of the information-processing system (Mayer, 2001). Mayer (2001) terms these as “cognitive overload” which is the major challenge for instructor and instructional designer. Mayer (2001) described three kinds of cognitive over load which occurs when processing information from verbal and picture code which is similar to as described by Sweller, Van Merriënboer, and Paas (1998). Mayer (2001) proposed essential processing in the cognitive process required by making sense of the presented material similar as previously discussed by Sweller, Van Merriënboer, and Paas (1998). Incidental processing refers to cognitive processes where design of the learning task may affect cognitive over load corresponding to the term extraneous load. Representational holding refers to “cognitive processes aimed at holding a mental representation in working memory over a period of time” which is equivalent to the term proposed by Sweller, Van Merriënboer, and Paas (1998) intrinsic load. Like Sweller (1994), Mayer (2001) also proposed different guideline to overcome cognitive overload. Hence the underlying generalization over the above theoretical discussion shows that cognitive overload is the major challenge for effective information processing.

Table-1: Contemporary evidence based research on dual channel assumption

Author	Objectives	Learning material	Nature of sample and Sample size	Findings
Arnold & Brooks (1976)	Effect of Verbal, pictorial and verbal and pictorial integrated organizer on Learning	Complex paragraphs about unusual situation	Elementary school students N=32	Significant difference in learning outcome with respect to age when materials presented through verbal and pictorial organizer
Beck (1984)	Effect of Verbal and pictorial cue on learning	Passages and picture based on carnivorous plants	Elementary school students N=256	Significant difference in learning though combined presentation of verbal and pictorial cueing.
Bernard, Petterson & Ally (1981)	Effect of different organizer (verbal and pictorial) on learning	800 word passage about function of brain	Undergraduate school students N=104	Significant difference found when material presented in both form such as verbal and image organizer.
Covey & Carroll (1985)	Effect of text and line drawing on learning	300 word Science passage	Elementary school student N=132	Significant difference found when material presented through text and line drawing.
Dean & Enemoh (1983)	Effect of picture presented before and after reading text.	Geology passage 262 word	Undergraduate school students N=90	Significant difference found when picture were presented before reading text.
Hannafin (1988)	Effect of oral, picture and combined oral and picture together.	Fictitious children's story	Elementary school student N=168	Significant effective difference found when material were presented in combination of oral and picture
Koran & Koran (1980)	Effect of picture before , after and text only	Science lesson on hydrologic cycle	Middle school student N=84	Significant difference regardless of picture before presentation
Mange & Parknas (1962)	Effect of word and picture slide	Biology lesson on plant type	Middle school student N=228	Significant difference when retention measured by pictorial slide.
Nugent (1982)	Effect of visual, print audio and combination all	Film about factual knowledge of a cheetah	Elementary and middle school student N= 201	Significant difference when use combination three media such as visual, print and audio
Rohwer & Harris (1975)	Effect of oral, picture and written material	Passage about three types of monkey	Elementary school student N=186	Significant difference when combined oral and picture was effective
Vye et al. (1986)	Effect of sentence, picture and combination of sentence and picture	20 precise and 20 imprecise sentence	Undergraduate school student N=168	Significant difference for combination of sentence and picture condition was superior

analyses yielded that dual mode assumption and effectiveness of visual and verbal code is being supported by different researchers. A meta analyses on thirteen year (2000- 2013) research over view with the basis of above discussed theory is presented in Figure 3.

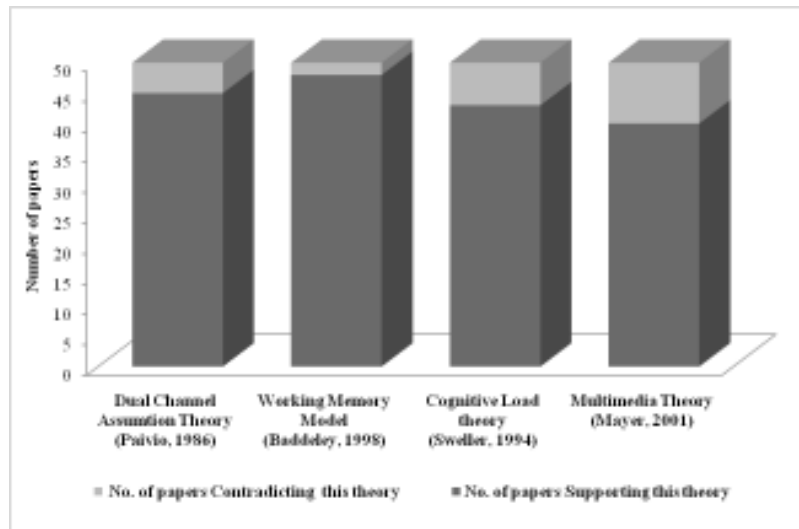


Figure 3: A graphical representation of meta-analyses based on thirteen years (2000- 2013) research over view on the basis of above discussed theories.

This section presents critical analyses of all the above discussed theories through meta-analyses. 500 research papers were selected generally related to multimedia based learning environment. All of the papers were then categorized on the basis of the 4 theories; dual channel assumption (Privo, 1991), working memory model (Baddy, 1998), cognitive load theory (Sweller, 1994) and multimedia theory (Mayer, 2001). After categorization 50 papers were randomly selected from each category. Analyses showed that above discussed theories were well accepted and supported by different empirical research findings. Figure 3 shows graphical representation of empirical research findings supporting and contradicting all above discussed theories. After critical analysis clear generalization can be arrived at for proper use of multimedia learning.

Discussion

This paper discussed the theoretical assumptions for the occurrence of cognitive overload including the various ways based on empirical findings to reduce the same for effective learning through multimedia as proposed by Sweller’s Cognitive Load theory (1994) and Mayer’s Multimedia Theory (2001). These

two theories were mainly selected for the discussion in this paper as it was found that over a decade these two theories were supported by different researchers and it also had strong empirical evidence (Mayer, 2001; Sweller, 1994; Privo, 1986; Baddly, 1998). In this paper researchers gathered all the principles as proposed by different researchers and provided a common guideline for instructional designers to design their instructional material for effective learning reducing the cognitive load.

Overview of different researchers on the type of cognitive overload and the ways to overcome the same

Different researchers suggested various principles to reduce cognitive overload such as Chandler and Sweller (1991) proposed that cognitive overload can be reduced with the help of eliminating redundant text. Paas, Renkl & Sweller (2003) argued that intrinsic, extraneous, and germane cognitive loads cannot surpass working memory resources if learning is to occur. From the following assumption Sweller et al. (1998) proposed different principles to overcome cognitive overload and Mayer (2001) proposed how to reduce cognitive overload in multimedia learning environment.

Sweller et al. (1998) proposed the following principles to reduce cognitive overload

Goal-Free Effect

Sweller, et al. (1998) in his goal-free effect principle stated that in instructional situations extraneous cognitive load will increase if a problem is provided with the end goal because in problem solving situations learners have to organize several conditions in working memory (see Stephen, 2005).

Worked Example Effect

Sweller stated that "The worked example effect is the best known and most widely studied of the cognitive load effects" (Sweller, 2006). However, the worked example effect mainly emphasized that if an instructional material was engaging enough to hold the attention of the learner and encourage the learner to study the process of a worked-out problem in detail, then it could be furthermore effective than having them work out the problem themselves, at least initially.

Completion Problem Effect

Completion problems encourage the learner about partial solution of a problem, and then require the learners to complete the partial solution. In this situation a problem combines with worked examples and conventional problems, at first, the learner must carefully study the partially-worked example and then apply what they have learned to actively solve the problem.

Split-Attention Effect

Split-attention takes place when instructional material provide with multiple sources of information. This principle mainly emphasized on attention deviation between two tasks, such as searching for information to solve a problem or reading a manual while trying to practice a soft-ware application on a computer. For example, in any practical work it is better to have learners read the manual first and then practice what they have read.

Modality Effects

It is based on Baddeley's (1986) theory of visual and auditory working memory. It focused on utilization of visual and auditory working memory both together. This is one of significant point of multimedia instructionuse in learning, because, by multimedia instruction it is easy to provide instructional material visually and also can provide the corresponding information through narration.

Redundancy Effect

The redundancy effects take place when instructional material (visual or auditory) presented to both channels (visual and auditory) as essentially the same information. Its process increases cognitive load. To maintain or overcome this situation needs expert experience of the learner. However, diagram with text would be more effective. Content materials that have minimum text and more ample diagrams may help to handle this situation.

Variability Effect

Variability of practice effect encourages the schemas development of the learner. It positively correlated with variability in instruction. However, based on instructional variability learner will develop multiple schemas and helps the learner to recognize commonality under different conditions and increase problem solving skill.

Mayer (2001) proposed principleto reduce cognitive overload

Modality Principle

In this principle instructional material must provide in combination of animation /picture and narration for better transfer of learning material.This principle is related to Theory of Dual Coding which emphasized two types of working memory. Additionally, this theory also stated that for better learning learner have to use both channel.

Contiguity Principle

For better transfer contiguity mainly focused on two types of contiguity temporally and spatially. As per Temporal contiguity words and pictures should

be presented at the same time, and spatial contiguity indicates words and pictures should be presented in a same page (or closely).

Multimedia Principle

This principle emphasized when instructional material is presented in both form (word and picture) it can increase the construction of representation (verbal and visual) and learner can also better integrate them.

Personalization Principle

The personalization principle states conversational style (first or second person) is more effective than formal style (third person).

Coherence Principle

In coherence principle Mayer described for effective learning extraneous material such as more irrelevant video, animation, pictures, narration, and sounds are excluded.

Redundancy Principle

This principle mainly focused on organization of picture and word. It stated that for better transfer need is to provide narration and printed text separately unless it can result in overload working memory capacity.

Pre-training Principle

Before provide any content material there is need to introduce the learner with each and every components of learning material. If learner is not familiar with components of content material it would result in quick overload of working memory. Pre-training principle stated that for better learning learner requires assimilating all information into larger schemas.

Signaling Principle

This principle mainly emphasized on signaling process. Effective transfer of learning occurs when content material is presented in proper signal. Signaling provides cue to learner about organization of learning material which reduces cognitive load in auditory working memory. Besides, by Signaling learner can systematically organize the sounds it helps for deeper and meaningful learning.

Pacing Principle

Pacing principle mainly stated that when pace of presentation is controlled by the learner and not by programs it would provide effective transfer of information. Each and every learner takes his own time to engage in the cognitive processes (selecting, organizing, and integrating incoming information) so in instructional material there must be the option to work at own pace (slow, play, pause etc).

A concise guideline for instructional designer and researcher for designing effective instructional material (extracts from Mayer, 2001, Sweller, 1994 and other researchers):

Instructional designer may present word or text as narration rather than on screen text.

Learning material should be presented as learner-controlled segments (play, pause button) rather than as continuous unit.

Instructional designer or instructor must introduce student with names and behaviors of system components.

In multimedia based learning material there is needs to eliminate interesting but unessential or extraneous component.

In instructional material there must be provision to provide some signals such as selecting word by stressing keyword in speech, selecting image by adding red or blue arrow with animation, provide map showing for identification of the part of lesson presented and words by adding an outline and headings.

Instructional designer must align word and picture properly such as text and picture not far from one another.

In presentation extraneous word, picture, and sound are excluded rather than included.

Cues must be highlighted and organization of essential material should beaded.

Instructional designer may include graphics and narration instead of combination of graphics, narration, and on-screen text.

Designer must not include speaker's image in an on screen text.

Narration in multimedia lesson spoken in friendly human voice is more effective rather than a machine voice.

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Curriculum Development in Elementary English Education in the Era of Globalisation in West Bengal

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Abstract

Curriculum of English education at the elementary level has been influenced significantly in West Bengal during the globalization era, particularly during the very recent years of the functioning of Paschim Banga Sarva Siksha Mission while the textbooks have been frequently revised. The syllabus of English has been made too vast and tough for the children at both primary and upper primary levels to cope with it and this has been done without giving due consideration to the fact that they study English as a second language without any support services at home and society, and they are brought up in the indigenous socio-cultural milieu where even teachers with matriculate or higher secondary qualifications also find it difficult to follow the modern textbooks which incorporate many of the lessons / pieces written by foreign authors. Besides, too much accent on communicative skill development has adversely affected the development of reading, understanding and other language skills in the children while use of mother language is absent or discouraged. Textual grammar is taught casually through long passages and poems, which appears to be not very helpful for children's acquisition of knowledge of English. The curriculum has been made child-centric but whether it is also child-friendly remains a question.

Keywords: elementary education, curriculum in English, second language, communicative skill, knowledge.

Introduction

Elementary education forms the base of education pyramid and contributes to economic as well as human development of a country. Curriculum¹ is of vital importance for children's educational development. They love play and books

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as they do their parents and mates. In the modern period that starts with the British domination in India the curriculum in English education in government and government-aided schools was, however, developed in the British model, which continued more or less after Independence in West Bengal. The globalization era started since the mid-1980s and was vigorously pursued since the beginning of the 1990s. It experienced some basic changes in the elementary school English education including its curriculum in this state.

Consequent on adoption and implementation of economic reforms more aid resources from abroad flowed to India from the 1990s onwards, and became increasingly directed at elementary education. India has been a signatory to the *World Declaration on Education for All* (adopted at Jomtien in 1990, and then at Dakar in 2000) and is also a signatory to the *Convention of the Rights of the Children*. The international aid agencies were keen to increase their aid commitments to primary education (Mehrotra et al, 2005). International commitments to achieve education for all (EFA) globally meant that India was an important case for donors. India was pressed to accept aid for primary education, and agreed with some reluctance (Colclough and De, 2010). Foreign aid increased from 5 per cent of central government plan expenditure on education in 1993-94 to 20% in 2000-01 (Tilak, 2008). The proportion was even higher for elementary education, rising from 10% to 35% over those years. Thus, aid donors financed a significant part of the development costs of elementary education expenditures in India over several years (Colclough and De, 2010). In principle, therefore, their influence over some aspects of the programme would be substantial.

In education, the changes brought about by globalization have been manifested through various channels and mechanisms as reforms of structures, modes of financing, administration and curriculum. (Meenu Kumari, 2014: 461-67). Developing countries take recourse to external funding in order to meet their development challenges. It is more than the free interplay of market forces since economic questions like increasing inequality as consequent on globalization cannot be divorced from social issues like spread and quality of education. Access to credits is granted to developing countries for development under strict conditionality. There is also anxiety that the sovereignty of states is at stake as globalization appears to question their rights to independent decision-making (Conwuka and Eguavoen, 2007). Education has come to be dominated by neo-liberal ideas (Maharatna, 2014). The elementary education in West Bengal has been influenced in terms of both quantity and quality, and also in content and methods of teaching (Sau, 2014).

The United Kingdom's DFID worked with education in West Bengal through

support to three large programmes—DPEP 1, DPEP 2 and SSA. They were engaged with the state around reform agenda in education. DPEP 1 and 2 accounted for a significant percentage of the DFID WB state budget (about 50% from 1999 to 2002 and 2004-05, 80% in 2002-03 and 25% in the remaining years). The DFID extended \$59.4 million aid for development of primary education in West Bengal during 2000 to 2006. They opined that opportunities for dialogue were limited in West Bengal by the lack of reform-minded actors in the sector throughout most of the period of support to both DPEP 1 and 2 and hence DFID priorities in education became increasingly focused on support to centrally sponsored schemes (i.e., SSA). The successful sector wide approach of SSA has shifted the reform agenda away from direct dialogue between development partners and the State, with the reform agenda increasingly being led by Government of India, working together with GOWB. The DFID engages through the Joint Review Mission (JRM) mechanism for both DPEP and SSA rather than directly with the Government of West Bengal. At the time of the evaluation they observe that there were signs of more reform-minded actors being engaged in education in the Government, a positive move that, they think, is likely to contribute to effective implementation of SSA in the State. With the move towards Centrally Sponsored Schemes, education has increasingly come under the aegis of the national team.

Curriculum reform in English education at the elementary level has thus been made in West Bengal following the British model in the era of globalization while the children study English as a second language. Does it provide them joyful learning which the above-mentioned model aims at? Does the environment they live in support them in following this curriculum? How do the children who themselves are graded across different social and economic categories fare in learning English language in the reforms era? The present note aims principally at exploring into these questions with reference to West Bengal in the era of globalization. The subsidiary objectives would be to discuss the role of first (mother) language, mainly Bengali, the role of grammar and that of the teacher in learning the second language, i.e., English in situations where children belong to distinct socio-economic categories economically, socially and educationally.

It is argued here that the curriculum reforms in English education at the elementary level introduced in West Bengal in recent years has not been joyful for most of the children, the environment does not give them necessary support in following the curriculum and the children's learning achievement has not improved though the Paschim Banga Sarva Siksha Mission spent huge sums for infrastructural development in schools being financed largely out of external aids for ensuring 100 per cent access, 100 per cent retention and quality improvement of 100 per cent children.

The plan of the rest of this paper is as follows. Section 2 discusses the evolution of curriculum in elementary English education for government-managed schools. Section 3 examines the English textbooks prepared by the Government of West Bengal for elementary school children. Section 4 discusses the learning achievement of children in English following the curriculum reforms. Section 5 makes concluding observations.

Evolution of Curriculum in English

Education was under state control till 1976 when it was put in the concurrent list. The West Bengal Board of Primary Education provides by regulations, on the basis of the recommendations of the curriculum committee, the syllabus to be studied by the primary schools under its jurisdiction. English used to be taught from the Primary stage in West Bengal till 1982. In 1983 the Left Front Government in compliance with the recommendations of the Prof. Himangshu Bimal Majumdar Commission (1974-79) abolished English in the Primary stage (Classes I-V). The logic was mainly that English would interfere with learning the mother tongue in this stage. In the new setup English was introduced at the beginning of High School stage, i.e. Class-VI. The Education Commission (Kothari Commission) of 1964 was not in favor of the introduction of English in the primary stage. The Majumdar Committee, during its exercise, had solicited the opinions of teachers and other interested people through newspaper advertisements, and also consulted representatives of the NCERT. That the national perspective was kept into account cannot be denied.

This policy was followed for a decade despite occasional criticisms from a section of educationists and intellectuals. The Ashok Mitra Commission of 1991-92, however, advised the Government to advance the teaching of English in schools by one class. Thus English began to be taught in Class-V in government-run schools from 1994. Rampant public reactions, media criticisms and campaigns by the opposition parties in the wake of Parliamentary Election 1999 compelled the Government to set up a One Man Committee under the chairmanship of Prof. Pabitra Sarkar in 1998. This Committee tried to justify earlier policies vis-à-vis English education by giving instances from eurolinguistics. But he also took account of the Government's desperation to address popular demand in the wake of burgeoning middle class aspirations resulting from economic reforms of the Left Front Government. The Committee, therefore, recommended beginning of English from the second half of Class-II. The Government readily implemented it in 1999. Another Committee under the chairmanship of Prof. Ranjugopal Mukhopadhyay was founded in 2001. The Committee submitted its final report in 2003. It maintained that the Government should not have surrendered to the popular whims of introducing English in an earlier stage. It

suggested a rollback of English from primary schools and introducing it in Class-V. The Buddhadeb Bhattacharya-led Government, however, nullified that proposal and brought English in Class-I in all government-run primary schools in 2004. The increasing demand for English—both as a language and as a medium driven by the instrumental motivation has compelled most governments at the state (provincial) level to introduce English as a language from class One.

Framing English Textbook: The Inherent Contradiction

Textbooks are important medium through which the curricular praxis is implemented. The textbook committee usually functions within certain perimeters. It is to comply with a pedagogical approach which in turn involves certain methods and corresponding techniques. Since colonial times Bengal has experienced several experimentations in the field of English pedagogy. Grammar–Translation approach, Oral Approach, Reading Method, Structural Approach, Drill Method, etc. remained a time-tested method. Functional Communicative Method was adopted by the Left Front adopted in 1983 and the existing textbooks were replaced with new ones composed by the principles of the Functional Communicative Approach².

Colonial hangover, stringent copyright laws and the binding of cheap publication cost have been instrumental in the process of textbook preparation. There is no provision for either rapid readers or formal grammar books. The textbooks retained the colonial legacies especially in the literary part (Chattopadhyay, 2014).

In 1999, children in their Class-III book ‘Ingreji Sekha’ were introduced with letters, word and sentence. The book was children-friendly in that both English and Bengali side by side were given in the interest of their understanding and self-read. In 2004, ‘Ingreji Sekha’ for Class-I was published by the Directorate of School Education, where capital and small letters as well as numbers were introduced to children and the textbook was written and presented bilingually. Words were introduced in Class-II and their pronunciations were given in Bengali. Sentences came later and activities for the children were also given. In 2007, the book for Class III was revised. Words and simple sentences were presented bilingually. Instructions on simple grammar were given in Bengali. Comprehension tests for children were given from simple passages and list of words were given to make the whole text child-friendly.

In 2002, ‘Learning English for Class VII’ was revised and redesigned by the West Bengal Board of Secondary Education for learners to pick up the communicative skills in English. It was instructed to the teachers that if felt necessary, mother tongue may be used to explain the rules or simplify instructions relating to grammar. Short, simple and easy passages were included

for study. At the end of this book list of words of each lesson was given. Similarly the textbooks for Classes VII and VIII were developed and the passages were gradually upgraded.

In 2003, the British Council in partnership with Sarva Siksha Abhiyan (SSA) West Bengal and the West Bengal Board of Primary Education embarked on an ambitious programme–West Bengal State English Project to develop the English Textbook for the government primary schools across the State. The West Bengal English Project³ focuses on upgrading English teaching in the state with teacher training, new syllabi and materials. They helped prepare Pupils Books (grades 1 to 5), Teachers Books etc.

Since 2007, the British Council was supporting the state government of West Bengal in its efforts to improve English language teaching and learning standards. The focus has been on designing an English syllabus, rewriting the textbook series at primary levels, and providing the new graded text books. The effort has been led by Ray MacKay and a team of 10 resource persons, identified by the West Bengal Board of primary Education, in consultation with the British Council. The impact has been that 300 Master Trainers were trained, 220,000 Primary teachers got trained using the new textbook and 15 million pupils used the new textbook across the state till 2012.

The new era started with 2010 while the revised textbooks of English as second language for children at the primary level appeared and was introduced. In the English text books (*My English Book*) of Class-I to Class-IV of the period from 2010-2012 sentences were presented but nowhere the process of construction of sentences was made known to the children. These text books presented pictures that were drawn from cartoons and were not natural, rather these were artificial. The ordinary children were hardly familiar with these pictures. Many of the themes appeared to them to be unnatural. Scarcely 10 per cent of the children were found to derive pleasure and joy in them being supported by their socio-cultural environment while 90 per cent of children suffered from the mechanical presentation of the themes and to the latter learning English language did not generate joyful learning. Besides, there was hardly any planning in preparation of the text books for fulfilling social objectives of education. There was no clearly stated approach to the text preparation and hence sequencing of studies in the text was not scientific. For example, for class-II children sentences with inverted commas were introduced (*My English Book*, Book-II, p. 27 and p.54). Negative sentences were introduced in this book in page number 32 of Lesson 11. There was a text on Mid-day meal in Lesson which was hardly intelligible to the young children most of whom lived on Mid-day meals, particularly in rural areas while there was substantial proportion of

the backward community children like Muslims, Scheduled tribes and scheduled caste children, and even a large proportion of general caste children. All these acted as impediments and constraints on the expansion as well as quality improvement of education in English. Moreover, the English texts also contained some errors in construction of sentences. This is particularly true in the text books of *My English Book Two* (for example, p 27 where inverted commas were omitted). The heading of Lesson 12 of this book itself contained error (p. 41). Lesson 2 of *My English Book Book-IV* for Class-IV children contained printing errors in page numbers 24 to 26 where commas were omitted. Lessons 16 and 17 for Class-II were not understandable to children of age 6 to 7 years. The Text Books of different classes contained large number of pages (54 pages for children of class-II, 72 pages for Class-III and 110 pages for Class-IV). The lessons presented were not interesting and meaningful to the children of the appropriate age. The sentences with the use of present continuous tense were introduced in *My English Book, Book-III* for Class-III children in Lessons 6 and 7 and 8, interrogative sentences in Lesson 7 and sentences with past tenses in Lessons 9 and 10 without any footnotes on simple English grammar. Lessons contained many stories in dialogue forms in *My English Book Book-IV* for Class-IV children. Many words and sentence construction were hardly understood by children and even by many teachers who were seniors. The text books appeared to both children and many teachers difficult and tough to comprehend and also heavy to bear with. What was thus generated in the process of communicative English to develop 'communicative competence' was actually no substantial education of children in English while much more accent was put on the memory organ of the children than their understanding and culture, more on cramming than creativity being generated and encouraged in students. Normal growth of students was aborted thereby while they could not grow with nature and with their socio-cultural environment while studying and learning in the class rooms with the prescribed books of English. Neither in the class room situation nor with the teachers nor at home they hardly found congenial atmosphere and culture to speak in and cultivate English.

The teaching method was another area where the children did not feel at all comfortable while they were taught a second language like English. There was less emphasis on developing reading and writing skills throughout the primary classes. Deficiency in writing and understanding naturally cropped up and that hindered the child's progress in curricular activities. Children and guardians were skeptical about the efficacy of this modern method and they were of the view that to make up their children's deficiencies in English they had resorted to private tuition which became prevalent for over 90 per cent children. But the children were hardly seen to be adept in English language. Rather they faced

contradictions in methodologies in teaching English. While modern methodology in the form of procedural language learning with accent on communication and fluency was prevalent in government-run and -aided schools private tutor put accent on traditional method and rote learning.

An analogy was drawn on how a child learns her mother tongue. By the age of 4 she can say her name, her mother's name, her father's name and so on in mother tongue. While she so answers her answer is grammatical and hence she already knows grammar, it was argued. In a similar way it was told that a child would learn a second language like English and its grammar. This analogy, we think, is not valid. The domestic and outside environment makes her up in learning mother tongue but that is absent in case of the second language. It was told when we begin to teach grammar we should do so by making the child aware of the grammar s/he already has. This is again is not true in case of the child's early learning of English as a second language. Rather, we should be aware that the child has seldom learnt anything of English from the environment s/he lives in.

Pratham Report on English

Pratham/ASER Centre conducted a field study to evaluate the progress of the West Bengal-British Council Program on English Teaching in Government Primary Schools in 16 districts of West Bengal. The study was carried out in 43 days during August-September, 2011 in 91 schools of 16 districts of the state. Of these 91 schools 48 schools were randomly selected, 1 from a frame provided by the West Bengal Primary Education Board and 43 were pre-selected by the Primary Education Board. The sample, therefore, was part purposive and part random.

The major findings were as follows.

In the sampled schools, more teachers preferred using local language, when teaching English. Only 11.1% of them gave instructions solely in English, as compared to 46.3% in the non-sampled schools. Almost 50% used only the local language to give instructions, as compared to under 20% in the non-sampled schools. Similarly, close to 50% translated English content into local language compared to fewer than 20% in the non-sampled schools.

Children were fairly comfortable greeting teachers in English—22.2% of the pupils in the sampled schools and 43.3% in the non-sampled schools were seen to be greeting the teachers in English all the time. Children rarely used English to ask questions; only 1.4% in sampled schools was observed using English predominantly to ask questions. No child in the non-sampled schools was found to be asking questions in English all the time. However, when it came to replying in English the non-sampled schools fared better than the sampled schools—

22.4% compared to 8.3%. Even in speaking to the peers in English, the non-sampled school children felt more comfortable than the children of the sampled school, with 30% and 11%, respectively, using English all the time.

Thus we observe that the program did not do much in realizing its objectives mainly due to infrastructural and human capability constraints given the socio-cultural frame of the State including the structural weakness of the teachers who were not adequately qualified and equipped too in order to teach children English through functional communicative method/approach of the new textbooks though extensive training of teachers was conducted for this purpose.

Detailed note on the current textbooks on English

Since 2012 the curriculum of English education at the primary and upper primary levels has again been changed and the new textbooks have been introduced by the present new State Government. The approach to the learning of the children is activity-based and child-centric in the textbook with large number of activities to be performed by the children. The English textbook of Class I and Class II is entitled '*Amar Boi (My Book)*' which is an integrated textbook combining in its fold Bengali, English and Arithmetic together based on the Principle of Correlation with a view to fulfilling the aim of 'learning without burden' and 'joyful learning'. This book has been made interesting with the use of colorful pictures. To learn English language alphabets, some words, names of days, months and seasons etc are presented with colours to be consistent with the mental makeup of the little kids. There is, however, no use to spend two years for teaching such a little English. The second English language base remains weak while children start, following their teachers, listening and saying sentences [p14 of *Amar Boi-I (B)*] followed by word [p 31] and then by letter [p 58] and number [p59]. Children are introduced with days of a week [p 316] and sentence (p 321 onwards). This constitutes the sequence of first language English but it is far from being logical and scientific sequence of learning second language English⁴. By this the children learn the second language English little with accent put on listening and speaking though they have little or even no understanding of what they listen and what they speak following their teacher. It is seen that out of total 343 pages of this book English as a second language covers less than 94 pages mostly with pictures. Despite their language base is yet to develop in them children are asked to write three sentences on rain as shown in the picture (p 343) as is done for the children who have got English as first language. Unfortunately, the children here have not any idea about how to construct a sentence in English while their first language is Bengali. In *Amar Boi-II (B)* children start again with introduction of capital letters and small letters [p 26] and also sentences. Out of total 273 pages of this book English as a second

language covers hardly 64 pages. With the meager knowledge of English language in terms of skills it is really too much that they are again asked to write three sentences about the given picture [p 31]. This idea is reinforced while we see that they are introduced with the names of months [p 78]. Again, the children are given the activity to write four sentences about migratory birds [p 121]. Have they been given any idea about how to construct sentences? Children are asked to read a few simple sentences in present tense [p 230, p 235] and those in past tenses [p 246]. In page number 251 they are asked to read a passage and do some activities. In page number 273 they are again asked to write a few sentences about the given picture. Boys with English parentage having even less intelligence may keep up with this expectation of this book, but it may not be so easy for the other ones to cope with the same. This book ends with pleasure reading on Sparrow, Ostrich, the Big and Red Train and on Two Little Dickie Birds. All these show how little the children learn English and how much is expected of them in terms of their performing the activities. The question thus persists: Are the children (6+ to 7+) whose mother tongue is different from English sufficiently equipped with the four language skills (listening, speaking, reading and writing) to perform effectively and correctly the activities, particularly construction of sentences? Teachers and tutors, of course, come to their aid but this does not constitute their education in English. Pictures/illustrations are given profusely in the books no doubt. They help children in identifying the objects / persons but do little in their understanding the event/theme and thus little add to their knowledge. Cramming like a parrot is of little help in this case and as such some more stress on grammar should have been there. It appears they learn little during the two year time of Class-I and Class-II while they are asked to perform activities much more than what they learn. It may be noted here that real, substantial and permanent joy generates from mind and heart, not from body including sight organ. Besides, pictures as shown in the textbooks do not constitute all that children love and hence they alone do not help produce joy for all and for long. Children are not much interested in those illustrations; they really derive joy when they themselves can perform an activity.

In this backdrop of the poor language base of children the lofty theme for *Butterfly: English textbook for Class III* comes as 'life around us'. Children have a number of lessons on 'My Friends' (pp. 16-35), 'Animal Meeting' (pp 36-53), 'The Grasshopper and the Ants' (pp 44-52), 'Know Your Birds' (pp 53-66), 'Water' (pp 67-76), 'The World under Water' (pp 77-85), 'Our Green Friends' (pp 86-100), etc. The Revision lesson starts with making meaningful words by arranging letters. The questions like which fruits and vegetables the child likes are hardly read or understood by most of them. Besides, in describing a picture there are sentences in which is used the present participle to qualify

the word, which they do not make out. Lesson 1, 'My Friends', is adapted from the stories of *Hitopadesha*. It starts with the interrogative sentence [p 16]. Complex sentences [p 17] are there. Passive voice and complex sentence are used. Lesson 2 'Animal Meeting' is adapted from *Aesops Fables* and is presented in dialogue form. Can all the children (7-8+) read and understand the theme and sentences? Word Troves are there no doubt and those are presented in English which most of the children can hardly read and understand. Lesson 8, *The Journey of Wheels*, Unit II is adapted from Grimm's fairy Tales. There is huge understanding gap of most of the children across the lessons which do not help develop the four language skills, viz. listening, speaking, reading and writing in children in a well-graded manner. The lessons provide materials and good supply side qualities but demand side in terms of the children's ability to use is totally ignored. The lessons incorporated in this book appear to be too tough to the tender-aged children who hardly derive joy from such lessons mainly on account of basic language skills development deficiency which multiplies among most of the children, particularly the disadvantaged ones over years and thus the inequality in educational quality among the children tends to increase. Thus, Eng-III (B) appears to be a big jump over the Eng-II (B) and the former is not a natural and gradual up-gradation of the latter. The continuum has been too abrupt for the students to comprehend. The slope should have been not so steep as is found here. Besides, the lessons are long that need large number of periods (200), which the teachers of primary schools with hardly 200 working days and 40 minutes a day are unable to justiceably complete. Children hardly cope with the 'Butterfly' meant for Class-III. They may have grown with the LSR capability by now but certainly not to perform w-activity as expected. The book is supplemented with 'Teachers' Guidelines' nonetheless, but it is highly doubtful if the teachers will be able to abide by the pious wishes as stated in the Guidelines, whether in the towns or in the villages. There are in fact too many activities set for the children to be done or performed satisfactorily by them. Actually large number of activities like 150 exhibit quantity, not quality. Too many are damaging the learning of most of the children who are not adequately equipped of skills in doing those activities. Children are forced to take resort to teachers in the classroom or to private tutors (more than 90 per cent children have private tuition in West Bengal) who run their business boom while the children suffer from dependency syndrome.

The theme for *Butterfly: English textbook* for Class IV is '*Faces of Bengal*'. Children have lessons on 'Why the Sky so High?' [pp 13-24], 'A Girl in a Fair' [pp 25-35], 'Taste of Bengal' [pp 36-44], 'The Hero' [pp 45-56], 'Meeting Barre Miya' [pp 57-66], 'Swadesh' [pp 67-75], 'A dream journey' [pp 76-85], 'Sisters' [pp 86-96], 'A profile in Kindness' [pp 97-105], 'Santiniketan' [pp 106-117].

'Revision Lesson' includes activities concerning babies of some animals, animals and their sounds, some examples of gender change, past tenses of some verbs, some opposite words. The lessons in Eng-IV (B) that follow cater to various types of learners. The lessons are, however, long which need large number of periods (180) for completion, which is difficult given the time frame of the academic year. These are a bit complex, which demands imagination of children most of whom find it difficult to follow and to them the learning of English does not substantiate to be joyful. Considered on the scale of up-gradation it has been quite logical but the earlier gap as has been stated above still remains to be too wide to be traversed. To reiterate once again, it may not be possible for a non-English student to keep pace with the standard of this book.

The *Butterfly meant for Class V* has for its theme 'Our culture and heritage'. The book starts with lesson on grammar but the same is insufficient as compared to the exercises after each lesson. Children have lessons on 'India: Superpower in Cricket' [pp 10-22], 'A Feat on Feet' [pp 23-30], 'Phulmani's India' [pp 31-44], 'Memory in Marble'[pp 45-54], 'My School Days' [pp 54-61], 'The Clever Monkey'[pp 62-74], 'The Rebel Poet' [pp 75-83], 'Buildings to Remember' [pp 84-91], 'Bird's Eye' [pp 92-104], 'A Great Social Reformer' [pp 105-112], 'The Finishing Point' [pp 113-120] and 'Beyond Barriers' [pp 121-132]. How vast the syllabus of the second language English for children (9+)! However, to make it interesting the Revision Lesson starts with a comic strip on a little child and an angel. The lessons that follow are really tough for the children to grasp them. So many complex long sentences are there. The RTE Act, 2009 chapter 5 suggests that all teachers have to ensure Continuous and Comprehensive Evaluation (CCE) of a child's understanding, knowledge and his or her ability to apply the same. The CCE record sheet gives the following for the teachers to evaluate the children –children's ability to understand instructions, ability to read the given text, ability to identify answers for question, ability to construct knowledge, ability to apply knowledge in life-like situations and ability to correlate textual experience to life experience. Given the huge size of the English text and limited time hours of the academic session and calendar the teachers can seldom fulfill the herculean tasks of CCE of their children. It appears English syllabus at the primary level for children (6-9 years old) has been framed for the students of English-medium schools or those of affluent families with high cultural background.

At the upper primary level the books change their names and these are termed as 'Blossoms'. The theme in this book meant for Class VI is 'the world of imagination'. Children have lessons here on 'It All Began With Drip-Drip by A. Shankar and S. Mukundan [pp 7-19], 'The Adventurous Clown' by Enid Blyton [pp 20-29], 'The Rainbow' by C.G. Rosseti [pp 30-35], 'The Shop That Never Was' by H.G.Wells [pp 36-45], 'Land of the Pharaohs' [pp 46-58], 'How

The Little Kite Learned to Fly’ by K.Pyle [pp 59-65], ‘The Magic Fish Bone’ by Charles Dickens [pp 66-77], ‘Goodbye to the Moon’ by M. Hughes [pp 78-89], ‘I will Go With My father A-ploughing’ by J. Cambell [pp 90-95], ‘Smart Ice Cream’ by P.Jennings [pp 96-105], ‘The Blind Boy’ by C.Cibber [pp 106-111] and ‘Rip Van Winkle’ by Washington Irving [pp 112-121]. Since many of these stories are devoid of Indian culture, mind and taste, children do not enjoy reading these texts.

The theme for *Butterfly: English textbook for Class VII* is ‘human relationships’. It has, besides ‘Revision Lesson’, got 13 lessons which are no doubt good and interesting. But this is again a vast syllabus which is difficult to traverse by the children (11+). Children have lessons here on ‘Book on Nature’ by Jawaharlal Nehru [pp 6-17], ‘The Riddle’ [pp 18-26], ‘We are Seven’ by William Wordsworth [pp 27-31], ‘The Beauty and the Beast’ [pp 32-42], ‘Uncle Podger hangs a Picture’ by J.K. Jerome [pp 43-53], ‘The Vagabond’ by R.L. Stevenson [pp 54-60], ‘Mowgli Among Wolves’ by R. Kipling [pp 61-71], ‘The Story of Proserpine’ [pp 73-86], ‘J.C.Bose: A Beautiful Mind’ [pp 87-9], ‘The Echoing Green’ by William Blake [pp 98-103], ‘The Axe’ by R.K. Narayan [pp 104-113], ‘My Diary’ by Anne Frank [pp 114-126] and ‘Ghosts on the Verandah’ by Ruskin Bond [pp 127-135]. The standard of English is high and many of them are not appropriate stories for students of Class-VII. Moreover, teaching of grammar to the students has not been so sufficient by this time so that the learners will be able to perform well with the exercises given in the book. Besides, some sentences have been very long to be understood and followed by the average students.

The ‘Blossom’ for Class VIII has for its theme ‘Nature and Adventure’ but it is not clear how the lessons in the book are in keeping with the theme. It has, besides Revision Lesson, got again 13 lessons which are vast and mostly narrative and tough, which is difficult to traverse by the children. They have lessons here on ‘The Wind Cap by J. Yolen [pp 6-15], ‘Clouds’ by I. Hossain [pp 16-24], ‘An April Day’ by H.W. Longfellow [pp 25-30], ‘The Great Escape’ by S. Bose [pp 31-39], ‘Princess September’ by W.S. Maugham [pp 40-52], ‘The Sea’ by J. Reeves [pp 53-59], ‘A King’s Tale’ [pp 60-69], ‘The Happy Prince’ by O. Wilde [pp 70-83], ‘Summer Friends’ by M. Lamb [pp 84-88], ‘Tales of Childhood’ by R. Dahi [pp 89-98], ‘Midnight Express’ by A. Noyes [pp 99-109], ‘Everyone Sang’ by S. Sassoon [pp 110-114] and ‘The Man Who Planted Trees’ by J. Glonono [pp 115-123]. The sentences in the lessons seem to be very long and stiff and often cumbersome for the students to understand. The treatments seem to assume as if the students have been anglicized by now. Actually the students, especially of the rural areas, will find it difficult to alienate their interests in the subjects in the text.

The expert committee while having made the textbooks heavy and tough enough appear to have met the criticism that the syllabus of the West Bengal Boards in English is light compared to that of the centrally managed Boards like CBSE or CISCE⁵. This criticism may hold good in case of secondary education but this criticism, we think, is not valid in case of primary and upper primary schools education in English as a second language, because in the government-run elementary schools children are not supported by environment to learn English as a second language while those under the CBSE or CISCE they learn English as first language with full support from the environment. The curriculum, however, appears to have been made to be at par with that of the CBSE and thus has become too heavy and tenuous for them to be carried on joyfully. The syllabus appears to be vast; the contents, language and presentation of the texts appear uninteresting; the production of the textbooks looks gloomy and so on. The guideline itself says that the syllabus has been changed in accordance with the need to update the primary school children with the modern developments in the world, particularly since the drop-out rate at this level is not negligible. In other words, children must be fed with as much as possible before they drop out! The notion has probably gained strength from the so-called modern systems introduced in the private schools, where teaching and learning veer solely around gathering information. As the designers of the syllabus and the authors of the textbooks generally belong to the upper echelon of the society where private mode of schooling is much more influential than a mass-oriented mode of education, their approach tends to be weird: rote learning, memorizing facts and dates and uninteresting passages become unavoidable tasks, which need the supplementation of 'home task'. The Vision of Education/Challenge of Education of 1986 and the National Curriculum Framework 2005 speak of learning without burden, which, it appears, is not adhered to while the English text books for children have been prepared. There is hardly any space left for children to pause and think or brood over the themes of different lessons of the books, which could have helped them develop their culture and creativity. There is hardly any accent on children's understanding the theme of lessons in the text books and the children grow to be feeble in both language learning and literature understanding. Everything goes beyond their capacity and an incapacity or incapability syndrome is evident in them. This is not their educational development which is defined as capability enhancement by Amartya Sen, the Nobel Laureate.

Learning Achievement in English

The most difficult subject to the students of primary standard in rural West Bengal is English. Their command over the subject in those places is very low. A survey in 2009 by Pratham ASER Centre showed that only 31.8% of the

Class II standard students in West Bengal could read capital letters in English. Percentage of students able to read small letters was 20.1, 17.6% only could read easy words and 4.8% could read easy sentences. Almost the same picture was found among the class-III standard students.

In West Bengal there occurred huge deterioration (by 19.2 percentile point) in the learning achievement of standard IV children in reading standard II level Text during 2006 to 2009, which was higher than the all-India average (decline by 1.1 percentile point only) (Table-1).

Table-1: Percentage of Standard IV Children in Government Schools who can read Standard II level Text, 2006 to 2009

State	2006	2007	2008	2009	2006-09
West Bengal	65.1	68.2	45.2	45.9	-19.2
All-India	51.4	56.7	53.1	50.3	-1.1

Source: ASER 2009

The Pratichi Education Report II (2009) dealt with the content of the official curriculum, and the heavy load that very young children had to bear in pursuit of elementary education. The proportion of children in Classes III and IV who could not read was 16.8 per cent, those who could not write was 18.9 per cent despite their schooling. 12.5 per cent of Scheduled Caste children in Classes III and IV could not read, and 24.8 per cent of Muslim children and 28.6 per cent of Scheduled Tribe children could not either. For the rest of the population this proportion was merely 8.2 per cent. Similarly, compared with 8.2 per cent of the group of “others” in Classes III and IV who could not write, 12.5 per cent of SC children, 26.7 per cent of Muslim children and 42.9 per cent of ST children could not manage any writing (Table 2).

Table-2: Social Division of basic inabilities among Children of Class III and IV, 2009 (%)

	No. of children	Cannot write name	Cannot read	Cannot write
SC	88	5.7	12.5	12.5
ST	35	11.4	28.6	42.9
Muslim	101	5.0	24.8	26.7
Others	98	1.0	8.2	8.2
All	322	4.7	16.8	18.9

Source: Fieldwork of Pratichi Institute.

Sau and Paul (2013) also observed that the average score in English of the Class-IV boys in Paschim Medinipur district of West Bengal was 36.66% and in the case of the girls it was 21.60%. In Purba Medinipur too the average marks scored in those subjects were of low standard. Percentage distribution of boys and girls children by grade obtained in Paschim Medinipur and Purba Medinipur districts combined showed that at least 16 per cent of boys and 12 of girls studying in Class-IV were unable to score any points in taking the tests in English in 2011. Above 70 per cent of both boys and girls children were seen to have not made the state-mandated passing grade of above 34 per cent marks. Among those students who made the pass grade in the tests less than 4 per cent could be classified as very good (excellent).

The above-mentioned survey also showed that the Class-II and Class-III students secured the lowest average score in English among the subjects of their study. The total average score in English of the two districts taken together was 31.87%. In Class-II and Class-III the average score in English was 33.45%. The average marks too scored by the students of class-VIII in Paschim Midnapur district were also of low standard. In English, the average score of the children was 34.27%. In case of girls this percentage was 40.3.

For the period from 2010 to 2013 the ASER study again revealed the declining tendency in the learning achievement of children who were seen to be weak in reading proficiency in West Bengal. The percentage of standard-III children who could read standard I level text in West Bengal declined in Government schools from 51.7 to 43.5 during 2010 to 2013 while that of standard-V children who could read standard II level text declined from 54.2 to 51.3 (Table-3).

Table-3: Trend over time in Learning Achievement of Children in literacy (% Children in Std. III and V at different READING levels by school type 2010-2013)

Year	% Children in Std.-III who can read Std.-I level text		% Children in Std.-V who can read Std.-II level text	
	Govt.	Govt. & Private	Govt.	Govt. & Private
2010	51.7	52.5	54.2	54.2
2011	46.6	48.3	48.8	49.0
2012	43.3	45.6	48.7	48.9
2013	43.5	47.2	51.3	51.3

Source: ASER 2013

Conclusion

Curriculum of English education at the elementary level has been influenced significantly in West Bengal during the globalization era, particularly during the very recent years of the Paschim Banga Sarva Siksha Mission while the textbooks have been frequently revised. The syllabus of English has been made too vast and tough for the children at both primary and upper primary levels to cope with it and this has been done without giving due consideration to the fact that they study English as a second language and they are brought up in the indigenous socio-cultural milieu where even teachers with matriculate or higher secondary qualifications also find it difficult to follow the modern textbooks which incorporate many of the lessons/pieces written by foreign authors. Besides, too much accent on communicative skill development has adversely affected the development of reading, understanding and other language skills in the children while use of mother language is absent or discouraged. Grammar is taught casually through long passages and poems, which appears to be not very helpful for children's acquisition of knowledge of English. The curriculum has been made child-centric but whether it is also child friendly remains a question.

We may make the following policy recommendations based on our discussion made so far. In the interest of adequate knowledge of English language it is important for curriculum designers and textbook writers to do a serious re-thinking about the purpose of primary education from this perspective. There is need to unpack the text-heavy syllabus and explore other means of delivering education so that the real objective of providing basic education in English is fulfilled. Empathetic teachers who are sensitive to the children's backgrounds should be made part of the curriculum planning process.

Syllabi and curricula have to be reformed with an eye to the prevalent socio-economic-cultural milieu and with due regard for quality and value education. In the interest of quality education and for attaining effectiveness of teachers' training syllabi and curricula need to be reformed in the light of NCF 2005, which suggests curriculum development with an eye to social, cultural and natural environment in which children are born and grown.

English language teaching and learning process needs to be bi-lingual in the elementary stage with due accent put on enhancement of vocabulary and acquisition of adequate knowledge of grammar, which would help children's understanding, assimilation of ideas and enhancement of knowledge. Knowledge of grammar is important for using language competently in study and work contexts. Only some knowledge comes from the type of learning which excludes conscious attention to formal aspects (that is, the grammar) of the language. Also, especially where learners are mature and have already learnt

a language, attention to the rules of target language grammar proves its value. However, it works even better when such rules are learnt in meaningful tasks that combine grammar and use (Tickoo 2009:29:344). Logic of grammar and children's merit and their memory or imitation are rich resources which contribute to their language acquisition. Mohan (2014) observes that the US education system, which promotes bilingualism as opposed to diglossia has some lessons for India if the attempt is to make English learning more easy, enjoyable and useful. It may be noted that in the low cost private schools the English text books like '*Let us Learn English Book Three*' or '*English Reader 4*' have been developed for the first generation learners of English, the syllabus has been carefully graded and students are helped to develop their oral fluency, short passages are given along with word meaning in Bengali, questions/exercises are given bilingually—everything appears to be child-friendly with an eye to the prevailing market. Some of the lessons of market need to be kept in mind while planning the curriculum development for government-run schools at the elementary level.

Communicative and Functional English hardly does work in absence of suitable environment and leads to poor English language learning base of children. Not only development of speaking skill but also development of reading skill, proper pronunciation, writing skill and adequate understanding of the theme need to be emphasized so that these contribute to the child's progress in curricular areas.

Subject teacher in English even at the primary school level ought to be fixed, as is done in some renowned schools of Purba Medinipur and other districts of West Bengal. This is essential in view of the recent developments in syllabi and curricula which are being modernized, which would make the efficient use of the available resources for the improvement of the teaching learning process at the elementary level of school education.

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Notes

1. A curriculum refers to a defined and prescribed course of studies, which students must fulfill in order to pass a certain level of *education*. In formal education, a **curriculum** (/kəˈrɪkjələm/; plural: **curricula** /kəˈrɪkjələ/ or **curriculums**) is the planned interaction of pupils with instructional content, materials, resources, and processes for evaluating the attainment of educational objectives.
2. The disastrous switchover in school curricula in the 1980s- stressing on “functional and communicative” aspects of English but with few competent teachers and ignoring literature and grammar-spawned a generation of youngsters who could not follow technical textbooks written in English. Sunanda Sanyal, who dissented with the 1992 Commission headed by Ashok Mitra that recommended continuation of the Left Front’s English teaching policy, blamed the “functional and communicative” system of teaching. “It is a highly teacher-dependent method that calls for an army of teachers who can help students use English for communication purpose. But where are the teachers?” he asked. The quality of communicative English—what Makinsay described as spoken English—declined and there was a fall in the proficiency level in Bengali too. Communicative skills in terms of oral fluency

in children are necessary, but they are partial in the set of language skills. They cannot develop without developing other language skills like reading with understanding. Accent on communicative skills development only may serve commercial objective but this does not help much in the development of academic language in children who cannot thereby derive full joy.

3. English Teaching in Government Primary Schools An Evaluation of the West Bengal–British Council Program Pratham-ASER Centre September 2011
4. In case of Bengali, the first language, the sequence maintained in this book has been letter [p 7], word [p 12] and then sentence [p 36] following largely ‘Barnaparichaya’ of Iswarchandra Vidyasagar as noted by the Chairman, Expert Committee in his Preface to the Amar Boi-II (B) while the reverse is done in case of English language learning following perhaps the British model where English is treated as first language.
5. The syllabi of these Boards were broadly perceived to be superior in content (School Education Committee, 2001). This criticism was shown not to be unexpectedly harsh by comparing the success rates of students from the centrally managed boards with students from the West Bengal State Board in various all-India competitive examinations. Of course, it cannot be denied that the State Board-affiliated schools, and the Bengali-medium schools among them cater to students from not-so privileged backgrounds.

Developing Effective Teachers in Indian Higher Education: What We can Learn from Others?

*Sayantana Mandal**

Abstract

Higher education is in the age of massification. In recent times, globalization, internationalization, cross border mobility of students and academics not only increased the competition, but also expedited measuring, auditing and reforming higher education. However, with this unprecedented expansion of size and diversity within a short span of time, the higher education sector is facing challenges and raising concerns of quality. Developing the students through improved teaching is certainly an issue which compels reform in university teaching-learning process. Interestingly, there is a lack of substantial research and empirical evidences to improve teaching-learning in the contemporary Indian higher educational context.

This paper therefore, argues that to understand and improve teaching and learning in Indian higher education in the contemporary globalizing higher educational landscape, it is necessary to get a deeper understanding of the international state of the art. This might provide a comprehensive map to identify key issues which has global relevance, followed by a large scale empirical research to understand the Indian scenario critically. This paper therefore highlights discourses and major international researches, development and innovative practices related to teaching and learning in higher education. It critically examines some of them with an attempt to highlight how the reforms and studies could benefit the Indian scenario of teaching and learning in higher education and what we can learn from them.

Keywords: Effective Teaching, Higher Education, Student Learning.

Introduction

Higher education across the world has witnessed unprecedented expansion in the last few decades. The expansion has also triggered increased international competition, diversifying student body and types of educational service providers, increasing demand of value for money and efficiency. Globalisation, internationalisation, cross border mobility of students and academics not only

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increased the competition, but also expedited measuring, auditing and reforming higher education. With this unprecedented expansion of size and diversity within a short span of time, the higher education sector is facing challenges at various levels. Above all, this massively expanding system raises concerns of quality and equity (Agarwal, 2006; Varghese, 2014) and thus, improvement of quality in higher education institutes appears as an unavoidable mandate. External and internal quality assurance agencies at institutional to national and even at international levels are formed to measure quality and make higher education institutions more accountable for providing quality education.

The changing discourse in accountability and quality etc. bring the student or the learner at the centre stage. A major focus in higher education in the 21st century is therefore, on learning outcomes (Reichert, 2010). It is different from the traditional input based teaching (Chung, 2011), which is undergoing from instruction oriented teaching to student oriented learning or simply, from teaching to learning. 'Teaching' is now intertwined with learning. Together, they form one of the core pillars of higher education. Identifying new teaching strategies, and testing new ideas to enhance students learning outcome has thus, taken the forefront (American Psychological Association, 1997). Along with them, the global consensus calls for improving of evidences and studies related to teaching and learning in different contexts and levels. As a consequence, several nations are attempting to improve teaching and learning in higher education and experimenting with different methods based on research based evidences.

Interestingly, while teaching and learning are considered as a vital core educational activity and extensive research is being conducted on improving teaching-learning in primary and secondary education sectors, there is a lack of substantial research to improve teaching-learning in Indian higher education. In spite of the focus on excellence (along with equity and expansion) as a national agenda for higher educational reform, teaching-learning has experienced an overall limited improvement. Contrastingly however, studies on teaching-learning is gaining importance in the international arena and innovative approaches are being adopted to make teaching-learning more effective and accountable. Only recently, the government of India started focusing on teaching-learning and included it as a major theme in the coming National Policy of Education (NPE). In this backdrop, a study in Indian higher education, focusing on understanding teaching and learning from different vantage points to recommend policy reforms based on empirical evidences seems the need of the hour. However, in order to plan and implement the project, it also seems significant to cognize the changing discourse and international experiences in this front. It not only helps to get an updated theoretical view, but may also

provide a well versed understanding of the challenges and strategies, already experienced by other entities (countries, international organizations etc.).

This paper therefore, argues that to understand and improve teaching and learning in Indian higher education in contemporary globalizing higher educational landscape, it is necessary to get a deeper understanding of the state of the art as they might provide a comprehensive map to identify key issues which has global relevance. It might also help to proceed forward towards workable reform agendas. The main objective of this paper is therefore to highlight discourses and major international researches, development and innovative practices related to teaching and learning in higher education, globally. It critically examines some of them with an attempt to highlight how the reforms and studies could benefit the Indian scenario of teaching and learning in higher education. The discussion in this paper could also highlight several areas, which are worth a deeper look.

The paper is divided into four main sections. The first section briefly discusses the recent national policy focus on teaching and learning. It analyzes the reports of the recent committees and explains how the focus is reshaping the present context. This discussion is followed by the discussion of the international situation, where some of the major practices of different criteria are highlighted. Discussing different practices may expose the global focus in terms of improving teaching and learning in higher education. It may also set a standpoint with that of the next section of discussion, where the paper briefly tries to link the dots of the Indian policy focus and international practices. It tries to analyze where Indian policies are standing in order to map teaching and learning as a major step to develop the effective teachers in higher education.

Setting the Scene

The advent of mass higher education in the 1960s internationally questioned the traditional elitist role of the universities. This can be considered as a departure point towards the massification of higher education from the elitist approach. The changing funding patterns and seeing higher education as a valued investment prepared the platform to heavily focus on the return of the investment on higher education (Yorke, 2000). With this shift, comes the issue of accountability (Henard & Leprince-Ringuet, 2008) as learners of higher education started demanding the value for their investment.

This brings the student or the learner at the centre stage. There is also an ever increasing acknowledgment of student or learner-centered teaching in higher education (Gibbs 1981, Jonassen & Land 2012, Wright 2011). A student-centred approach to learning encourages students to have more responsibility for their learning and is a process that relies heavily on professional confidence

to 'let-go' of traditional teaching responsibilities. In this backdrop, a driving element of the functional domain would be faculty members' understandings about teaching, and the patterns of instruction that they value and emphasize (Allendoerfer et al 2014).

With growing massification of higher education, comes greater level of competition. Moreover the issue of accountability demands universities to perform not just well but to do better than the rest. For the poorly performing institutes, it poses a greater threat of getting perished as often students prefer to select institutions with higher ratings. The competitiveness magnifies with the international university rankings, national assessments and various other measurements of quality in higher education. However, university rankings are often considered biased heavily towards the more easily countable research publication, citation indices etc. where assessment of teaching and student learning is largely missing. A change of mind-set in many countries and their higher education institutions with regard to the prioritisation of academic teaching and learning in comparison to research is urgently needed (High Level Group on the Modernisation of Higher Education, 2013). As a consequence, several questions are coming to the forefront in national and international higher education sphere to reorient the focus towards the core issue of teaching and learning and importantly, the measurement of learning itself.

The shift of the focus to learner and learning outcomes also means that 'the mission is not instruction, but rather that of producing learning with every student by whatever means work best' (Barr & Tagg, 1995). This renewed focus on learning infers that the teaching practices also need to shift from traditional instruction based teaching and become proactive to foster learning. Consequently, the dominant pedagogy has evolved to a learner-centred focus (Cornelius-Shite, 2007). This means that not only learning, but also the learning-environment of students should be enhanced to meet the learning needs. The interplay between teaching and learning has in fact put pressure on countries and higher education institutions to metamorphose.

In this juncture this paper steps forward from a scholarly discourse of issues related to teaching and learning to specific practices, starting with the Indian scenario.

Developing Teachers in Indian Higher Education: issues and challenges

Teaching in Indian higher education is intertwined with the diversified higher educational landscape of the nation. Hence, making a general observation seems not desirable. However, by analyzing the policies, we can perhaps understand the vision of a great teacher and also the issues in this sector.

Radhakrishnan Commission (1948-49) expressed that a teacher has to

stimulate the spirit of enquiry and of criticism. It put the highest value on teachers who may not be measured in term of mere performance. However, later in the 60s, due to the structurization of university and colleges, bureaucratization was introduced. This in turn created a hierarchy and politicization, where new power dynamics lead the teachers to rely on a long chain of commands. This inevitably resulted in delay in decision making and created a less innovative friendly workplace. Colleges turned into a place of repetitive teaching, often following textbooks recommended by the authority. This loss of academic freedom negatively impacted the motivation of the teachers.

The British Council report on Indian Higher Education highlighted some salient concerns related to teaching and learning. Their study, at undergraduate levels shows poor learning outcomes. The reasons are:

- Lack of teaching skills in faculty and limited understanding of the learning process
- The use of outdated pedagogies (input oriented, lecture-based approaches, rather than student-centred, enquiry driven and outcomes-based)
- Outdated and inflexible curricula
- A rigid assessment system, which encourages rote-learning and does not test students' broader skills or deeper learning
- Lack of an effective quality assurance system for teaching and learning

(British Council, 2014)

The report also highlighted that there is no effective national system and very limited institutional mechanisms to support teachers' development. The Academic Staff Colleges have limited success in improving the situation. The trend of hiring temporary faculty on minimal salary, poor ICT skills of the existing teaching staff, lack of adaptability with the new hybrid (online + class room) teaching-learning mode are some of the important factors hindering the quality. Along with these, the lack of quality contents, massive growth of private coaching are also resulting adversely in teaching learning, both in its process and outcomes.(British Council, 2014).

The need to invest on quality improvement is also felt as the skills for employability become a great concern. It is largely missing, especially in the non-professional or general degree courses. Even engineering graduates are finding it difficult to get employed soon after their studies because of the lack of skills needed to execute the work effectively. Entrepreneurship education and soft-skills development are almost absent in Indian education system, where the teaching largely focuses on enabling the students to pass the exams and hence, stick to the curriculum, which is rigid and outdated in many instances.

This indicates two things, among others. First, there is very little awareness of the importance of skills related to employability and teachers have very little capacity to teach them (British Council, 2014). Second, there is lack of proper methodologies and strategies for each of the disciplines and on teaching learning.

Concerned by the drawbacks, the government recently emphasized both teaching and faculty development in India. At national level, a range of recent policy initiatives and high profile national reports have highlighted the importance of teaching (at school and college levels) as the core of education quality challenges facing India. Some of the key documents highlighting the issue of teaching-learning directly and indirectly are the XIth and XIIth Planning Commissions reports, report of the Justice Verma Commission, Poonam Batra Committee, National Knowledge Commission and National Mission on Teachers and Teaching, among others. The University Grants Commission (UGC) has taken important steps to elaborate what constitutes faculty performance indicators in its most recently updated set of API (academic performance indicators). The Kakodar Committee (MHRD 2014), the Madhav Menon Committee, the UGC Pay Review Committee, the Rama Rao Committee or the Planning Commission's subcommittee on Faculty Issues in Higher Education have mentioned the need of a new approach in developing teachers in higher education. Along with it, nearly all committees have focused on improving the teaching learning environment and importantly, changing the approach of teaching and learning. Collectively these vision documents and status updates point towards the need for a holistic policy and implementation plans for preparing and supporting high quality teachers and high quality teaching in the classroom.

However, as aforesaid, little empirical research on understanding or improving teaching-learning in Indian higher education limits the possibilities of generating critical understanding from the existing resources. In this regard, it seems legitimate to look into the international practices, as they might provide multiple solutions to the similar kinds of problems faced worldwide. The following sections therefore attempts to draw useful clues from the available resources and examine various innovative practices in this domain. It mostly examines the international context from a plethora of available resources. The state of the art in international arena with regard to teaching learning in higher education, represent a rather diverse picture. However, because of the globalisation and recent international trends in higher education reforms, it seems justified to discuss the international scenarios in spite of the diversities, different trajectories of historical development etc.

International Practices to Develop Teachers in Higher Education

There are several studies from around the world to understand teaching-learning processes, the demands, constraints and efforts to take innovative measures to upgrade the quality. Many Western countries have various programmes, research projects and practices in this regard, which are going through constant experimentation. Looking at the East, it can be observed that some Asian countries are also investing on studies and practices to understand and upgrade teaching learning. Clearly, the need is felt that postsecondary education has to prepare graduates with new skills, a broad knowledge base and a range of competencies to enter a more complex and interdependent world (Altbach et. al. 2009), where effective teaching has a greater role to play.

Teaching-learning is a multi-dimensional, stakeholder relative (Henard & Leprince-Ringuet, 2008), diverse and context specific process. However, there is a growing trend to evaluate them at an international level along with the trend to measure learning and learning outcomes. Hence, several organisations have come forward with different programmes, research reports, measurements of learning outcomes and suggestions.

Among the transnational organisations led researches and reports, the Bologna Process, TUNING educational Framework, AHELO (Assessment of Higher Education Learning Outcomes) PIAAC (Programme for the International Assessment of Adult Competencies), TALIS (Teaching and Learning International Survey) by OECD are some of the other frontline initiatives in the international arena. Many of the surveys examine the recruitment process of the teachers, their in-service development, teacher evaluation and engagements in reforms in order to recommend upgrading university teaching and learning. The International Network for Quality Assurance Agencies in Higher Education (INQAAHE) provides examples of incentivizing tools to improve the quality and accountability in higher education institutions. The OECD-UNESCO Guidelines for Quality Provision in Cross-border Higher Education recommends institutions to take steps to improve the qualities of teaching and learning. The European Commission is investing heavily to improve different aspects of higher education, including teaching and learning. The European Standards and Guidelines for the Bologna Process emphasizes on the competitiveness of the staff, which in turn influences the quality of teaching. The Commission has recently proposed a Common Strategic Framework (CSF) to provide priority area based funding. Some studies, on the other hand, look at the issue from students' and employers' perspectives and try to set quality standards before teachers, which they are to follow/ achieve. A brief description of some of them is provided below.

Competence based frameworks

The TUNING educational framework, which was initially developed in Europe, has now spread into other parts of the world, such as Americas, Africa, Central Asia and Russia. It develops a competencies based framework and aims at aligning degree outcomes on the basis of learning outcome and competencies without intending to change the educational structure or system of the universities. TUNING looks into common and convergence understandings in the university systems across nations and promotes generic and subject specific competency based approach. TUNING provides important preconditions for another Europe wide programme called AHELO (Mentioned earlier). AHELO is the first international attempt to measure student learning outcomes in higher education across borders, languages and cultures (Tremblay, Lalancette, & Roseveare, 2012).

The European Key Competence framework focuses on seven key competences, many of which are soft skills like ability to think critically, take initiative, teamwork and most importantly learning to learn, which is also highlighted repeatedly in recent UNESCO documents. To emphasise on teachers skills, the European Commission mentioned three sets of skills. These are:

- complex thinking–problem solving, reciprocal learning, experiential learning;
- social skills and participatory learning–interaction with tutors and other learners, active participation in learning, interdependence; and
- personal shaping of knowledge–progressive mastery, individual pacing, self-correction, critical reflection, active seeking of meaning, empowered self-direction, internal drive/motivation

(High Level Group on the Modernisation of Higher Education, 2013).

Another important initiative at the international level is the SOTL or the Scholarship of Teaching and Learning. It enquires into student learning and shares knowledge on effective teaching in different contexts. Several universities and academic organisations are active members in this movement. In addition, the changing higher educational landscapes through digital connectivity have created another worldwide platform. The MOOCs or the Massive Open Online Courses have revolutionised learning with nearly infinite amount of remotely accessible digital learning resources.

Contexts of individual countries

Inspired by the Bologna process and realising the need, several European countries have also taken initiatives to improve the condition of teaching learning in higher education. For instance, the United Kingdom (UK) established the ‘UK

Professional Standards Framework for teaching and supporting learning in higher education', which takes innovative approaches to foster creative teaching and learning. Also, the Higher Education Academy works in collaboration with British Universities to define professional standards to support teachers in providing high level learning experiences. Ireland, meanwhile has established a National Forum for the Enhancement of Teaching and Learning in 2012. It uses different instruments and digital platforms to improve the quality of the faculties and learning environments. The research published in the British Research Journal by Gibson (2009) can be referred here, which identifies five key skills for university teachers, represented as five Es. These are– *education, experience, enthusiasm, ease and eccentricity*.

The emphasis on the issues of effective teaching learning is also given great importance in Germany, where over 250 ongoing projects try to improve the conditions and the quality of teaching. The projects use various measures, instruments and implementation strategies; collaborate with private sectors to elaborate a charter for good teaching and deal with different institutional aspects associated with it. Since 2006, Germany is awarding prizes for excellence in higher education teaching.

Whereas Germany is trying to foster higher education teaching by announcing prizes, in Ireland, the University College of Dublin encourages higher education teaching by announcing fellowships. This scheme identifies and develops teachers to impart transformational shifts in teaching pedagogy, style etc. Nordic countries on the other hand focus on building the learning environments. For instance, Sweden encourages universities to build the desired learning environment through three main tools: recruitment policy evaluating applicant's teaching skills, training plan to develop teaching skills and teaching performance for salary negotiations. Some Nordic universities offer wide ranges of courses, usually of shorter durations, which are open to faculty members and students both. Many of the courses designed for faculty and/or students are focused on imparting pedagogic skills in teaching-learning. The modern practices are studied and practiced regularly. One of them is the popular multidisciplinary approach. In Finland, universities merge to focus on multidisciplinary teaching and learning and use technology based platforms for the success of the students in post university life.

On the other side of the Atlantic, there is an ongoing shift in the USA. The Association of American Colleges and Universities (AAC&U) outlines the essential learning outcomes and researching on different process to improve teaching learning to align with the goals. It also incorporates implications for student mobility and transferability of credentials and degree recognitions across

national borders. With an effort to upgrade the teaching learning and showing the best practices, United States has started the 'teacher of the year' award for exceptional higher education teachers. In addition to the awards, the universities are now focusing on interdisciplinary teaching and effective learning by organizing internships and other hands on experiences to the students. Many colleges also started short and long term courses for their teachers to improve on their communicative, technological and other skills.

Among some of the Asian countries, Singapore's effort in improving teaching and learning is recommendable. With a comprehensive approach, Singapore focuses on the issues right from the time of recruiting a teacher. Strong academic ability, commitment to the profession is considered and the system rewards them with competitive salaries and facilities. In China, the emphasis is given on linking teaching and research. Teachers are encouraged to take up research projects. The government encourages the formation of study groups of teachers, which discusses on teaching styles and lesson plans. Teachers are also encouraged to demonstrate lessons to their colleagues, which results in upgrading the quality with peer feedback and collaborative learning. This practice is common in many other East Asian countries (OECD, 2011). The professional teacher collaboration is increasingly becoming an effective tool in helping the teaching learning to move up in ladder. The Malaysian Qualification Agency (MQA) provides vital terms of reference and guidelines to ensure that universities maintain high standards aiming at learning of all students. It suggests measures for encompassing teachers' pedagogic skills, learning environment building and outcomes. One important strategy is to collaborate with other international universities and institutions and learn from their innovative practices (Deni, Zainal, & Melakolunthu, 2013).

One such innovative approach is practiced in Australia. Some of the universities in Queensland promote community-based learning among their academic staff (McDonald & Star, 2006). In many colleges in America, learning communities are popular, who come together to develop professional scholarship in relation to individual disciplines (Bell, et al., 2006). The Institute of Learning and Teaching (ILT) in the United Kingdom encourages the formation of such communities which supports continuing professional development. Malaysia also followed this trend and it was reported that many teachers even changed their practice and help students to learn effectively (Deni, Zainal, & Melakolunthu, 2013).

Comparative Studies

There have been some notable efforts in comparative research of higher education in developing countries carried out under the auspices of UNESCO

IIEP (Altbach 1998, Varghese 2009); however, these studies mostly focus on macro system dynamics and not so much on micro contexts of teaching and learning. Importantly, the quality of faculty in higher education institutions has been explored in the context of “world class universities” (Salmi 2009; Altbach & Balan 2007). In this regard, sociologist Jayaram’s (2002) pioneering contribution has examined faculty status in Indian higher education, and delineated the nexus between teaching quality and institutional dynamics. More recent scholarship in this area comes from an important study, which uses a comparative research methodology to examine the quality of engineering and technical education in some of the BRIC countries (Carnoy et al. 2013). The resultant volume rests on strong empirical foundations of national data analyzed in a cross-national comparative framework. Together, these innovative practices, researches and studies indeed highlight on the process of teaching and learning and emphasize that teaching matters.

Conclusion

It can be seen from the above discussion that, while much of the existing literature– and the emergent constructs–have trans-cultural relevance; there is a need to consider a more contextually appropriate framework for studying teaching and learning in Indian higher education today. In other words, one needs a judicious approach to translate, adapt and reconstitute the theoretical frames that dominate the discourse of higher education in higher income societies.

Nevertheless, the discussion of different practices helps us to identify the changing discourse in the field of teaching and learning in higher education. Many countries have evolved new teaching and learning strategies, practiced different styles of teaching, and tested new methods of pedagogy to enhance students’ learning outcomes. It helps us to distinguish the major thematic areas, which need deeper context specific focus. The changing teachers, learners and teaching-learning styles in higher education, the impact of globalization and ICT revolution are some of the key areas in this regard. However, equally important is to identify the best practices to make teaching accountable and learner centric.

The review of scholarly writings and international practices in this regard helps by highlighting the efforts to make teaching and learning in higher education more meaningful. Compared to the studies and experimentation abroad, the Indian scenario, however shows a lag in terms of effective and innovative models to improve teaching and learning in its higher education domain. Evolving strategies to address the issue of teaching and learning in a stage of massification of higher education is a difficult task. This task becomes

challenging given the high degree of diversity of teachers and students in the country. Nevertheless, it is finally acknowledged that the reform in teaching in higher education is needed and needed in the direction of preparing learners for the present and future. Interestingly, there are no national level large scale empirical studies in this regard. Therefore, alongside the consultative meets and expert opinions, it seems necessary to undertake a rigorous study to understand and map teaching and learning in Indian higher education. These will help us to learn from different experiences and practices and will also encourage further researches in this direction. It also seems that studies in this front need to be done on a priority basis so that substantial evidence can be generated to retune teaching and learning in Indian higher education. This can be complemented by drawing insights from international scenarios and their dynamic efforts in a selective manner.

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Educational Constraints among the Mukkuva Community in Kerala: Anthropological Insights and Empirical Realities

*B. Bindu Ramachandran**

Abstract

The marginalized sections of Kerala society have been exposed to formal education only recently. Their response to formal education and schooling are different from one another as they are from different social, cultural and economic backgrounds. The socio-economic conditions in these societies have constrained the process of primary education along with other social inequalities. Even though Government is spending money towards the education of children from marginalized sections of population, the level of education is not commensurate with the general literacy level. This paper is an anthropological attempt to examine the present constraints of higher education among the Hindu Mukkuva, a fishermen community in Kerala.

Key words: Hindu Mukkuva-Economy-Ecology-Society-Education-constraints

Introduction

Higher education is still a dream to many people from under developed and uncertain economies. Even though Central and State governments are trying to safeguard the interests of economically disabled communities, the results are not at all satisfactory in the stream of higher education. The achievement of Kerala's 100% literacy level never substantiates the higher education aspirations of generations especially in marginalized communities where economic stability is still problematic and unsolved. The Selected Education Statistics published and compiled by the Ministry of Human Resources Development shows that Kerala has a descending tendency in terms of enrolment in higher education institutions within the state when compared to the all India statistics (2007). One of the important reasons identified for this situation is the technical complications associated with financing (Salim1997) and the less assurance in guaranteeing jobs. This is especially true in the case of marginalized

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communities with unstable economic sources and resources where the source of repayment is not assured.

It is not advisable to analyze the prospects and constraints in higher education based on macro generalization particularly in a state like Kerala. There are many minute hurdles at different contexts to be considered by the policy planners and administrators before reaching conclusions. Higher education was addressed as a key site of the constitution of a gendered and generational 'political public', which form axes of exclusion/inclusion. It questions the dominant frames of the debate on higher education in terms of state/public and market/private (Luckose 2006). Changing political representations of the state has major roles in determining the exclusion/inclusion categories. Instead of simply classifying a group under a particular category the overall assessment of its socio-cultural, economic and political scenario must also be done for the proper governmental interventions. If the problems are identified by researchers and institutions, government has to take timely and necessary measures to make sure the prospects of the group especially in the case of education.

The massive socio economic and political changes happened in the post-independent India created challenges in many economic sectors including marine fisheries. It was from 1950's Government of India decided to initiate modernization in the fisheries sector. Until this attempt fishing (both marine and inland) was considered as a caste or community based economic activity, especially in states like Kerala. Like any other socially and economically down trodden sections of Kerala's population, fishing groups were also characterized by poverty, low educational attainment, and minimum material possessions including the living space. In order to bring them to the mainstream of Kerala society, the changing governments of Kerala undertook programmes and policies and the development initiatives (Ibrahim, 1992) certainly paved way for many changes in the fisheries sector especially in marine fishery. It was identified and brought to the notice of the ruling governments that the low productivity in marine fishing economy was associated with economic backwardness of the groups involved in this sector because of low returns and absence of affluent resources.

With reference to the number of persons engaged in marine fishery, there were 118937 fishermen families in the state with a population of 610165. The maximum number of families was in Thiruvananthapuram (33,340) followed by Alappuzha (20,278). The average number of families in a fishing village was 536, with 2,748 persons per village. The average family size was 5.1 with a maximum 6.6 in Kasaragod and Malappuram districts (Marine Fisheries Census 2010 Kerala).

Table-1: District wise Educational Status of the Marine Fishermen

District	Primary		Higher Secondary		Above Higher Secondary		Unschooler*	
	Male	Female	Male	Female	Male	Female	Male	Female
Thiruvananthapuram	19,098	18,331	18,291	16,674	4,560	4,156	27,123	25,426
Koum	6,573	5,668	11,961	11,500	2,702	2,420	7,938	7,497
Alappuzha	17,509	16,940	19,542	17,885	2,828	3,201	3,422	3,940
Emakulam	8,682	8,450	8,045	7,250	1,559	1,836	1,682	1,833
Thrissur	4,458	4,303	5,753	4,886	585	983	2,165	2,665
Malappuram	12,474	12,265	8,057	8,155	772	637	22,965	21,345
Kozhikode	13,509	12,034	15,872	15,916	1,784	2,704	6,143	6,598
Kannur	6,178	5,506	4,372	4,405	800	1,052	1,477	1,579
Kasaragod	5,099	5,104	3,971	3,811	581	673	4,311	4,471
Total	93,580	88,601	95,764	90,482	16,171	17,662	77,226	75,354

* Children below 5 years excluded

Source: CMFRI Marine Fisheries Census 2010 Part 2 Kerala

As per the data provided (Table 1) by CMFRI, 1784 males and 2704 females from the marine fishery communities had studied above higher secondary, that is 6% of the total literate population. Likewise 13,509 males and 12034 females (33%), and 15872 males and 15916 females (34%) of the total literates had completed their primary and higher secondary education respectively. But the data given here as educational status of the marine fishermen is the consolidated information of all the castes and communities engaged in marine fishery. Caste wise details of marine fishermen are not available in the official records and it is not possible to get a picture of educational status, occupational patterns, family types...etc.

Material and Methods

The present paper is based on an ongoing anthropological study as part of the National Research Award (2014-16) received by the author from University Grants Commission, New Delhi in 2015. The study is conducting among the Hindu Mukkuvar, a fisherman caste distributed in the coastal belt of Kerala and Mahe. Hindu fishermen are categorized into various names such as Valan (traditional occupation is Inland fishing), Arayar, Dheevara, Mukkuva ...etc according to regional distribution. Mukkuvas are mainly concentrated in the

coastal line between Kasargod (north of Kerala) and Kozhikode districts. Besides the clustered distribution of families in each fishing village, few families are residing in the urban areas and semi urban pockets. Families residing in the coastal belt are mainly engaged in traditional occupation of fishing, while for some persons fishing is a secondary source of income. Families living outside the coastal area are either employed in government/semi government or private institutions.

The information for the present paper was based on a survey of one hundred households of Hindu Mukkuva families using a survey schedule. The sample households were purposively selected from Madakkara, a fisheries village situated along the coastal belt of Kerala approximately 2kms away from NH-17 in Vatakara taluk of Kozhikode district. Village is spread over two wards (1st and 16th) of Onchiyam Gram Panchayat. The village has a total of 630 houses with 712 families. Among these, 89 households are landless or presently living as a joint family. Regarding the housing situation in the village, it is noted that 77.78 percent houses are pucca, 20.63 percent are semi-pucca and 1.59 percent houses are kachha houses. About 97.78 percent of the existing houses in the village have sanitary toilets. Safe drinking water is available to 80 percent of the existing houses. Most of the houses in the village (94.44%) are electrified. It is noted that 279 persons from the fisher folk community are insured with the Fisheries Board (Matsya Board). Regarding the community specific facilities, this village has no hospital facilities. The village has one LP School and three anganawadis. Two anganawadis are functioning in own buildings. About the fisheries specific infrastructure and facilities, it is noted that 74 country fishing boats are available in this fisheries village. The village has one fish landing centre. The village has a protected coastal length of 2 Km. Consumption of liquor and narcotic drugs are moderate in this village. (Source: Office of the Onchiyam Gram Panchayath).

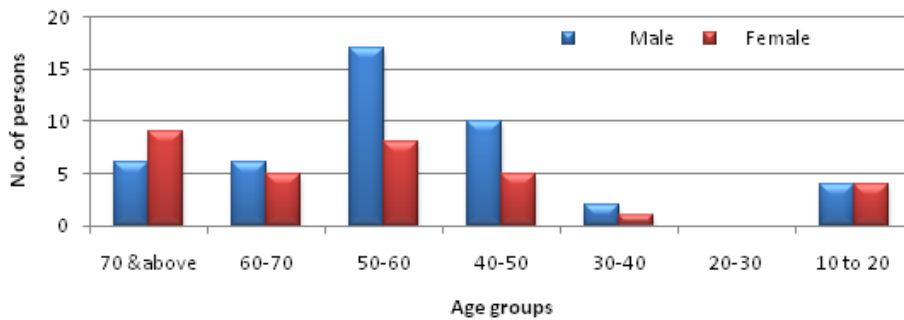
The household survey schedule consists of questions pertaining to basic information on age, sex, educational status, occupational status...etc. Personal interviews were also conducted with identified informants to collect the information on obstacles of getting educated, constraints in higher education and reasons for low aspirations in higher education. Questionnaires were also used to collect information on individual and group opinions.

Educational status of the sample population in Madakkara

Out of the total population of 570 people in hundred households, 495 persons between the age of 10-70 and 70 above are educated formally. There are less than 10 persons without formal education. The remaining numbers were children below the age of 10 years.

Educational status of male and female up to 4th standard (Fig.1) shows that there are still equal number of males and females in the age group of 10-20 who have studied only up to 4th standard. This was occurred mainly due to either disabilities or chronic illnesses acting as constraints to continue school education. Parents reported difficulty in pursuing the education of their disabled children as most of the special schools in the area are non- governmental ones collecting huge amount of money as school fees which a fisherman cannot afford with his low income from fishing. The age group of 20-30 in the sample population has no persons with the educational status of 4th standard which shows an improved status in the case of youth.

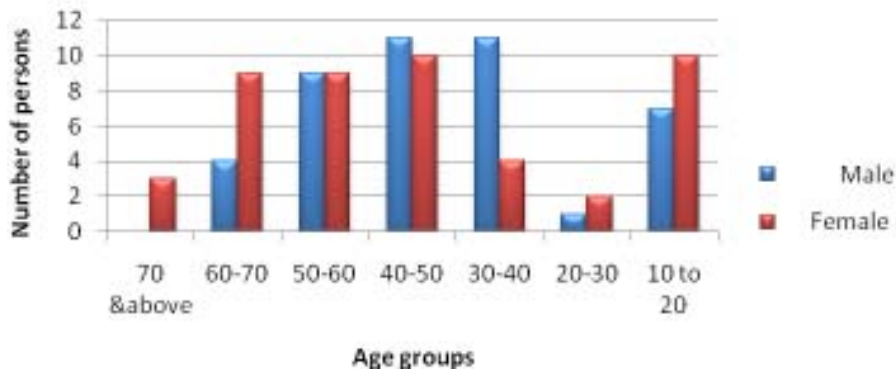
Fig. 1 Educational status of male & female upto 4th std



When educational status is compared on the basis of gender it is interesting to note that females in the age group of 70 and above are more in number than the males. But the numbers of women literates are less in all other age groups except the group of 10-20 where numbers are equal. Educational status of males and females up to 4th standard are maximum in the age group of 50-60 which shows the attitude of society towards education 60 years back. The male informants of this age group opined that they were compelled to stop their studies after 4th standard and forced to engage in traditional occupation as a financial support to large joint families.

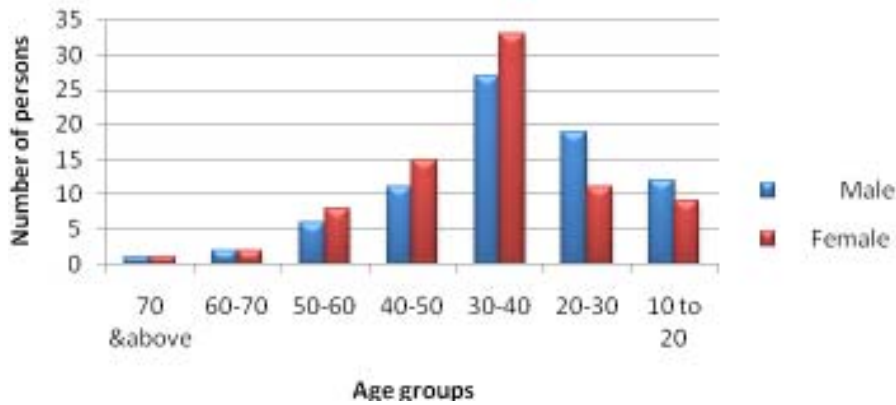
Educational status of males and females (Fig.2) up to 7th standard shows the enrolment of males and females in more or less similar numbers except in the age group of 70 and above where there is no male studied up to 7th standard. Apart from people studied up to 7th standard, the age group 10-20 also comprised of children presently studying in 7th standard. In the age group of 60-70, there is more number of women than men but when it comes to the age group of 50-60 the number is equal.

Fig. 2 Educational status of male & female upto 7th std



The improvement in women’s educational status is clear here when compared to Fig.1. Age group 20-30 also supports this situation. Women informants opined that earlier i.e some forty years back, they were not permitted to go to school at the onset of puberty and forced to stop their studies after completing 7th standard. Girls from well to do fisherman families were given support by the parents to pursue their education but it was depended on the interest of the learner.

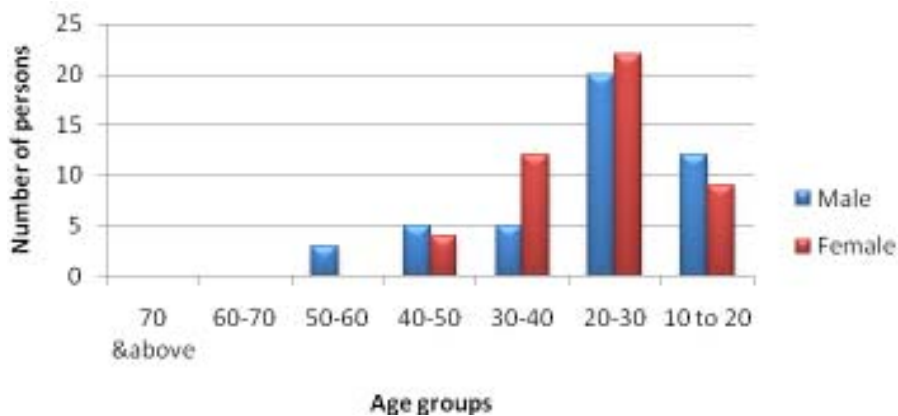
Fig. 2 Educational status of male & female upto SSLC



Regarding the educational status up to SSLC (Fig.3), it is interesting to note that status is same for both males and females in the age groups of 60-70 and 70 above. However, the educational status of both male and female is found increasing from the age group of 70 up to the age group of 30-40 and from there it is found decreasing up to the age group of 10-20. 31% of the total

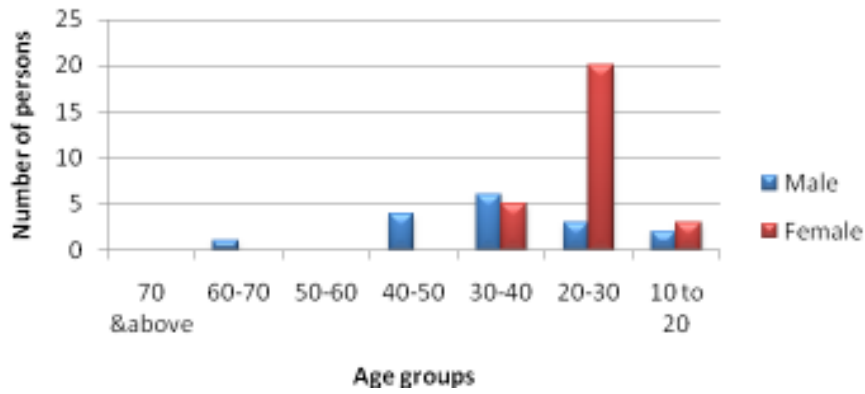
literate covered in the survey have studied up to SSLC and women are more in number between the ages of 30-60. The decrease in educational status of females in the age group of 30-10 substantiate the fact that for the last 25 to 30 years the population of women is found comparatively decreased as evident in the household survey. The persons both male and female studied up to SSLC in the age group of 60-70 are all first generation learners.

Fig. 4 Educational status of male & female upto Pre-degree/+2



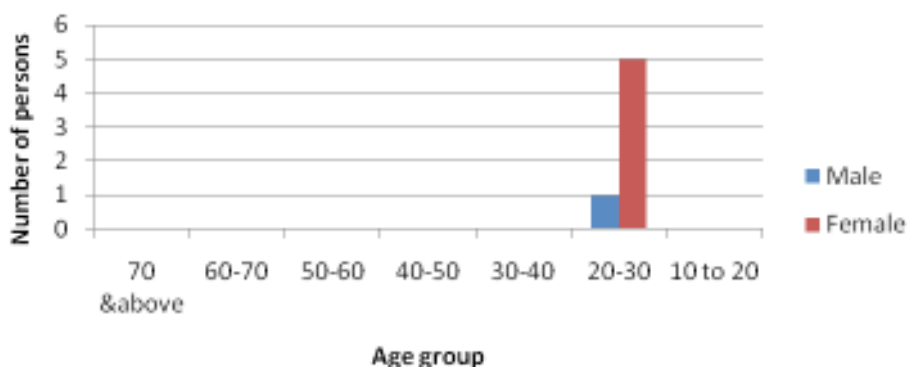
Status of education up to Pre-degree or higher secondary level (Fig.4) shows that there are no females in the age group of 50-60 who have studied up to Pre-Degree. When coming to the younger generation numbers of females are higher when compared to males. Only 19% of the total literates in the survey have studied up to Pre-degree/ higher secondary of which 10% are females. It is also interesting to note that females studied up to Pre-Degree or higher secondary have shown continuity in education according to support from the family. Females studied up to SSLC and have no interest in pursuing education were got married depending on the economic condition of the family. A comparative account of the educational level and employment status of the surveyed population shows that males studied up to pre degree and above the age group of 30 is either employed in private shops or running micro enterprises near their places. For them fishing is only a secondary activity as and when there is sufficient catch. A few of the male persons with higher secondary level education are also employed in Gulf countries.

Fig. 5 Educational status of male & female upto graduation



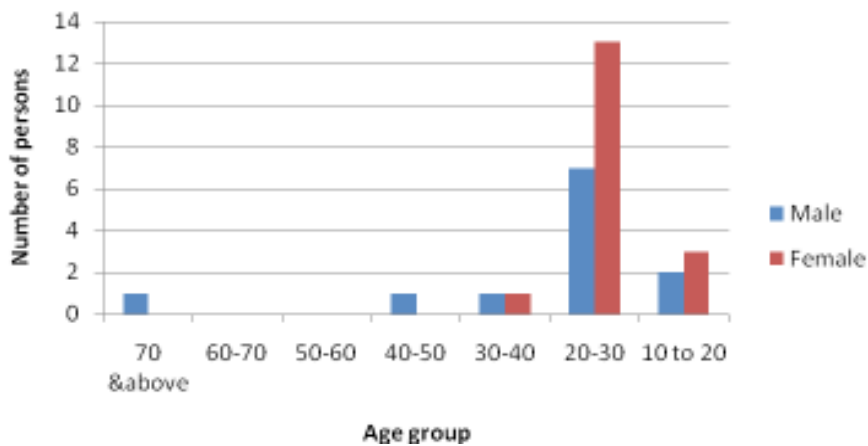
Educational level of people in the surveyed population shows a different situation when it comes to graduation level. Age group of 20-30 has maximum number of female graduates while male graduates are comparatively less. Most of the males in the present generation after completing Pre-Degree are not interested to pursue higher education if there is no compulsion from the part of family. They are turning to their traditional occupation of fishing without waiting for a second choice. Male members of 20-30 age group opined that no capital is required for working as a fisherman but it is difficult for them to spend large amount for continuing their higher studies and getting a job outside. During lean periods it is hard time for the fishermen to afford additional expenses and in taking a decision regarding education most of the parents' do not intervene in the choice of their male children.

Fig. 6 Educational status of male & female at Post Graduation level



The same situation is found repeating in the case of Post Graduation level. In the whole sample population of 570 people in 100 households, there is no male person in any of the age groups except 20-30 completed or doing post graduation. More over females in the age group of 20-30 are more in number when compared to males. Educational background of the parents also plays a significant role in deciding the educational aspirations of their children. In the case of fishermen, if parents are economically well off to support the financial requirements of their children in education, it is a hidden motivation for the children to continue with their studies. When look into the familial status of the girls who are doing/completed post graduation it is interesting to note that they are either single girl or has brothers working outside the fisheries sector. In the case of educationally marginalized parents, they have little control over the material assets and resources available to them which in turn isolate them from social relationships outside the caste. This isolation denies their access to all sources of knowledge including education. However some of the illiterate parents encourage the education of their children devoid of their social and economic stigmas.

Fig. 7 Status of professional degree/diploma holders



In the age group of 20-30, the number of females completed professional courses is more than males, but when compared to the total literates in the sample population the number is very less. There are few males in the age group of 70 completed professional courses such as TTC (Teacher’s Training Course). Individuals in the age group of 20-30 with professional certificates have completed lab technician courses, computer courses, and nursing diplomas. In the sample population, between the ages 40-70 there is no female with professional

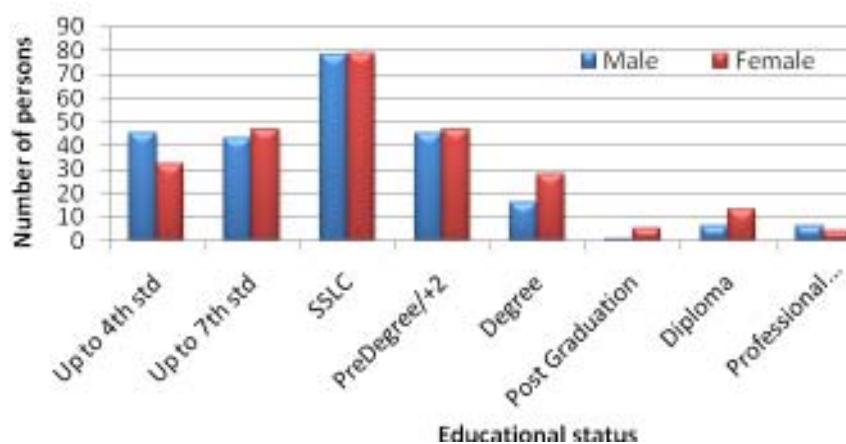
qualifications. This clearly shows the withdrawal of women from employment oriented courses. Elderly women informants opined that they were restricted from getting educated after a certain age due to traditional norms in the society along with economic problems.

Discussion

A comparative overview of educational status among the males and females shows that the rate of literacy increases from 4th standard to SSLC. About 32% of the total literates covered in the sample have studied up to SSLC. People studied up to pre degree or higher secondary are only nineteen percentage of the literate sample.

According to the informants, education was a difficult matter to the fishermen from the point of view of their socio-cultural back ground and uncertain economy. Traditionally both males and females were not supported by the family to pursue their education after attaining fifteen years of age. Girls were supposed to get married and boys were sending to their traditional occupation. The necessity of education is not at all a concern to the elders.

Fig. 8 Comparative figure of educational status-Male & Female



Poor economy was the main reason coupled with tradition bound customs and practices. Children of those fishermen with own fishing vessels, gears and nets were economically equipped and sent to schools as per their wish. Others have shifted to their traditional occupation to two ends meet the requirements of the joint households. Girls at the age of 13-15 were given marriage and they are taking responsibility of the family at a very early stage of life.

Demography also has some influence on the educational status of the family.

In the previous generations there were many children to each couple from five to twelve. During those days man power was an indispensable element in carrying out fishing operations and the couples never adopted any kind of family planning methods as a support to their economic activity. Now the situation has changed and the joint family system among the Mukkuva fishermen has almost disappeared paved way to nuclear families. Earlier the number of earning members in a family constituted 60% of the family members exempting children below fifteen years, disabled, women and the aged. Availability of resources was more fifty years ago which can afford any number of people and fishermen were not dissatisfied with their work.

Fifty years back, economy, societal norms and notions of gender (based on division of labour) were identified as stumbling blocks in pursuing higher education among the Mukkuvas. Now the role of economy retained and gender differences reduced significantly even though not changed completely. In an indefinite and unstable economic condition spending money for girl's education is still a doubt before the parents as they have to spend again for her marriage. More over as per the customary law of the caste, after marriage a girl is the property of her husband's family and the parents have no hold over her. So parents do not have interest in making liabilities over a movable property. Even though the present policy concerns women along with marginalized, deprived and economically handicapped societies this notion has not changed in many of the societies. With the introduction of educational loans from banking sectors the situation is found changing in the case of girls. Once a student availed educational loan, repayment of the same will become her responsibility and after marriage the liability also moves along with her. Even though she is not getting married, she will try for a job without sitting idle at home.

Earlier, stagnation was a major problem identified among the boys. The school going boys in economically unstable families used to spend their time for small scale fish selling and also helping their fathers in other activities related to traditional occupation. Since day to day survival is a major problem, the parents are also not compelling the child to put more time on learning which finally resulted in stagnation and dropout. These two factors (stagnation and dropout) along with failure to transit successfully from each level (Lower Primary to Upper Primary, Upper Primary to High School and High School to Higher Secondary) also resulted in discontinuation.

In the sample of 570 people in 100 households, there is only less than 10 persons employed in government and semi government organizations. This is a disappointing situation from the point of view of younger generation to pursue their higher education. Non availability of jobs and problems of job securities

has created a dissatisfying attitude among the youth towards higher education. Today in nuclear families, it is less difficult for the parents to bring their children as each family has independent earnings and profits. However the children are not coming up in the field of education. Even though Nationalized and private banks are offering educational loans to students to pursue their higher education, it is understood that most of the students and their parents are not ready to avail these facilities due to their indefinite situation of fishing economy. They also fear about the doubling interest rates if the loan is not properly repaid. The fishermen once in debt will always be in debt in the absence of non-availability of resources for minimum survival. Proper governmental interventions in the form of policy decisions and policy implementations are mandatory to bring forth the capabilities of a population in educational sector. The directives of State initiatives must be to increase fishermen's earnings through improved technologies and productive capacity oriented development measures then only they will be able to impart education to the future generation.

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Educational Empowerment of Muslim Girls: Some Reflections in the Context of West Bengal

*Mohammad Shaheer Siddiqui**

Abstract

Women in Muslim society of traditional Bengal used to live in a much closed social environment under many socio-cultural restrictions. They observed strict seclusion or the system of purda suffering from several social disabilities. It seems that the cause of their social seclusion is also inspired by many traditional Persian texts and prejudices apart from religious restrictions. Educational empowerment of Muslim women in Bengal has a long background of struggle and strife which continues even today. It has been considered that the Muslim women are the most deprived segment of the country's population. Unfortunately for various reasons, the gender disparity is very much conspicuous in Muslim society. The marginalized status of Muslim women is not well documented. Moreover, the problems faced by the Muslim girls in Bengali Muslim society is of complex nature as the causes are deeply rooted into historical, cultural, situational and an amalgamation of all these three contributing factors because of which there is no specific reason behind their problems, discrimination, unequal status and treatment in the given society. This paper is an attempt to reflect some issues related to the educational status of Muslim women in present scenario exploring their traditional, cultural and religious aspects.

Key Words: Aspirations of Muslim girls, Educational Status, Women and Islam, Madrasa Institutions, Enrollment in Schools

Introduction

“The extremists are afraid of books and pens; the power of education frightens them. They are afraid of women.” –Malala Yousafzai

Since empowerment of women is the burning issue of the day and pining for that is another enigma as to whom and where to knock at? I would like to express my observations on the theme by a Sufi anecdote:

Shibli, a renowned Sufi Master, was asked, “Who guided you in the path of Sufism?”

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Siddiqui

He replied, "A dog. One day I saw him, almost dead with thirst, standing by the water's edge."

'Every time he looked his reflections in the water he was frightened, and withdrew, because he thought it was another dog.'

'Finally such was his necessity, he cast away fear and leapt into the water' at which the other dog was vanished.

'The dog found that the obstacle which was himself, the barrier between him and what he sought melted away.'

Shibli explained, "In this same way my own obstacle vanished, when I knew that it was what I took to be my own self. And my Way was first shown to me by the behavior of ---a dog."¹

The epistemology of dog's behavior addresses the present problem of women empowerment. It is only the fear of own ignorance that creates barrier in the freedom and flight of thought. Education is the best vital force that eliminates all the fear and one realizes one's real identity and unique existence. Women empowerment through education is the best way to salvation from seclusion in all the spheres of social, economic, political and religious life.

Women compose half of the population and without their development irrespective of caste, creed or religion, the progress and socio-economic prosperity of the nation is unconceivable. In a vast country like India, in spite of large diversities in local culture, creed, religion custom and costumes, the basic issues of security, dignity and empowerment of women are same in almost all the states. The difference only lies in extent of problem and addressing its seriousness in the context of state specific socio-political and economic conditions. In West Bengal, despite rapid progress in literacy status² of the state as a whole during last decade, the status of Muslim women is still yearning for its identity and finding their position in mainstream of development which is yet far away. First and foremost problem is encountered at the level of data availability. Sufficient information about the socio-economic and educational status of Muslim women is missing in spite of much emphasis on the need of a data bank on the status of Muslim minority after Sachchar Committee. Of late U-DISE-in collaboration with NUEPA has started collecting data on Muslim boys and girls in school.

This paper presents certain observations on the progress and plight of Muslim Girls and their education in the light of empirical data collected from different secondary sources and independent studies done earlier by researchers. The paper also highlights some cases of Muslim ghettos of Kolkata for having a glimpse of the aspirations of Muslim girls.

Muslim Girls Education in Bengal: From Prejudices to Practices

In traditional Bengal women in Muslim society used to live in a much closed social environment and were mostly confined to homes observing many social restrictions with regards to the pattern of behavior and activities. They observed strict seclusion or the system of *purdah* suffering from several social disabilities. In the society unilateral form of divorce and polygamy were prevalent and the girls were predominantly married at a very premature age immediately after puberty. In the sphere of educational attainment of the Muslim girls, it had been a severe problem in the nineteenth century. The Muslim women were ignorant, illiterate and confined in their homes mostly living in isolation due to strict rules of *purdah* seclusion. Due to various reasons viz., routine of excessive work, avoidance, neglect, mental torture and separation or divorce even in casual matters, the position of Muslim women in the society was exploitative in nature instead of equality and justice. The birth of a girl child in the family was looked upon as a very unfortunate and unpleasant incident and females were not allowed to convey their opinion in matters of family and other social dealings.³

The widespread backwardness and aversion for women education is not the composition of one quarter of a day rather it has a long epic of prejudices and preconceived opinions due to political upheaval and insecurity scenario for women outside home as reflected in classical text of Persian by many poets and prose writers. Even great scholars could not dare to come out of this havoc created by prejudiced thinking. It took many years until women themselves came forward for their rights of education.

The discussion would be incomplete without mentioning the name of Sir Syed Ahmad, the precursor of the reforming Muslim community in India by opening *Madrasa-al-uloom* which later came to be known as MAO College in 1875 and Aligarh Muslim University in 1920. The influence of his mother Azizunnissa Begum, in shaping his moral and intellectual thinking by instructing through the tales of *Gulistan* and *Bustan* of Sadi, meant a great deal to Sir Syed, 'who went on to become the greatest educational reformer among Indian Muslims in the late nineteenth century.'⁴ "There is no doubt" he said, "that a good mother is better than a thousand teachers' seeming to echo a maxim of Victorian pedagogy."⁵ Despite the influence of his mother on his early life Sir Syed realized no need for women's education other than home learning. He opposed starting schools for girls, and in a version of a trickle-down theory, preferred instead to emphasize the education of boys at Aligarh. On 'the question of female education' he stated in Indian Education Commission in 1882:

"Those who hold that women should be educated and civilized prior to men are greatly mistaken. The fact is that no satisfactory education can be

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*provided for Muhammadan females until a large number of Muhammadan males receive a sound education.”*⁶

The influence of contemporary literature in forming the attitude of Islamic scholars towards women education is significant to observe. It was considered dangerous if a woman learnt how to write and read. Also, if a woman had power over the written word, their capacity to disrupt men's life would be increased. *QabusNama*, A Persian didactic prose of eleventh century advises:

*“If you have a daughter...when she grows up, entrust her to a preceptor so that she shall learn the provisions of the sacred law and the essential religious duties. But do not teach her to read and write;that is a great calamity.”*⁷

A similar message was conveyed in another ethical work, the *Akhlaq-e-Nasiri* written by KhwajaNasiruddinTusi in thirteen century. This was most widely read works in the Persian curriculum in India before the introduction of English education. The influence of the misogyny of these classic texts should be underestimated because they formed and framed the mind sets of Indian Muslim scholars who designed curriculum ignoring the inclusion of women education.

In the 19th century when in England women were creating history in literary genres by composing Novels, and Poetry, it was exceptionally rare to find a Muslim woman in India who knew how to write. The taboo on writing was based on the anxiety that ‘if a girl knew how to write, she might write letters to forbidden persons-defined as any man, related or stranger, who might be an eligible marriage partner-and thereby violate the rules of purdah and damage family honor’⁸

Azizunnisa, the mother of Sir Sayyid was exceptional example in achieving basic literary and religious education due to her father. It was not common for all Muslim women. The story of the Mother of Munshi Zakaullah of Delhi, a younger contemporary of Sir Sayyid, is a typical illustration. His mother married to a family that had served for generations as tutors to the Mughal princes and yet she was totally illiterate herself. She was however a women of self-discipline and great compassion having great reverence for learning. On an occasion when the family was in straitened circumstances she sold her jewelry to purchase school books for her son's education.⁹

There were other exceptions of women who got the education as they belonged to royal families like Begums of Bhopal, Sikandar Begum (1819-68), Shah Jahan Begum (1838-1901) and Sultan Jahan Begum (1858-1930), who belonged to a dynasty that produced no male heirs for three generations so women ruled this central Indian State and princesses of the house of Bhopal were educated. The Begums of Bhopal were also great patrons of education for girls, in their state and elsewhere.¹⁰ Begum of Bhopal has also played very

special role in the emergence of Muslim Girls Education in Bengal by supporting morally and financially to Begum Rukayyia Sakhawat Ali, the iconic figure in taking initial efforts and successful achievement to establish the school in Bengal for the education of Muslim Girls.

Muslim Girls' School in Bengal

By the end of 19th century Urdu had become the *lingua franca* of Indian Muslims. Rokaiyya Sakhawat Husain was the first woman who initiated the efforts for Muslim Girls' Education in Bengal. She belonged to a Zamindar family in Rangpur District of North Bengal. Her father Zahiruddin Muhammad Abu Ali Saber, who himself spoke Arabic, Persian, Urdu and little English languages, had inclination for educating their sons only. Both the sons were sent to reputed St. Xavier's College in Calcutta but he realized no need to provide education to their two *pardah*-observing daughters, who were equally eager to learn by a natural expectation belonging to a highly literate family.

Rokeya's elder sister, Karimunnisa, learned Bengali from her brother, but once she was reading book her relative caught her and criticized in the family at this 'undesired' act. As a result she was married at a young age. Rokeya was also an avid reader but she continued it secretly at night when all slept with the help of her elder brother Ibrahim who also helped arrange Rokeya's marriage to one of his friends Sayyid Sakhawat Husain, a civil servant posted at Bhagalpur, Bihar. He was highly educated and a firm supporter of woman education. He fascinated by Rokeya's literacy, what she obtained by her own efforts, secretly and encouraged her talent. Rokeya, at Bhagalpur had to live among Urdu speaking family so learned Urdu too. She maintained her Bengali by writing letters to her sister. She observed *pardah* but encouraged by her husband to mix with the educated Hindu and Christian women of the town. She started writing and published her initial articles during 1930-34 in Bengali Women's Magazines in Calcutta, on subjects relating to the status and aspirations of women.

In 1905 Rokeya composed 'Sultana's Dream', a feminist utopian fantasy, at home when her husband went on an official tour. On his returning she showed it to him. He admired the book and urged her to publish it. It appeared in English, in the 'Indian Ladies' Magazine¹¹ 'A remarkable work, 'Sultana's Dream' is a short story that relates a vision of a society, 'Lady land', in which women rule and men are kept in '*mardana*' (as opposed to '*zenanas*') out of sight because of their unreliability and quarrelsomeness. 'Lady land' is egalitarian, the street are flower gardens, cooking is done by concentrated solar heat, which also permits the society to defend itself-a discovery achieved by the scientific experiments of educated women. Transport is by flying machine, the fields are

cultivated by means of electricity, and the religion is one of Truth and Love. Sultana is taken on a tour of Lady land by a female guide who urges her to get over her feelings of awkwardness at walking about unveiled. She is taken to visit Queen and also shown universities, laboratories and observatories. She then gets in the 'air-car' to return, at which point, she awakes.'¹²

Rokeya's husband, a diabetic, lost her eyesight in 1907. In 1909 he urged his wife to start a school for girls in Bhagalpur and gave her in addition to her *meher* Rs. 10,000 for the school. Rokeya started a small school by this money. Her husband was no more to encourage and support her in person. She had to face extreme opposition by the local people and compelled to leave Bhagalpur. She moved to Calcutta where her mother and her sister were living. The historical year of 1911 is known for two reasons in Indian history, one for the transfer of capital of India from Calcutta to Delhi and second for the establishment of first school for the education of Muslim girls by Rokeya Sakhawat Husain. She also had to face financial crises due to the failure of bank in which she had deposited her inheritance money. But she was supported in her noble cause by the government servants, legal practitioners and a great deal of support came from the Begum of Bhopal.¹³

The Sakhawat Memorial Girls' School started with eight students. Rokeya had no experience of teaching so she visited many other girls' school and *BrahmoSamaj* in Calcutta to get first-hand experience of administration. By 1914 the enrollment increased to 40. The fruit of her selfless efforts resulted in awakening for Girls' education which was evident by the presence of 150 Muslim women as well as Hindu and Parsi women in the annual assembly of the school. Begum Sakhawat Husain read the annual report in English and gave an eloquent speech in Urdu.

Rokeya also realized the problem of Muslim Girls who observed purdah, in coming to school. She arranged two horse drawn carriage for transport to carry girls from different parts of city. In the late 1920 the school acquired a bus to transport its purdah observing students. Her own nephew called it 'a moving black hole of Calcutta.' By 1930 the school had become a highschool with regular secondary school curriculum including training of basic household skills as cooking, sewing, child care and gardening. In addition vocational skills and physical education were kept the part of curriculum.¹⁴ Rokeya's book '*Sultana's Dream*' occupies the same place as Rousseau's *Emile* in conceiving, perceiving and designing a desired education system for the needy.

Another Muslim women educator in Bengal was Khujistra Akhtar Banu Suhrawariya (1874-1919) who belonged to reputed and culturally prominent Suhrawardiya family of Midnapur and Calcutta. She was a scholar of Persian,

English and Urdu. She was awarded honorary degree in Persian by Calcutta University. Her father Maulana Ubaidullah Suhrawardi was the first principal of Dhaka Madrasa. She translated many English novels into Urdu. She also established two primary schools for girls and remained the source of inspiration for Girls in the matters of education. Her niece, Begum Shaista Suhrawardy Ikramullah (1915-2000) too was an illustrious name. She was politically active and popularly known for her works '*From Purdah to Parliament*' and '*Behind the Veil*' which talk about the life in *zenana*¹⁵. Apart from Rokeya there were other women writers like Khairunnesa Khatun, Masuda Rahman (1885-1926), Fatema Khanam (1894-1957), Nurunnisa Khatun (1894-1975), Akhtar Mahal Syeda Khatun (1901-1928), who worked and expressed their thought for the cause of Muslim women education. The major periodicals where Muslim women actively expressed their thoughts were *Nabanoor*, *Nabaprabha*, *Mahila Saogat*, etc. Bengali, the "modern vernacular" became the medium of most of the Bengali Muslim '*bhadramahila*' though they occasionally wrote in English too. Shamsunnahar Mahmud (1908-1964) and Sufia Kamal (1911-1999) are other women activists who have contributed significantly in the field of women emancipation¹⁶.

Although Bengali Muslims adhere to basic principles of Islam yet at the same time share the local traditions of Bengal. There is no conflict between the two spheres, although both the boundaries are sharply defined by their respective ideology and practice. Bengali Muslims share little traditions of Bengal i.e. the Bengali culture, which is common to both Hindus and Muslims of this region. But unfortunately due to lack of research studies we do not know much about the social matrix and cultural dynamics of the Bengali Muslims¹⁷ Astonishingly, Bengal has an exclusive culture that molded each gush of wind according to its own bellows. At last only Bengali culture prevails by amalgamating all cultural transmigrations since centuries.

Education, Muslim Women and Islam

The social and cultural life of the Muslims, living in various parts of the country, display distinctive features, as they are influenced by both the Islamic as well as regional and local traditions. Muslims are the members of Islamic community (*Umma*) out of common belief and faith. But it is not concerned of everyday practical life, where they interact with the local cultures. Therefore, curiosity arises in many quarters to know the nature and character of this community with special reference to their society and culture.¹⁸

The most propoganded picture of a Muslim woman is the stereotype of a woman hidden behind a veil, a voiceless, silent figure, bereft of rights. It is a common picture familiar to all of us because of the misconceptions, prejudiced

thinking and media made portraiture. However, Islam raised the first voice to protect human rights of women in the world with such integrity, strength, strategic genius, beauty and divinity, by freeing it from the chains of prejudice, manipulations, personal and social injustice. Women in general is the victim of 'the attitude of masculine supremacy' not the religious bondages. This attitude not only concealed the reality of women rights in Islam but also in Indian culture. A big number of male dominated concepts was imposed upon women in the name of religion. In fact Islam broke the conservative bondages and freed the women from the fetters of ignorance and assigned their the role of transforming the generations for higher achievements. Problems of the development of Muslim Women concern more with our socio-economic and cultural structure than religion.

In Indian context Muslim women have to face three fold problems; firstly, she shares all the problems belonging to a common group of woman in the Indian society and secondly, due to her religious identity as a member of educationally backward national minority and thirdly, because of the attitude of her own community towards woman due to massive ignorance about the rights given by Indian constitutions and by her own religion. First two depend on the socio-political conditions and the effectiveness of law and order situation in the state but third cause is more important as far as their mental, emotional and intellectual development is concerned. Most of the time, they are kept silent in the matters of religion. They are rather driven by the attitudes of male members more than the attributes of religious autonomy.

The dignity of women is best described in Islam which appeared on the land of Arab with the acceptance of the religion first by a woman herself as founder member, Hazrat Khadija. No doubt she was the first believer whom Prophet S.A.W. taught the teachings of Islam and she helped the Prophet through her untiring cooperation to spread the religion. Thus Islam initiated itself with the dignity and piousness of a woman who spent all her life and wealth for that religion which freed and protected the women from contemporary brutality and uncivilized treatment in the name of tradition. How one can believe that Islam, which itself was protected first by a woman, keep woman into fetters?

Although the rights and responsibilities of a woman are equal to those of the men but they are not necessarily identical with them.

"The Quran repeatedly expresses the need for treating men and women with equality. The contribution of women is acknowledged in the history of Islam. It is now argued that women's place in the religion of Islam has been suppressed by the conservative and fundamentalist forces. Women's passivity, seclusion, and marginal position that noticed in Muslim society have little

to do with Islamic ideology, but are, on the contrary patriarchal ideological construct that can be considered alien to Islam and the effect of exploitation of power by the authoritative and reactionary forces in the Muslim society.”¹⁹

There were a good number of women scholars during the time of Prophet Muhammad S.A.W. as well as in later period. Hazrat Aisha, the holy wife of the Prophet, is said to have taught 88 scholars. She was a scholar of the scholars. Hazrat Safiya, was an expert of Fiqh. Hazrat Fatima-bint-Qais, Hazrat Umme Salim, Saeed Nafisa, Umme-A.Darda are some examples of learned women during the time of the Prophet.²⁰ One incident in the court of Hazrat Umar beautifully expresses the freedom and daring of women due to the power of learning:

‘Hazrat Omar Farooq, the second Caliph of Islam, once declared his policy in an assembly of men and women that ‘the people are not supposed to set excessive amounts of dower (*Meher*) at the time of marriage. If anyone sets more than 400 *Dirham* (as it was the highest during the time of Prophet S.A.W.) the successive amount would be taken to the royal treasury.’ A woman named Qansagot up and sought permission to put her viewpoint with humbleness. Omar allowed and she said, “Omar, you have no right to intervene in a matter which Allah the All-Mighty has already decreed in Quran: (she quoted the following verse then)

“But if you intend to replace a wife by another and you have given one of them a Qintar (of gold, i.e., a great amount as Mahr bridal money), take not the least bit of it back; would you take it wrongfully without a right and (with) a manifest sin?”²¹

After being reminded of this Verse, Omar withdrew his order, saying, “Omar is in the wrong decision and the woman is correct.” He also added, “When such learned women are present in the time of Omar, he should not worry about the Kingdom.”²²

Education in the State: Some Observations

Muslim girls are being well acquainted in the area of educational attainments by their performance in Secondary and Higher Secondary results, Madrasa enrolment and positions in merit list during last few years. In spite of increasing enrolment in primary and upper primary levels they show a significant decline in the enrolment at secondary level. In higher education the number of Muslim Girls is negligible both in enrolment and in profession as faculty.

Over the last two decades, the position of Muslim women particularly their social situation have come to the notice of the academicians, policy makers

and development authorities of India. It has been considered that the Muslim women are the most deprived segment of the country's population. The marginalized status of Muslim women is not well documented. Therefore, information on Muslim women, particularly on their social position, problems and prospects is very much needed. The Muslim women, as of other women as a class, are more undernourished, more under compensated for their labour and more underrepresented in formal decision-making bodies than men, as a class. The only measure in which women collectively come out 'ahead' is lifespan, due to natural capability of survival strength.²⁴ Table 1 shows the all India status of Muslim Women in higher education.

Table-1: Caste-Category Wise Percentage

Caste/ Category	Enrolment Students			Teaching Staff			Non-Teaching Staff		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
SC	12.45	12.51	12.47	7.81	6.52	7.28	12.30	13.46	12.62
ST	4.21	4.12	4.17	2.08	1.89	2.00	3.55	3.67	3.58
OBC	31.04	32.42	31.65	25.25	26.32	25.68	25.77	26.77	26.04
Muslim	4.35	4.61	4.47	3.41	2.70	3.12	3.68	2.35	3.31
Other Minority	1.76	2.51	2.09	2.51	5.19	3.60	2.24	4.26	2.80

Source: All India Survey on Higher Education (AISHE) 2011-12

There is a lack of sufficient data regarding position of women in Higher Education. In West Bengal it was found that the presence of Muslim women in the list of faculty is very rare in spite of almost equal number of female faculty in Calcutta University, Rabindra Bharati University, Jadavpur and Visva-Bharati University in West Bengal. Very few Muslim women were working as technical or clerical staff.

School Education

The scenario of school education provides a mixed picture. Much data are available on school education. Some observations have been noted. West Bengal has separate boards for secondary and higher secondary education. The West Bengal Board of Secondary Education (WBBSE) was established in 1951 and reconstituted in 1964, and the West Bengal Council of Higher Secondary Education (WBCHSE) was established in 1929 (reconstituted in 1962). Apart from the WBBSE there is another board, called, the West Bengal Board of Madrasah Education (WBBME), which follows the same syllabus as the WBBSE, except two subjects, namely, *Arabic Path* and *Islam Parichay*²⁴.

The enrolment at primary and secondary level is a good indicator of increasing number of Muslim girls in education as shown in Table 2. Over the years particularly after the implementation of RTE Act 2009 this change is visible. There are various reasons behind this change but the condition of girls' enrollment is critically poor after class VIII as is obvious from the Table 3. The major cause of increasing enrollment in primary and secondary levels is the availability of mid-day meal which is running in a very remarkable way in schools of West Bengal. Attraction towards Mid-Day Meal is due to poverty and concentration of Muslim population in rural areas where there is widespread unemployment and more children to feed. Education is an additional advantage along with food in schools at least one time to half of the family members.

Table-2: Percentage of Girls Participation by Caste/Religion in West Bengal

Category	Elementary	Secondary	Higher Sec.
Gen.	50.57	55.19	50.85
SC	49.10	51.32	46.71
ST	49.42	50.79	45.40
Muslim	51.59	60.32	54.22
OBC	50.32	54.15	48.75

Source: U-DISE 2014-15 NUEPA

Table-3: Percentage of Muslim Girls Enrollment to Total Enrollment in West Bengal

Gender	Primary	Upper	Primary	Secondary
Boys	34.20	28.23	22.85	19.68
Girls	34.70	33.11	29.95	24.05
Total	34.45	30.76	26.66	21.83

Source: U-DISE 2014-15 NUEPA

A study titled '*Primary Education in West Bengal and the Mid-day Meal Programme*' by Amartya Sen's Pratichi (India) Trust in 2004-05, which compared school attendance pre- and post-introduction of mid-day meals, discovered that the attendance of Muslim children had increased by 13.2 percent (attendance of scheduled tribes by as much as 19.9 per cent, scheduled caste by 12.6 per cent and rest of the Hindus by merely 3.8 per cent). Overall, attendance of girls has increased by 10.2 percent owing to the midday meal scheme.²⁶

Table-4: Average Annual Drop-Out Rate by Educational Level of Muslim Students

Category	Class I-II	Class III-V	Class VI-VIII	Class IX-X	Class XI-XII
Boys	2.23	8.43	4.21	20.27	8.94
Girls	-	2.36	0.62	24.64	8.96
Total	0.99	5.02	2.35	22.88	8.95

Source: U-DISE 2013-14 NUEPA

From Table 4 it is evident that the average rate of drop-out is high for Muslim girls at secondary level. After class VIII more than 24 percent girls withdraw from school annually. Drop-out rate at class IX is very high due to specific problems faced by girls. Most important is related to their socio-economic conditions and access to school due to security reasons. Schools are not available in nearby area and there are lack of infrastructure, transport and basic amenities which hamper the education of Muslim girls after class VIII. Another cause is absolute poverty which hamper education as RTE-2009 provides free education only up to class VIII and thereafter many parents withdraw their wards from school due to lack of financial resources.

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KGBVs-An important component of SSA, which “provides residential upper primary schools for girls from SC, ST, OBC and Muslim communities, KGBV is a targeted intervention for dropout and overage girls who had discontinued education or were vulnerable to the same. It has fixed provision for the minimum reservation of 75 percent for girls from SC/ST/OBC and minority communities, and for girls who live below the poverty line. [Government of India, Ministry of Human Resource Development (2013)] The Schools were primarily meant for increasing the participation of girls from marginalized sections of the society.

Table-5: Muslim Girls Enrollment in KGBVs

State	No. KGBV	Total Girls	Muslim Girls	% Muslim Girls
Assam	56	2900	1164	40.14
W. Bengal	92	7111	1559	21.92
U.P.	746	72730	5307	7.30
Bihar	529	42311	6371	13.47
All India	3573	349037	26164	7.50

Source: TSG, SSA (EdCIL) 2013 II National Evaluation of KGBV Govt. of India

Table 5 reveals that Muslim Girls' enrolment in KGBVs in West Bengal is also not satisfactory but it shows an increasing trend if compared with other states in previous years.

Girls Enrolment in Madrasa Institutions

Contrary to the general perception of the word *Madrasa* as an institute of religious teachings of Islam, as commonly understood for *Madrasa* in many parts of India, the Madrasa of West Bengal is open to all. Children from different social, economic and cultural backgrounds, disadvantaged, minority communities, land-less and children with disabilities or special needs, irrespective of gender are enrolled to these Madrasas. Any person irrespective of cast, creed and gender may be appointed as Teacher of the Madrasa (including Head of the institution), non-teaching staff and members of the Managing Committee. At present 17% students and 11% teaching and non-teaching staff of High Madrasa and significant numbers of the member of the Managing Committee are non-Muslims. In few Madrasas, Muslim students are minority.²⁶ The Madrasa Education system in Bengal had grown up and flourished with the foundation of the Calcutta Madrasah in 1780 by the British East India Company. In 1915, the new scheme of Madrasah Education was introduced by the initiatives of Moulana Abu Nasar Mohammad Waheed, I.E.S., the renowned educationist and administrator and the then Principal of Dacca Senior Madrasah. In 1994, the Board had been given the status of statutory autonomous body by passing the West Bengal Board of Madrasah Education Act 1994 (West Bengal Act, XXXIX of 1994) in the West Bengal State legislature.

At present, there are 614 recognized Madrasahs in West Bengal. Out of total recognized Madrasahs 57 are for girls, 554 are co-educational, 3 are for boys and 17 are running under Urdu medium. Approximate number of students in recognized Madrasahs are 4,47,017 (as on August 2010) No. of Boys: 1,82,784 i.e. 40.89% and No. of Girls: 2,64,233 i.e. 59.11%.²⁷ The salient feature of Madrasa institution is the highest number of Muslim Girls enrolled. Almost 60 percent of total students are Muslim Girls. Madrasahs are also in the jurisdiction of RTE-Act 2009 as they are government funded and running by a separate Board of the State Government and share the same curriculum of West Bengal Board of Secondary Education

Muslim Girls in Kendriya Vidyalayas

Kendriya Vidyalayas, fully funded by the central government and regulated by MHRD, provide opportunity of English medium education by CBSE even to financially weaker and socially marginalized section of the society following fully the provisions of RTE Act. There are 58 Kendriya Vidyalayas throughout the state. Following observation has been done regarding the enrolment of Muslim Girls in 42 KV's of the state.

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**Table-6: Enrollment of Muslim Girls in
Kendriya Vidyalayas in West Bengal**

Sr.	Name of Kendriya Vidyalaya	Total Students	Muslim Boys	Muslim Girls
1	Alipurduar	765	4	2
2	Baikunthpur	393	6	6
3	Bagdogra	1231	29	22
4	Bengdubi	1508	28	27
5	Binnaguri No. 1	871	32	19
6	Binnaguri No. 2	828	29	30
7	Cooch Behar	1007	20	10
8	Gandhi Nagar	390	2	3
9	Andal	494	25	14
10	Aradhpur	230	14	7
11	Khapril (Sukna)	1224	41	41
12	Raninagar	245	3	1
13	Sevoke Road	1341	24	8
14	Rambi	81	6	0
15	Adra	1144	55	25
16	Hashimpura	1151	28	26
17	Kalimpong	437	16	1
18	Asansol	1451	61	49
19	Ballugunge	2395	31	33
20	Bamangachi	1277	7	8
21	Barrackpore	2244	52	34
22	Birbhum	486	28	24
23	Bolpur	141	21	13
24	Command Hospital	1589	87	61
25	DakshinDinajpur	238	3	2
26	Dum Dum	1820	40	13
27	Fort William	1834	124	68
28	Garden Reach	1494	196	140

Table-6: Enrollment of Muslim Girls in Kendriya Vidyalayas in West Bengal (Contd.)

Sr.	Name of Kendriya Vidyalaya	Total Students	Muslim Boys	Muslim Girls
29	Haldia	1033	6	6
30	Ishapore No. 1	1421	31	15
31	Ishapore No. 2	1122	22	21
32	IIM Joka	1611	71	42
33	Kalaikunda No. 1	1246	54	31
34	Kalaikuna No. 2	2114	45	34
35	Kanchra Para No. 1	1049	8	6
36	Kanchra Para No. 2	525	34	13
37	Malada	563	30	27
38	Panagarh	1080	31	39
39	Raiganj	351	11	5
40	Salboni	522	19	0
41	Salt Lake No. 1	2246	44	27
42	Salua AFS	1315	35	25
	Total	44507	1453	978

Source: Kendriya Vidyalaya Sangathan. Regional Office Kolkata, November, 2015

On the basis of the data of Table 1 following observation is obtained-

1	Total No. of Students Enrolled	44507
2	Total No. of Muslim Boys	1453
3	Total No. of Muslim Girls	978
4	Percentage of Muslim Boys	3.26 %
5	Percentage of Muslim Girls	2.19 %

In west Bengal there are 58 Kendriya Vidyalayas but the data has been collected from 42 KVs due to non-availability of data on the concerned school's websites. In 42 schools out of a total 44507 students enrolled, Muslim boys and girls enrolled are only 1453 (3.26 %) and 978 (2.16%) respectively. It shows an extreme unbalancing situation. One school also shows zero enrolment of Muslim girls. There is a drastic need to search for the reasons of less enrolment of Muslim minorities in KVs particularly Muslim Girls, even among Muslim populated areas.

Aspirations and Yearning for Education

In spite of the monstrous shadow of poverty among the Muslims of most populated area of Kolkata popularly known as slum of *Narkeldanga*, the hope for the light of education as panacea for all the ailments can be seen and felt. In UNICEF case studies²⁸ real aspirations of the downtrodden and most destitute Muslims are revealed and even among the misery, the bellows of the betterment and obsession for education may be clearly felt by the string of heart. Some cases are referenced here for a glimpse of their aspirations-

Case: 1

Afrin is 15, an age when poor families worry not about their daughters' education but their marriage. But Shahida, her mother, is not even thinking on those lines. "Not till she passes her Class 10 exam," she says firmly. She has, in fact, got all her four of daughters enrolled into the Urdu medium Baitulmal Girls high school, a government-aided school at Narkeldanga. Afrin's father Anwar is a daily wage trolley rickshaw-puller. He has five children and the sixth one is on its way. They do lead a hand-to-mouth existence but the girls' education has not been sacrificed.

Case: 2

Shahida represents a new trend among the urban Muslim community in India. She says, "they are going to be mothers one day. If they are uneducated how will they teach their children? Besides, in today's world they, in all likelihood, would have to supplement their husbands' income. Hence, they should be equipped." The family earns about Rs 300-400 from counting the rubber washers every month and keeps it aside for the girls' private tuitions and stationary. The parents not only insist that the girls attend school but they must also do well.

Case: 3

Pinky comes from a relatively better economic background. Her father is a petty trader. But why did she start school so late? "Women are not allowed to go out of the house much. When Baa-ji (Shabana), who stays next door, started teaching in this school my father gave me permission to come." He also spent Rs 700 to get a new purdah and gown stitched for Pinky.

Case: 4

Jahana Begum sends four of her six children to SSK. When asked how long will they continue their studies, she says, "Till they can stand on their own feet... when my daughters become like Baa-ji (teacher)." Jahana echoes the hopes of most parents in the Muslim community—that even if they themselves never got an opportunity to study, their children must acquire enough formal education to live with self-respect and dignity.

It is obvious by above cases that the greatest enemy of the community is poverty and they have realized that it is education only which can uplift them from the adversities of days. Every night they sleep with a hope for a better sunrise full of light of happiness and good future for their children. The sea of change that has taken place in the mindset of this minority community would have been unimaginable five years back. Boys of poorer Muslim families start working when they are 10 years old but the girls are being educated, not so much to equip them to earn a living but to “open their eyes”. It has almost become a matter of family pride.

Education of Muslim Girls: Challenges

The extent of illiteracy among Muslim women in West Bengal is 61.07% compared to 47.04% among Hindu women according to Census 2001. There is no doubt that Muslim women are educationally backward and their work participation rate is low. However, this reality cannot be understood in a limited way. The scenario of higher education regarding the presence of Muslim women is very discouraging. This is due to very low transition rate of Muslim Children at school level. Transition rate refers to the number of students moving from one level to the next level out of the total pass out students and is expressed in terms of percentage.

Table-7: Transition Rate for Muslim Children

State	Year	Primary	U. Primary	Secondary
Wast Bengal	2001	50.3	26.0	11.9
	1948	14.6	7.5	3.5

Source: Sachchar Committee Report 2006

In West Bengal which has the highest concentration of the Muslim population, the transition of students from primary to upper primary and from upper primary to secondary stage is lowest. The National Sample Survey Organization Report 2007-2008 revealed that Muslim participation at various levels of school education is not only low, but as students transit from one level to another, number of students decline sharply (GOI, 2007-2008)²⁹. Some other studies mentioned the reasons for low transition rate of Muslim Children as erratic enrolment and irregular attendance, seasonal migration of children with parents, ill health, discrimination (GOI, 2011)³⁰, inadequate provision of schooling infra-structures and facilities and inappropriate school curriculum not supporting the needs of the children³¹

Dowry and child marriage among Muslim community particularly in rural areas is a curse for Muslim girls. Bargaining with the parents of girl in the name of dowry is very common scenario in marriages. In many cases parents

who have four or five daughters, become ready to marry her daughter to a stranger who provide them money and promises to keep their daughter safe and happy. Mostly parents of girls are misguided in the name of good life to their daughters and in most of the cases they become the victim of the girls' trafficking racket.

Many of the Muslim girls do not go to school. Due to lack of financial resources the family head is always trapped in debt. In such conditions he cannot bear the expenses of education. Fig.1 shows the individual side and social sides of such vicious circles. Low income hampers resource generation and family does not get food which affects the health of the members which further decreases individual efficiency to work lowering the productivity and income for his family rearing.

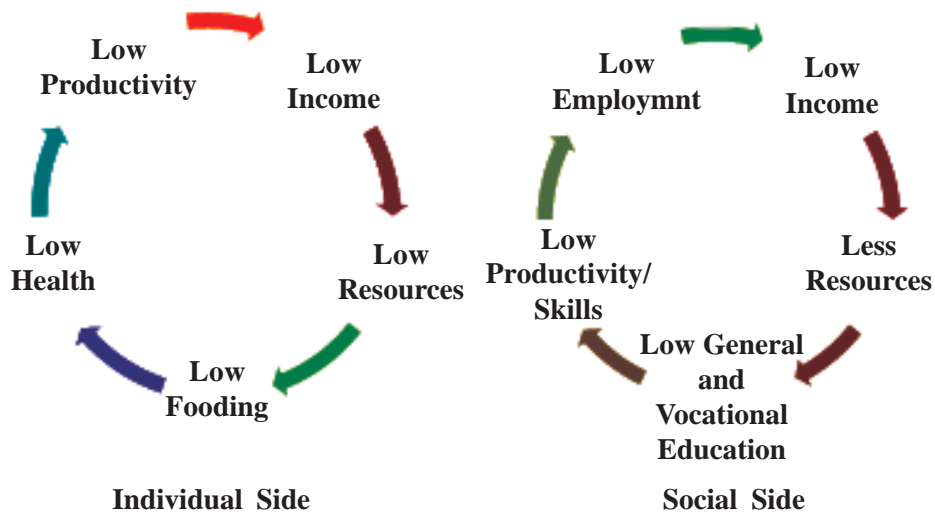


Fig.-1: Vicious Circle of Backwardness in Muslim Community

The vicious circle of poverty among Muslims is due to educational deprivation as a general rule. Children are unable to get proper education or any vocational training so they remained manual laborer or unskilled workers and are therefore exploited by their employers. The social side reveals that society and economy remain devoid of the use of manpower that could have been trained and converted into manpower by providing good education and training. So this is the social loss. The uneducated and unskilled people are just an addition to the population.

Poverty is the source of economic and educational deprivation in the community but the correlation between low level of educational status and productivity in the form unskilled workers not only hampers employment

expectations but also it reduces the access to government policies, programmes and schemes of loan, financial assistance and economic empowerment of weaker sections through various agencies.

Conclusion

In a society where all are treated equal in the eyes of law, women are deprived of them because of their ignorance and apathy towards awareness. They are guided and driven by family traditions rather than motivated by Islamic system of reasoning and quest for knowledge. Religion is not responsible in any way to keep them fettered rather it is the similar attitude of domination and autocratic tendency among the majority of men in all religions due to which women do not know more than they are told. Status of women in Islam and Muslim society is to some extent unique and in the interim controversial since the privileges and precedence endorsed for women in the holy Quran and the Hadith are remarkably momentous and high whereas it is, on the other hand, presently argued that such position of women in Islam has been veiled by the fundamentalist and conservative forces. A conservative patriarchal society left its deep imprint on the minds of traditional Islamic jurists. In Islamic arena there are no rigidity and conservatism. Islam emerged to liberate the mankind from the bondage of ignorance and it first liberated women so that she can liberate rest of the mankind from various types of ignorance. Moreover, the problems faced by the women in Bengal Muslim society is of complex nature as the causes are deeply rooted into historical, cultural, situational and an amalgamation of all these three contributing factors because of which there is no specific reason behind their problems, discrimination, unequal status and treatment in the given society. What needs to be done is more empirical research which is essentially required to understand the multifaceted strange troubles at the wider level. In West Bengal increasing enrolment in secondary education of Girls shows a positive effect of the efforts started long back for the education, RTE and other incentives by Government and private agencies. Muslim Girls aspirations for a better life through education and changing attitude of the parents towards girls and their education are the multiple rays of hope for the good and surely the Muslim Girls, by their willpower and wisdom, can cope up with all the challenges ahead.

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Education as Social Regeneration: Orchestration of Resemblance between Swami Vivekananda and Paulo Freire

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Abstract

Both Swami Vivekananda and Paulo Freire are evangelist, in the sense that they preached the gospel of liberation for humankind, especially for those who are down-trodden, socially and culturally marginalised. Both the educators observed that education as practice for self-consciousness and freedom must attempt to expand the capacities necessary for human being. The point of resemblance and proximity in the thought-process of both the educators remind us that Paulo Freire, as it were, had dipped his pen into the inkpot of Swami Vivekananda's educational prescriptions.

Key words: Education, Consciousness, regeneration, freedom,

Whenever anyone wants to venture into the oft-quoted literary discourse of 'renaissance', no matter whether it is socio-cultural or educational, it suggests 'regeneration', 'rebirth' or 'reawakening' that reminds us that the concept used to carry a transcendental pursuit towards self-seeking freedom and liberation. Both Swami Vivekananda (1863-1902), a most inspiring and unalloyed revivalist and Paulo Freire (1921-1997), one of the best known Brazilian educators of twentieth century, are evangelist, in the sense that they preached the gospel of liberation for humankind, especially for those who are down-trodden, socially and culturally marginalised. Paulo Freire (henceforth, Freire) appeared into existence nineteen years after the passing away of Swami Vivekananda (henceforth, Vivekananda). We have no concrete evidence whether Freire had ever heard or gone through Vivekananda's texts and discourses. But the point of resemblance and proximity in the thought-process of both the educators from the epistemological point of view remind us that Freire, as it were, had dipped his pen into the inkpot of Vivekananda's educational prescriptions.

Vivekananda thought about mass education, while Freire about adult education. Both of them wanted to seek remedy in a way by which the pedagogy of the oppressed could be transformed into pedagogy of praxis, liberation and ultimately dreams, as dream, we know, is an ontological desire. Vivekananda

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expressed his educational precept in colonized India; Freire disclosed his idea in education in Republica Federativa do Brazil as the civilian Government was restored in 1985. But the psychological premise of education during that period in both the countries (India and Brazil) remained the same. Now the question that strikes in our mind is that how the socio-political and socio-cultural dimension of colonization or pseudo-colonization impose a joke of “shadow mind” among the oppressed. Culture and language are the primary indicators of the liberation process. Silence is a prime indicator of oppression (Freire, 1985). Education helps to see the world not as a static reality, but as a reality in process, in transformation. Education is the only means by which one can see the inside as well as outside.

We are talking about philosophy of regeneration in the realm of society. Social philosophy, as we know is the study of questions about social behaviour and interpretations of society and social institutions in terms of ethical values rather than empirical relation. Rüstau (1999:266) observed that neither Rammohan Roy nor Ramakrishna Paramahansa developed a social philosophy in the sense of systematically philosophizing on social problems. This was properly achieved by Vivekananda, who rightly can be named as the first among Indian philosophers for whom social philosophy constituted an integral part of his philosophic system including his concept of philosophy of education. Vivekananda points out that the root of all evils in India is the condition of the poor.

The entire responsibility behind this wretched condition rests on three perspectives: age-old Hindu priesthood, foreign rulers, and Hindu aristocracy. As a result of these exploitations, the poor mass of India has forgotten that they are human beings (C.W.vol.IV, 1994:362). In addition, the oppressed are made to believe that they are born as slaves and the only solemn task in this respect for the revival of the poor masses is education, the only panacea, by which people would restore their lost individuality. Vivekananda observed that ignorance has made the people next-door neighbours to brutes and education is the only thing that is absolutely necessary to uplift this ‘sleeping leviathan’ to stand on their own feet. The upliftment of India is possible only by the two types of ‘food’- food for physical nourishment and food for mental nurture, i.e., education. Vivekananda believed that the great national sin is the neglect of the poor masses, and that is one of the causes of our downfall. No amount of politics would be of any avail until the masses in India are once more well-educated, well-fed and well-cared for (C.W.5:222-23). The same tone is orchestrated in Freire. His entire life was led to the discovery of what he describes as the “culture of silence” of the extremely dispossessed, specially his contribution to the education of illiterate adults in the Third World. Self-depreciation, according to Freire, is another characteristic of the oppressed, which derives from their internalization

of the opinion the oppressors hold on them. Internalization, as we know, is emerged from education. It is essential for the oppressed to realize that they are fighting not merely for freedom from hunger, but for freedom to create and construct, to wonder and to venture towards true knowledge. True knowledge, Freire contended, emerges only through restless, impatient, continuing, hopeful, critical inquiry with other people about their relations to the world. Therefore, according to him, instead of learners receiving, filling and storing curricular deposits made by educators, learners should be allowed to develop praxis, an inventive way of life that encourages free, creative reflection and thoughtful action in order to change the worldview (Encyclopedia of the social and cultural foundations of education, 2008). Vivekananda has emphatically asserted in this respect that education is not filling the mind with facts and information. Freire's philosophy begins from a deep respect for poor and oppressed people and a respect for their understanding of the world they inhabit (Darder, 2002). The benchmark that Freire used for evaluating experiences grew out of Christianized Marxist humanism (McLaren, 2000). Freire himself once said with vigour that he stayed with Marx in the worldliness, looking for Christ in the transcendental.

Vivekananda observed that education which does not help the common mass of people to equip themselves for struggle for life, which does not bring out strength of character, a spirit of philanthropy—is it worth the name? (C.W. VII, 147-48) So, the way to total liberation is life-building, man-making, character-making education. To Freire, the purpose of education is situated both for reproduction and transformation. Education can help the learners to understand the world they live in and can make them better prepared to transform it. In response, Freire proposed a new epistemological premise, i.e., emancipatory education. Emancipatory education is never a simple transmission of knowledge. Knowing does not mean accumulating information; knowing is constructing oneself as a subject in the world. What will be the methodology of this transmission? The act of knowing should involve a dialectical movement that goes from action to a new action. Vivekananda's assertion is that "education is not the amount of information that is put into your brain and runs riot there, undigested, all your life (C.W. III 302). Vivekananda once asserted that every nation, every man and woman must work out their own salvation. Give them ideas—that is the only help they require and then the rest must follow as the effect. Ours is to put the chemicals together, the crystallization comes in the law of nature (C.W. 4.362). Thus, Freire's idea of literacy went well beyond the subject's capacity to read words. Rather, the act of reading must be about the ability to 'read' the world. So far as Freire's proposal for an emancipatory education is concerned, there is a crucial anthropological claim within. He believed that men and women are producers of culture and, therefore, producers

of history. To him, human beings are uncompleted beings and thus have an 'ontological vocation' to become more fully human. Vivekananda reminded us much earlier that education is a journey from 'Being' to 'Becoming' as 'education is the manifestation of perfection, already in man. Education must be considered as a continuous and lifelong process. Like a humanist par excellence, Vivekananda has reminded us with concern to work with philanthropic seriousness for the well-being of the masses, irrespective of caste and creed, gender and religion.

According to Vivekananda, "you cannot teach a child any more than you can grow a plant... you can only take away obstructions" (C.W.v. 410), He mentioned that the true teacher is he who can immediately come down to the level of the student, and transfer his soul to the student's soul and see through the student's eyes and hear through his ears and understand through his mind. Such a teacher can really teach and none else (C.W. 4.183). While talking with Freire about the role of teacher, Horton (1990) observed: "The teacher is of course an artist, but being an artist does not mean that he or she can make the profile, can shape the students. What the educator should do in teaching is to make it possible for the students to become themselves" According to Freire, the teacher has authority but does not become an authoritarian. He intervenes for helping the learner reflect on aspects of his/her social, cultural and gender constructs and helps the learner to think critically. Both Vivekananda and Freire thought about education as a process of unveiling the truth. To Vivekananda, like fire in a piece of flint, knowledge exists in the mind; suggestion is the friction which brings it out (C.W. vol.1.28).

To Freire (1994), the educational practice as a progressive option will never be anything but an adventure in unveiling. It will always be an experiment in bringing out the truth. "We should reveal to learners how we think, why we think the way we do, our dreams, the dreams for which we will fight... we (should) respect their (learners) opinion, even when they are opposed to our own." (Freire 1998, P. 40).

The portrait of two persons, though belonging to different ages cannot be drawn only through theoretical paradigms. So far as culture and education is concerned, it is too deep to submit to a dry hypothesis without illuminating surmise with examples, inference with anecdote. Pedagogy is by definition directive, but that does not mean it is merely a form of indoctrination. Both Vivekananda and Freire observed that education as a practice for self-consciousness and freedom must attempt to expand the capacities necessary for human being. Both of them were cosmopolitan intellectuals who never overlooked the detailed narratives of everyday experience with the philosophical

and social gravity. Combining theoretical rigor, social relevance and ethical and moral compassion both of them offer a new meaning to education for social regeneration and upliftment. Education can be either for domestication or for liberation. Both start their journey from the same concrete reality but the process of domestication, it is assumed, takes them to pre-existing goals, i.e., known beforehand. The process of liberation, as we know, relies upon the praxis of collaboration and communication which is absolutely an on-growing process. Vivekananda construed that a child becomes cultured through education and his behaviour is built accordingly. He emphasized that a nation is advanced to the extent that education and culture reach to the masses. Unless there is uniform circulation of national blood all over the body, the nation cannot rise. He reminds us that it is the duty of the upper classes who receive education at the expense of the poor to come forward and uplift the poor through education (Letters of Swami Vivekananda, P. 255). Vivekananda believed that a person is the maker of his own destiny and proper education can only help him achieve this goal. Freire also laid emphasis on the sustainable development of education in the present scenario. It is true that the illiterates are at a clear disadvantage when they try to participate in either the world of thought or the world of work where decisions are made. “They are increasingly dependent on others and denied access to written cultures or to further education: above all, they are not able to make a full contribution to the life and work of any nation” (Fordham, 1983: 12). For Freire authentic education is always a “Practice of freedom” rather than an alienating inculcation of skills.

In a country such as ours, mass poverty, hunger, disease, ignorance, unemployment and a host of domesticating problems could only be eliminated if people were given the weapons—the weapons of empowering elements which incorporate consciousness arousal. Education, we know, brings consciousness and quickens the expected change. Freire often talked about ‘conscientization’ as a tool of social emancipation which may be defined as “the discovery of the self and the dignity of human person together with the realization that the person in cooperative association with other persons can humanize the world” (Coelho, 1995, p. 72). Vivekananda’s ideas approximated to Freire’s concept of ‘Conscientization’. The literal meaning of the word ‘Concientization’ is ‘to make aware’ or ‘awakening of consciousnesses’. The essence of consciousness is being with the world. Accordingly, consciousness is in essence a ‘way towards’ something apart from itself, outside itself. Thus, ‘conscientization’ is a critical phase, where reality becomes a knowledge object, where person takes on epistemological stance and tries to know the unveiled reality. According to Freire, the more a person conscientises oneself, the more s/he unveils reality.

Both Vivekananda and Freire belong to the ardent philosophers of humanism.

Humanism, as we know, posits faith in human capabilities to think critically, rationally and constructively about contemporary challenges that have been emerged from society. It is seeing reality through human lenses. It develops a framework for inquiry into the actual meaning of existence and the nature of our being. The core of Freirean educational philosophy is based on humanism which is the belief that liberation is only possible if people realize their ability to change and become active subjects of history, rather than as passive objects. For Vivekananda, freedom is an essential attribute of our existence. Hence the entire Universe from the smallest atoms to great souls is steadily proceeding towards the attainment of this freedom, inherent therein. It is the freedom that speaks his doctrine of the potential divinity of man and, through that, of the universe at large. Vivekananda's knowledge of India is based on his first-hand experiences acquired during his vast wanderings throughout the country. His experiences had made him a true lover of humanity and became endowed with the quality of Sarvabhuta hite ratah (being devoted to the welfare of all beings). Vivekananda's special contribution was to transform Vedanta from a theoretical-contemplative system to a "gloves-off philosophy". Vivekananda felt that humanity cannot rise unless Vedanta is realised in practice (vol. III, p. 193-94). He thus opened the ways for a transformation of the system into the conception of creative-constructive hypothesis as praxis. He also accepted the active, creative dimension of consciousness-of subjectivity. Now-a-days too many discussions are going on "praxis philosophers". This designation may very well be applied to both Vivekananda and Freire. Two points carefully have to be understood here. First, praxis is not equivalent to practice. It means the free, creative human activity. Thus, praxis includes the motions of freedom, self-choice and creativity. Secondly, praxis unlike practice generates new qualities and is thus revolutionary in form and nature. The practical man accepts the given social order as permanent and is forced to accept the conservative statusquo. The philosopher of praxis does not (Vazquez, 1976, p. 309).

Let us conclude with the notes of optimism: There is some chance if you can impart education to the masses. Is there a greater strength than that of knowledge? Can you give them education? Name me the country where rich men ever helped anybody! In all countries it is the middle classes that do all great works (C.W. 6. 325).

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Emotional Intelligence of Prospective Teachers

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Abstract

Teaching-learning is a group process. The present paper explores the measures of emotional intelligence which are quite helpful to conceptualize the most difficult task for a teacher to identify mental setting i.e. emotions and capacities of his/her students. A teacher has also to be part of a team. Pupil teachers are teachers of future. In future they will lead their students. Hence, this paper is based on the study related to emotional intelligence and prospective teachers to find out level of Emotional Intelligence (EI) in prospective teachers. The study has been conducted on prospective teachers of Ranchi University.

Key words: Teacher Education, Emotional Intelligence

Introduction

Emotional intelligence (EI) is likely to be the subjective experiences of others. A potential concern with EI is the use of the functionalist paradigm to understand an inherently interpretive phenomenon. Emotional intelligence is an elusive construct that generates intense and often spirited debate within academic circles. Although EI has gained significant interest within the field of Education and management, both in terms of research and practice, there are still fundamental questions regarding the definition, measurement, and context of EI. One potential explanation for the difficulty in understanding the nature of EI may be the over-reliance on functionalist assumptions regarding what may prove to be an inherently interpretive construct. Accepting an interpretive position may provide access to the phenomenon that has resonated intuitively with scholars, practitioners, and managers, but has resisted functionalist analysis.

Meaning of Emotional Intelligence

In general, EI is defined as the ability to recognize and manage one's emotions and the emotions of others. As a result, individuals, groups and organizations high in EI are presumed to be more capable of utilizing emotion to adapt and capitalize on environmental demands. As such it is conceivable that organizations

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whose membership exhibited emotional competencies in sufficient number and degree may impact sustainability in organizations.

Emotional Intelligence (EI) has its roots in the concept of social intelligence which was introduced over 75 years ago, but scholars spent most of this time focused on cognitive intelligence. Now, many are realizing that emotional intelligence is just as important for an individual's success at work and in other social environments.

Goleman (1995) defines EQ as: "EQ is not destiny—emotional intelligence is a different way of being smart. It includes knowing your feelings and using them to make good decisions; managing your feelings well; motivating yourself with zeal and persistence; maintaining hope in the face of frustration; exhibiting empathy and compassion; interacting smoothly; and managing your relationships effectively. Those emotional skills matter immensely—in marriage and families, in career and the workplace, for health and contentment."

Persons having EQ exhibit the following common attributes. In essence, the panorama of skills found in the context of emotional intelligence helps individuals to manage both the self and others in the following areas:

- Impulse control
- Self-esteem
- Self-motivation
- Mood management
- People skill.

Emotional intelligence, according to Time magazine, "may be the best predictor of success in life." Evidence suggests that it is "as powerful, and at times more powerful, than IQ," and provides "an advantage in any domain of life."

Emotional intelligence is defined as "The capacity to reason with emotion in four areas; to perceive emotion, to integrate it in through, to understand it and to manage it". Now the meaning of emotional intelligence has been stretched. Emotional intelligence is now defined by popular authors in dozens of ways—typically as a list of personality characteristics, such as "Empathy, motivation, persistence, warmth and social skill."

It was found that "IQ" does not wholly account for an individual's success or failure in the world. In fact, most social scientists who study intelligence estimate that IQ accounts for only 20 to 30 percent of outcome. Even if, as proponents assert, IQ is the "best known predictor" of things like financial success, these numbers are not the kind the quest to discover what accounts for the rest remaining 70 to 80 percent—is now what drives the field.

In the early 1980s, Harvard psychologist Howard Gardner entered the intelligence debate with a book called “Frames of mind” suggested that, in essence, intelligence is not a single entity, but a wide range of talents, the measure of which is absent from traditional IQ tests. This theory of Multiple Intelligence, considers musical, kinesthetic or spatial intelligence (and a number of other) alongside the more tradition verbal and mathematical skills. Yale psychologist Robert Sternberg published an article suggesting a similar idea, what he called the Triarchic Theory of Intelligence. In sternberg’s model, there are three main areas of intelligence: Practical, analytical, and creative. Like Gardner, Sternberg has produced very compelling data in defense of his theory. But how does one quantify something like spatial or musical intelligence? Certainly we cannot say that someone has a musical IQ?

Measures of EI

Many of the current measures of emotional intelligence, both ability (e.g., Mayer Salovey Caruso Emotional Intelligence Test [MSCEIT]) and self-report (e.g., Schutte Self-Report Inventory [SSRI]), owe their development to the theoretical framework proposed by Salovey & Mayer (1990). Mayer and Salovey revised their model in 1997, detailing a four-branch model of emotional intelligence: ‘managing’, ‘understanding’, ‘using’ and ‘identifying’ emotions (Brackett & Mayer, 2003). It is based on the authors’ deepening commitment to understanding emotional intelligence as an ability (Austin, Saklofske, Huang & McKenney, 2004) and is described as being both hierarchical and developmental (Mayer & Salovey, 1997). Each of the four branches is conceived as representing related emotional intelligence abilities, that is, the ability to a) identify emotions, b) use emotions to facilitate thought, c) understand emotions, and d) manage emotions to promote personal growth (Mayer & Salovey, 1997).

An ability model of emotional intelligence suggests emotional intelligence skills can be taught and that individuals can learn and improve their competence in each of the four branches of emotional intelligence. For example, a teacher who is low on the second branch of emotional intelligence, ‘using emotions’, may be assisted to learn the skills required for “harnessing different emotions to encourage different approaches to problem solving” (Perry, Ball & Stacey, 2004, p.33).

The four-branch model of emotional intelligence is the basis for the development of the Reactions to Teaching Situations measure (RTS) (Perry et al, 2004; Perry & Ball, 2005). The RTS, was developed by Perry et al, (2004) for use with teachers. The RTS provides ten vignettes of typical teaching situations and asks a respondent how likely they are to respond in one of four ways, each corresponding to one of the four branches of emotional intelligence identified by Mayer and colleagues (Mayer & Salovey, 1997; Mayer et al, 2001).

Explanations of the terms Used

A few terms have been used in a very restricted sense in the study. For The sake of clear and effective communication they have been defined in the following paragraphs. Other technical terms used have their standard meaning conveyed by different educational; psychological and statistical researches.

Emotional Intelligence: The definition of emotional intelligence as given by Dr. Solvey (1990) is as follows: “*Emotional intelligence is the capacity for recognizing our own feeling and those of others, for motivating ourselves, for managing emotions well in us and in our relationship.*”

The study covers all five domains of EI as given by Dr. Solvey (1990):

- a) Knowing one’s emotions
- b) Managing emotions
- c) Motivating oneself
- d) Recognizing emotions in others
- e) Handling relationship.

Prospective Teacher: The term prospective teacher has been used to refer a teacher trainee who is going to be a teacher in future.

Other related terms used in the study:

- i. **Area of residence or residential background:** The habitat area of prospective teachers, from urban area or from rural area.
- ii. **Educational background:** The subject/streams which pupil teachers studies during their graduation/post graduation courses.

Variables

Variables are the characteristics or traits in behavioral science which can be qualified by measuring instruments. Emotional intelligence is affected by many variables. In this study, following variables were taken:

- 1) Emotional intelligence
- 2) Age groups (Age 20-25yrs./Above 25 yrs.)
- 3) Gender (Male/Female)
- 4) Educational background (Science/Others)
- 5) Residential background.(Rural/Urban)
- 6) Educational qualification (graduates/postgraduates).

Objectives

- i. To find out the mean scores of emotional intelligence level of male and female pupil teachers.

- ii. To find out the difference between the mean scores of the EI level of male and female pupil teachers.
- iii. To find out mean scores of emotional intelligence level in pupil teachers belonging to rural and urban areas.
- iv. To find out difference between the mean score of the emotional intelligence level of pupil teachers belonging to rural and urban areas.
- v. To find out the mean score of EI level of pupil teachers of science streams and other ones.
- vi. To find out the difference between the mean scores of the EI level of science and other streams.
- vii. To find out mean scores of EI level in pupil teachers who are graduates and postgraduates.
- viii. To find out the difference between the mean scores of EI level of students of graduates and postgraduates.
- ix. To find out mean scores of EI level in pupil teachers whose age ranges from 20-25 and above 25.
- x. To find out the difference between mean scores of the EI level of 20-25 age group and above age group of 25 yrs.

Hypotheses

For the ease of statistical calculations and interpretation, hypotheses for the present study were framed in the null form. Due to lack of researches (supporting or against) related to this particular study number of prior hypotheses were framed and it was decided to interpret the result as they come out.

The hypotheses in the null form are as under:

- H₀1 There is no significant difference in emotional intelligence level of prospective teachers on the basis of gender.
- H₀2 There is no significant difference in the mean scores of the emotional intelligence level of rural and urban prospective teachers.
- H₀3 There is no significant difference in the emotional intelligence level of prospective teachers belonging to different streams.
- H₀4 There is no significant difference in the emotional intelligence level of prospective teachers on the basis of different educational qualification.
- H₀5 There is no significant difference in the emotional intelligence level of prospective teachers on the basis of different Age groups.

Emotional Intelligence Test

In the present study a Likert scale type test was used to measure the emotional intelligence of subjects. The scale consists of co-system. Against each statement it is written as SA, A, UD, D and SD meaning strongly agree, agree, undecided, disagree and strongly disagree respectively. Students (pupil teachers) have to select one of the above alternatives to record their response. Items of the tools are of two types. i.e. positive and negative statements. Positive statements are those items, which favour positive direction of emotional intelligence. Negative statements are unfavorable statements, which are opposite to desired trait.

Analysis and Interpretation**Emotional Intelligence and Gender**

The related mean scores, S.D. and t-value are presented in Table-1.

Table-1: Emotional Intelligence and Gender

Gender	N	Mean	S.D.	Degree of freedom (df)	t-value
Female	70	186.436	22.63	138	$t_{\text{calc.}} = 2.92^*$
Male	70	174.042	27.278		$t_{0.05} = 1.98$

*The value is significant at 0.05 level of significance

The calculated value of 't', is greater than table value of 't', so it can be interpreted that significant difference exists between mean scores of male and female pupil teachers. So the null hypothesis is rejected. Present study shows that female pupil teachers have not only high mean scores of EI, but they also differ significantly from male pupil teachers, females are said to be more sensitive than male. Present study also confirms it. It can be said that perhaps in this session of B.Ed. course, female pupil teachers are emotionally intelligent than male pupil teachers—however, study with large sample is needed to establish this fact more strongly.

Emotional Intelligence and Residential Background

The mean, S.D. and t-value are calculated and represented in Table-2.

Table-2: Emotional Intelligence and Residential Background

Locale	N	Mean	S.D.	Degree of freedom (df)	t-value
Rural	61	176.164	24.725	138	$t_{\text{calc.}} = 1.65$
Urban	79	183.303	26.2		$t_{0.05} = 1.98$

The value is not significant at 0.05 level of significance

The calculated value of 't' is less than table value of 't' at given degree of freedom and significance level. Therefore, it can be interpreted that there is no significant difference between the mean scores of EI level of pupil teachers of urban and rural area. So the related null hypothesis is accepted. Although mean scores of urban area is higher than that of rural area but this difference is not significant at 0.05 level of significance. So in this session of B.Ed. if locale is a criterion of EI; all pupil teachers fall within same range with some fluctuations.

Emotional Intelligence and Educational Background

Table 3 presents statistical data of science stream and other streams' prospective teachers.

Table-3: Emotional Intelligence and Educational Background

Stream	N	Mean	S.D.	Degree of freedom (df)	t-value
Science	55	182.691	24.191	138	$t_{calc} = 0.9436$
Others	85	178.576	26.683		$t_{0.05} = 1.98$

The value is not significant at 0.05 level of significance

The calculated value of 't' is less than table value of 't' at given degree of freedom and significance level. So there is no significant difference in mean scores of EI, so related null hypothesis is accepted. It is evident from the table that there exists no significant difference in science and other streams. Although mean scores of science streams is higher than that of other streams but this difference is not significant at 0.05 level of significance. So in this session of B.Ed. if stream is a criterion of EI, all pupil teachers fall within same range with some fluctuations.

Emotional Intelligence and Educational Qualification

Table-4 presents statistical data of graduate and postgraduate prospective teachers.

Table-4: Emotional Intelligence and Educational Qualification

Educational Qualification	N	Mean	S.D.	Degree of freedom (df)	t-value
Graduates	54	176.485	24.243	138	$t_{calc} = 2.06^*$
Post-graduates	86	184.806	21.261		$t_{0.05} = 1.98$

* The value is significant at 0.05 level of significance

The value of 't' in the study is higher than the table value of 't' at given df and 0.05 significance level. So, it can be said that pupil teachers of post graduate educational qualification differs significantly from pupil teachers of graduate educational qualification. So, the related null hypothesis is rejected. Findings of this study show that pupil teachers of post graduate educational qualification have not only high mean scores of EI, but they also differ significantly from pupil teachers of graduate educational qualification. It can be said that perhaps in this batch of B.Ed. pupil teachers of post graduate educational qualification are emotionally intelligent than pupil teachers of graduate educational qualification.

Emotional Intelligence and Age Group

Normal IQ is said to be remain constant after some age. The related mean, S.D. and 't' value of pupil teachers of age group of 20-25 and above 25 have been presented in table-5.

Table-5: Emotional Intelligence and Age Group

Age Group	N	Mean	S.D.	Degree of freedom (df)	t-value
Age 20-25yrs.	41	178.461	30.676	138	$t_{\text{calc}} = 0.538$
Above 25yrs.	99	181.336	23.645		$t_{0.05} = 1.98$

The value is not significant at 0.05 level of significance

The calculated value of 't' is less than the table value of 't' at given degree of freedom and significance level. The 't' value shows that there is no significant difference between mean scores of pupil teachers of age group 20-25yrs and pupil teachers of above 25yrs. of age. Hence, it can be said that in this session of pupil teachers, age is not a significant influencing factor, but score increases as the age increases. A study with large sample and sample age group is needed to find out relation of age and EI.

Conclusion

The foregoing results and findings give us a chance to understand the distribution of emotional intelligence in pupil teachers. When gender is considered as a factor to find emotional intelligence, it is found that females are more emotionally intelligent than males. It is a well known fact that woman are more sentimental, emotionally sensitive and kind hearted. This study also confirms that, but sample may have a factor because most of the female pupil teachers belong to urban areas. When residential area or locale is taken as a variable with emotional intelligence, the study shows that rural pupil teachers are not significantly different from the urban ones on emotional intelligence level. Although, the

emotional intelligence level is higher in case of urban pupil teachers but emotional intelligence is independent from the locale factor. One reason of this may be given as the prospective teachers have more or less same social experience in both areas. Educational background i.e. subjects studied at graduation level affects the personality of student. Students from Science background are believed to have more scientific attitude. So far as EI is concerned, students from Science and other background do not differ significantly. It means EI is independent from educational background. However, in this study students of science streams have slightly higher level of EI. In the investigation, one result comes which shows that there is a significant difference in the mean score of EI of post graduate pupil teachers and graduate pupil teachers. It means that pupil teachers of post graduate educational qualification know their feelings and use them to make their decision, have high self motivation level, exhibit empathy and compassion better than pupil teachers of graduate educational qualification. It is a general belief that students join B.Ed. courses after failure in other fields, in this study one result shows that there is no significant change in EI of age group of 20-25 and above 25. It means pupil teachers of all age groups have same ability in all areas of EI. However, there is a slight incline with increase in age. It may be due to experiences gained in various emotional situations. It may be concluded in the light of above results that locale, educational background and age do not affect EI level so significantly, but gender and educational qualification have significant affect on EI.

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Impact of In-service Education for Teachers on Curricular Practices at School Level

*Sanat K. Ghosh**

Abstract

In-service education for teachers (INSET) has been recognized as a continuous process, coextensive with the teaching profession. SSA Framework (2008) provides guidelines for in-service training based on NCF 2005. But, still the studies on INSET are found very rare at the national level to draw conclusion on impact of INSET on curricular practices at school level. The main two purposes of the present article are (i) to draw a model of INSET impact study especially at the school level and (ii) to compile the major findings of the INSET impact. The impacts are drawn under six broad areas– (i) Teacher Achievement, (ii) Perception of Teachers, (iii) Classroom Transactions, (iv) Transfer of Training, (v) Impact of Follow-on Training on Teachers and (vi) Impact on Students.

Key-words: INSET, Conceptual Frame of INSET Impact, Impact of INSET at School Level.

Introduction

The Teacher Education Policy in India has been evolving over the time which is mainly based on the recommendations suggested in various Reports of Committees and Commissions on Education. The important ones are the Kothari Commission (1966), the Chattopadhyay Committee (1985), the National Policy on Education (NPE 1986/92), Ramamurthi Committee (1990), Yashpal Committee (1993), the National Curriculum Framework (NCF, 2005) and the National Curriculum Framework for Teacher Education (2009). The Right of Children to Free and Compulsory Education (RTE) Act, 2009 and report of the National Focus Group on Teacher Education for Curriculum Renewal (NCERT) have also made important implications for determining teacher education policy in the country. It is well known that the quality and extent of learner achievement are determined primarily by competence, sensitivity and motivation of the teachers. The National Council for Teacher Education (NCTE) has defined teacher

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education as—*A programme of education, research and training of persons to teach from pre-primary to higher education level.*

Within the broad objective of improving the quality of learning among the school children, the existing twin strategy is— (i) to prepare teachers for the school system (pre-service teacher education), and (ii) to improve the capacity of existing school teachers (in-service teacher education). But, in the Indian context, pre-service and in-service components of teacher education are mostly common and inseparable. Thus, considerable focus has been given on continuing professional development strategies.

In-Service Education for Teachers (INSET): An Emerging Concept

A teacher can never truly teach unless he is still learning himself. A lamp can never light another lamp unless it continues to burn its own flame (Rabindranath Tagore). It is the education a teacher receives after he has entered the teaching profession and after he had his education in a Teacher's college. It includes the entire programmes—educational, social or others, in which the teachers take vital part. It also includes all the extra-education programmes which the teacher receives at different institutions by way of orientation or refresher courses and all the travels and visits which he/she undertakes.

It may be noted that the predictive value of the Teacher Education Course is no longer a matter of concern today. On the other hand, it is now recognized as a continuous process, coextensive with teaching profession. That is why the Adiseshiah Committee (1978) put emphasis on the organisation of in-service training courses for existing teachers in schools on a mass scale in addition to pre-service teacher education. But, yet it can be treated as a corrective and pace-setting programme for the stage of general education for which it is designed.

A good teacher is he/she who is always learning himself/herself and always developing his/her own knowledge and understanding about the learners. In short, a teacher—should be a person who, because of his/her attitude to knowledge, to ideas, to his/her fellows and to life, generally is better educated today than he/she was yesterday and tomorrow will be better educated than he/she is today.

Recently, SSA Framework (2008) provides general guidelines for in-service training based on NCF 2005. Three types of training have been envisaged— (i) provision for 60 day training for untrained teachers, (ii) 30 day induction training and (iii) 20 day training for all teachers every year. The 20 day training is to be split into 10 days of block training and 10 days the form of monthly meetings at the Cluster Resource Centre (CRC). The major aspects of INSET are:

- Tuning INSET to guidelines based on NCF-2005 and SSA Framework-2008;
- In-service training Needs Assessment (TNA);

- Training design and plan of implementation based on TNA with teacher participation;
- Block training backed by interactive CRC monthly meetings and onsite support;
- Training package consisting of modular exemplar material for feed-back self-learning;
- Mechanism for assessing learning and suggesting resources for further learning;
- Opportunity for co-operative learning, collaborative group work, project work and in-school classroom practices;
- Participative activity-based learning, sharing and evaluation;
- Need-based use of relevant available technology;
- Follow-up and transfer of INSET to classroom practices.

INSET: Present Scenario

The country has a large network of government-owned teacher training institutions (TTIs), which also provide in-service training to the school teachers. At the National Level, the National Council of Educational Research and Training (NCERT) along with its six Regional Institutes of Education (REIs) prepares a host of modules for various teacher education programmes and also undertakes specific programmes for training of teachers and teacher educators. Institutional supports are also provided by the National University of Educational Planning and Administration (NUEPA). Both NCERT and NUEPA are the national level apex autonomous bodies. At the state level, the State Councils of Educational Research and Training (SCERTs) prepare modules for teacher education and conduct specialised courses for teacher educators and school teachers. The Colleges of Teacher Education (CTEs) and Institutes for Advanced Studies in Education (IASEs) provide in-service training to elementary and secondary school teachers and teacher educators as well. At the district level, in-service education is provided by the District Institutes of Education and Training (DIETs). The Block Resource Centres (BRCs) and Cluster Resource Centres (CRCs) form the lowest rung of institutions in the vertical hierarchy of the system provide in-service training to school teachers. Apart from these, in-service education is also imparted with active roles of the civil society, non-government organisations, unaided private schools and other organisations.

Unfortunately, a large scale national level impact study of the INSET is a rarity. Thus, with this large infrastructure, what is the impact of INSET programmes on curricular practices at school level in India is the basic question today. Let us try to explore the issue.

Impact of INSET: Some Studies

Some of the impact studies of INSET on school education are abstracted below:

Doraswamy et al. (1989) evaluated the PMOST in Karnataka. This training was limited to creating awareness about NPE 1986. Teachers did not appreciate the training addressing merely awareness objectives. The PMOST training programme was, therefore, reviewed and revised to include academic content and rechristened as Special Orientation Programme for Primary Teachers (SOPT). The survey of teachers' opinion in Nagpur, Panchbhai (1990) reported indifference of 90% of the teachers covered in in-service education due to their negative attitude and lack of support from the school authorities.

Gupta (2000) reported gains in knowledge and classroom performance in SOPT in Uttar Pradesh. Rao and Lakshminarayana (1998) conducted a study on the impact of SOPT on classroom practices in Andhra Pradesh. The study was a step forward since it addressed the issue of impact of training on classroom practices. Almost all sampled teachers were found to be satisfied with the training. It seemed to have an impact on academic awareness and on classroom performance of teachers, though teachers did have some reservations about the transaction of training which needed improvement to be more effective.

A few studies were conducted as small scale projects on post-NPE 1986 and 1992. SCERT, Andhra Pradesh (1991) in its evaluative study of Andhra Pradesh Primary Education project (APPEP) reported a limited impact of training. Only one-third teachers organised group work and display of children's work in the classroom. Inputs from APPEP including INSET were found to be associated with increased student participation, increased enrolment and reduced dropout rates.

Aba (2001) and Chauhan (2009) noticed transmission loss in cascade approach that limited the extent of training transfer to classroom practices. The Teacher Empowerment Project (1992) in Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh reported better environment and improved teachers' morale, higher self-esteem and better teaching resulting in the boosting of students' enrolment and attendance.

Some other small studies addressed the issue of the impact of INSET on classroom practices. Sharma (1992) found that INSET impact was higher for teachers in the age group 45–60 years or those with more than 15 years of experience. About 58% of the teachers could learn the concepts relating to the content covered in the training. Measurable changes in students' performance were reported in the case of about 75% of the teachers. Similar results were

also reported by Agarwal (1997), Eswaran (2009) and Kumar (2011). Yadav (2000) studied the impact of in-service training of primary teachers in a Block in Hissar district of Haryana using pre and post-test design on achievement of teachers and the observed classroom practices. The teachers showed higher achievement after the INSET training.

Lakshminarayana (1998) conducted a study on the impact of SOPT on classroom practices in Andhra Pradesh. The study was a step forward since it addressed the issue of impact of training on classroom practices. Almost all sampled teachers were found to be satisfied with the training. It seemed to have an impact on academic awareness and on classroom performance of teachers, though teachers did have some reservation about the transaction of training which needed improvement to be more effective.

Jamil et al. (2011) conducted a study to find out the association of in-service training with, and its effect on, the performance of secondary school teachers for the academic betterment of students at the secondary stage. The study focused on some key aspects of training effectiveness like expertise in the subject matter, acquisition of latest knowledge, interaction with students, teaching methods, sources of information, and getting feedback from students. The study revealed that a significant correlation existed between in-service training and the performance of teachers. It was also found that some aspects under the study showed a comparatively better effect of training while some other aspects like expertise in subject matter, improvement in knowledge, sources of information did not show any significant effect of training on the performance of teachers and students. The above studies indicate that:

- The studies on impact of INSET in India at the national level are very few. Others are mostly based on small projects related with evaluative studies;
- The impact studies in India are mostly on small samples; at best their coverage is confined to some states and that too in the context of awareness objective of training;
- The studies covering the in-service training starting from NTA through design and implementation, transfer of training gains to classroom practices, post training follow-up and onsite support are too few;
- The impact areas wherever covered are patchy and fragmented;
- There is very little information on design and analysis;
- The studies have little to offer for INSET policy formulation;
- There is scope of further researches on impact of INSET to fill in the knowledge gaps in this area of teacher development.

A Conceptual frame on INSET

Based on the above criteria, a conceptual frame of the study has been imaged in Figure 1. The central piece in the conceptual frame is ‘training transaction’ which depends on (i) human resources, (ii) training design, (iii) INSET package developed under SSA, and (v) physical facilities & equipments. Training transaction impacts teachers in terms of their (i) achievement and (ii) perception. Both of these have an impact on their ‘classroom transaction’. Classroom transaction may have impacts– (i) on student achievement and (ii) also in the CRC monthly meeting among the peers. These impacts may further influence upon the ‘training transaction’ as feedback. The INSET-Impact conceptual Frame is given below:

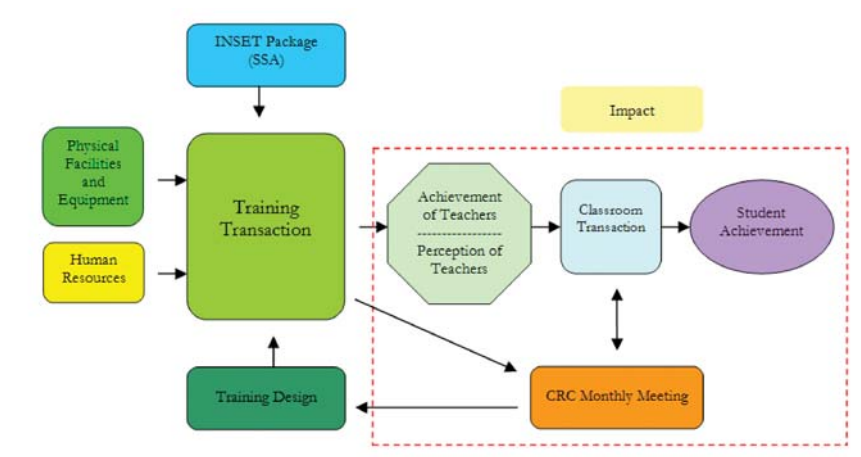


Figure-1: INSET Impact—Conceptual Frame

Impact of INSET Programme on Curricular Practices in Schools: A Meta Analysis

The above design of the study is a combination of pre and post-test design, observation of classroom transaction, observation of follow-on training in monthly meetings, desk analysis of documents and focus group discussions. A large scale impact study in India at the national level in the area of INSET is a rarity. From the above studies, no comprehensive study of INSET impact starting with training needs assessment, training design, training material/ package, delivery of training, evaluation of the quality of delivery, follow-up and school-based onsite support and student learning could be identified. Majority of the studies covered at the most a couple of elements of this complex whole or conducted as part of small projects with limited objectives validating the material developed for teaching a subject or a few units thereof.

A national level comprehensive meta analysis of some INSET studies on its impact on curricular practices at the school level has been conducted with the following objectives:

- i. To assess the achievement in transactional modalities of teachers through INSET;
- ii. To study the perception of teachers about the efficacy and usefulness of INSET;
- iii. To determine the impact of training in terms of change of classroom transactions of teachers;
- iv. To find out whether students observe any change in teacher behaviour about method of teaching after INSET;
- v. To assess the opinion of other functionaries, such as BRC/CRC coordinators on the impact of follow-on teacher training on classroom processes;
- vi. To find out the impact of INSET on students.

Major Findings

Area specific findings in respect of different components of INSET and its impact on teachers and students are discussed below:

i. Teacher Achievement:

- Teachers in the States of Bihar, Gujarat, Meghalaya, Nagaland, Odisha and West Bengal gained in learning during the training.
- Both the trained and untrained groups were compared on mean achievement score, significant difference was found in Andhra Pradesh, Madhya Pradesh, Rajasthan and Chhattisgarh.
- In the State of Jammu and Kashmir, 64 per cent teachers scored below 60 per cent and 19 per cent scored above 75 per cent at the primary stage. At the upper primary stage, 62 per cent teachers scored below 60 per cent and 12.25 per cent teachers scored above 75 per cent.

ii. Perception of Teachers:

- Overall, about 45 per cent teachers found the training relevant to their needs to a large extent, viz., 63% to 83 %. However, 79 per cent teachers in Haryana found training not relevant.
- Teachers' perception about enrichment of their understanding during training was found highest in Tamil Nadu (82%), followed by Gujarat (79%) and lowest in Haryana (30%) and Rajasthan (29%).

iii. Classroom Transactions:

- Teachers in the experimental group performed better than in the Control

group during classroom transaction in using most of the skills in the States of Tamil Nadu, Madhya Pradesh, Andhra Pradesh, Chhattisgarh, Gujarat, Jammu and Kashmir, Odisha and Uttar Pradesh.

- No significant impact was found 'in most of the skills used' during classroom transaction between the two groups of teachers in the States of Maharashtra, West Bengal, Bihar, Haryana, Nagaland and Rajasthan.

iv. *Transfer of Training:*

- Low percentage occurrence of skills was observed in classroom transaction in the States of Maharashtra, West Bengal, Haryana, Nagaland and Rajasthan.
- Higher percentage of occurrence in most of the skills was observed in classroom transaction in the remaining ten sampled States.

v. *Impact of Follow-on Training on Teachers:*

- The monthly meetings were organised in leading primary or high schools in most of the states where CRCs were established. CRC coordinators had dual responsibility both as head teacher and coordinator. Physical infrastructure was inadequate in most of the CRCs.
- The CRC monthly meetings were not organised in States as recommended in SSA Framework-2008.
- More than 50 per cent coordinators and teachers were not satisfied with the proceedings of these meetings.
- Impact of monthly meetings was observed in Tamil Nadu, Odisha, Andhra Pradesh and Gujarat where academic and training inputs in terms of the teaching-learning process, development of TLM, work in groups, use of activity cards, etc. were noticed in the schools.

vi. *Impact on Students:*

- Student achievement was found significantly correlated with the relevance of INSET and enrichment of understanding of the content in the States of Tamil Nadu, Uttar Pradesh, Gujarat, Jammu and Kashmir and Odisha.
- Student achievement had significant correlation with 'treating students respectfully' and summarising main points to conclude the lesson in the States of Tamil Nadu, Jammu and Kashmir, Madhya Pradesh, Uttar Pradesh and West Bengal.
- Changes in the teachers in their classroom performance after participating in the training programme were found in the States of Andhra Pradesh, Chhattisgarh, Madhya Pradesh, Tamil Nadu, Gujarat on the following aspects:

- a. Teaching (General)—Questioning, discussion, involvement, and evaluation;
- b. Subject teaching (English, Mathematics, Science);
- c. Use of TLM;
- d. Teacher behaviour;
- e. Organisation of activities (Group Work, Demonstration in Activity Cards).

Conclusion

Teacher education (TE), in our country, requires to be more sensitive to the emerging demands from the school system. For this it has to prepare teachers for a dual role of— (i) encouraging, supportive and humane facilitator in teaching-learning situations who enables learners (students) to discover their talents, to realise their physical and intellectual potentialities to the fullest, to develop character and desirable social and human values to function as responsible citizens; and, (ii) an active member of the group of persons who make conscious effort to contribute towards the process of renewal of school curriculum to maintain its relevance to the changing societal needs and personal needs of learners, keeping in view the experience gained in the past and the concerns and imperatives that have emerged in the light of changing national development goals and educational priorities.

The major indicator of quality of training is its relevance to the needs of teachers. However, most of the INSET programmes are not organised according to the needs of the teachers and the resources are not utilised properly. The transactional approach adopted in majority of INSET programmes has so far remained confined to the lecture method with little scope and opportunity for trainees to actively participate in the training process. Ironically, concepts like activity-based teaching, joyful learning, classroom management for large size classes and multi-grade situations, team teaching, cooperative and collaborative learning which require demonstration and participatory training are also often taught through the lecture method.

The findings of the study have a message for policy formulation related to INSET. There is a need to undertake researches on every aspect of INSET at regular intervals. Studies with improved design and expanded coverage as well as in-depth case studies of both advanced and low performing states should be undertaken for achieving the desired results.

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Knowledge of Childcare among Neo-literate and Illiterate Adult Women Learners of Burdwan District, West Bengal.

Ananya Mandal and Bishnupada Nanda***

Abstract

This study was conducted to measure the knowledge of childcare among the neo-literate adult and illiterate adult women of Burdwan district. A total of 100 samples were randomly taken from different adult centres of the Burdwan district, wherefrom, 75 were from neo-literate adult women learners and 25 were from illiterate adult women learners. Knowledge base questionnaire developed by Mandal and Nanda (2008) were used for collection of relevant data from the respondents. Inferential statistics were used for analysis and interpretation of collected data. Results indicate that significant difference exists among the adult's women learners on the basis of their personal variables.

Key words: Knowledge on childcare, neo-literate and illiterate adult women learners of Burdwan District.

Introduction

Every parent wants to be confident that their child gets the best possible start in life, in a healthy, safe and happy environment because it is the most crucial stage of life that every living being goes through. India has a tradition of valuing the early years of a child's life, and a rich heritage of practices for stimulating development and inculcating 'samskaras' or basic values and social skills in children. The seven *samskaras* after birth of the infant specify significance to the different life stages of the infant. Each of these could be examined empirically from medical, psychological (cognitive, memory, emotional, social development), socio-cultural, or anthropological perspectives. The *samskaras* vary according to age, gender and caste representing the very essence of contemporary developmental approach. In the past this was transmitted primarily within families, through traditional child caring practices which were commonly shared and passed on from one generation to another. However, there have been changes in the family as well as social context in the last few decades. In primitive society the knowledge gathered and has been developed by

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experiencing natural events and survival of human, which was quite little or sometime wrongly assumed or wrongly understood, concentrated within a community or been made apart from a communities in the name of gender, religion, caste and other social impairments. Most importantly, parents should have the proper knowledge about child care and early year's programs that meets child's needs for proper growth and development. Childcare is not only about child nutrition, health or vaccination but it is also crucial to consider cognitive development, social and emotional development of a child. Adult education is provided to the poor and the illiterate adults of a society as they are not aware of proper modern knowledge of childcare. But their main component of knowledge is lying on the traditional knowledge. There was also inequality in the society caused by difference in knowledge of different individuals because education was not so linked with the means of livelihood. The present knowledge of childcare has been developed over thousands of years and has grown tremendously in last few centuries but functionality of such knowledge and well being of needed person now largely depends on utilizing available knowledge and skill learnt through such education system. The non-acceptance of the advanced knowledge of childcare mainly lying on components such as poverty, inequalities, no education status and wrong cultural belief and thus streamed the poor individuals to lack of awareness, low nutritional status, marginal living and hazardous conditions, coupled with poor access to health services and lack of money compels them to face more health related shocks. Poverty has a negative impact on childcare, social participation and child well-being. Some parents from socially and economically disadvantaged communities have discriminated themselves from the advanced knowledge of childcare by realising their poor condition.

In West Bengal, the poverty ratio is 34.3% as per new methodology (2004-05, NSSO). The World Health Organization (WHO) stated that poverty must be addressed in all its dimensions, not income alone, because the resulting inequalities in health outcomes are stark. For example, the under-five mortality rate is five times higher for people who are living in absolute poverty than for those in higher income groups. Thus, there is a close relationship between poverty and poor health. The poorest people have higher than average child and maternal mortality, higher levels of disease burden, limited access to health care and social protection. The Gender inequality affects the health of poor women and girls more adversely. It is estimated that around 50,000 infants die every year before their first birthday in this state. Out of all infant death approximately two third die within a month (neonatal period) and out of all neonatal deaths around two third die within the first one week. There is decline in infant death in West Bengal as well as in other state, mostly on account of preventing death

in the post neonatal period. Many of such deaths are due to premature birth or tiny premature birth and with low and very low birth weight. Awareness of the mothers and convergence with functioning of the childcare education about such premature babies is also essential because about 35% babies today are premature babies. Average achievement follows as a large numbers of poor illiterate women are lying in the society. Women take care of the children as general and their awareness stands necessarily important. Insufficient awareness among poor women in the society and poor immunization coverage is one of the reasons for delay in eradication of Polio from the country. The last leftover known case of Polio in the country was detected in Howrah district during the early part of the year 2011.

West Bengal is facing a huge challenge related to poor nutritional status of the population, particularly the children and the women. In India, ratio of woman anaemic is 55.3 %, every third woman is undernourished (35.6%) and every fourth baby is born with low birth weight (22%). Only every second infant younger than six months is exclusively breastfed (46%), nearly every second young child is underweight (42.5% of children under five years) or stunted (48% of children under five years) and three out of four young children are anaemic (79%). Another cause of concern is persistence of high levels of under-nutrition. There showing hardly any improvement between 1998-99 & 2005-06. Maternal and Child malnutrition had arrested for more than one third of the deaths of children under 5 years. Scenario of West Bengal is just marginally better than that of the country. The newborn is to be breastfed compulsorily up to the first six months and the same has to be started within one hour of birth. The NFHS-3 survey found that only around 23.7% of the newborns were breastfed within the first one hour and only around 58.6% of children in the age group 0-5 months were being breastfed. Thus, there is need for awareness generation and mobilization for promotion of breastfeeding, mother's nutrition and other practices. Not only poverty, the other causes of malnutrition is deficiencies in knowledge that resulted in insufficient child caring. The nutritional status of the children becomes poor at the higher age group and the percentage of underweight children in the age group below 3 years was 37.6% as per the NFHS-3 survey, which suggests interventions for preventing such decline of nutritional status between six months and three years. Thus, this worst situation has tremendous impact on the development of cognitive skill of the child. Improvement of nutritional level of mother and children, control of childhood illness such as diarrhoea, worm infestation caused due to poor hygiene and insanitary environment. Proper child care as well as implementation of knowledge through various education program is crucial. A large number of programs have originated through concern for childcare through adult education and governments took

some health support such as: Improving neonatal care: Newborn Care Units are being established in the district and sub divisional hospitals. The Sick Newborn Stabilization Unit (SNSU) is equipped with required Radiant Baby Warmer and Phototherapy Unit to stabilize very sick newborn. The mother of such babies should be aware of such risk and take the baby to the hospital for which no cost has to be incurred. Village Health & Nutrition Day (VHND): The purpose of the VHND is to extend services related to nutrition and health, particularly of the mother and child. More services are there regarding health but still the gap between demand and supply exist. The Government of India recognizes the significance of The National Early Childhood Care and Education (ECCE), which has been included as a constitutional provision through the amended Article 45 (The Constitution Act, 2002) which directs that “The State shall endeavour to provide ECCE for all children until they complete the age of six years”. The quality of non formal preschool or early childhood care and education imparted through these multiple channels is uneven and varies from a minimalist approach to a mushrooming of accelerated academic programmes. The inadequate institutional capacity in the system and an absence of standards, regulatory norms and mechanisms as well as a lack of understanding of the basic premises of ECCE has aggravated problem on achieving the goal. Thus, despite there are many effort from the government some setback or lack in implementations are still there and by growing responsibilities this setbacks will have to be demolished.

Gender inequality in our society forced women to experience decreased opportunity for education, isolation from family, lack of freedom to interact with peers and participate in community activities, bonded labourer or enslavement and commercial social exploitation. Women in our society should be learned about childcare and should be allowed to implement their knowledge of childcare for their child’s all around beneficiary because mother’s can only understand the best for a child. Therefore, it is important to understand the essential component of child nourishing and its needs by all the member of the families for its acceptance. There only the targeted childcare program can reach to its goals. Requiring parents to practice with their own child during program sessions is helpful due to the complicated nature of the skills being taught. This type of practice allows the training facilitator to provide immediate reinforcement and corrective feedback to ensure parent’s mastery of the skills and so, co operations are needed for the purpose of the programme that can be only possible by the developing awareness in them for them. Large number of children are suffering from malnutrition and are left untreated. Action must be taken immediately to overcome such situation and to provide healthy childhood to all children.

The total scenario in childcare knowledge has been changed and many dimensions were opened today and that is to be mobilised within the mass. Healthy children have better cognitive potential. As good health improves children learn better, leading to growth in the human capital base. Improvements in both health and education contribute to lower rates of fertility and mortality. The care for children has changed dramatically over the years as our understanding of a women's role in the society evolved. The two major purposes of early childhood programs are care and education. So, focus to be given to the children living in poverty and who may be at risk for proper growth, success in school and in later life. Child-focused, responsive and moderately controlling parenting attitudes have been positively associated with self-esteem, academic achievement, cognitive development and fewer behaviour problems. The research on parental mood indicates that maternal mood disturbance and stress are associated with more child behaviour and emotional problems. Furthermore, high warmth and contingent responsiveness promote a wide range of positive developmental outcomes. Parents who learn positive interaction skills can help themselves to develop their child's health, education, self-esteem, providing attention and demonstrating approval. 10% of the world population, around 650 million people live with disabilities. 30% of the street children are found to be disabled. It is suspected that children with disabilities are being purposely weeded out. 90% children with disabilities worldwide do not attend school. The main causes of disability in children are communicable disease, infection in infant, early motherhood, nutritional deficiencies, insufficient or inaccessible health care services, inadequate sanitation and inter-family marriage. There is growing scientific evidence that the development of the brain in the early years is a pathway that affects physical and mental health, learning and behaviour throughout the life cycle.

Objectives

- To measure the knowledge of childcare of neo-literate and illiterate women on the basis of their age groups (viz. up to 21 years, 22 to 45 years and 46 and above years).
- To measure the knowledge of childcare of neo-literate and illiterate women on the basis of their religion (viz. Hindu, Muslim).
- To measure the knowledge of childcare of neo-literate and illiterate women on the basis of their habitat (viz. rural, urban and slum).
- To measure the knowledge of childcare of neo-literate and illiterate women samples on the basis of their number of children (viz. 1-2 children, 3-5 children and 6 and above children).

- To measure the knowledge of childcare of neo-literate and illiterate women on the basis of their age of marriage (before 18 years and after 18 years).
- To measure the knowledge of childcare of neo-literate and illiterate women on the basis of their age of motherhood (viz. before 18 years and after 18 years).

Sample

A total of 100 participants were randomly taken from different adult centres of the Burdwan district, wherefrom, 75 were from neo-literate adult women learners and 25 were from illiterate adult women. A detailed demographic feature of the respondents is shown in the table 1.

Table-1: Demographic Feature of the Respondents

Demographic Variables		Total
Age (in year)	Up to 21	06
	22-45	62
	46 and above	32
Religion	Hindu	53
	Muslim	47
Habitat	Rural	37
	Urban (Exclude Slum)	56
	Slum	07
Number of Children	1-2	12
	3-5	81
	6 and more	07
Age of marriage	Before 18 years	56
	After 18 years	44
Age of motherhood	Before 18 years	18
	After 18 years	57

Tool

The investigators used one knowledge based questionnaire and one demographic data sheet. The knowledge questionnaire was formulated by Mandal and Nanda (2008). Content validity of the questionnaire was established through expert rating. The questionnaire consists of six items, each item has only one answer, such as, “Yes” or “No”, for each correct response, the score given as 2" and for incorrect response the score granted as “1”.

Results

Inferential statistics (Mean, SD, X² Test, df) were used to analyse the data.

Table-2: Knowledge of Child care of neo-literate and illiterate adult Women on the basis of Age.

Variables	Age in years	Total no	Total score	mean	df	X ²	sig
Neo-literate women	Upto 21	06	77	12.83	2	424.59	<0.05
	22-45	46	540	11.73			<0.01
	46 and above	23	198	8.60			
Illiterate women	Upto 21	05	50	10.00	2	28.17	<0.05
	22-45	13	110	8.46			<0.01
	46 and above	07	60	8.57			

Interpretation: This table indicates that the neo-literate adult women possess better knowledge of childcare.

Table-3: Showing knowledge of child care of neo-literate and illiterate adult Women on the basis of Religion.

Variables	Religion	Total no	Total score	mean	df	X ²	sig
Neo-literate women	Hindu	38	418	11.00	1	0.54	>0.05
	Muslim	37	397	10.73			>0.01
Illiterate women	Hindu	11	86	7.82	1	10.46	>0.05
	Muslim	14	134	9.57			>0.01

Interpretation: When religion is considered it is found that the Muslims have better knowledge of childcare than Hindus among both neo-literate and illiterate adult women.

Table-4: Knowledge of child care of neo-literate and illiterate adult women on the basis of habitat.

Variables	Habitat	Total no	Total score	mean	df	X ²	sig
Neo-literate women	Rural	26	274	10.54	2	158.06	<0.05
	Urban	32	417	13.03			
	Slum	17	124	7.29			
Illiterate women	Rural	11	85	7.72	2	21.93	<0.05
	Urban	08	94	11.75			
	Slum	06	41	6.83			

Interpretation: From this table it is found that Urban habitats possess better knowledge of childcare than that of Rural and Slum habitats among both neo-literate and illiterate women.

Table-5: Knowledge of child care of neo-literate and illiterate adult women on the basis of no of siblings.

Variables	No of Siblings	Total no	Total score	mean	df	X ²	sig
Neo-literate women	1-2 children	26	332	12.77	2	163.36	<0.05
	3-5 children	38	381	10.03			
	6 and above	11	102	9.27			
Illiterate women	1-2 children	3	24	8.00	2	172.20	<0.05
	3-5 children	18	165	9.17			
	6 and above	04	31	7.75			

Interpretation: The status of childcare knowledge among neo-literate adult women who have 1-2 children is better than the women from other variables.

Table-6: Knowledge of child care of neo-literate and illiterate adult women on the basis of age of marriage.

Variables	Age of Marriage	Total no	Total score	mean	df	X ²	sig
Neo-literate women	Before 18	37	415	11.22	1	0.26	>0.05
	After 18	38	400	10.53			
Illiterate women	Before 18	20	174	8.70	1	74.46	<0.05
	After 18	05	46	9.20			

Interpretation: When marital age is considered it is found that the neo-literate women who were married before 18 years possesses more knowledge of childcare than the women who were married after 18 years of age.

Table-7: Knowledge of child care of neo-literate and illiterate adult women on the basis of age of motherhood.

Variables	Age of Motherhood	Total no	Total score	mean	df	X ²	sig
Neo-literate women	Before 18	19	200	10.53	1	211.30	<0.05
	After 18	56	615	11.09			<0.01
Illiterate women	Before 18	12	108	9.00	1	0.072	>0.05
	After 18	13	112	8.62			>0.01

Interpretation: When age of motherhood is considered, the knowledge of childcare is found better within the neo-literate mothers who have gave birth after 18 years of age.

Discussion

Any person in modern society requires knowledge and skill to participate in various social processes in the public domain and being associated with gainful activities. People with lower level of education, which is also associated with poverty, fails to access services available or to take precautionary measures due to lack of awareness. Literacy rate of West Bengal during 2011 was 77.1% compared to 93.9% for Kerala. However, total number of illiterates in the state started declining from the year 2001. Female literacy status in Burdwan District during 2011 census is 70.47%. The first six years of life, especially the first two years have a decisive and lasting influence on a child's health, wellbeing, aptitude and opportunities. The consequences of this neglect are staring by us and about half of all Indian children are undernourished, more than half suffer from anaemia, and same proportion escape full immunisation. Few countries have such disastrous indicators of child wellbeing. According to the latest Human Development Report, India has the highest proportion of undernourished children in the world, along with Bangladesh, Ethiopia and Nepal. When people of India are heavily influenced by economics, location and individual personality, cultural variations in parenting also do exist.

The early child's health is depended on mother's health, and so, women and girls health should be good enough good to give birth to a healthy child. This has been well established in our study that education has a clear impact on the knowledge of child care. When the ages of the adult woman learners were considered it is found that the neo-literate adult women have better knowledge of childcare than the illiterates. This clearly indicates that education is the only means to acquire betterment. A poor knowledge of childcare exists among the slum habitat, neo-literate and illiterate mothers and this may be because of the mixed cultural differences and their environmental situation which may confuse

them on acceptance of knowledge and its practical implementations. It is also observed that the young neo-literate and illiterate women have more appetite for knowledge of childcare than the aged mothers. It is interesting to see that the young illiterate women who experienced motherhood before 18 years of their age have less knowledge of childcare and this may be because they have to follow the family traditions and bear less confidence in themselves. The young neo-literate of all categories found to develop better in knowledge of childcare and so it can be assumed that self confidence has been developed through the adult education campaign and thus its purpose has been served. Knowledge is to be preserved within individual for their future implementations. Awareness can be grown within individual through education but understanding its true values would play more important role in their life. So, it becomes important to introduce programme that could sustain their positive attitude towards child care among poor adult learners and further in-depth study is prescribed.

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Medical Education in Calcutta Madrasah (1820-1835)

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Abstract

Calcutta Madrasah pioneered of imparting medical education in modern India. Its medical syllabi was the fusion of Unani and European Medicines. The object behind the introduction of medical education was imperialist. Socio-economic and religious discrimination was salient features of education system in the Madrasah. In spite of shortcomings, the first credit of culturing modern Unani does go to the Madrasah.

Key Words: Calcutta Madrasah, Unani Medicine, European Medicine, Islamic Theology, Tibbi Nawabi, Hakim Abdul Majeed, Hakim Julfiquar Ali, Integrated Medical Education, Medical Imperialism, Social Discrimination, Modern Unani.



Introduction

Calcutta Madrasah, the earliest government institute in India for higher Islamic learning founded by Warren Hastings in 1780 has been the matter of great importance to the social scientists through the ages. Some information on the subject is available in the studies of Binoy Bhushan Ray and Seema Alavi, but they are too small to have comprehensive idea on the object and feature of medical education in the Madrasah. They absolutely lack the socio-academic character of education prevailing there and the policy the Government adopted towards it. The present study aims at exploring the real object of the British Government behind the introduction of medical classes in the Calcutta Madrasah, examining the nature and feature of medical education and method of learning and unearthing the social discrimination prevailed in its education system. The Government policy towards the Madrasah would also be taken into accounts.

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Early Education on Health and Medicine

Since the inception, the *Nizamia* System of Education (*Dars-e-Nizami*)¹ was adopted in the C.M. Its curriculum included at least two special papers in all subjects of knowledge and science. Importance on the natural philosophy including medicine (*Hikmat*) in the curriculum of the Madrasah was accorded. All the students of the Calcutta Madrasah were imparted Physiology (*Ilm-al-Af'al-e-A'da*), Physis (*Tabyat*) and Physic (*Medicine*) as the subjects of Medicine (*Ilm-e-Tibb*) along with the subjects of Islamic theology.² No separate section was demarcated between theology and medicine and the Head Mauluvis themselves play the dual role—teacher of theology and medicine at the same time instructing the students in Arabic language.³ Apart from this, the students were also instructed in health, hygiene and the Prophetic medicine from the Holy Quran and *Hadith* respectively⁴.

The students were instructed medicine orally by the teachers following the prescribed subjects and they preserved their lessons by memory and heart, which they had to recite before their teachers the next day. System of internal examination existed in the Madrasah. However, the students who exclusively intended to take medicine as profession entered the apprenticeship under Hakims of repute after the completion of study. They were facilitated practical training by the Hakims concerned at their own *dawakhana*s for a certain period. Thus, a large number of students from the Calcutta Madrasah came to be known subsequently as proficient Unani physicians in Calcutta. No arrangement of practical training in medicine was made in the institution before 1822.⁵ Those who performed well in the medical subjects were provided stipends of Rs 5–7 per month in recognition with the Head Mauluvi since 1781.⁶ During this phase, thus, indigenous nature of medical education on Unani was imparted to.

As a part of reform measures in the Calcutta Madrasah, undertaken by the Madrasah Committee in 1820 under Lumsdon as secretary, departmentalization of different subjects including medicine was made.⁷ The post of Head in each department was created. But no new teacher was appointed in the Department of medicine and Abdur Rahim himself adorned the same for the time being. The first annual examination in the different departments was held in the Town Hall on 15th August, 1821 in presence of many Government dignitaries and gentlemen of Calcutta. The students performed well in the examination.⁸ In this sense, the Calcutta Madrasah is the pioneer institute to conduct the public examination in British India.

During the phase 1780-1820, medical education in the Madrasah was, thus, based on the Islamic theological texts. Since 1807-08, it was a shift of thought of its preceptor that the learners should have been introduced with the modern

knowledge and sciences. It resulted in the inclusion of several basic medical texts of modern medicine in the curricula. But the nature of teaching medicine did not cross the boundary of theory beyond practice. This non-practical as well as non-professional teaching in medicine was provided to the students till 1820. In other words, this theoretical teaching in medicine blended with the Islamic theology can be characterized as the 'theo-Medical' type of education.

Department and Course of Unani Medicine (1822-1835)

The new decade (1820s) ushered a new era in the education system of the Calcutta Madrasah 'New scheme' of education was adopted.⁹ The journey of Department of Unani Medicine began with four students headed by Hakim Abdul Majeed in 1822, who was appointed as the Professor of Unani medicine in the same year with a salary of Rs.100 per month.¹⁰

However, Abdul Majeed edited the Arabic medical text, *Quanuncha* by Ahmad bin Mahmud Chugmani for making it easily discernable to the students, which was published by the Government. Those who were weak in Arabic were suggested to read the treatise on medicine *Mizan-i-Tibb* in Persian.¹¹ *Sharah-i-Mujiz* by Muhammad Kazim too edited by him was also imparted to the students. Apart from these, *Sudeed, Nafisi* alongwith the subjects of Physiology and Physis were adopted for teaching.¹² Hakim Abdul Majeed edited *Bahrul Jawahar*, a medical dictionary by Hakim Muhammad Bin Yusuf to remove the difficulty of students in understanding the medical terminology.¹³ Internalized teaching and examination system existed in the department of Unani medicine. Hakim Abdur Rahim assisted Abdul Majeed in the department. The students were facilitated practical training in the Native Hospital of Chandni Chawak in association with the medical students of the School for Native Doctors.¹⁴ Hakim Abdul Majeed was expelled from his service in the month of April, 1824 due to his opposition to the new education and examination system introduced by the Government and to the despotic authority of the European Secretary (Lumsdon) of Madrasah. But the Madrasah Committee could find none competent in place of Majeed to fill the post.¹⁵ It was the transition period (1822-24) of medical education in the Madrasah during which the theo-medical type of teaching turned into professional based on the Unani or Arabic medicine.

In 1823, General Committee of Public Instruction (henceforth GCPI) was constituted and a sub-committee headed by a secretary under its control began to look after the affairs of the Madrasah. The expel of Hakim Abdul Majeed affected the medical education worst. Lumsdon, the secretary of the Calcutta Madrasah reported it to the secretary of the GCPI and proposed to appoint experimentally the old four students of the department in place of Majeed, who had also been expelled along with their teacher. The amount of salary which

Hakim Majeed had been paid was decided to be distributed among the fours. But the plan proved likely to be unsuccessful.¹⁶ During the period from 1824-26, precarious state prevailed at the Department of Unani medicine due to the lack of qualified Unani teacher as well as Physician. It accompanied the sudden onslaught of the Cholera epidemic in Calcutta in virulent form which caused tolls of a large number of teachers like Mauluvi Ali-Aziz of the Madrasah. This Cholera-calamity was about to stand the whole education system still in the Calcutta Madrasah for the time being.¹⁷

Breton Age

D. Ruddell as secretary of the Calcutta Madrasah recommended to appoint an European doctor as Head of the department, because, he argued, modern treatment of the epidemic diseases like Cholera which affected the Madrasah worst were unknown to the native Physicians.¹⁸ Ruddell's recommendation for the recruitment of Hakim Julfiqer Ali¹⁹ as the Head of the department was granted and the Hakim took the charge from the 1st June, 1826.²⁰ Dr Peter Breton, the superintendent cum teacher of the Native Medical Institute (hence forth NMI) was also appointed as the guide as well as teacher at the department. Another European, Lt. Tod who was well versed in Arabic Medicine was also posted to assist Dr. Breton.²¹ Ruddell also requested Breton to vernacularize the European medical texts for the students.²² Language of medical education remained Arabic and a large number of European medical treatises on anatomy, osteology, cataract, cholera morbus, intermittent fever etc. which were taught in the NMI were translated into Arabic for teaching the students of Madrasah.

During the three-years of medical course, students were admitted first in the lower class (third class) in which they were generally taught *sudeed*, *Quanuncha*, *Tabyat* etc. along with Physiology. In the middle class (second class), *Anis-ul-Musarraheen*, *Sharh-al-asbab* as well as different European medical treatises mentioned above were imparted to the students. In the upper (final) class, *Nafisi*, *Aksari*, *Muziji*, *Fasrehul Qaul* along with the European medical texts on anatomy, surgery, medicine, pharmacy pharmacology, pharmacognosy along with practical training were imparted.²³ Apart from these, medical vocabulary by Breton, translation of *Anatomy* by Carey, *Principle of Medicine* by Khetra Mohan Gupta, *Hudud-ul-Amrad*, *Alfaaj-ul-Udweeh*, *Ranz-ul-Udweeh*, *Mear-al-Amraj* etc. were included in the syllabus of medicine in the Calcutta Madrasah.²⁴

In addition to handling the Unani Department as Head, Hakim Julfiqer Ali engaged himself in translating the European medical treatises into Arabic for his students. Dr. Breton took the surgery classes. Goats and sheeps were dissected by him to teach the students. Lt. Tod shared his knowledge on Arabic Medicine

with them. Anatomy was imparted by both Breton and Julfiquer Ali. Medical tracts and skeletons were purchased by the Government for the purpose.²⁵ Teaching on epidemic diseases and training how to resist and remove them were provided to the students. They were introduced with the European system of injection.²⁶ All these, reflect the efforts, from the end of the teachers as well as the Government to modernize the Unani education system in the Madrasah, since 1826 adopting syncretic medical method so as to suit it better with the spirit of age. This object encouraged them in the rapid vernacularization of the European medical texts which undoubtedly enhanced the study of the vernacular languages and there by, enriched them.

Following the synthesized syllabus of Unani medicine, the first examination was held in the Calcutta Madrasah on the 24th January, 1827 under the joint guidance and supervision of Hakim Julfiquer Ali and Dr. Breton.²⁷ The examination was divided into three part-theoretical, practical and oral. Internal teaching and examination system now turned into public since the year. The questions covered all sorts of diseases and the prospective remedies, but no practical examination was known to be held in that year.²⁸ It was, perhaps, because of the lack of adequate training facility for the students in the Madrasah. The examination report sent by Breton to the Government reveals satisfactory performances of the students in all subjects of medicine. To name a few who appeared in the examination were Yusuf Ali, Quadeem Hussain, Umar Ullah, Qurban Ali, Abdul Bari, Islam Ali, Breton, in his report, loudly praised the students for their success and the concerned teachers of the department specially Hakim Julfiquer Ali in the first examination in spite of infrastructural inadequacy in the department. He requested the Government to ensure the delivery of printed medical books and pictures of different limbs of body to the students in adequate number.²⁹ So, it is clear that institutionalization as well as modernization of Unani medicine was pioneered by the Calcutta Madrasah in India and even in the South-East Asia.

New admission system was opened in the department of Unani in 1827. Freshers had to face an open entrance test on *Sharh-i-Mujiz*.³⁰ The qualified candidates were prioritized in admission. In 1828, the second promotional examination was held under the joint supervision of Hakim Julfiquer Ali and Dr. Breton in assistance with Lt. Tod. The students again proved their excellence satisfactorily. But the death of Hakim Julfiquer Ali and Dr. Breton in 1829 and 1830 respectively affected worst the study of Unani in the Calcutta Madrasah. Hakim Muhammad Jaan, son of Hakim Julfiquer Ali was appointed in place of his father in April, 1829.³¹ His sincere performance was greatly praised by Mr. Breton. After 1829, according to the previous recommendation made by the medical personnel of the Government, beds were arranged and patients were

allowed to be admitted in the Madrasah, attached dispensary was also set up similar to the Sanskrit College. The students now facilitated the bed-side experience which helped them to take necessary care for the patients.³²

Tytler-Age

John Tytler, the Superintendent of the NMI came in place of Breton.³³ He intended to modify and remodel the Unani education in the Calcutta Madrasah. He tried to find out the short comings in the department and to remove them as early as possible.³⁴ According to his recommendations, chemistry, midwifery, modern surgery etc were included in the syllabus, new teachers were appointed at the department & production of drug and their preservation were arranged and treatment of children was taught to the students. Insistence was provided on teaching in surgery and translating the modern European medical texts for the students.³⁵ Tytler's favourite assistant, Hakim Abdul Majeed was reappointed in 1831³⁶ and then he was accompanied with Hakim Muhammad Nazim, Lutfar Ali and Hakim Muhammad Yusuf, ex-students of the department to meet the demands of the increasing students in the department.³⁷ The peak period of Unani study in the Madrasah was from 1831-1833 during which twenty students were imparted under the sincere guidance of John Tytler. Again, the sudden death of Hakim Md. Jaan in 1833 stood in the way of progress of medical education. On the other hand, the British Government established the Calcutta Medical College in 1835 and closed the course of Unani medicine in the Madrasah.³⁸ The students of Unani medicine were allowed to be admitted in the new Medical College for completion of their study and the remaining fund allotted for the medical course in the Madrasah was transferred to the Medical College. Only medicine was adopted as the optional subject in the fourth Class and a Hakim, since then, tried to keep the dropping light of Unani-Candle up in the Madrasah.³⁹ The medical syllabi adopted and pattern of instruction served in the Madrasah explicitly reveals its holistic nature.

Caste, Class, Gender and Ethnicity

The Calcutta Madrasah was setup for the socio-economic and religious as well as cultural advancement of the Muslim Community in Bengal in particular. Naturally the Madrasah which imparted the Islamic knowledge and science to its learners allowed the pupils merely from the Muslim Community⁴⁰. Thus, the caste based profile was an unalienable character of the Calcutta Madrasah. Mentionable, W.N. Lees, the principal of the Calcutta Madrasah who first thought in 1863 of opening the door of the Madrasah to the students from Hindu Community. But the strong protest from the teachers and students of the Madrasah got Lees retreated⁴¹.

Class discrimination was another feature in the education system of the

institution. The students from the elite class Muslim families (*Ashraf*) were allowed to have admitted in the Calcutta Madrasah. There was an essential requirement of an applicant to produce a certificate of respectable parentage (*Sherafat-Nama*) from some well known person and the certificate also required the counter signature of some members of the Madrasah Committee. It was only to keep the boys of lower class Muslim families (*Atraaf*) away from learning in the Calcutta Madrasah.⁴² But the British Government subsequently decided to remove all caste/class restriction on admission.⁴³

The Calcutta Madrasah did not accept co-education system.⁴⁴ Females were not allowed in admission. It was most probably because of the conservativeness of the Muslim society which did not then permit them learning with males going out of *Pardah*. Thus, gender discrimination prevailed in the Madrasah.

Education system of the Madrasah was chiefly controlled by those of the Muslims who were elite basically belonging to the Persianate families in Calcutta. Besides, most of the books on the Islamic theology along with medicine included in its curriculum were of Persian, though, subsequently they were translated into Arabic which was adopted as the medium of instruction.⁴⁵ Even, in respect of admission into the class of medicine, boys of Persian knowledge were provided priority. In nineteenth century Bengal, almost all the Unani practitioners were Non-Bengali Muslims. They regarded 'Unani medicine' as '*Tibb-i-Shareef*' (Elite medicine) and considered their monopoly over its knowledge and practice justified as they regarded themselves elite class. They, generally disliked to spread its knowledge among the common Bengali Muslims for keeping their professional interests intact.⁴⁶ So, the ethnic domination explicitly engulfed Unani education system in the Madrasah.

However, notwithstanding, there were a number of shortcomings in the department of Unani medicine in the Madrasah. Most of the students and teachers of the Madrasah were in suspicion of the object behind the introduction of the medical course. This doubt discouraged them to complete the course of study.⁴⁷ Perhaps, that is why, a number of students left the department amidst their study. It accompanied the insecurity of job in future and fear of loss of the purity of Islamic (Unani) medicine with integration of the European one. The lack of adequate number of printed or published medical texts, problem of going through the brittle manuscripts of Unani medicine, want of adequate number of qualified teachers and sincere willingness of the students to study the European medical texts, of course, restricted the success of medical education in the Madrasah.⁴⁸

Government's Policy

The British Government was intentionally indifferent to the health of their

subjects. No specific policy was adopted in this regard till the second decade of the nineteenth century; rather they were busier in gaining their economic as well as political ends.⁴⁹ But the epidemics broke out repeatedly and widely in Bengal during this time, which caused tolls of a large number of Europeans along with the natives compelled them to adopt some essential initiatives in this regard. They sought helps from the practitioners of indigenous medicine to tackle the situation.⁵⁰ The Hakims of Unani and Vaid of Ayurvedic medicine were sent to reach the medical relief at the far off villages of Bengal. At this time, the Government thought of the necessity of their training in the European medicine and utilizing them at the time of epidemics. For the purpose, they set up the School for Native Doctors in 1822 in Calcutta after the Medical Board of the Company had recommended to. But the institute was closed due to the non-cooperation, unwillingness and antipathy from the end of its learners—indigenous medical practitioners—to be trained merely in the European medicine. The British Government realized the fact and decided to open the class of Unani medicine in the Calcutta Madrasah for the Muslim students and Ayurvedic medicine in the Sanskrit College (henceforth, S.C.) for the Hindu students.⁵¹ It clearly reflects the British's caste-based division policy adopted and utilized by them first between the Muslim and Hindu in Bengal in respect of medicine of their own religion and faith (at least they claim so). In these perspectives, the introduction of medical class and course in the institution to teach the students in Unani alongside the European medicine was made in 1822. Moreover, the lack of adequate number of European doctors, of infrastructure in the field of health and medicine and small expenses in teaching the natives in the European medicine along with their owns also prompted the British Government behind this project.⁵²

Integrated or Imperialist Medical Education?

Now, what questions arise in mind are, why the British Government introduced the medical classes of integrated fashion (Unani and European Medicine) or why they did not open merely the classes of Unani medicine in the Madrasah. The answer is clear. The British never intended to introduce the class of Unani medicine, they had to do it for the interest of the European medicine at which the strong antipathy of the Unani Hakims have already been revealed. This policy of juxtaposition of these two different medicines—European Medicine in the Unani Department—was adopted due to avoid the opposition from the Unani as well as Muslim Community in introducing it in the Calcutta Madrasah and thus by, removing their dislike and discontents to the European Medicine. More over, to appropriate and drain the property and knowledge of Unani, this juxtaposition as well as close association was essential. The British Government, in fact, did

never intend to promote Unani education and practice in the Madrasah because; its pupils might have posed challenges to the medical practitioners as well as practice of the European Medicine.⁵³

The introduction of the medical class in the Calcutta Madrasah with the Arabic as a medium of instruction provided the opportunity to the British to teach the Muslims in the European medicine. And, this Islamic institute along with Arabic language with which the religious sentiment of the Muslim was concerned was very carefully and cleverly utilized as the tool of imperialism. Seema Alavi has also found out the existence of imperial interests behind the adoption of Arabic as a medium of instruction.⁵⁴ She observed that as the appropriation of the knowledge and property of the Arabic (Unani) medicine was one of the objects of the Colonial Government; they considered the Arabic language the proper means to serve the purpose.⁵⁵ This imperial object was also echoed in the voice of John Tytler who expected the Madrasah to be the producer of scholar physicians who would not only teach the Arabic medicine but also diffuse among them (students) a taste of European literature and Science (including Medicine).⁵⁶

Economic and Political Bias

Under the superintendentship of Surgeon Grant, while the Ayurvedic medicine in the Sanskrit College moved rapidly towards progress, Unani medicine in the Calcutta Madrasah guided by Breton could not reach the expected line of the same. In 1830, 10 Professors were teaching in the department of Ayurvedic medicine in the Sanskrit College whereas 4 teachers hold the Unani Department of the Madrasah in the same year. 86 students out of 196 in the same department of the Sanskrit College were provided stipends whereas in the Madrasah this number did never cross over 20.⁵⁷ In fact, inadequate infrastructure along with the lack of spontaneous help from the Government could not motivate the Muslims to the medical class in the Calcutta Madrasah. Hospital and dispensary attached to the Sanskrit College were promptly built and Rs. 2400 were granted in 1835 for the purpose. It accompanied Rs. 3600 as the salary of professors, Rs. 720 for the Pandits, Rs. 1152 as stipends for the students and Rs. 1500 as house rent.⁵⁸ The Sanskrit College was provided Rs. 1800 per month⁵⁹ where as Rs. 30772 were granted for the Madrasah per year.⁶⁰ This biased policy of the Government was definitely in the way of its progress. Again, in 1835, after the abolition of the medical class in the Calcutta Madrasah and NMI, when Hakim Abdul Majeed became jobless and faced financial crisis, but he was not resettled in the new medical College whereas Madhusudan Gupta and Prasad Pandit of the Sanskrit College were transferred there.⁶¹

The British—either Orientalists or Anglicists were imperialists. The Orientalist

scholars like H.H. Wilson, Galloway, Peter Breton or John Tytler were neither the devotees of the Oriental Knowledge or language nor they learnt them by their spontaneous love or admiration to them; it was their professional as well as imperial necessity and duty which prompted them to study the same. Many of them achieved fame and fortune in the name of Orientalism.⁶² However, the professional rivalry between Breton and Tytler created groupism among the teachers of Unani medicine in the Madrasah. While Hakim. Abdul Majeed was grouped with Tytler, Breton encamped with Hakim Julfiquer Ali who was appointed as the Head of the Unani Department in place of Abdul Majeed.⁶³ This, perhaps, happened due to the professional rivalry that prevailed between them, which explicitly affected the study of medicine in the Madrasah. Thus, it has been evident that the object and policy of the British Government towards the medical education in the Madrasah evolved absolutely around the interest of colonialism. Here, Unani medicine was utilized as a 'trap' to introduce the European medicine in the indigenous institutions which acted explicitly as a 'tool' of imperialism.

Conclusion

The study has examined, here, the education and training in Unani medicine in the Calcutta Madrasah. During the first forty years of the Madrasah, the students were provided the primary knowledge on health and medicine blended with the Islamic theological teachings. At the beginning of 1820s, the Government's initiatives to reform the Madrasah Education in western style, though strongly opposed by the teachers and students, brought about the transition of Unani in the Madrasah from the theo-medical to professional character of education. Caste, class, gender and ethnic features prevailed in the learning system of the Madrasah. Since 1826, it proceeded towards modernization. During this phase, Unani medicine negotiated with the European medicine in the NMI. It was, in fact, the first attempt to indigenize the English medicine in the cup of Unani medicine. Thus, institutional establishment of the colonial medicine was happened in the Madrasah.

The introduction of medical course, however, undoubtedly provided an opportunity to the students of the Calcutta Madrasah as well as the Indians to master the art of European healing system along with their owns. It was the Calcutta Madrasah in India where Unani and European system of medicine and their experts first met, interacted, collaborated and exchanged their ideas and thoughts each other institutionally and these by enriched themselves. The study of anatomy proved the universality of medicine breaking the idea of aristocratic and individual comportment which the Persian medical texts had nourished in Unani for long. It also taught the students the presence of certain similarities among all bodies of different people irrespective of caste, class, colour and

creed.⁶⁴ So, it can easily be claimed that it was the C.M. in India, forty years before Hakim Ajmal Khan of Delhi, where institutional approach to integrate the Unani with the European medicine was made.⁶⁵ This policy of medical integrationist approach was not only adopted subsequently by the Unani practitioners in the revival and development movement of Unani medicine, but also utilized in medical practice. And, thus, as the Calcutta Madrasah deserved the feats first of emergence of the idea of 'Modern Unani Medicine' juxtaposing Unani and European Medical education in its syllabi, medical imperialism in particular and cultural imperialism in general was introduced from there, at the same time.

Notes and References

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3. S.C. Sanial *op.cit.* p 89; Mustafa Haroon, *op.cit.* p. 53; Seema Alavi, *Ibid.*
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7. Revenue Consultations, 27th October, 1820, Nos-3-4 pp. 4-5; S.C. Sanial, *op.cit.* p. 91
8. Revenue Consultations, 25th January, 1822, Nos-28-29 p. 4; S.C. Sanial, *op.cit.* p. 92.
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16. General Committee of Public Instruction, July 1823–December 3, 1823 Vol-1, p. 125 & pp. 132-133.
17. *Ibid.* p. 186 & p. 242.
18. *Ibid.* 1826, pp. 437-440.
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20. *GCPI* 1824-1830 p. 74; 1826, pp. 437-40.
21. *Ibid.* 1827, pp. 568-73.
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23. *GCPI*, 1831, Ist Jan to 27th Dec, pp. 125-129.
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26. *GCPI*, 1823, pp. 437-40.
27. *GCPI*, 1827, pp. 508-73
28. Ibid
29. Ibid
30. Seema Alavi, *op.cit.* p. 65. *Sharh-I-Mujiz* by Muhammad Kazim is dealt with the four sections- the general principle of medicine, compound Medicine, treatment of local diseases and general diseases. Primary medical knowledge of candidates is tested in this examination.
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54. Seema Alavi, *op.cit*. pp. 58-59.
55. Ibid p. 59.
56. Ibid p. 58.
57. Brajendra Nath Bandyapadhya, *op.cit*. p. 4.
58. *GCPI*, Copy Book of letters received and issued by the Committee, part-1, Jan,1836–April 1838, No. 2626.
59. Brajendra Nath, *op.cit*. p. 4.
60. Mustafa Haroon, *op.cit*. p. 67.
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Mid-day Meal Scheme in Relation to Attendance of Primary School Children

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Abstract

The state Government of Tripura launched Mid-Day-Meal Scheme in 1980 for children reading in classes I-V in Government and Government aided schools but providing cooked meal (khichudi) since first April 2003 under the Scheme. Instructions for the smooth and effective implementation of Mid-day-Meal Scheme have been issued by Govt. of Tripura from time to time as per the NP-NSPE-2006 guidelines and as well as for the benefit of the children. The present study focuses on the implementation of the mid day meal scheme and its impact on attendance of rural primary school students of Tripura. Five (5) Blocks were taken from five different Subdivisions of rural West Tripura District. Four (4) schools were selected from different parts of each block. Thus total (5 x 4 = 20) twenty schools were selected to collect the data. In 20 schools all 21647 students from class-I to class-V of academic year 2001 and all 24138 students from class-I to class-V of academic year 2011 constituted the sample. To collect the data Student's attendance register (class-I to V) was used. For quantitative analysis of data the regression analysis and two way ANOVA were carried out to find the causal relationship between attendance and existence of mid day meal and to see the effect of introduction of Mid Day Meal on seasonal variation of attendance of students (class-I to V). The study shows significant effect of mid day meal scheme on the attendance of primary school student of West Tripura District.

Key Words: Mid Day Meal, attendance, primary education

Introduction

The objective of primary education is to build up a responsible personality capable of functioning as a useful citizen. The contribution of Education to development in all Socio-Economic development spheres is very significant. On November 28, 2001 Supreme Court ordered directing all State Governments to

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introduce cooked mid-day meals in primary schools within six months. Nevertheless, the coverage of Mid-day Meal programme has steadily expanded during last few years, and cooked lunches are rapidly becoming part of the daily school routine across the country (Dreze. J, Goyal. A–2003). The State Government of Tripura began providing cooked meal (khichudi) to the eligible primary school children on all school days since 1st April 2003 under Mid-Day-Meal Scheme. The NP-NSPE Scheme was first revised in 2004 and again in 2006. Presently, Government of India is providing central assistance to all state Government @ 2.42 per child per school day in the Primary and @ 3.63 in the Upper Primary stage. Against the central assistance, the State contribution is Rs 0.50 per child per school day both for the Primary and the Upper Primary stage. Mid-Day-Meal is run in **4564** Primary schools and **1946** Upper Primary schools. Till date, a total of **416608** children in the Primary stage and **201857** in the Upper Primary stage have opted for the Mid-Day meal in schools. Mid-day-Meal is also extended to all EGS & AIE centres established under SSA Scheme and also Madrassa/Muqtab institutions. The prime objective of this scheme is to enhance enrolment, retention and attendance and simultaneously improving nutritional levels among children (Government of Tripura, Education (School) Department, Mid-Day-Meal Section, 2011).

It is revealed from the various studies that the problems of elementary education are mainly non-enrolment, irregular attendance, stagnation, dropout, etc. Many studies were conducted on non-enrolment, stagnation, achievement and dropout but very few were available on the Mid-day Meal programme in the state of Tripura. Halder, Maiti and sil (2013) in their study entitled “A study of the impact of Sarva Shiksha Abhiyan Programme on the status of Primary Education in West Tripura District” found that SSA programme helped to increase the NER and decrease the stagnation and dropout; there was no significant difference in the rate of stagnation and dropout among boys and girls; achievement level of urban students was better than the rural students. But no studies were done to see the effect of Mid Day Meal on attendance of primary students of Tripura. The researchers have collected data from the academic year 2001, before the implementation of Mid Day Meal in Tripura and collected data from academic year 2011 to see the effect of Mid Day meal on daily attendance.

Objectives of the Study

1. To study the effect of mid day meal on daily attendance of students in rural primary schools of West Tripura after the introduction of mid day meal.
2. To study the effects of mid day meal on seasonal variation of attendance of students in rural primary schools of West Tripura after the introduction of mid day meal.

Sampling Technique and Sample size

Stratified random sampling technique was adopted. Five (5) rural Blocks were taken from five different Subdivisions of West Tripura District. Four (4) schools were selected from different parts of each block. Thus total ($5 \times 4 = 20$) twenty schools were selected to collect the data. In 20 schools, all 21647 students from class-I to class-V of academic year 2001 and all 24138 students from class-I to class-V of academic year 2011 constituted the sample. To collect the data Student's attendance register (class-I to V) was used.

Analysis of Data

For quantitative analysis of data the regression analysis and two way ANOVA were carried out to find the causal relationship between attendance and existence of mid day meal and to see the effect of introduction of Mid Day Meal on seasonal variation of attendance of students (class-I to V).

Findings of the Study

Finding of the study is discussed bellow-

Status of daily attendance of students after the introduction of midday meal

Data (Class wise attendance) collected by the researchers from the twenty schools of 2001 and 2011 academic years are classified into three categories, (a) Poor (0-29%), (b) Average (30-59%) and (c) Good (60% and above).

Table-1: Attendance of Primary School Students Before the Implementation of Mid Day Meal (2001)

	poor	average	good	Total
Class-I	621	2430	1349	4400
Class-II	355	2471	1571	4397
Class-III	608	2405	1432	4450
Class-IV	351	2579	1400	4330
Class-V	580	2442	1048	4070

Table-1 shows the attendance of Primary school Students in classes I, II, III, IV and V before the implementation of Mid Day Meal (2001). The number of first generation learners under poor categories in classes I, II, III, IV and V were 621 (14%), 355 (8%), 608 (14%), 351(8%), 580(14%) respectively. The number of students of averages attendance in classes I, II, III, IV and V were 2430 (55%), 2471 (56%), 2405(54%), 2579(60%), 2442(60%) respectively. Similarly, the number of students whose attendance were good in classes I, II, III, IV and V were 1349 (31%), 1571 (36%), 1432 (32%), 1400(32%), 1048(26%) respectively.

Table-2: Attendance of Primary School Students After the Implementation of Mid Day Meal (2011)

2011	poor	average	good	Total
Class-I	781	1183	2963	5060
Class-II	358	1194	3373	4990
Class-III	722	1118	3022	4862
Class-IV	353	1126	3281	4750
Class-V	676	892	2908	4476

Table-2 shows the attendance of Primary school Students in classes I, II, III, IV and V after the implementation of Mid Day Meal (2001). The number of learners under poor categories in class I, II, III, IV and V were 781 (16%), 358 (7%), 722 (15%), 353(7%), 676(15%) respectively. The number of students of averages attendance in classes I, II, III, IV and V were 1183 (24%), 1194 (24%), 1118(23%), 1126(24%), 892(20%) respectively. Similarly, the number of students whose attendance were good in class I, II, III, IV and V were 2963 (60%), 3373 (69%), 3022 (62%), 3281(69%), 2908(65%) respectively. Regression analysis is a statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables (or ‘predictors’). More specifically, regression analysis helps one understand how the typical value of the dependent variable (or ‘criterion variable’) changes when any one of the independent variables is varied, while the other independent variables are held fixed. The regression analysis is carried out to find the causal relationship between attendance and existence of mid day meal. More precisely the method is applied to show how introduction of mid day meal effects the level of student attendance in schools.

Table-3: Effect of Mid Day Meal on attendance (Regression analysis)

Model	Unstandardized Coefficients		t	Sig.	R Square
	B	Std. Error			
(Constant)	30.851	1.336	23.099	.000	.554
Presence of Mid day meal	29.640	1.889	15.693	.000	

Dependent Variable: good percentage

As per table 3 the proportion of good attendance is significantly affected by the

introduction of midday meal. The proportion of good attendance is increased when mid day meal is introduced as compared to when it is not been in existence. Furthermore the introduction of mid day meal explains 55% of the total variation in the proportion of good attendance (Table-3). Month-wise attendance of selected twenty Primary school students of classes I, II, III, IV and V is shown in the table in the academic session 2001(Before implementation of mid day meal scheme).

Table-4: Level of Attendance in Different Classes Before Implementation of Mid day Meal Scheme

Classes	Atten- dance	Number of students attended in the school in the academic session 2001 (Before Mid day meal)									
		Ja	F	Mar	A	M	Au	S	O	N	D
Class-I	Poor	22 (5%)	6S (15%)	76 (17%)	72 (16%)	73 (17%)	67 (15%)	63 (14%)	62 (14%)	64 (14%)	57 (13%)
	Average	251 (57%)	225 (51%)	236 (54%)	238 (54%)	243 (55%)	250 (57%)	245 (56%)	241 (55%)	246 (56%)	255 (58%)
	Good	167 (38%)	150 (34%)	128 (29%)	130 (30%)	124 (28%)	123 (28%)	132 (30%)	137 (31%)	130 (30%)	128 (29%)
	Total	440 (100%)	440 (100%)	440 (100%)	440 (100%)	440 (100%)	440 (100%)	440 (100%)	440 (100%)	440 (100%)	440 (100%)
Class-II	Poor	22 (5%)	40 (9%)	40 (9%)	58 (13%)	40 (9%)	20 (5%)	20 (5%)	40 (9%)	38 (9%)	37 (8%)
	Average	251 (58%)	248 (57%)	234 (54%)	230 (53%)	245 (57%)	256 (59%)	24S (56%)	235 (54%)	25S (59%)	264 4 (61%)
	Good	161 (37%)	146 (34%)	160 (37%)	146 (34%)	149 (34%)	158 (36%)	169 (39%)	159 (37%)	141 (32%)	133 (31%)
	Total	434 (100%)	434 (100%)	434 (100%)	434 (100%)	434 (100%)	434 (100%)	434 (100%)	434 (100%)	434 (100%)	434 (100%)
Class-III	Poor	25 (6%)	66 (15%)	74 (16%)	76 (17%)	67 (15%)	70 (16%)	67 (15%)	65 (15%)	52 (12%)	46 (10%)
	Average	268 (60%)	245 (55%)	230 (52%)	231 (52%)	236 (53%)	234 (52%)	231 (52%)	235 (53%)	246 (55%)	249 (56%)
	Good	152 (34%)	134 (30%)	141 (32%)	138 (31%)	142 (32%)	141 (32%)	147 (33%)	145 (32%)	147 (33%)	1S0 (34%)
	Total	445 (100%)	445 (100%)	445 (100%)	445 (100%)	445 (100%)	445 (100%)	445 (100%)	445 (100%)	445 (100%)	445 (100%)
Class IV	Poor	20 (5%)	38 (9%)	40 (9%)	57 (13%)	40 (9%)	20 (5%)	21 (5%)	39 (9%)	37 (8%)	39 (9%)
	Average	270 (62%)	249 (57%)	249 (57%)	245 (56%)	255 (59%)	270 (62%)	269 (62%)	253 (58%)	259 (60%)	260 (60%)
	Good	145 (33%)	148 (34%)	146 (34%)	133 (31%)	140 (32%)	145 (33%)	145 (33%)	143 (33%)	139 (32%)	136 (31%)
	Total	435 (100%)	435 (100%)	435 (100%)	435 (100%)	435 (100%)	435 (100%)	435 (100%)	435 (100%)	435 (100%)	43S (100%)

Table-4: Level of Attendance in Different Classes Before Implementation of Mid day Meal Scheme (Contd.)

Classes	Attendance	Number of students attended in the school in the academic session 2001 (Before Mid day meal)									
		Ja	F	Mar	A	M	Au	S	O	N	D
Class V	Poor	27 (6%)	61 (15%)	65 (16%)	69 (17%)	71 (17%)	66 (16%)	67 (16%)	55 (13%)	53 (13%)	46 (11%)
	Average	255 (63%)	236 (58%)	229 (56%)	236 (58%)	239 (59%)	251 (62%)	238 (59%)	244 (60%)	248 (61%)	266 (66%)
	Good	125 (31%)	110 (27%)	113 (28%)	102 (25%)	97 (24%)	90 (22%)	102 (25%)	108 (27%)	106 (26%)	95 (23%)
	Total	407 (100%)	407 (100%)	407 (100%)	407 (100%)	407 (100%)	407 (100%)	407 (100%)	407 (100%)	407 (100%)	407 (100%)

The month-wise attendance of selected Primary school students of classes I, II, III, IV and V in the schools before the implementation of Mid Day Meal Scheme is given in Table-4. It is observed that in class I out of 440 students, only 31% primary students attended above 60% working days in January to December. Similarly, in class II out of 434 students 35%, in class III out of 445 students only 32%, in Class IV out of 435 students only 32% and in Class V out of 407 students only 26% attended the schools above 60% working days (good attendance) in the month of January to December.

Table-5: Level of Attendance in Different Classes After Implementation of Mid day Meal Scheme

Classes	Attendance	Number of students attended in the school in the academic session 2011 (After Mid day meal)									
		Ja	F	Mar	A	M	Au	S	O	N	D
Class I	Poor	21 (4%)	68 (14%)	80 (16%)	83 (17%)	90 (18%)	80 (16%)	77 (16%)	73 (15%)	88 (18%)	82 (17%)
	Average	138 (28%)	155 (32%)	105 (22%)	120 (25%)	103 (21%)	86 (18%)	139 (28%)	123 (25%)	107 (22%)	108 (22%)
	Good	329 (68%)	265 (54%)	303 (62%)	285 (58%)	295 (61%)	322 (66%)	272 (56%)	292 (60%)	293 (60%)	298 (61%)
	Total	488 (100%)	488 (100%)	488 (100%)	488 (100%)	488 (100%)	488 (100%)	488 (100%)	488 (100%)	488 (100%)	488 (100%)
Class II	Poor	20 (4%)	41 (8%)	40 (8%)	59 (12%)	40 (8%)	20 (4%)	20 (4%)	40 (8%)	39 (8%)	39 (8%)
	Average	149 (30%)	114 (23%)	142 (29%)	125 (25%)	123 (25%)	141 (29%)	144 (29%)	143 (29%)	53 (11%)	64 (13%)
	Good	325 (66%)	339 (69%)	312 (63%)	310 (63%)	331 (67%)	333 (67%)	330 (67%)	311 (63%)	402 (81%)	391 (79%)
	Total	494 (100%)	494 (100%)	494 (100%)	494 (100%)	494 (100%)	494 (100%)	494 (100%)	494 (100%)	494 (100%)	494 (100%)

Table-5: Level of Attendance in Different Classes After Implementation of Mid day Meal Scheme (Contd.)

Classes	Attendance	Number of students attended in the school in the academic session 2011 (After Mid day meal)									
		Ja	F	Mar	A	M	Au	S	O	N	D
Class III	Poor	20 (4%)	77 (16%)	86 (18%)	91 (19%)	81 (17%)	79 (16%)	75 (15%)	70 (15%)	76 (16%)	67 (14%)
	Average	109 (23%)	80 (16%)	109 (22%)	130 (27%)	111 (23%)	91 (19%)	139 (29%)	123 (25%)	116 (24%)	110 (23%)
	Good	356 (73%)	328 (68%)	290 (60%)	264 (54%)	293 (60%)	315 (65%)	271 (56%)	292 (60%)	293 (60%)	308 (63%)
	Total	485 (100%)	485 (100%)	485 (100%)	485 (100%)	485 (100%)	485 (100%)	485 (100%)	485 (100%)	485 (100%)	485 (100%)
Class IV	Poor	20 (4%)	39 (8%)	39 (8%)	57 (12%)	40 (9%)	20 (4%)	20 (4%)	40 (8%)	39 (8%)	39 (8%)
	Average	134 (28%)	106 (22%)	135 (28%)	119 (25%)	120 (25%)	134 (28%)	134 (28%)	132 (28%)	52 (11%)	60 (13%)
	Good	322 (68%)	331 (70%)	302 (64%)	300 (63%)	316 (66%)	322 (68%)	322 (68%)	304 (64%)	385 (81%)	377 (79%)
	Total	476 (100%)	476 (100%)	476 (100%)	476 (100%)	476 (100%)	476 (100%)	476 (100%)	476 (100%)	476 (100%)	476 (100%)
Class V	Poor	50 (10%)	70 (14%)	87 (18%)	86 (18%)	84 (17%)	70 (14%)	75 (16%)	60 (13%)	64 (13%)	59 (12%)
	Average	84 (18%)	119 (25%)	121 (25%)	91 (19%)	92 (19%)	71 (15%)	78 (16%)	137 (28%)	112 (23%)	73 (15%)
	Good	348 (72%)	293 (61%)	274 (57%)	305 (63%)	306 (64%)	341 (71%)	329 (68%)	285 (59%)	306 (64%)	350 (73%)
	Total	482 (100%)	482 (100%)	482 (100%)	482 (100%)	482 (100%)	482 (100%)	482 (100%)	482 (100%)	482 (100%)	482 (100%)

The month-wise attendance of selected Primary school students of classes I, II, III, IV and V in the schools after the implementation of Mid Day Meal Scheme is given in table 6.12. It is observed that in class I out of 488 students, 61% students attended above 60% working days in January to December. Similarly, in class II out of 494 students 69%, in class III out of 485 students 62%, in Class IV out of 476 students 69% and in Class V out of 482 students 65% attended the schools above 60% working days (good attendance) in the month of January to December.

The *two-way ANOVA* compares the mean differences between groups that have been split on *two* independent variables (called factors). The primary purpose of a *two-way ANOVA* is to understand if there is an interaction between the *two* independent variables on the dependent variable.

Analysis of variance is performed to find out whether there exist any differences in average monthly and class wise good attendance in the schools.

Data from 2001 have been analysed in Table 6.1 and Table 6.2 and data from 2011 have been analysed in table 7.1 and table 7.2.

Table-6.1: Two way ANOVA table of Effects of Month and Class on Good Attendance of 2001

Dependent Variable : Good Percentage of 2001					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	572.286 ^a	13	44.022	12.906	.000
Intercept	48651.222	1	48651.222	14263.627	.000
Month	103.667	9	11.519	3.377	.004
Class	468.620	4	117.155	34.348	.000
Error	122.791	36	3.411		
Total	49346.299	50			
Corrected Total	695.077	49			

a. R Squared = .823 (Adjusted R Squared = .760)

Table-6.2: Critical Difference among the Months of 2001.

(I) Month	(J) Month	Mean Difference (I-J)	Std. Error	Sig.
January	February	3.0882	1.16805	.235
	March	2.9381	1.16805	.295
	April	4.7059*	1.16805	.009
	May	4.6569*	1.16805	.010
	August	4.3525*	1.16805	.020
	September	2.7297	1.16805	.391
	October	2.7281	1.16805	.392
	November	4.1960*	1.16805	.029
	December	5.1801*	1.16805	.003

Based on observed means. The error term is Mean Square(Error) = 3.411.

* The mean difference is significant at the 0.05 level.

From table 6.1 it is clear that if we consider good attendance as dependent variable then month has a significant impact on good attendance of the students. According to the table 6.2 if we compare the good attendance of month of January 2001(Admission month) with other months of 2001, it is clear that good attendance is significantly low in the month of April, May, August, November and December 2001. Also there exists a significant variation in attendance by class.

Table-7.1: Two way ANOVA table of Effects of Month and Class on Good Attendance of 2011

Dependent Variable:good per centre of 2011					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1350.052 ^a	13	103.850	4.722	.000
Intercept	211647.542	1	211647.542	9624.377	.000
Month	753.963	9	83.774	3.809	.002
Class	596.089	4	149.022	6.777	.000
Error	791.668	36	21.991		
Total	213789.262	50			
Corrected Total	2141.720	49			

a. R Squared = .630 (Adjusted R Squared = .497)

Table-7.2: Critical Difference among the Months of 2011

good per centre of 2011				
(I) Month	(J) Month	Mean Difference (I-J)	Std. Error	Sig.
January	February	6.4039	2.96586	.501
	March	9.6488	2.96586	.066
	April	10.2915*	2.96586	.039
	May	6.7039	2.96586	.437
	August	3.0559	2.96586	.988
	September	7.4183	2.96586	.302
	October	9.2403	2.96586	.090
	November	1.1435	2.96586	1.000
	December	-.4775	2.96586	1.000

Based on observed means. The error term is Mean Square(Error) = 21.991.

*. The mean difference is significant at the 0.05 level.

From Table 7.1 it is clear that if we consider good attendance as dependent variable, then month has a significant impact on good attendance of the students. According to the Table 7.2 if we compare the good attendance of month of January 2011(Admission month) with other months of 2011, it is seen that good attendance is significantly low only in the month of April 2011.

Now if we compare these two analyses, it may find that seasonal impact decreases in 2011 as compared to 2001.

So from this data analysis we may say that after the implementation of mid day meal the effect of season on the good attendance has decreased significantly.

Conclusion

From the study we can clearly say that implementation of mid day meal has significantly increased the attendance in the school. The Seasonal effects on attendance have decreased significantly. But there are some key issues which are preventing the program from running smoothly and the children from receiving their mid-day meal:

- Lack of transparency (from the government officials to the teachers themselves)
- The meagre amount of money per student is not enough to purchase food as well as a cook to prepare it; often times teachers (whose attendance is already infrequent) end up doing this themselves, taking away from the time during which they should be educating the children
- A lack of basic infrastructure means that many children also do not have access to drinkable water
- Parents, who rarely know what they are entitled to, usually do not realize that their children are not receiving as much as they should be; even when they do pick up on this, they do not know where to turn to voice their complaints.

So the present study suggests that a good monitoring system should be developed to control the lack of transparency in the government officials to the teachers. The study strongly recommends that community participation is essential to make the scheme healthy. This will help on many issues like replacement of vessels, sort out problem of safe drinking water; make appeal for gas connection, healthcare of the children, maintenance of healthy environment in the school premises, supply of food on social occasions, etc. including boosting enrolment of the children. Local food habits should be given importance while preparing the menu. The different tribes of Tripura have their own food habit. Because of price rise the allotted money for MDM should be increased as necessary. Allotted money for MDM should be released by the Dept. in time so that the school should provide MDM without any difficulty.

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Moral Judgment of Student Teachers in Kolkata Colleges

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Abstract

Teachers are the architects of future humane society. On them is the onus to teach children to discern between right and wrong and to act likewise. Ergo, teachers need to display a high level of moral judgment. Research shows that moral judgment may be positively influenced by education. Teachers in secondary schools have had recourse to higher education and thus may be expected to show sagacity in their judgments. This study aimed to find out the moral judgment of students in B.Ed colleges in and around Kolkata. A sample consisting of 326 student-teachers, both men and women, with language, life science, mathematics, physics and social sciences as their main subjects of study was taken. Lind's MJT (1999) was administered on the sample and their scores were graded as Very High, High, Medium and Low. The results showed that very few participants obtained Very High moral judgment grades and the modal grade was only Medium. The sample was examined according to gender and it was found that moral judgment grade depends on gender, in favour of males. The sample was also examined according to the main subject of study and it was found that moral judgment grade did not depend on the main subject of study. The investigation implies that future teachers require to be equipped with adequate moral judgment competencies so that they may be able to impart benevolent leadership to children.

Introduction

In ancient Indian culture the teacher was known as the 'Guru'. He was treated as 'God'-'Brahma'. Guru was one who gave 'Mantras'. He showed 'shishyas' the right path of life through his vision and dedication. Many Indian educators like Rabindranath Tagore and Swami Vivekananda have emphasized on the role of the teachers in the all round development of students. Tagore attached great significance to moral values and ethics in education. He emphasized that, "A teachers can never truly teach unless he is still learning himself. A lamp can never light another lamp unless it continues to burn its own flame. The teacher,

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who has come to an end of his subject, who has no living traffic with his knowledge, but merely repeats his lessons to his students, can only load their minds; he cannot quicken them.” [‘Creative Unity’ (1922), p.187]

Teachers are the architects of the future and hopefully, the progenitors of a humane society. They have the potential of being role models for their students. They can influence their students and change their outlooks so that they may step into the more righteous avenues of life. To accomplish this duty, teachers require to be well aware of what is right and what is wrong and be able to solve life’s problems likewise. In other words, they require having a high standard of moral judgment (Kohlberg 1981).

Teachers in secondary schools are well educated and may be expected to have high levels of moral reasoning. This enables them to consider multiple viewpoints and makes them more tolerant, (Chang, 1994). In fact, teachers can be more tolerant of the unconventional behaviors which are so rampant among teenagers in high schools. He found that most teachers reason at the conventional level and that teachers with lower levels of moral reasoning may be more ‘rules oriented’ which is somewhat unsuited for the modern school classroom. This predicament is reflected in the teachers in our culture who expect unquestioning obedience from their students. This expectation is unlikely to nurture moral judgment among the students. Hence this perception requires to be changed. The role of the teachers should become more like facilitators of life and less like dictators.

Moral sense is central to the human mind and is crucial in determining human behavior. Study on moral behavior has sometimes been tackled with a cognitive approach (e.g., Kohlberg, 1984). Kohlberg (1981) considered that though there are many components that contribute to moral behavior, the most crucial element is moral judgment that determines what is right and wrong. It is the ability to discern the rectitude of an action and to conduct oneself likewise. Later, the cognitive approach was characterized by Rest’s (1986) four-stage model of the moral decision-making process. According to Rest, moral decision making begins with an awareness of the moral issue. The individual then makes a moral judgment, acquires a motive to act morally, and ultimately, engages in moral behavior. Moral judgment can thus be defined as the evaluation of actions with respect to norms and values established in a society. When judging a behavior as morally good or bad, people refer to their internal representations of these norms and values. (Lind 2007). In a current approach given by Lind (2007), he identified the role of individual differences within the moral domain. Here, morality is defined as consisting of two inseparable, yet distinctive aspects: a person’s *moral orientations and principles*, and *competence* to act accordingly.

According to this theory, moral judgment competence is the ability to apply moral orientations and principles in a consistent and differentiated manner in varying social situations. Thus, moral judgment competence affects the everyday behavior and decision making process of an individual. It may be said that people differ considerably with respect to their moral judgment competence (Lind, 2007).

Research has established that moral judgment shapes moral behavior. Trevino et al., (2006), has demonstrated that moral judgment does not explain all of the variance in moral behavior, as Kohlberg (1981, 1984) and others theorized (Blasi, 1980; Haidt, 2001). Kohlberg's (1969) cognitive developmental theory argued that moral judgements are the result of conscious reasoning about justice. Currently there is growing interest in emphasizing non-conscious, intuitive cognitive processes as the source of moral judgements (e.g., Cushman, Young, & Hauser, 2006; Greene, Sommerville, Nystrom, Darley, & Cohen, 2001; Haidt, 2001). For instance, there has been a great deal of interest in the role emotions play in producing moral judgements (e.g., Blair, 1995; Greene et al., 2001, Haidt, 2001). Haidt's social intuitionist model (2001) asserts that moral judgements are created by intuitions that make a "sudden appearance" into consciousness.

Gender is one of the major factors that are considered in evaluating moral reasoning and behavior. Kohlberg assumed that morality is universal, equal for men and women and for all cultures (Kohlberg 1964). This idea aroused questions repeatedly. The role of factors such as gender, education and religion opens the more general question about innateness of morality (Dupoux and Jacob 2007; Hauser et al. 2007). Women are often portrayed as sentimental and emotional. They are characterized by affection, nurturance associated with motherhood, care and empathy. Consequently, many researchers questioned the possibility of a gender bias in Kohlberg's theory (Gilligan 1982; Haan 1975; Holstein 1976). In particular, Gilligan pointed out that the Kohlberg's model considers justice as the fundamental principle for moral behavior. According to Gilligan, while men solve moral dilemmas in a rational way, respecting law and order, women are driven by emotion and empathy and care for others. The central moral problem of women is the conflict between self and others. These differences led Gilligan to explain two divergent modes of moral reasoning: an ethic of care and an ethic of justice (Gump et al. 2000). A more detailed work by Gillian, Krebs, Dennis, (1996) investigated the effects of gender, gender role, and type of moral dilemma on moral maturity and moral orientation. In this study, 55 female and 55 male university students were given the Personal Attributes Questionnaire (Spence & Helmreich, 1978), Kohlberg's test of moral judgment, and instructions to discuss a personal and an impersonal real-life moral dilemma.

The results showed that females were more consistent than males in moral stage while males were more consistent in moral orientation. Females made higher stage and more care-based moral judgments than males on personal real-life dilemmas. Males reported more Stage 2, justice dilemmas than females, and females reported more Stage 3, care evoking prosocial dilemmas than males. Koleva, & Grahams (2014), showed that women are primarily driven by moral concerns about caring for others, whereas men are primarily driven by moral concerns about justice. They also found that, relative to men, women have clearly stronger moral concerns related to care and purity, they are less utilitarian, have a stronger sense of moral identity and moralize more about everyday actions. They argued that these effects are mediated by gender differences. A meta-analysis of 113 studies on gender differences in moral orientation by Jaffee and Hyde (2000, *p.* 703) found “small differences in the care orientation favoring females ($d = -.28$) and small differences in the justice orientation favoring males ($d = .19$)”; in addition, the effect for care was moderated by various methodological and individual variables, further complicating its interpretation. However, empirical findings have been inconsistent and limited to a “care and justice” conceptualization of morality.

Low moral judgment may be a cause of criminal behavior, and keep people from developing moral ideals of helping and compassion, (Kohlberg, 1984; & Oja, 1994). Emotionally anchored moral competencies are not inborn and cannot be achieved through simple lectures, but must be acquired throughout life (Lind, 2002). It was found in experimental studies that people, who have learned how to solve conflicts between opposing values and principles, can learn better and apply what they have learned in everyday contexts (Heidbrink, 1985; Lind, 2003). For ethical behavior, moral abilities or competencies need to be emotionally anchored, though may not be consciously (Piaget, 1976).

Another important factor influencing moral judgment is education. Several studies investigated its role in relation to age, specifically among college students and post graduate students Rest et al. (1999); Thoma (1993). Maeda et al. (2009) found that students in medical schools have higher average moral judgment levels than business students and students from other disciplines. Kohlberg (1996) and Proios, & Doganis, (2006) have shown that higher education benefits the power of moral judgment. Generally, with more education, higher moral judgment can be expected. (Proios & Doganis 2006). Also as people grow older, their life experiences may be educative and this allow them to make more morally based decisions. (Proios, Doganis. 2006). Fumagalli, (2009), investigated the role of education (both general education and health education) and religious belief (Catholic and non-Catholic) on moral choices by testing 50 men and 50

women with a moral judgment task. The study revealed that cultural factors such as education and religion had no effect on performance in the moral judgment task. Colby, & Saltzstein, (1983), attempted to portray the basic assumptions of Kohlberg's cognitive-developmental theory of moral judgment. They took 58 boys aged 10, 13, and 16 at time 1 and were approximately equally divided at each age by social class and sociometric status. Sociometric and socioeconomic groups were equalized for intelligence. The research showed that moral judgment is positively correlated with age, socio-economic status, IQ, and education.

Moral competencies are acquired in various places like family, school, university, workplace and in the public domain through neighbourhood activities, political participation and engagement in community work and exposure to popular media. In the early years, children's learning depends on the assistance of caring and competent educators like parents and teachers. In later life, children learn more and more through self activities, which should be encouraged and fostered by their concerned teachers. The best known way to foster moral competencies is to provide proper learning opportunities and right learning environment in which children can freely express their moral ideals and arguments as well as respect others' opinions. Such a learning opportunity is provided by the teaching method of moral dilemma discussion, (Blatt & Kohlberg, 1975), and later improved by Lind (2003).

It is highly important that citizens do not only hold high moral ideals but that they also possess a highly developed ability to apply these ideals in everyday life and solve inevitable conflicts through discussion and moral discourse. Especially, when confronted with a conflict situation, one needs the competence to make judgments in accordance with our moral principles and act upon them as well, and to enter into a moral discourse with those not in agreement, instead of resorting to violence and show of power (Kohlberg, 1964, 1984). Teachers play a very important role in inculcating these ideals among students. For this they themselves require the power to judge situations appropriately and take honest action on the basis of these judgments. Whether teachers have the capacity to judge with high levels of competence is thus a moot concern of society. Thus, this study aimed to find out the moral judgment of student teachers in B.Ed colleges in and around Kolkata.

Sample

The population of the study consisted of student teachers in teacher education institutions in Kolkata and surrounding districts. 326 student teachers from various disciplines undergoing teacher education courses in different teacher education institutions in Kolkata and surrounding districts constituted the sample. The sample is shown in Table-1.

Table-1: The Sample size

	Frequency	Percent
Female	168	51.5
Male	158	48.5
Total	326	100.0

Tools

General Information Schedule: A general information schedule for student teachers' gender and main subject of study was constructed by the investigator.

Moral Judgment Test (MJT Lind 1999): Moral judgment test (MJT), constructed by Lind, [2002], was translated into Bengali. The test consisted of two sets of complex situations to which the participants were to respond by rating arguments in favour (pro) and against (con) on a scale from "I strongly reject" (-4) to "I strongly accept" (+4). The two sets of arguments (pro and con) were matched to represent the same qualities or levels of moral reasoning, though with opposite implications. The main score termed the C-score measured the degree to which the subject lets his or her judgment be determined by moral concerns or principles. The C-score can range from 1 to 100. Test retest reliability of the test was 0.90. The C-scores were graded as follows:

Table-2: Moral judgment grades

Moral judgment grade	C-scores
Low	1-9
Medium	10-29
High	30-49
Very high	50 above

Method of Study

The sample was drawn by using a purposive sampling technique. The tools were administered on the sample and the responses were recorded and tabulated appropriately. Quantitative techniques of analysis were used.

Results

The data evinced from the sample displayed the nature of the sample as follows:

Table-3: Number of Participants according to their Main Subject of Study

	Frequency	Percent
Language	110	33.7
Life science	36	11.0
Mathematics and physical sciences	72	22.1
Social sciences	108	33.1
Total	326	100.0

The responses to the Moral Judgment Test were scored and graded as follows:

Table-4: Number of participants according to Moral Judgment Grades Moral Judgment Grade

	Frequency	Percent	Cumulative percent
Low	87	26.7	26.7
Medium	179	54.9	81.7
High	55	16.8	98.5
Very high	5	1.5	100.0

The Moral Judgment grades have been displayed by a bar chart in figure-1.

Figure-1: Moral Judgment Grades of the total Sample

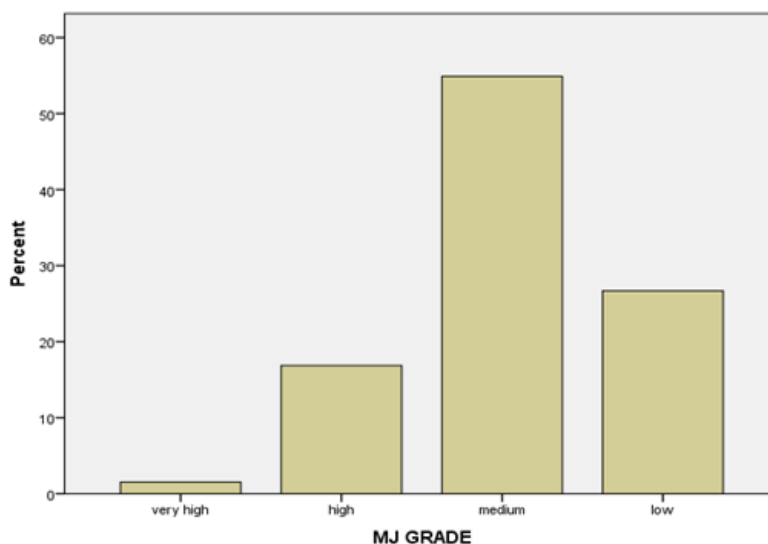


Table-4 and figure-1 show the distribution of moral judgment grades among the total sample. They show that very few participants have Very High moral judgment grades, and the modal grade is Medium.

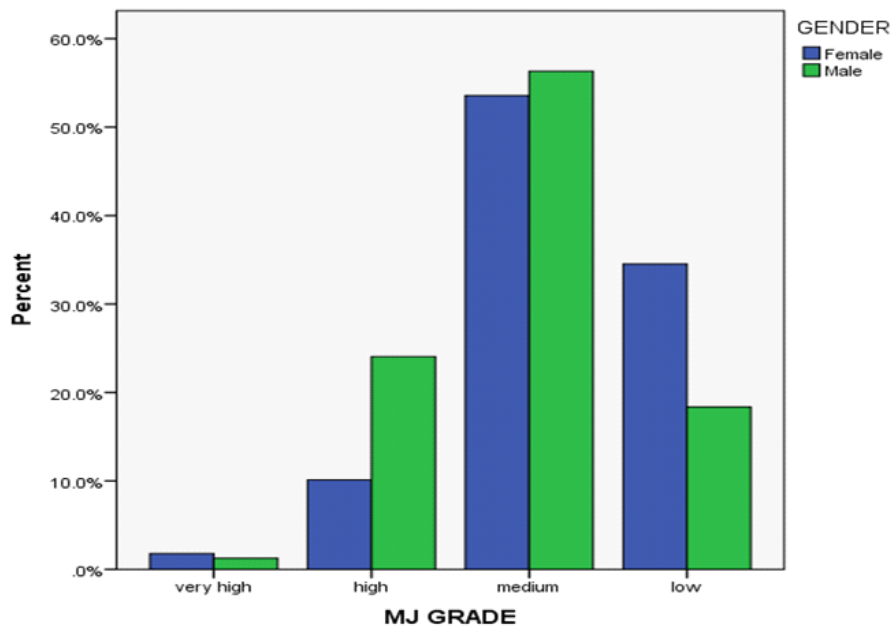
Gender

The data was examined according to gender.

Table-5: Frequency of Moral Judgment Grades (Gender Wise)

Moral Judgment Grades	Male		Female		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Low	29	18.35	58	34.52	87	26.69
Medium	89	56.33	90	53.57	179	54.91
High	38	24.05	17	10.12	55	16.88
Very High	2	1.27	3	1.79	2	1.53
Total	158	100	168	100	326	100

Figure-2: Gender wise distribution of Moral Judgment Grades



In Figure 2, percentages of grades were calculated according to each gender. Table-5 and Figure 2 indicate that male student teachers may generally possess higher moral judgments grades than female student teachers. Figure 2 demonstrates that very few men and women have Very High moral judgment grades. However, much fewer men than women have Very Low moral judgment grades and much fewer women than men have High moral judgment grades. Both men and women have Medium modal grades.

The data was analyzed to see whether moral judgment grade depends on gender.

The required null hypothesis is H0g: Moral judgment grade does not depend on the gender of the student teachers.

Table-6: Gender *MJ Grade Cross Tabulation Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.600 ^a	3	.001
Likelihood Ratio	17.980	3	.000
N of Valid Cases	326		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 2.42.

Table 6 shows that the Chi- square value is highly significant (1%). Therefore H0g may be rejected, and moral judgment grade does depend on the gender of the participants. The above discussion indicates that male student teachers have better moral judgment grades than female student teachers.

Main Subject of Study

The data was examined according to the main subject of study.

Figure-3: Subject wise Distribution of Participants' Moral Judgment Grades

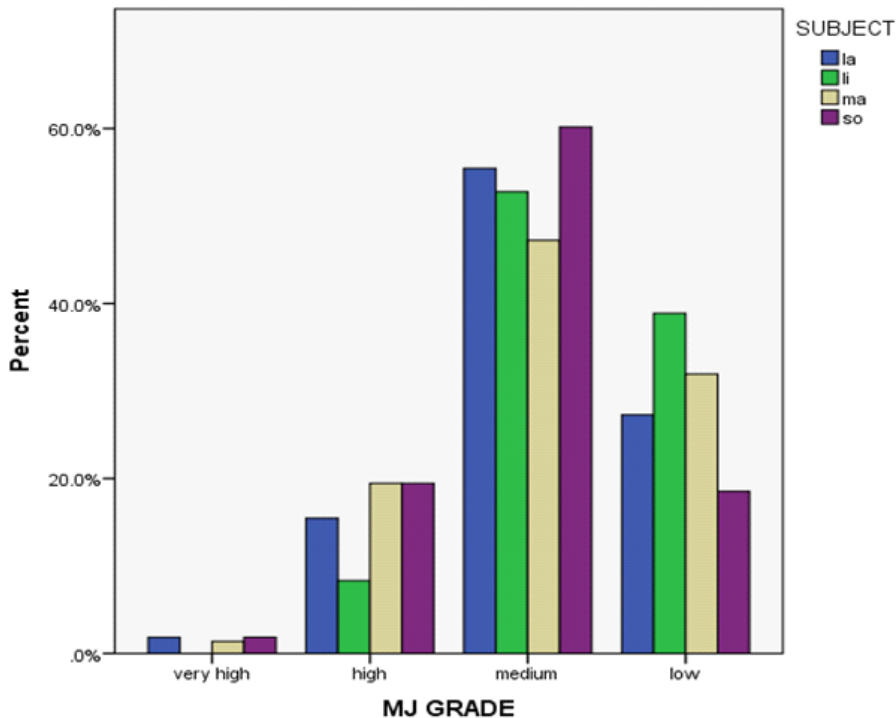


Table-7: Frequency of Moral Judgment Grades (subject wise)

Grades	Language		Life Science		Math		Social Science		Total	
	F	%	F	%	F	%	F	%	F	%
Low	30	27.27	14	52.78	23	31.94	20	18.52	87	26.69
Medium	61	55.45	19	38.89	34	47.22	65	60.19	172	54.91
High	17	15.45	3	8.33	14	19.44	21	19.44	55	16.87
Very High	2	1.82	0	0	1	1.39	2	1.85	5	1.53
Total	110	100	36	100	72	199	108	100	326	100

In Figure 3, percentages of grades were calculated according to each subject of study. Table 7 and Figure 3 show that

- No life science student teacher has Very High moral judgment grades.
- Very few student teachers in other subjects have Very high moral judgment grades.
- Modal grades for all subjects are medium.
- Nearly 40% of life science student teachers have Low moral judgment grades.
- Social science student teachers appear to fare best.

The data was analyzed to see whether moral judgment depends on the main subject of study using chi-square technique.

The required null hypothesis is Moral judgment grade does not depend on the main subject of the study of the student teachers.

**Table-8: MJ Grade Subject Cross tabulation
Chi-Square Tests**

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.911 ^a	9	.358
Likelihood Ratio	10.840	9	.287
N of Valid Cases	326		

a. 4 cells (25.0%) have expected count less than 5. The minimum expected count is .55.

Table 8 shows that the chi-square value is not significant. Therefore, the null hypothesis may be accepted and this implies that moral judgment grade does not depend on the main subject of study of the participants.

Conclusion

The results of this investigation show that most student teachers do not display high or very high moral judgment grades. On these premises, it could be expected

that the participants, who were at least graduates and were at least twenty years of age, would display high levels of moral judgment. This is more so because they have chosen a vocation that invokes high principles and leadership. Unfortunately, the sample of the study has not displayed these characteristics, i.e. high moral judgment competence. This finding is thought provoking. It is possible that the participants have not entered the teaching profession from any altruistic motives or from a sense of dedication to it. Their entry to the teaching profession is possibly because of the possibility of secure and salaried job. In fact, their studies in colleges and universities may not have been because of the inherent thirst for knowledge but, again, for the need to attain security in adult life. Thus, they have displayed a lack of high levels of moral judgment.

Campbell, & Winkler, found that the rote learning pursued in schools, does not leave enough opportunity to inculcate exercises in moral judgment, thus leaving the students without the rationality of discerning right from wrong. Lind, (2006) showed that in traditional schools, rote learning and tough tests are usually given importance and this debilitates children's moral judgment competence. Walker (1983) found that counter-arguments are just as effective for enhancing students' moral judgment scores. Rote learning and the lack of debate becomes a vicious loop when the products of these schools become teachers of the future. Therefore, contemporary teaching must be different from traditional methods. It should be interactive, democratic and focused on supportive learning environment in which students can develop their potentialities to the fullest extent (Lind, 2006). Effective moral and democratic learning, thus, requires teachers well trained in the art of creating productive learning environments (Lind, 2003).

This study found that moral judgment grades do not depend on the main subject of study of the participants, but definitely depends on their gender. This is contrary to several findings that reject the effect of gender on moral judgment. Studies by Graham et al., 2013; Gray & Wegner, 2011; Greene, Sommerville, Nystrom, Darley, & Cohen, 2001; Haidt, 2001, 2007; Skoe (2010) Janoff-Bulman & Carnes, 2013; Rai & Fiske, 2011; Gleichgerrcht and Young 2013 rejected gender effects on moral judgment. However Zamzow and Nichols (2009) did find a gender difference. They also showed that males and females differed in their perceptions to moral issues. Many researchers confirmed these differences after administering various tests for evaluating moral judgment (Aldrich and Kage 2003; Bjorklund 2003; Eisenman 1967; Gump et al. 2000; Indick et al. 2000; Skoe 1995). In the instance of this investigation, it may be noted that the population on which this study was conducted was mainly from the middle class. This community tends to shelter women (as do most Indians), thus preventing them from taking decisions and exercising their moral judgment. Men on the

other hand, have a more culturally based independence and thus, they may have to take decisions on diverse matters. This is possibly the reason for the disparity in moral judgment grades between the genders in the sample.

It is expected that students in social sciences and life sciences are better in moral judgment because of the close connection of these subjects to life centric and affective topics. However, this is not reflected in this study. The reason for this may lie in the nature of the formal education system, traditional methods of teaching and incorrect examination systems which do not nurture interest and curiosity among students. Questioning in the classroom is not encouraged and the resultant submissiveness withers the spirit of enquiry and sagaciousness.

This investigation thus indicates that future teachers may not be equipped with adequate moral judgment capacities to invoke high thinking and consequently, to impart benevolent leadership among children. They must therefore be made aware during their training, of the rectitude of certain actions that may influence their future pupils to distinguish between the right and wrong paths in life and be prepared to argue on these accounts.

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Museums–Potential Centres for Environmental Education

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Abstract

During the last few decades, it has become a major concern to protect the environment from being destroyed as a result of incessant irrational exploitation for human existence and industrial development. A situation is created where development directly confronts the very stability of the environment. It is a kind of role reversal—instead of being protected by the environment, human beings are assigned to protect it! The growing concern was reflected in the International Conference on Human Environment, held in Stockholm, in 1972, which attracted worldwide attention to the preservation of environment for sustainable development. Museums are the potential institutions that can serve the purpose of creating effective public consciousness on environment protection. The paper examines the important issue and the role of museums in promoting environmental education.

Key-words: Natural Heritage, Environment, Museum Education, Environmental Education.

Introduction

As our country actively supports and is signatory to various international environmental declaration, the educationists need to further develop the curriculum in accordance to the national aspiration. Museums are one of the premier institutions for informal education. Environmental education is the process of changing one's attitude about man in relation with his environment. It involves an understanding of the problems owing to the changes in the man-environment relationship of the past and the present. Environmental education has to make everyone aware of the natural heritage and our responsibility to preserve it and towards the world we live in. One of the major requirements, for environmental protection and conservation of natural resources and heritage, is public participation. Environment is a common property shared and used by everyone. Environmental protection must become a people's movement. The first step in involving public participation is the creation of awareness. It is the process of creating awareness where museums can play a major role.

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The French word *environ* means *round about* and literally *environment* is the sum total of influences that modify and determine the development of life and character. In modern sense, the term *environment*, first used, in 1835, by a French naturalist, Etienne Geoffrey Saint-Hilaire, refers to the dependence of the organisms upon the physiographical surroundings. It suggests that the environment determines the creatures that live in it.

The objectives of UNESCO-UNEP International Environmental Education Programme are–

- i) To make people aware of the nature of relationship between humanity and the environment on which he depends.
- ii) To impart knowledge and skills to understand and solve environment and development related problems.
- iii) To enable people to acquire the attitudes and motivations leading to sound decisions and civic actions for the protection and improvement of the environment and its quality.

Museums are in a position to study & know the present-day environmental problems faced by the human civilisation; motivate people to accept & share responsibility, and to communicate the solutions to the community, individually & collectively. Museums have a marvellous opportunity with the resources at their disposal–display & exhibition techniques, communication strategies and educational activities–that can play a very significant role in environmental education.

Work for setting up a museum, at New Delhi, solely aiming for environmental education started in the year 1972 with an integrated approach of presentation for depicting nature as a whole, rather than compartmentalising into disciplines like Botany, Zoology and Geology. It culminated into establishment of the National Museum of Natural History (NMNH) at New Delhi, which was thrown open to the public on 5th June 1978. The museum functions directly under the Union Ministry of Forests & Environment and presently got four Regional Museums of Natural History at Mysore, Bhopal, Bhubaneswar and Sawai Madhopur under its control; though unfortunately the NMNH, New Delhi, is destroyed completely in a devastating fire last month. Besides the natural history museums, one must mention the role being played by the chain of about thirty science museums and centres, spread all over India, under the National Council of Science Museums, of which two are in Kolkata, *viz.*, the Birla Industrial & Technological Museum (BITM, the first science museum in India, founded in 1959) and the Science City. One must not forget the contributions of museums, like the Indian Museum, Kolkata. Government Museum, Chennai. Prince of Wales Museum, Mumbai, Central Museum, Nagpur, and numerous other

renowned or not so renowned museums portraying topics related to environment through their displays and programmes since the time when environmental issues did not become a backburner. The *Environment and Man* museum of the Narendrapur Ramakrishna Mission Ashrama is one of the ideal examples of such a museum, where various ecosystems have been shown through dioramas, walk-through diorama and multimedia presentation.

Museum Techniques

Museums convey the subject matter through permanent exhibition supplement by regular educational programmes. The most commonly used method of showing environment of a particular region through permanent exhibition is the *dioramas*. Diorama is actually three-dimensional representation of a scene, in which figure and objects, usually life-sized, are grouped in front of a painted or modelled background that creates an illusion of depth. These are extremely useful in showing a particular habitat group. Very often visual and verbal aids like labels, illustrations, and recorded narrations are provided with dioramas to enhance communication. The National Museum of Natural History, New Delhi extensively used such techniques to show different ecosystems. Indian Museum, Kolkata has got few such dioramas. Nowadays very large walkthrough dioramas are being used in the museums. The *Evolution Park* at the Science City, Kolkata and majority of the exhibition at the *Kolkata Panorama* (Kolkata Museum), built within the Town Hall, used such dioramas. Another very useful improvement is the *double dioramas* or *mirror scope dioramas*, where light reflections through mirrors project changes on a particular region. The NMNH, New Delhi used it. A very large such diorama is fabricated at the Ahmedabad Science City, where the pre and post-earthquake situations of Bhuj are shown. The Life Science Gallery at the BITM, Kolkata has also got dioramic representation of ecosystems.

Another very modern system is to grow live self-sustained ecosystem within the museum premises. Vivaria have also become very popular to convey environment of a particular species. The remarkable success made at the Kolkata Science City in representing the complete life cycle of butterflies in an enclosure is worth mentioning. Aquaria are also used to show aquatic environment. Such examples are plenty, but these are almost passive experiences by the visiting masses, if not supplemented by other communication methods. That part comes under the purview of the museum educators.

Educational Programmes in the Museums

Education is one of the integral parts of functioning of a museum. Every museum, worth mentioning, does have various programmes, aimed at different target groups, for environment education—physical, natural or cultural, whatsoever may be. For conducting effective education programmes, every museum maintains

a separate *Education Department*, under the control of a responsible officer like *Keeper (Education)*, *Curator (Education)*, or *Education Officer*, under whom *Guide Lecturers* or *Education Assistants* work. Educational programmes of a museum can be divided into two broad categories:

- **Indoor Programmes**—conducted inside or within the premises of a museum, usually by the education staff of the museum with direct or indirect help of the collection of the museum.
- **Outdoor Programmes**—conducted, as the name suggests, outside the peripheries, but within the territorial jurisdiction of the museum, also undertaken by the education staff of the museum, generally without the help of original objects. These are also called *museum extension services* or *out-reach programmes*.

Indoor Programmes:

1. **Guide Lecture**—this may again subdivided into two groups,
 - *Pre-visit lecture or orientation lecture*, where the new visitors are oriented towards the museum collection and other salient features before leading them to the galleries of the museums.
 - *Guide lectures in the galleries*, where the Guide Lecturer gives small lectures on the objects of display, special features, and other relevant information to the visitors in lucid, easily understandable languages, so that the common visitors can comprehend and enjoy the exhibition.
2. **Gallery Talks**—these have very little differences with the guide lecture. Here either the *guide lecturer* or the in-charge of the collection of a particular gallery, like *Keeper* or *Curator* or any eminent scholar on the subject, delivers illustrative lectures on the related topic/s with the help of original objects displayed in the gallery to a gathering of general visitors. These are essentially popular in nature to communicate or popularise the nuances of the subject to common people in a simple way.
3. **Popular Lectures**—These are mainly practised in the science museums, where various topics, especially on science, like ecology, wild life and conservation, are communicated to general visitors with the help of very simple yet attractive experiments. These programmes are generally conducted in a *collection space*, outside the galleries, like the museum auditorium. The education staff of the museum usually deliver such lectures.
4. **Demonstration Lectures**—These are again mainly conducted by the science museums. Generally topics of the science curriculum of secondary and higher secondary level are explained with the help of necessary experiments. Education staff of the museum deliver such demonstration lectures within

the museum or in the schools, which they visit on invitation, on a regular basis. This is a very effective and useful programme especially for the students of rural areas where laboratory infrastructure are quite limited.

5. **Teachers' Orientation Programme/ Teachers' Training Programme**– These programmes are basically aimed at invoking awareness and sensitising the school teachers on the potentialities of the museum and environment in complementing the formal school education. The teachers are guided properly to the richness of the collection and their utilisation. After the completion of the training, they are encouraged to set up and run a small science museum in their respective schools with active participation of the students.
6. **Nature Appreciation/ Awareness Programme**–These types of programmes are generally undertaken for enthusiastic people to prepare them to appreciate properly the wealth of the nature.
7. **Special Programme for Special Visitors**–Special visitors comprise the group of population with any sort of physical or mental challenge, like the loco motor disables, the visually impaired, the hearing impaired, the mentally challenged, aged people, etc., who need some sort of adjustment in the regular programmes. Special programmes are carried out by the museums for these visitors, often with the help of different organisations working with such groups of people. *Touch, feel and learn* for the visually challenged and *Into the world of silence* for the hearing challenged visitors at the NMNH, New Delhi, are worth mentioning.
8. **Story-hour Programmes**–These programmes are made for the children. Generally a staff of the education department of the museum narrates different topics, displayed in the museum galleries, in lucid story-like language, easily comprehensible by the young visitors, in a designated time. Sometimes, services of professionals, from outside, are also employed.
9. **Museum Games**–These are also aimed at the children visitors. Various forms of games, based on the collection and activities of the museum, are made available to the children that may be completed within the museum itself or may be taken away and later completed. Some of the examples are –drawing sheets on which half drawings are made, rest of the pictures are to be drawn by the children; or quiz games; or simple science kits, etc.
10. **Slide Show**–Small shows of slides, prepared on the collection of the museum–on display or in store, are conducted for the visitors.
11. **Film Show**–Films on various topics of environment, biodiversity, ecology, etc. are shown regularly to the visitors in the museum auditorium.
12. **Quiz Programme**–The education staff of the museum conduct such

programmes for the visitors, generally young ones to arouse interest and curiosity on the museum collection or related topics. Small incentives are also offered.

- 13. Sit & Draw Programmes**—These are also organised mainly for the young visitors on special occasions.

Outdoor Programmes:

- 1. Mobile Exhibition/ Museobus**—The idea of such programme is to extend the museums' educational activities to the rural areas of the Country. Generally, a set of exhibits is specially prepared for such exhibition. The concept might have originated in abroad but the technique has been perfected in India. In 1965, the BITM, Kolkata and VITM, Bangalore, had designed a special bus to carry a set of science exhibits, all working, to the remote corners of the country. The project itself got immediate attention and was immensely popular among the people and museologists. All big museums, like the National Museum, New Delhi, the Indian Museum, Kolkata, ordered to prepare such buses to the BITM and started operating mobile exhibition in the buses. This has become a role model for many countries of the world. The bus usually contains 24 exhibits housed in sturdy boxes and are placed inside 24 alcoves specially designed on the body of the bus itself, 12 outside and 12 inside. The bus is taken to the targeted areas by a team of four persons— one driver, one technician, and one helper, led by a staff of the education department of the museum. The unit also carries a small film projector, with all its accessories, film rolls, and often a portable generator set. On reaching the desired spot, the exhibition is thrown open to the visitors. The visitors can go into the bus; can see the exhibits inside and outside. The films are shown, generally, in the evening. Sometimes popular talks are also organised. This is a very effective extension programme conducted by the museums.
- 2. School Loan Service/ School Loan Kits**—The museums generally fabricate small boxes containing replicas of objects in the collection of museum. Science museums put small working models to demonstrate certain scientific principles. Natural History Museums put preserved specimens. The box or kit containing the object or exhibit, with all necessary information, visual aids, etc. are given to the schools on loan for a specific period, after which such kits can be returned and a new set can be borrowed. This is a very effective tool to complement the formal education.
- 3. Science Demonstration Lecture (SDL)**—Museums organise demonstration lectures for specific target groups on various topics related to its collection. Science museums generally constitute a team of expert educational staff to conduct such programmes comprising few scientific experiments on the

selected topics of the science curriculum of secondary and higher secondary levels. The unit is sent to the rural schools where laboratory facilities might not be up to the standard.

4. **Quiz Programmes**–Discussed earlier.
5. **Seminar, Conference & Workshops**–Museums organise seminars, conferences and workshops on various topics on various occasions. The annual science seminar organised by the National Council of Science Museums (NCSM) is an ideal example. Students (IX–XI standards) are selected, through competitions from District, State, Zonal levels, to the National competition. The winners are awarded NCSM scholarships for a year.
6. **Fair**–Museums organise different fairs, like science fairs. Structure of the science fairs is like the science seminars.
7. **Hobby Camps/ Vacation Camps**–Conducted for the school students during the vacations. The aim is to arouse curiosity, honing and nurturing creative abilities. Science museums maintain a special *Creative Ability Centre (CAC)* for the purpose. Various activities of 10/12 days are chosen on topics like, painting, modelling, print/replica making, life science, astronomy, telescope making, natural environment, etc.
8. **Pet Club**–The BITM, Kolkata has a pet club for the school students, from where various pets can be taken home on loan.
9. **Drama**–Organised on special occasions, e.g., drama programme on environment day (5 June).
10. **Puppet shows**–Mainly organised for the children.
11. **Costume parade**–Where children dress themselves as plants or animals on environment day, wildlife week, etc.
12. **Special Programmes**–Many museums organise many special programmes of environment, like:
 - **Nature Trail, Nature Study Camp, Tree mapping, Bird & insect watching, etc.**
 - **Care for the Environment Contest, like, Symbol designing, Slogan contest, Poster making, Song & Poem composing, Comic strip preparation, Film Script writing, etc. on environment.**
13. **Discovery Room**–Another very useful method for educating the children about the Nature and environment. Here the students are led to a special room and allowed to discover themselves various objects/ components of nature.

Conclusion

Museums are beyond doubt very potential centres for imparting awareness on environmental issues, particularly in the younger generation. It is very important to set-up small museums in the educational institutions, portraying different aspects of environment, especially that of the local ones. The motto of environmental action is *thinking globally but acting locally*.

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Literacy Drive and Rehabilitation of the Street Children of Kolkata: An Analytical Study

Shabana Haydar and Mita Banerjee***

Abstract

Street Children are the victims of economic growth, war, poverty, domestic violence, loss of traditional values, physical and mental abuse. They suffer destitution, neglect, abuse and exploitation due to a variety of reasons and circumstances beyond their control. While some children are attracted by the promise of excitement and freedom, majority are pushed onto the street by desperation and a realization that they have nowhere else to go. Street Children in many countries are named after their main survival activities. They are poverty stricken and their problems are a result of wanting to meet their basic needs for survival. The Right to Education is a fundamental human right and occupies a central place in Human Rights and is essential and indispensable for the exercise of all other human rights and for development. There are many Street Children in Kolkata, their literacy and rehabilitation status is not clear. Their living condition is deplorable as a result a number of health problems arise. They are exposed to abuse, violence and disintegrating effects of the modern urban society. As a result they may even pose a threat to Law and order situation of the city. The study intends to bring forth these issues and find out what these Street Children have attained and what their literacy level is.

Key-words: Street Children Literacy, Kolkata

Introduction

Street Children are a part of a broader concept of children in especially difficult circumstances. Based on the relationship of the child with its family the United Kingdom Committee for UNICEF distinguishes between three categories of Street Children– 1.Children on the street-comprising of children working on the street, but maintaining more or less regular ties with their family. Their focus

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being their home, to which they return at the end of the working day and have a sense of belonging to the local community. 2. Children of the street-maintaining only tenuous relation with their families, visiting them only occasionally. They see the street as their home where they seek shelter, food and companionship. 3. Abandoned children—a group that has cut off all ties with their biological families and is completely on their own.

As per Census 2011 the literacy rate of India in 2011 is 74.0 per cent. Literacy rate among females is 65.5 per cent and among males is 82.1 per cent. While the literacy rate for the whole of Kolkata is 82 per cent. In the total population 85 per cent of males and 78 per cent of females are literate.

According to NFHS-4 data 2015-16 we find that the literacy rate for the whole of Kolkata is 80.8 per cent. In the total population 84.3 per cent of males and 78 per cent of females are literate.

There are approximately 100,000 street children in Calcutta according to a UNICEF report. The child laborers are said to be 20,571 (i.e. 6.22 child laborers per 1000 of the population). 70% of the children on the streets are boys and 30% girls. 82.16% of the street children of Calcutta are migrants, and of that 90% have migrated due to economic reasons.

A study conducted by West Bengal Resource group in 1999 revealed that a large number of children 144,945 in the age group of 3-14 years in Kolkata were not in school and those between 5-14 years of age numbering 94,164 totally spend their time on streets.

The Convention on the Rights of the Child is the first legally binding international instrument to incorporate the full range of human rights—civil, cultural, economic, political and social rights. In 1992, India ratified the United Nations Convention on Rights of the Child. The Charter of Child Rights (CRC) is built on the principle that “ALL children are born with fundamental freedoms and ALL human beings have some inherent rights”. The Charter confers the following basic rights on all children below the age of 18 across the world irrespective of the child's, parent's/legal guardian's race, colour, sex, creed or other status. 1. The right to survival—to life, health, nutrition, name and nationality 2. The right to development—to education, care, leisure, recreation 3. The right to protection— from exploitation, abuse, neglect 4. The right to participation— to expression, information, thought and religion. (<http://www.cr.org.righttosurvival>)

According to UNESCO Nothing liberates and empowers a person to self-sufficiency quite like education.....Education is a key to ending poverty. Education gives people the power to transform their lives, and yet nearly 120 million school-aged children worldwide—most of them girls—are not enrolled in

school. Without an education, the cycle of poverty is almost inescapable: it is usually poverty and lack of resources that keep children out of school and, inevitably, people who grow up without an education have little hope of building a better future for themselves or giving their own children the opportunity to go to school. (<http://portal.unesco.org/education>)

Background

India, which was primarily considered a rural country, is fast becoming urbanized. India's slum-dwelling population rose from 27.9 million in 1981 to over 40 million in 2001 and 93.06 million in 2011 (Census of India 2011). Every eighth urban children in India in the age-group of 0–6 years lives in slums. About 7.6 million children are living in slums in India and they constitute 13.1% of the total Indian urban children of 26 States/Union Territories (Deshpande, 2011).

This means one out of every four persons reside in slums in our cities and towns. In 1901 India had 11.4% urban population of total population, which increased to 28.53% in 2001 and 31.16% in 2011. On the other hand, India's slum population rose from 27.9 million in 1981 to 40 million in 2001 (Nair, 2009). Among the total population, 1,457,273 are slum inhabitants which accounts for 32.48% of total population (Census of India 2011). Kolkata district, which occupies an area of 185 km (71 sq mi), had a population of 4,486,679 according to the 2001 census; its population density was 24,252/km (62,810 /sq mi). The sex ratio is 899 females per 1000 males which is lower than the national average. Total population of Kolkata urban agglomeration is 14,112,536 persons in 2011 accounting a decadal increase of 7.6%. (www.h-net.org) About one third of the population of the CMC lives in the slums. There are 2,011 registered, and 3,500 unregistered slums in Kolkata (Nitai Kundu.)

Total number of Urban Population (female) age 6 years and above who ever attended school as per NFHS 4 (2015-16) was 74.0 and 64.0 as per NFHS 3 (2005-06). Urban Population (male) age 6 years and above who ever attended school was 81.5. Female literacy of West Bengal during NFHS 4 was 71.0% and Urban literate Population (female) was 79.4%. Male literacy of West Bengal during NFHS 4 was 81.1%. Urban literate Population (male) was 83.9%. Female literacy of Kolkata during NFHS 4 was 80.8 % and Male literacy of Kolkata during NFHS 4 was 84.3%.

The ASER data suggest that over the years not only are the levels of learning low, but the trends in learning levels are in fact negative. Since basic reading and arithmetic are foundational skills, the low levels of learning suggested by the ASER data are especially alarming since they suggest that the Indian education system is doing well at enrolling children in school, but failing when it comes to teaching them even basic skills. (Pratham 2012)

There are between 10 and 100 million Street Children in the world today. These Street Children live a transitory life style and are vulnerable to inadequate nutrition, physical injuries, substance use and health problems including sexual and reproductive health problems. Some Street Children are a part of entire family who live on the street. ...Children of the streets on the other hand have no home but the streets. ...Although Street Children support themselves in many different ways they need the assistance of caring adults and charitable services provided by governmental or non-governmental organizations. (Shukla P.C. 2005)

From the related Literature on street children it is observed that considerable studies have been conducted. In a particular study *Street Children of Bombay: A Situational Analysis*, New Delhi, D'Lima, H. & R. Gosalia, (1992) investigated the details about the Street Children and their families, their living conditions, work and ambitions, existing services and a plan of action for the statutory and voluntary sectors. The study was divided into two parts: study of the situation affecting street children, and study of work done by government agency and NGOs. Three areas of greater Bombay representing 15% of the city, with the highest concentrations of street children were chosen for the sample. The sample was divided into age and gender quotas (considered roughly representative of upper levels of proportions by age groups): 0-six-25%, six-12-25%, 12-18-50% and 50% of the sample included girls. A total of 10,230 children in the districts were chosen. Of these 2,169 (1544 boys and 625 girls) were used for the final survey. In another study *Street Children of Calcutta: A Situational Analysis*, New Delhi Ghosh, A (1992) conducted research in Calcutta's 22 wards which made up 15% and a head count established an estimate of 8,800 Street Children in the sample area of whom eventually 2,301 formed the research population. The study investigated the nature and extent of the problems of Street Children, the physical, psychological, social and basic needs of Street Children for their growth and development; the study suggested modifications of existing services and programmes to make them accessible to Street Children and also recommended special programmes for them; and formulate a database on Street Children to facilitate programme interventions for Street Children by the State Government, City Corporations and NGOs; The study provided information on the profile of Street Children at national level as support for policy formulation and programme development by the Indian government. Three studies were carried out in a stage-by-stage progression: The city was divided into 'territorial units' such as wards or zones with higher concentration of Street Children. An average of 400 Street Children was estimated in each ward, therefore a sample of 25% of the total of about 8,800 children were to be studied. The actual sample size was 2,301 children aged 0-18 years, out of whom only around 200 were in the age group 0-5 years.

A number of studies have been conducted on NFE and weaker sections of the society. In a study *A Treatise on the Education of the Backward Classes in India since Independence with Special Reference to West Bengal* Bandhopadhyay K.L, (1992) identified the criteria for defining the backward classes in India, identified the nature and form of hurdle and constraints causing absenteeism, wastage and stagnation in the elementary stage of education among the backward classes. The study also explored on the growth and development of elementary education among the backward classes, the impact of education on the backward classes. The findings of the study were 1) UEE among the backward classes was yet to be attained 2) there has been difference in reasons for poor enrolment in different environmental situations 3) Parents' aspirations and motivation for the education of their children were related to the level of their age and education. *An Evaluative Study of NFE Programme in Bihar*, Jha Murti Kant (1992) conducted research on 1) the functioning of NFE centers and 2) their curriculum, 3) instructional materials and organizational package and 4) background of the learner. Some major findings of the study were 1) The instructional material and organizational packages were not supplied regularly. 2) instructors were poorly trained and 3) were dissatisfied with the honorarium they got 4) The overall suggestion was that NFE programme was almost ineffective and should be reorganized in order to be effective and meet the needs of the target group. This literature throws light on the functioning of the NFE centres, the findings are related to the current topic.

A Critical Study of the Effect of Facilities given by The Government to the Backward Classes, Pupils in Primary Schools in Devgat Taluka, Maharashtra. Kamble P.R. 1992 investigated 1) the facilities given by the Govt. to the backward classes 2) the effect of the facilities on the educational development of backward classes. The main findings were 1) the facilities given were textbooks, uniform, writing materials and nutritious lunch 2) 70% of the headmasters opined that 74% of the students took advantage of the facilities. The reasons for not taking advantage were ignorance, of parents, lack of guidance, lack of educational climate and environment and attitude towards education. 3) 72% of headmasters opined that Government facilities were useful in arresting wastage in education but were not useful in increasing pass percentage. 4) The suggestions made by the headmasters for improvement in facilities were that meals should be more nutritious, the uniform should be supplied every year, the quality of clothes should be good, and textbooks should be given.

The related literature throws light on their plight, their age, gender, occupation and income, their problems, their needs thereby suggesting that literacy and rehabilitation, is a necessary prerequisite for improving their condition and necessitating the importance of programme intervention by the State Government,

City Corporations and NGOs so that the existing services and programmes can be made accessible to them.

Objectives of the Study

1. To assess the role of the different agencies engaged in literacy drive of the Street Children in Kolkata.
2. To examine the extent to which the Street Children in Kolkata have attained literacy.

Hypothesis

The following Hypothesis were formulated for investigation for considering objective 2

1. There is no significant difference among the NGOs in the achievement level of the student of Class 1 in the subject Bengali.
2. There is no significant difference among the NGOs in the achievement level of the student of Class 1 in the subject Mathematics.
3. There is no significant difference among the NGOs in the achievement level of the student of Class 2 in the subject Bengali.
4. There is no significant difference among the NGOs in the achievement level of the student of Class 2 in the subject Mathematics.

Sample

A Sample of ten different Non Government Organisations working with Street Children in Kolkata, having projects with the CLPOA, Controller of Vagrancy, CRY and some working independently for objectivesone were selected. A Sample of 100 students of grade one and 100 students of grade twowerethe selected for objectivestwo.

Table-1.1: Sample Size

Samples	Number
10 Students of class one of the 10 NGOs	10 x 10 = 100
10 Students of class two of the 10 NGOs	10 x 10 = 100
Total	200

Tools

A Questionnaire has been used to find the role of the different NGOs engaged in literacy drive of the Street Children in Kolkata. AMLL or Minimum literacy level Achievement test on language in Bengali/English 50 marks and mathematics 50 marks has been used to test the 200 Street Children.

Scores of the minimum literacy level test was calculated for quantitative data. The grading system is maintained by West Bengal Primary Board of Education.

Table-1.2: Grades obtained by the students of Class 1 and II in subject Mathematics and Bengali/English

Grades	Number of students in Class-I		Number of students in Class-II	
	Mathematics	Bengali /English	Mathematics	Bengali /English
A (80-10)	81	70	52	52
B (65-79)	10	19	25	30
C (50-64)	7	5	12	8
D (35-49)	2	5	4	4
E (Below 35)	0	1	7	6
Total	100	100	100	100

According to the findings of the study Grades obtained by the students of Class 1 in subject Mathematics it was observed that out of a total of 100 students in class one, 81 students obtained grade A (80-10), 10 students obtained grade B (65-79), 7 students obtained grade C (50-64), 2 students obtained grade D (35-49) and Zero students obtained grade E (Below 35).

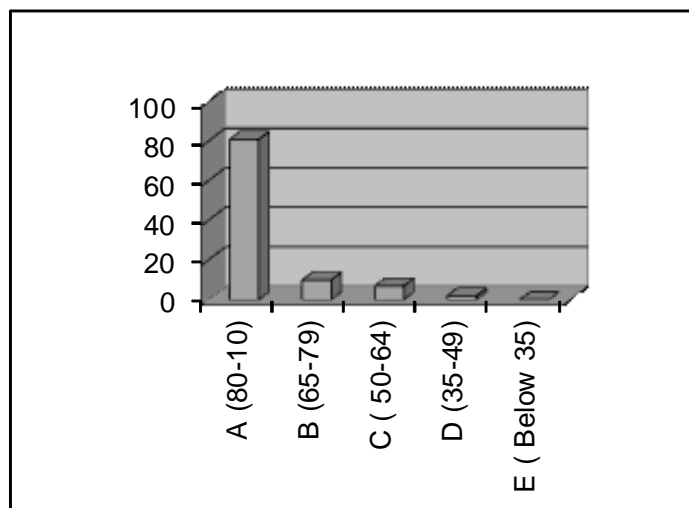


Fig.-1 Grades obtained by the students of Class-I in subject Mathematics

Grades obtained by the students of Class 2 in subject Bengali/English it was found that out of a total of 100 students in class one 70 students obtained grade

A (80-10), 19 students obtained grade B (65-79), 5 students obtained grade C (50-64), 5 students obtained grade D (35-49) and 1 student obtained grade E (Below 35)

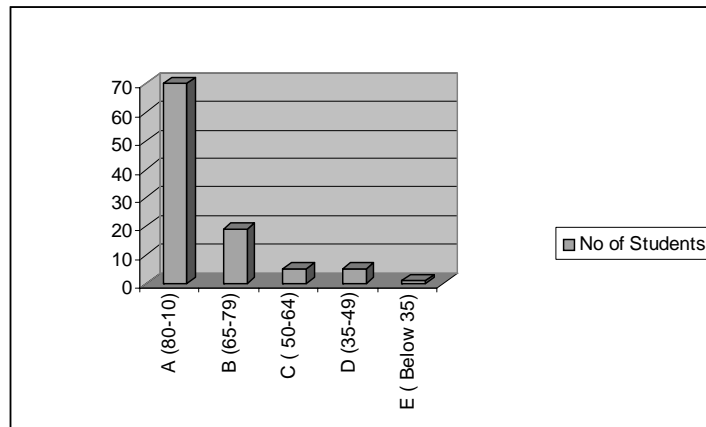


Fig-2 Grades obtained by the students of Class-2 in subject Bengali/English

According to the findings of the study grades obtained by the students of Class 2 in subject Mathematics it was observed that out of a total of 100 students in class one 52 students obtained grade A (65-79), 12 students obtained grade C (35-49) and 7 students obtained grade

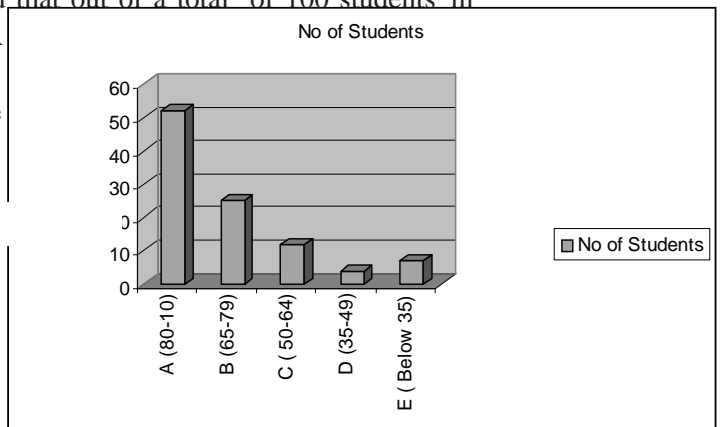


Fig-3 Grades obtained by the students of Class-2 in subject Mathematics
Grades obtained by the students of Class 2 in subject Bengali/English, it was

found that out of a total of 100 students in class one 52 students obtained grade A (80-100), 30 students obtained grade B (65-79), 8 students obtained grade C (50-64), 4 students obtained grade D (35-49) and 6 students obtained grade E (Below 35)

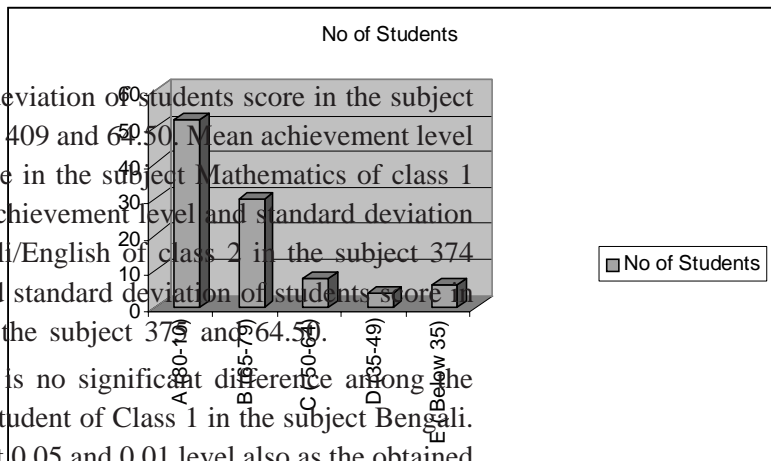
Fig.-4 Grades obtained by the students of Class-2 in subject Bengali/English

Findings

Mean achievement level and standard deviation of students score in the subject Bengali/English of class 1 in the subject 409 and 64.50. Mean achievement level and standard deviation of students score in the subject Mathematics of class 1 in the subject 431.4 and 42.45. Mean achievement level and standard deviation of students score in the subject Bengali/English of class 2 in the subject 374 and 81.37. Mean achievement level and standard deviation of students score in the subject Mathematics of class 2 in the subject 375 and 64.50.

The null hypothesis was that there is no significant difference among the NGOs in the achievement level of the student of Class 1 in the subject Bengali. This null hypothesis has been rejected at 0.05 and 0.01 level also as the obtained value of F is 25.95 is more than the table value (P.05 = 1.995) and (P.01 = 2.6375). The Inference drawn is that there is significant difference among the NGOs on the achievement level of the student of Class 1 in the subject Bengali/English.

The null hypothesis was that there is no significant difference among the NGOs in the achievement level of the student of Class 1 in the subject Mathematics. This null hypothesis has been rejected at 0.05 and 0.01 level also as the obtained value of F is 6.1033 is more than the table value (P.05 = 1.995)



and ($P.01 = 2.6375$). The Inference drawn is that there is significant difference among the NGOs on the achievement level of the student of Class 1 in the subject Mathematics.

The null hypothesis was that there is no significant difference among the NGOs in the achievement level of the student of Class 2 in the subject Bengali. This null hypothesis has been rejected at 0.05 and 0.01 level also as the obtained value of F is 22.68 is more than the table value ($P.05 = 1.995$) and ($P.01 = 2.6375$). The Inference drawn is that there is significant difference among the NGOs on the achievement level of the student of Class 2 in the subject Bengali/English.

There is no significant difference among the NGOs in the achievement level of the student of Class 2 in the subject Mathematics. This null hypothesis has been rejected at 0.05 and 0.01 level also as the obtained value of F is 31.81 is more than the table value ($P.05 = 1.995$) and ($P.01 = 2.6375$). The Inference drawn is that there is significant difference among the NGOs on the achievement level of the student of Class 2 in the subject Mathematics.

It was observed that there were differences in the achievement level of students in different centres, but effort was made by the NGO learning centres to maintain a common standard. The students (street children) were able to recognize alphabets and letters, were able to read, they were able to read small paragraphs, comprehend stories, most students were able to recognize numbers, they were able to do addition, subtraction and multiplication sums. The students learning achievement in mathematics was much better as compared to language English/Bengali in class 1. However the learning achievement level dropped considerably in class II. It was also observed that performance of students in reading and verbal skills were slightly better than in writing skills. The scores (marks) of students of class I was higher than that of class II. The scores of student of both classes in mathematics were marginally better than marks in language English/Bengali.

As regards the evaluation process in all the 10 NGOs the course was divided into three terms and tests were conducted after each term. In Loreto Day Sealdah LDS children after grade one went to either GFP schools or CMC schools so they were evaluated in school tests and examinations. 3 NGOs had no norm for passing or failing they were evaluated after each term but they could easily move on to the next grade. The other 7 NGOs had 40% as the passing criterion, though the norm set was not so rigid. Children were evaluated on a day to day basis. Only LDS had very rigid rules as children attended regular coaching classes.

The teacher-in-charge of the particular centre in all the 10 NGOs conducted tests at the centres of the 10 NGOs. Children were given the worksheets which

they are so used to filling up at the centers on mathematics and any one language. Under Sikshalaya Prakaalpa Project the question papers were prepared at the main centre LDS and distributed to different centres. After completion of the test the answer script were send back to the main centre for re-evaluation of the students in that centre.

In all the learning centres of the 10 NGOs grade one comprised of children who had no prior knowledge about the 3Rs. It was a preparatory step to move on to the next grade. In LDS after grade one the children were admitted to a formal school to continue her/his learning. Grade two, three and four comprised of children who attended formal C.M.C schools. Even after joining a formal school they had to keep continuous contact with the main centres where they were given extra coaching classes.

Individual Record File for each child was maintained by the teachers in the centres. Children made progress according to their individual capacity and pace of learning. Maintaining Individual Record File was started in LDS where each 'rainbow' child had an Individual Record File maintained by the regular school students. The files recorded their name, their address (if any), their parents name, the academic progress they made, any special interest or any ailment.

Table-1.3: Nature of the 10 Non-Government Organizations

No of NGOs	Location	Project Managed By				No. of Project	
		Self Managed	Govt. of India*	Clpoa (Kmc)	Cry	Single	More Than 1
1. LDS	NORTH	1(10%)		1(10%)			1(10%)
2. I.P.E.R	SOUTH	1(10%)	1(10%)	1(10%)			1(10%)
3. CAL SAM	CENTRAL	1(10%)				1(10%)	
4. VIKRAM SHILA	SOUTH			1(10%)		1(10%)	
5. FOCUS	CENTRAL		1(10%)	1(10%)			1(10%)
6. U.B.D.A	CENTRAL		1(10%)			1(10%)	
7. T.SHED	EAST		1(10%)	1(10%)			1(10%)
8. T.M.A.	EAST			1(10%)			1(10%)
9. SSV	EAST			1(10%)			1(10%)
10. C.S.P.	EAST			1(10%)			1(10%)
Total		3(30%)	4(40%)	7(70%)	1(10%)	3(30%)	7(70%)

*(Controller of vagrancy)

According to the findings of the study, out of 10 NGOs, 70% had projects running with the City Level Programme of Action with Kolkata Municipal

Corporation (KMC) an active member of the entire programme. 40% had Integrated Programme for Street Children (IPSC) projects running under the Govt of India, Controller of Vagrancy with the Social Welfare Officer as the coordinator of the project. 10% had project with Child's Rights and You. 30% had projects that were self-managed receiving funds and donation from different funding agencies. 70% had more than one project for the benefit of Street Children. 30% had single project.

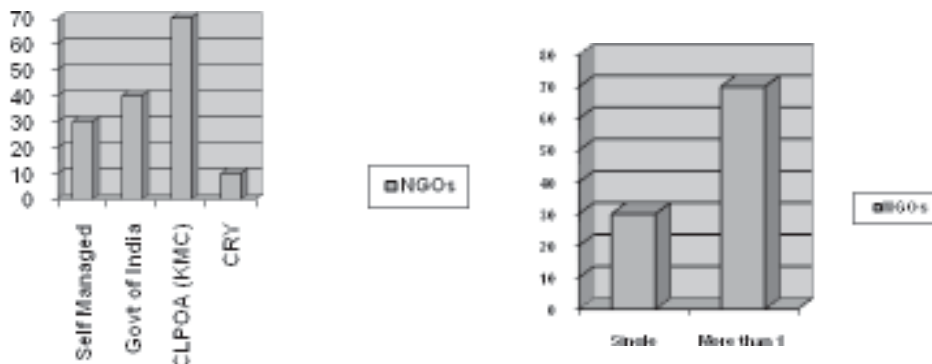


Fig 5 Nature of Projects under different NGOs

The study of existing services and programmes in Kolkata for the benefit of the Street Children shows that The Government and the Kolkata Municipal Corporation (KMC) had intervened through various projects like Sarva Siksha Abhigyan, Sikhalaya Prakalpa Project, and Integrated programme for Street Children (IPSC) Project. However Government's programme like midday meal scheme, Operation Blackboard for promoting the cause of helping the Deprived Urban Children, caters to the need of a very small sector of Street population. Educational programmes in the centres were well organized and effective and met the needs of the target group. In making use of the Government scheme of ICDS for the street children, it was found that the scheme was not intended exclusively for the Street Children, but somehow made use of by the NGOs for the benefit of the Street Children. The awareness of gravity of the problem is however growing but there is a need for collective endeavor and every effort from everyone in the society needs to be encouraged and supported.

City Level Plan of Action (CLPOA) covers more than 80,000 children throughout West Bengal with the help of 300 NGO partners. CLPOA also has more than 600 'Sikshalaya Centres' running under SSA. CLPOA dealt with the administrative aspect of the Sikhalaya Prakalpa scheme while Loreto Day Sealdah School (LDS) supervised the academic aspect of the scheme. Carrying out the process, selecting centres, selection and appointment of teachers was

in the hands of the CLPOA but the academic part-making home visits, selection and training of teachers, preparing work plans and question papers, conducting examinations and evaluation were carried out by LDS. There were as many as 457 centers with 50 students and 2 teachers in each center. There were a total of 20,000 students and 793 teachers in all. One NGO was selected as the resource center to supervise the programme. A city-wide network of 10 Resource Centres were set up. Each of the ten resource centers was in charge of several wards and administered and reported the progress of activities of the NGOs under that particular Resource Center to the CLPOA. Ward Numbers 67 to 98 was under CLPOA (i) and Ward numbers 110-141 were under CLPOA (ii). Ward numbers 1 to 6 were under BikashBharati. Ward numbers 6-9 were under Jana SikshaPrachar Kendra. Ward numbers 37-50 were under Loreto Day Sealdah School. Initially 8 Resource Centres were set up to provide support to 428 Sikshalaya, with each Resource Centre in-charge of approximately 50 to 60 centres. However in the later stage (under the SSA) these Resource Centres were discontinued. The Bridge Course Centres were run by the NGOs and were supervised by the CLPOA, in 72 Municipal Wards of Kolkata. Centres were run in the youth clubs with 25 out of school children (7 to 9 yrs) and 1 instructor in each centre, trained at LDS.

There were some projects under the IPSC launched in the year 1993 with 22 NGOs having the responsibility of 350 to 500 children according to their financial capacity. Child Rights and You had almost 200 programmes across 18 states reaching 2500 village and slum communities. CRY had projects with 500 grassroots initiatives serving over 1.5 million children in 2500 rural, tribal and slum communities all over India.

The Sikshalaya centres set up were in areas with no formal schools or over crowded formal schools but more particularly in areas with higher concentration of poor, out of school Deprived Urban Children DUC. It catered to the need of 50 out of school children of 5 to 9 years and not essentially the Street Children, since the scheme specifically meant for the DUC it was found that most if not all Street Children in the area availed the opportunity. The approach to the problem was more from the 'Child Rights' perspective, emphasizing the importance of considering children as citizen with inalienable rights, at the same time recognizing their capabilities to bring about change in their own lives, that is, the importance of providing the child with opportunities. The ICDS scheme launched in 1975 meant for promoting holistic development of children in the age group of 0 to 6 was made available to the Street Children. Midday meal or dry food packets was provided to most of the children by the NGOs. NGOs had safe drinking water facility and for all the children attending classes.

Conclusion

Street Children live on the streets of the cities, their style of living cannot be altered overnight by a single project. Encouragement and support at the initial stage of contact with Street Children is an essential prerequisite for any kind of intervention. Any attempt at intrusion should start with building rapport with the Street Children on the streets and gradually enkindling in them a wish to do better through better opportunities. The entire programme should be knitted into a well-sequenced plan, but the plan should be worked out in continuous contact with the child, giving importance to their need and aspiration. It means supporting the child through an educational endeavor, by mainstreaming them, finding resources for vocational training or finding an employment suited to their age and caliber, and even finding a way to restore contact with the family.

The Street Children are extremely vulnerable and in severe risks and danger of becoming adult delinquents in the forthcoming years. In the absence of proper opportunity they do not have any other options, but to go to the streets to solicit some kind of assistance for survival. Street Children could get involved in destructive activities even organized criminal behaviour. Society cannot ignore this fact and has to take some responsibility towards these children. Suitable measures should be taken to protect and rehabilitate these Street Children.

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Personality Profile of the Hearing Impaired and Visually Impaired Students in Special Schools

Julie Dutta and Debasri Banerjee***

Abstract

The study is designed to examine the personality pattern of the hearing impaired and visually impaired students in Special Schools. So the focus of this study is to see whether there are any differences of personality profile between the hearing impaired and visually impaired students studying in special schools of Kolkata. Survey method has been used in the study. Sample comprised of 60 hearing impaired and visually impaired students of Kolkata. Questionnaire was used to collect the data which was analyzed using t-test.

Key-words: Hearing impaired, visually impaired Personality profile, Special School

Introduction

Hearing impairment includes both deaf and hard of hearing which refers to persons with any type or degree of hearing loss that causes difficulty working in a traditional way. It can affect the whole range or only part of the auditory spectrum which, for speech perception, is between 250 and 4,000 Hz. It refers to the individuals who are not sensitive to sound in the speech frequencies or to the quietest sound which most human beings can detect. Visual impairment is defined as with best corrected visual acuity of less than 20/60, or considerable central field defect, major peripheral field defect including homonymous or heteronymous bilateral visual field defect or comprehensive contraction or constriction of field, or reduced peak contrast sensitivity either of the above conditions. The present study explores personality pattern of the hearing impaired and visually students in special schools of West Bengal. Personality is the variety of aspects of an individual's nature that combine to make them different from other people. Sharma (1990) in this study tried to compare the

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personality traits, interests and aspirations of low creative and high creative physically handicapped children which can facilitate the development of a proper programme aiming at better education and rehabilitation. Cattell's 16 P.F. Questionnaire was used in the research. High creative handicapped students achieved significantly higher mean scores on personality factors. Cambra (1996) in her study found that during the building of self-concept, one's self-perception is influenced by the attitudes and levels of acceptance of significant individuals in one's immediate environment and in society as a whole. This study explores the social image of the deaf, beginning with an analysis of personality characteristics attributed to this group. The resulting profile is then compared to those of two other previously assessed groups: the blind and those with no sensory disability. A sample of 222 university students evaluated on personality descriptors as applied to the three groups by means of a semantic differential. For certain personality descriptors, the students had different impressions of the three groups. Results show that certain negative stereotypes still mark the social representation of deafness. Instances of familiarity or friendship between hearing people and deaf people serve generally to mitigate such stereotypes. Gilmore and et.al (2003) in their study explores knowledge about down syndrome and attitudes towards the educational inclusion of children with Down syndrome were examined in a sample of 2,053 people from the community and a group of 538 experienced teachers. Although both groups displayed reasonably accurate knowledge about Down syndrome and its developmental consequences, they significantly under estimated the average life expectancy for a person with the syndrome. In both groups, a positive stereotype of children with Down syndrome as particularly affectionate and happy was evident. Despite recognising the educational, social, and emotional benefits of inclusive schooling, only around 20% of each group believed that the regular classroom was the best setting for children with Down syndrome. The findings suggest that accurate knowledge and positive, but realistic, expectations are important for enhancing the acceptance of individuals with disabilities within their schools and communities. Adolescent personality moderates genetic and environmental influences on relationships with parents.

South et. al (2008) in their study stated that in comparison to early theories of socialization which emphasized the role of parents in shaping their children's personalities, recent empirical evidence suggests an evocative relationship between adolescent personality traits and the quality of the parent-adolescent relationship. Research using behavior genetic methods suggest that the association between personality and parenting is genetically mediated, such that the genetic effects on adolescent personality traits overlap with the genetic

effects on parenting behavior. In the current study, they examined whether the etiology of this relationship might change depending on the adolescent's personality. Biometrical moderation models were utilized to test for gene-environment interaction and correlation between personality traits and measures of conflict, regard, and involvement with parents in a sample of 2,452 adolescents. They found significant moderation of both positive and negative qualities of the parent-adolescent relationship, such that the genetic and environmental variance in relationship quality varied as functions of the adolescent's levels of personality. These findings support the importance of adolescent personality in the development of the quality of the parent-adolescent relationship.

Boyes and Wood (2011) in their study suggest that predisability personality determines the speed and extent of adaptation. They analyzed measures of personality traits in a sample of 11,680 individuals, 307 of whom became disabled over a 4-year period. They showed that although becoming disabled has a severe impact on life satisfaction, this effect is significantly moderated by predisability personality. After 4 years of disability, moderately agreeable individuals had levels of life satisfaction 0.32 standard deviations higher than those of moderately disagreeable individuals. Agreeable individuals adapt more quickly and fully to disability; disagreeable individuals may need additional support to adapt. Banerjee and Dutta (2013) in their study found that visually impaired students in special schools and those in inclusive schools have different personality profiles. In this study used the sample comprised 60 visually impaired adolescent students including both male and female students. The sample belonged to two groups those who attend special schools and those who attend inclusive schools. They are selected from different special schools and inclusive schools in Kolkata. Those in Inclusive schools are more Ego-idealists, implying they have the fantasy of achieving recognition and doing great deeds. They are more Pessimistic, Introverted and Neurotic. Though they have a fantasy of achieving recognition yet they are uncertain and scared about the future. They are more self-oriented and introspective and also have a heightened sensitivity to stress tolerance. They have ideals and prefer to stick to it. As they are more dominant they are more likely to occupy or emerge in leadership roles. While those in Special schools are more Empathic, that is, they realize and understand other person's feelings, needs and sufferings. They are also more Self-confident. As they receive special training, have a more conducive environment and achieve success in learning faster than those in Inclusive setup this may lead to the reason for their being more self confident than those in Inclusive setup. However, there is no difference regarding Need-achievement. This implies the desire or tendency to complete with standard of excellence is universal for all. From the study it

is implied that the present inclusive setup needs to be developed for the healthy development of personality. In the present inclusive schools adequate infrastructure is not being provided. Teachers and students need to be more sensitive so that students feel free to enjoy themselves in the inclusive school for which they had struggled so much to get admitted.

Research questions

- ◆ What is the personality profile of the hearing impaired students studying in special schools?
- ◆ What is the personality profile of the visually impaired students studying in special schools?
- ◆ Is there any difference between the personality profile of the hearing impaired and visually impaired students studying in special schools?

Delimitation

The data is limited to students from different Special Schools in West Bengal.

Methodology

The study was designed on descriptive research methodology. Survey method of descriptive research methodology was used. Explanatory sequential method was followed. Data was analyzed by simple statistical techniques such as t-test.

Sample

In this study Purposive sampling has been used. The sample comprised of total 60 students of which 30 are hearing and another are 30 visually impaired adolescent including both male and female students. They are selected from different special schools in West Bengal.

Tools

Information Schedule—Constructed by the researchers.

Personality Test—Multivariable Personality Inventory by B.C. Muthayya.

Hypothesis of the Study

- H₀1:** There is no significant difference between Hearing Impaired and Visually impaired students in Special Schools in terms of Empathy.
- H₀2:** There is no significant difference between Hearing Impaired and Visually impaired students in Special Schools in terms of Ego-Ideal.

- H₀3:** There is no significant difference between Hearing Impaired and Visually impaired students in Special Schools in terms of Pessimism.
- H₀4:** There is no significant difference between Hearing Impaired and Visually impaired students in Special Schools in terms of Introversion.
- H₀5:** There is no significant difference between Hearing Impaired and Visually impaired students in Special Schools in terms of Neuroticism.
- H₀6:** There is no significant difference between Hearing Impaired and Visually impaired students in Special Schools in terms of Need Achievement.
- H₀7:** There is no significant difference between Hearing Impaired and Visually impaired students in Special Schools in terms of Social Concept.
- H₀8:** There is no significant difference between Hearing Impaired and Visually impaired students in Special Schools in terms of Dogmatism.
- H₀9:** There is no significant difference between Hearing Impaired and Visually impaired students in Special Schools in terms of Dominance.
- H₀10:** There is no significant difference between Hearing Impaired and Visually impaired students in Special Schools in terms of total personality profile.

Findings and Conclusion

Inference 1: H₀1 is accepted. There is no significant difference between Hearing Impaired and Visually impaired students in Special Schools in terms of Empathy.

Inference 2: H₀2 is accepted. There is no significant difference between Hearing Impaired and Visually impaired students in Special Schools in terms of Ego-ideal.

Inference 3: H₀3 is accepted. There is no significant difference between Hearing Impaired and Visually impaired students in Special Schools in terms of Pessimism.

Inference 4: H₀4 rejected. There is significant difference between Hearing Impaired and Visually impaired students in Special Schools in terms of Introversion. The difference is significant at 0.01 level of confidence respectively.

Inference 5: H₀5 is rejected. There is significant difference between Hearing Impaired and Visually impaired students in Special Schools in terms of Neuroticism. The difference is significant at 0.01 level of confidence respectively.

Table-1 : Mean and Standard Deviation of students with Hearing impairment (HI) and Visually impaired (VI) students in Special Schools regarding Sub-Divisions of Personality Profile.

	Type of Impairment	N	Mean	Std. Deviation	t-value	Sig.
Empathy	Hearing Impaired	30	3.23	1.104	.401	NS
	Visually Impaired	30	3.33	.802		
Ego-ideal	Hearing Impaired	30	1.97	.718	1.088	NS
	Visually Impaired	30	2.13	.434		
Pessimism	Hearing Impaired	30	1.17	1.117	1.535	NS
	Visually Impaired	30	1.53	.681		
Introversion	Hearing Impaired	30	3.67	1.729	8.230	<0.01
	Visually Impaired	30	.97	.490		
Neuroticism	Hearing Impaired	30	3.40	2.313	3.733	<0.01
	Visually Impaired	30	1.77	.626		
Need Achievement	Hearing Impaired	30	2.33	1.626	.865	NS
	Visually Impaired	30	2.67	1.348		
Self Confidence	Hearing Impaired	30	1.77	1.455	7.332	<0.01
	Visually Impaired	30	3.97	.765		
Dogmatism	Hearing Impaired	30	2.93	1.202	4.215	<0.01
	Visually Impaired	30	1.60	1.248		
Dominance	Hearing Impaired	30	3.30	1.393	2.947	<0.05
	Visually Impaired	30	2.37	1.033		
TOTAL Personality Profile	Hearing Impaired	30	23.77	7.025	2.306	<0.05
	Visually Impaired	30	20.33	4.138		

Inference 6: H_06 is accepted. There is no significant difference between Hearing Impaired and Visually impaired students in Special Schools in terms of Need-Achievement.

Inference 7: H_07 is rejected. There is significant difference between Hearing Impaired and Visually impaired students in Special Schools in terms of Self Confidence. The difference is significant at 0.01 level of confidence respectively.

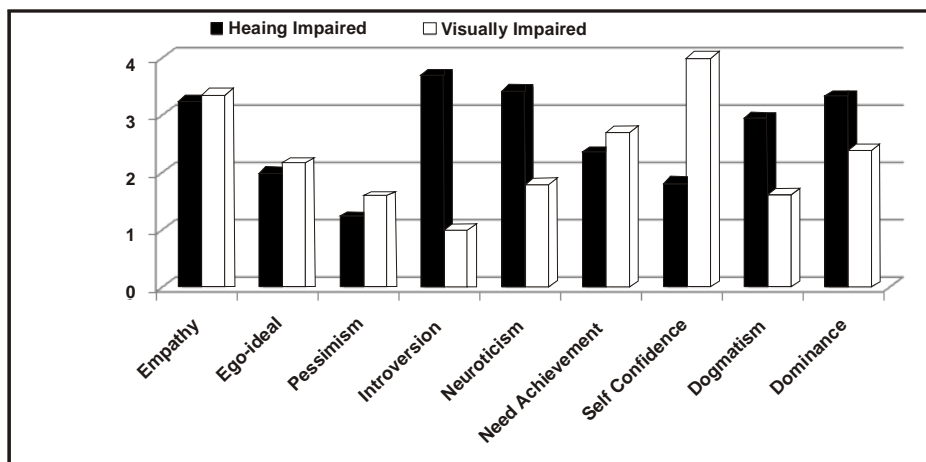
Inference 8: H_08 is rejected. There is significant difference between Hearing Impaired and Visually impaired students in Special Schools in terms of Dogmatism. The difference is significant at 0.01 level of confidence respectively.

Inference 9: H_09 is rejected. There is significant difference between Hearing Impaired and Visually impaired students in Special Schools in terms of Dominance. The difference is significant at 0.05 level of confidence respectively.

Inference 10: H_010 is rejected. There is significant difference between Hearing Impaired and Visually impaired students in Special Schools in terms of Total Personality Score. The difference is significant at 0.05 level of confidence respectively.

From the finding of the present study it may be concluded that Hearing Impaired and Visually impaired Students in Special schools have different personality profiles. Visually impaired students are more empathetic that is, they realize and understand other person's feelings, needs and sufferings much more.

Figure 1. Graphical Representation of the sub-divisions of Personality scores of Hearing impaired and Visually impaired students in Special Schools.



They are also more ego-idealists, implying that they have the fantasy of achieving recognition and doing great deeds. Visually impaired students are more Pessimistic. Though we find they have a fantasy of achieving recognition

yet they are uncertain and scared about the future. They have more Need-achievement. This implies the desire or tendency to complete with standard of excellence is higher for them than the hearing impaired students. They are also more Self-confident.

While Hearing impaired students are more Introvert and Neurotic They are more self-oriented and introspective and also have a heightened sensitivity to stress tolerance. They are more dogmatic in nature which implies they have ideals and prefer to stick to it. As they are more dominant they are more likely to establish their beliefs and ideas.

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Positioning School Leadership in Indian Context: Review and Way Ahead

*Sunita Chugh**

Abstract

The present paper traces the historical evolution of research on school leadership by trying to capture the thematic shift in the way school leadership is understood. In the initial years, studies focused on the administrative and managerial functions of school leaders, followed by a corpus of research based on personal characteristics, qualities, skills, values, behavior and leadership styles of School Leaders. To expand the canvass of research on school leadership, research studies shifted the focus from administration and management to leadership which included how school leaders function as visionaries and have the capability to take risk and experiment innovations. The paper brings to fore issues related to school leadership in India which has remained an under researched area. There is lack of evidence based research in India to show the relationship between leadership and school improvement or transformation. The researches have not yet taken into account the diversity in school system and also the different context in which the schools are situated. The impending need is to carry out studies on the factors that inhibit a school leader to go beyond his/her managerial and administrative task so as to bring transformation in schools in India. An attempt is made to position the school leaders in the context of research on school leadership.

Key Words: School Leadership, leadership styles, Leadership Behaviour, School Management

1.0 The Context

School leadership is the process of identifying, tapping and guiding the talents and energies of teachers, pupils and parents toward achieving common education purpose. The term educational or school leadership became popular in the late 20th century for several reasons. There were increasing demands on schools for higher levels of pupil achievement and schools were expected to improve and reform to respond to the educational needs of the children. These expectations were accompanied by calls for accountability at the school level. In such a

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scenario, maintenance of status *quo* was no longer considered acceptable through the routinized forms of administrative and management practices that implied stability by exercising control and supervision. Ideas, in research as well as in practice, started to emerge with a focus on restoring the faith in the school system and infusing it with dynamism and pro-active behavior of leaders at the school level. This new wave of optimism resonated well with the concept of *leadership*. It was felt that the evolving nature of school environments placed greater and newer demands on educational leaders, where knowledge of school management, finance, departmental regulations and state mandate was considered important but not sufficient. The increasing diversity of student population in terms of language, culture, customs and beliefs placed a premium on school leaders to think and act beyond their customarily duties and function and take a leadership position in which the school vision needs to be formulated in collaboration with all the team members. In addition to this, the low learning levels of children even after attending school created an urgent need for a strong emphasis on development of instructional skills of the school heads to promote good teaching and high level learning for all the children. Across the globe intensive research began focusing on the attributes and characteristics of good leadership as it began to be recognized a precondition for the transformation of school system which would in turn improve the learning levels of children. The focus of the research shifted from the role of school head to be merely administrator and manager to a leader who would take initiative and think out of box.

2.0 From Administration to School Leadership: The Historical Evolution

School leadership is one of the most widely researched area and the research studies have been focusing on various dimensions. If we look at the trends in research in school leadership, it is observed that the initial studies were conducted on leadership behaviour and traits In 1930s the focus was on the traits of the leaders and it was believed that leaders are born rather than made. These studies highlighted the innate characteristics and abilities that distinguish effective leaders from the ineffective leaders. The studies identified some of the traits that a school leader needs to possess such as good interpersonal skills, self confidence and achievement orientation, persistence in the pursuit of goals, ability to cope with interpersonal stress and engage in creative problem-solving. Kurt Lewin in 1939 (cited in Cherry K) developed a framework based on leadership behavior and classified leaders into three categories such as Autocratic leaders who make decisions without consulting the team members. In contrast to this are the democratic leaders who involve the team members in decision making and implementation. The third kind is the laissez-faire leaders who give liberty to team members to make many of the decisions. These types of leaders

sometimes do not give direction to the team members. In real situation no single leadership style can be practiced. The good leaders use different behavioral styles in different situations.

In the next two decades the focus of research was on behavioural aspect as to what the leaders does, how to distinguish the behavior of effective and ineffective leaders behaviours (Mann, 1959). The focus of this stream of research was on the behaviours exhibited by the leaders are more important than their physical, mental or emotional traits. Two major classification of leader behaviour are task oriented behavior and relationship or consideration oriented behavior. Personal or consideration orientation included showing concern for subordinates, being supportive, recognizing their achievements. Task-oriented behavior involves planning, organizing and coordinating the work of subordinates. Thus in 1950's and 1960s the researches moved from *leaders* to *leadership* and the research studies evaluated the behavior patterns of school leaders, what successful leaders did in different situations, developed a categorisation of actions and identified broad patterns that indicated different styles. The basic premise was that all the leaders would behave in uniform way and did not take into account the situational differences.

In 1960s and 1970s the contingency theory emerged which emphasizes the importance of both the leadership personality and the situation in which that leader operates. Infact this theory emphasizes that effectiveness of leadership is dependent on matching leadership style to right situation. Fiedler (1967) initially developed this theory after studying various leaders primarily military, in different context. The basic assumption is that leaders prioritise between task-focus and people-focus. Relationships, power and task structure are the three key factors that drive effective styles. Through the Least Preferred Co-Worker scoring for leaders Fiedler identified high LPC and low LPC leaders. High LPC leader scores the other persons as positive with attributes like (friendly, helpful, cheerful etc.) and low LPC leader scores the other persons as negative attributes like (unfriendly, unhelpful, gloomy etc.). High LPC leaders believe in establishing close relationship and prioritise the relationship before the task. Related to this another theory known as the path-goal theory was first introduced by Martin Evans (1970) and then further developed by House (1971). The theory is based on devising the path to achieve the desired goal. In this the leaders select specific behavior keeping in view the needs of its staff members and the working environment which would help the staff to follow a path in the accomplishment of their daily work activities (Northouse, 2013).

In 1980's and 1990s it was realized that it is not only the traits or behavior of school leaders that can bring the change in the schools but the school leaders

need to work in collaboration with other stakeholders and the researchers began to focus on understanding the relationship between leadership and organizational improvement. Relationship theories, also known as transformational theories, focus on the connections formed between leaders and other stakeholders. In these theories, leadership is the process by which a person *engages* with others and is able to “create a connection” that result in increased motivation and morality in both followers and leaders (Lamb, 2013). The concept of transformational leadership was initially introduced by James M Burn (1978). He made significant contribution in the development of transactional, and transformational, leadership theories. Bernard D Bass (1985, 1997) extended the work of Burns (1978) and explained how transformational leadership impacts motivation and performance of teachers and students. The leader transforms and motivates followers through his or her idealized influence, intellectual stimulation and individual consideration. (Bass 2008). The school leader not only adapt to the changing situation but tries to change and transform the existing system by building a vision, taking initiative and adopting the problem-solving attitude.

3.0 Trends in School Leadership: Review in Asian context

An extensive review of research on educational leadership and management in Asian context, between 1995 and 2012 was undertaken by Hallinger and Chen (2015), based on the contribution of Asian scholars in 8 internationally renowned journals on the same theme. Giving a brief glimpse of what the authors call the history of ‘knowledge production’ on educational leadership and management since mid-20th century, their analysis revealed that the ‘first’ generation of scholarship in this field was based on educational administration within the frameworks provided by theoretical traditions of social sciences, such as psychology and sociology. However, by 80s, the field was gradually characterized by studies that explored the relationship between educational administration and teaching learning processes in schools. The authors also found that by the beginning of 21st century, two trends became more prominent; one, the researches focused more on empirical findings that aimed for greater relevance for practice and second, research on educational leadership started to emerge as a potent field of scholarship outside north America, such as Europe, Australia and Asia. Another significant development related to the shift of the discipline from *administration* to *leadership*, as leadership was not just confined to be understood in terms of “organizational roles and hierarchy” (quoted in *ibid.*). In addition, in the discipline of educational leadership, new vistas of conceptual and methodological models have opened up, such as transformational, transactional, instructional, distributed and teacher leadership, which has meant more systematic researches and empirical explorations (*ibid.*).

Analyzing the review of researches of Asian scholarship in international journals, between the time period from 1995 to 2012, Hallinger and Chen (2015) found that this corpus is in its early stages of development, with maximum contribution from Hong Kong and Israel. Hence, in the absence of substantial contribution from Central, West and South Asia, taken together, it was difficult to draw the characteristics of an Asian literature. Nevertheless, what is significant is that the researches emerging from Asian part of the world, related to topics such as k-12 leadership, school change, effects and improvement, human resources, higher education management and organizational behavior in education (*ibid.*). The authors pointed towards conspicuous absence of literature on school leadership from South Asian countries, however, they suggested that there is a presence of literature but could be indigenous publications and here is a need to review the same. Phillipson, Sivanes and Shane (2014) focus on the design of leadership programmes that are able to meet the needs of students, teachers and the wider community. Emphasizing learner diversity, the author argues that the students' specific cultural and educational contexts need to be taken into account for fulfilling the educational needs of individual students.

In recent times, the field of research on educational and more specifically on school leadership has traversed a long trail. Harris (2005) while discussing the evolution of educational policy in the context of leadership points out that in England, standard-based reforms that had dominated as the only method of achieving high student outcomes had given way to thinking of strategies of collaboration between schools and positioning school leadership as the pivot for school transformation. Thus in research as well as discourse, there has been an apparent shift and focus on school heads as the prime mover for school change and transformation. One of the first steps towards this was setting up of the National College for School Leadership in 2001 in England that brought leadership development into the forefront of school improvement. This trend as Harris (2005) points out has also become prominent in US, Canada, New Zealand and Australia and many other countries. Broadly, drawing upon other studies, Harris (2005) presented 4 categorizations of researches on school leadership (existing literature) which are managerial, transformational, interpretive and instructional. An extensive review of the researches on school leadership led Harris (*ibid.*) to believe that one of the relatively unexplored areas that remain to be studied is the understanding from contextual differences between schools and how that influences the forms of leadership that seem to operate within these schools. In addition, to school-specific contextual studies, Harris also acknowledges the need for large-scale, multi-level research studies that can build into the theoretical corpus of school leadership. Grint (1997: p. 116) observes “despite an enormous outpouring of material in the second half of the twentieth

century, we appear to be little closer to understanding leadership". Harris & Spillane (2008) states that school leadership pay little attention to leadership, rather focuses on people, structures, functions, routines and roles, focusing on *what* rather than the *how* of leadership. Infact the research findings does not provide specific answer as to *how* the leadership influences school and student outcome because evidential base is very diverse and the quality of studies varies considerably. Only few studies have established any direct causal links between leadership and improved student performance (Hallinger & Heck 1996). Bell et al, (2003) observe that effective leadership is important in a school's success but that its effect upon students' outcome was largely indirect. This review concluded that 'distributed forms of leadership among the wider school staff is likely to have more significant impact on the positive achievement of student/pupil outcomes than which is largely or exclusively top down (Bell et al., 2003: 4). Researches primarily conducted in the west giving evidence of the significant impact of school leadership on student achievement also influenced the researchers in other countries to undertake research in this area and India is no exception to this.

4.0 Themes Covered in School Leadership in India

As mentioned earlier that the research on school leadership is in an infancy stage. Review of leadership studies in the past six decades has revealed that most studies revolve around studying the personal characteristics, qualities, skills, values, behavior, leadership styles, of School Leaders. Number of micro level studies have been conducted across the country but have not been documented and disseminated therefore the trends cannot be captured. Findings of some of the studies conducted in India are discussed below.

4.1 Role of Head Teachers in School Management

Govinda (2006) conducted a diagnostic study to obtain a comprehensive picture of the roles of head teachers in school management, in six states of India viz. Assam, Karnataka, Kerala, Madhya Pradesh (MP), Mizoram and Uttar Pradesh (UP). The findings revealed that most of the head teachers, handicapped by the lack of clear set of guidelines regarding their managerial role and inadequate staff strength, have not been able to evolve an internally decentralized management system. Even in the biggest schools, there is an absence of regular interaction between the teachers and the head teachers. Constrained by the external controls exercised by the Department of Education, the head teachers of government schools do not have much scope to exercise their authority in various dimensions of school management. Most of the head teachers face a major financial problem in managing their institutions. The study also finds that there has been inadequate monitoring of head teachers' performance. No

feedback mechanism has been evolved to keep the head teachers focused on their role as managers. No idea- shared forum has been instituted to help them experiment and innovate.

Another study, by Diwan, R., (2009) highlights that school principals are of crucial importance for improvement of schools as long as the onus of taking decision for schools lay with them. According to the study, empowering the schools heads who can take school based decisions necessitates vital decisions at the policy levels. In this context, the study discusses certain policy decisions that needs to be taken up in a hierarchical and bureaucratic model and the areas of capacity building exercises that needs to be conducted to help school leaders to meet the demands emerging from the social and educational scenario of the country.

4.2 School based Management and Leadership

Pushpanadham K., (2006) focuses on the principles and practices of School Based Management for school effectiveness. The author highlights that the educational Leadership is identified as an important factor for quality education and developing countries have focused on this important factor and initiated systematic training and development programs for their leaders. Moreover, the latest educational policies advocate decentralized educational management, and any educational reform will be successful with both an evolution of institutional structures and specialized training and development programmes for education professionals. One strategy for achieving these goals is found in School Based Management (SBM), a model of decentralized school administration that provides clear guidelines. Professional Leadership is essential for successful implementation of decentralized management of education at all levels which could be built through the capacity building programmes. At this juncture, a systematic and need based professional preparation of Principals, teachers, parents and members of the community is needed. SBM Model and Decentralized Management Structures at micro level of school management allow people to take part in various school programs. Therefore, at every level of decentralized structure, there is a dire need to build the capacity of stake holders to make the school based management successful. The role of government in this context is to prepare the conditions of work through which the desired institutional goals are achieved.

Sujatha K (2011) observes that most of the research studies have focused on school effectiveness and successful schools and the understanding has been developed about the major characteristics of successful schools. However the research has not focused on what the school leaders do and how to achieve success in school. The study on improving management in Asian Countries by

taking case study of schools of six countries namely Bangladesh, India, Malaysia, Nepal, Philippines and Sri Lanka is aimed at informing institutions on why and how to build capacities of school leaders to improve school management. The study revealed that besides infrastructural facilities, strategic leadership is significantly responsible for the transformation of schools. The study observes that the school heads and head teachers of the select schools had undergone pre-service and in-service teacher training. Distributed leadership was practiced by the school heads by involving various stakeholders viz. teachers, students, heads of departments etc. Financial and administrative responsibilities were also shared with department heads, SMCs, VECs. Participatory and collective decision-making was encouraged. The heads also made efforts to create the learning communities. Delegation of task to different stakeholders brought belongingness to school, a sense of involvement and motivation among them to succeed. However the distribution of power did not reduce the power and capability of the legitimate leader at the top, rather they continued to make vision, prepare plans and direct important decision. This model of leadership brought both accountability and sustained motivation among stakeholders.

4.3 *Knowledge Creation*

Kumar, et al. (2013) argue that knowledge is a critical resource for organizations working in dynamically-competitive environments. In any organization, leaders who have the power to incite and influence knowledge creation activities are at a natural advantage in their ability to play a central role in the process of knowledge creation. Authors argue that decoding the relationship between leadership and knowledge creation is important, as it helps identify leadership activities that facilitate knowledge creation, and thus, build competitive power for organizations. Based on extant literature, they develop five propositions underscoring the role of leadership in knowledge creation processes. Leaders advocate recruiting, retaining and rewarding employees committed to knowledge creation processes. In rendering a common platform to staff for sharing experiences, leaders expedite the process of knowledge creation. Leaders help in the process of knowledge creation by providing staff adequate and safe means of expressions. By forging knowledge links between uniquely capable institutions, leaders help create new knowledge, By investing in strategically important training programmes, leaders help in the process of knowledge creation. All these five propositions are related to leadership activities that are preconditions for easy facilitation of knowledge creation. Ultimately, a theoretical model establishing links between leadership, knowledge creation activities, and possible outcomes of these leadership activities is attempted.

4.4 *Teachers' Perception on School leaders*

It is generally believed that the school leaders are the role models for the staff and students. Their behaviour and attributes are the guiding principles. Sharma, (2010) study examines Malaysian, Indian and Thai teachers' perception of the leadership capacities of their principals. One hundred and seventy seven teachers from Malaysia, one hundred and seventy two teachers from India and one hundred sixty four teachers from Thailand participated in the study. Findings showed that perception of teachers differed significantly in these three Asian countries. Perception of Thai teachers about leadership capacities of their principal was negative while Malaysian and Indian teachers' perception was positive in all six interstate schools Leaders Licensure Consortium Standards (ISSLC). The ISSLC standards are: Vision and Mission, Instruction Learning, Culture, Professional Learning, Operations and Management, Engaging with faculty and Community, Ethical Principles and Professional Norms, Responding to the Education Context. Sharma (2015) examined the leadership qualities and competencies required for school principals. The sample consisted of the principals of private schools the study looked at the eight dimensions of leadership qualities namely communication skills, comfort, empathy decision making, influence, self management, time management, commitment and overall with the leadership competencies of school vision, instructional leadership, organisational leadership, community leadership and moral & ethical leadership. The study reveals that leadership qualities of principals are a significant determinant of leadership competencies. It implies that whether it is leadership in school or business sector effectiveness is outcome of leadership qualities and competencies.

Joolideh & Yashodhara, (2008) examined the gender differences on leadership perceptions among high school teachers of India and Iran. Among the Indian teachers 'gender as a variable was not found to have a significant influence on the perception of leadership behavior of the high school principals, whereas in Iran gender of teacher had a significant influence on their perception about leadership behaviour of the principals in Iran. Also male and female teachers differ in their perception of laissez-faire leadership component.

4.5 *Professional Preparation of School Leaders*

Bryant, Miles *et.al.*(2006) focuses on selection procedure of administrators and their professional development in four non-western countries, (China, two former Soviet Bloc nation, India), having different social and cultural contexts. In China, evidence was found of significant changes in the selection and development of new administrators. The two former Soviet Bloc nations still followed the patronage system that politicizes selection and obviates any rigorous training program even though there is the provision for development

after the selection of a new administrator is made. In West Bengal, a rural area, the selection process is tightly controlled by a zonal or regional agency. Cross case analyses suggest that an administrative aspirant needs to have teaching experience, needs to have political connections, and needs to have the nomination of those higher in the educational system as a condition of being appointed to an administrative position. In terms of development, Chongqing China provided the only example of an educational development programme that occurred prior to the assumption of a position (pre-service). In Belarus, Azerbaijan, and West Bengal development activities were either very limited or offered to individuals after they assumed a position. Selection and development of administrators is grounded in the cultural, political and economic realities of each country. Each approach signals significant cultural realities—the influence of party politics in China, a tendency toward *mock bureaucracy* in Belarus and Azerbaijan, and an authoritarian and bureaucratic presence in West Bengal.

Saswati Paik, Sujatha rao, and Swati Chandra (2012) conducted a longitudinal study on school leadership in seven districts in Karnataka (India), with particular focus on government schools. The objectives of the research were to understand the construct of school leadership in Karnataka, and how leadership gets enacted in schools; the role of structured leadership development programs in developing effective school leaders.

4.6 Leadership Behaviour

Most scholars agree that there is no single set of principles or behaviours of leadership, but rather believe that the most effective leadership style in a given situation is a function of the task, the organisations culture and attributes of the leader. In this context, study by Diwan. R. (1996) investigates and explains in detail the leadership behaviour and value patterns of School Principals in their specific school situations. An attempt has been made to bridge a gap between theoretical framework and practical orientation by in depth analysis of a leader's behaviour.

Diwan, R (2000) highlights that the success of school management lies in the dynamic leadership behaviour of school heads. The study intends mainly to sharpen the school leaders with the competencies, capabilities, skills and abilities already present in them. This exercise is the most foundational attempt for suggesting the most practical approaches in the process of building good institutions to make school leaders responsive to change through dynamic leadership behaviour mainly in the areas of thinking, planning, coordinating, organizing, negotiating tasks and processes; generation and sustenance of climate favourable to change and decisions affecting changes; managing critical state

of mind a principal goes through which may hamper school performance. These include stress, time, anxiety, conflict, tensions, frustrations and pressures.

Abgoli Alireza Rezaei (2008) aims to study transformational and or transactional leadership styles of secondary school headmasters in India. Headmasters refer to individuals who manage secondary schools. The study was carried out using Multifactor Leadership Questionnaire (MLQ) by Bass and Avolio (2000). These MLQ scores were idealized influence (behaviour), idealized influence (attributed), inspirational motivation, intellectual stimulation, individualized consideration, contingent reward, management-by-exception (active), management-by-exception (passive), and laissez-faire. It was found that headmasters' leadership style did not have a significant relationship with their demographic variables such as gender, age, educational qualification, subject and experience.

Study by Taheri Mahdokht, Ahuja Malwinder, Sharma Sanjeev (2007) tried to explore and compare the leadership styles of principals of secondary schools of Iran and India; compare levels of job satisfaction of teachers at the secondary school level; compare secondary school male and female principals, high and low in leadership styles, in respect of job satisfaction of their school teachers; to study the relationship between principals' leadership styles and job satisfaction of teachers at secondary school level in Iran and India.

Finding of the study reveal that a strong positive and significant relationship was observed between overall leadership style (OLS) with overall job satisfaction (OJS) in both the Qazvin and Chandigarh groups. Result shows that the mean scores of Indian secondary school teachers had higher job satisfaction as compared to their Iranian counterparts. The finding was in line with Finger (1985) findings that teachers who perceive quasi-administrators, as being high in both initiating structure and consideration would have greater degree of job satisfaction than those teachers who perceive their quasi- administrators as having any other leadership style.

Diwan, R.(2009) present scenarios of school education in India and observes that schools are having a rigid system of teaching-learning where teaching processes dominate over learning. Children voices do not have any place in the classroom. Teachers do not reflect themselves as life- long learners. It is proposed that all the stakeholders need to make an attempt to transform the schools from teaching organization to learning organisation.

Nayak & Mishra (2005) explored the relationship of perceived leadership behaviours to Organizational Efficacy and effectiveness. Findings of the study indicate strong positive, statistically significant relationship between perceived

leadership and Organizational efficacy and its various dimensions such as mission or purpose, sense of collective capability and sense of resilience.

Nadeem N.A & Basu Mudasir (2012) present a critical review of literature on leadership behaviour of educational administrators. Leadership is an “Influencing Process” where leaders motivate the members of an organisation to get their best efforts and achieve organisational objectives. They also create a shared vision and lead the organisation towards it, solving problems on the way and overcoming obstacles as and when they arise.

4.7 Leadership and Job Satisfaction

Research has been conducted on relating leadership, to job satisfaction and commitment for the school. The effect of perceived leadership on the work was studied by Suor, Tewari and Chaturvedi (2006) and found that school commitment and satisfaction decreases under an authoritarian leader. The authors emphasize that the effective functioning of an institution heavily depends upon the leadership that has the ability to influence tasks, strategies, goals, beliefs, attitudes and behaviours of all the staff members throughout a hierarchy. In fact the leaders empower the staff to be actively participating in the decision making process.

Punia, (2000) observes that higher level of commitment enhances morale, job satisfaction, professional competency, efficiency and effectiveness of the teachers. Kushman (1992) studied organizational commitment of head of schools, teachers in elementary and middle school and found that organizational commitment was positively related to student achievement, job satisfaction, teacher satisfaction, feeling of efficacy as a teacher and teacher’s expectation of student’s success.

Mishra & Mishra (2005) studied the relationship between the achievement, motivation of school heads and their organizational commitment. The findings reveal that there exist a strong significant positive correlation between the organizational commitment scores and achievement which further leads to the higher motivation levels. Samantary & Dash (1995) found that there exist a significant positive relationship between organizational commitment of the teachers, and organizational health of the secondary schools in Puri District in Orissa.

However more research needs to be conducted which would reflect upon the leadership issues and would focus on what kind of educational leadership is required in Indian context and where do we stand if we look at the dominant leadership theories? It is also important to identify the gaps and challenges that prevail in inculcating the leadership capabilities and what kinds of steps are required to meet those challenges.

5.0 Positioning School Heads of India in the Context of Research on Leadership

School heads are working as school leaders by virtue of their position. The hierarchy system still predominantly prevails in the education system as Sergiovanni (2001) observes that the existing school leadership literature stresses upon bureaucratic and technical rational authority that equates leadership with a series of transactions within an organisation. This rational form of leadership is premised upon leadership equating with the management of systems and processes rather than the management of people. *Managerial leadership or transaction leadership* assumes that organisations are hierarchical systems in which managers use rational means to pursue agreed goals. The transactional leader works through creating clear structures whereby it is clear what is required of their subordinates, and the rewards that they get for following orders. Punishments are not always mentioned, but they are also well-understood and formal systems of discipline are usually in place. In India the transactional leadership is seen in practice as the school is governed by the system level functionaries and school heads generally responds to system level demand and expectations. They hardly takes initiative to try out the new experiments and even does not provide the freedom to the teachers to try out innovations.

However in some of the mature educational systems school leadership goes beyond managing day-to-day operations and focuses upon people rather than the structures and is essentially concerned with cultural rather than structural changes. The school leaders try to bring transformation or change in the culture keeping in view the specific context of their school. The change is brought through the team building, motivation and collaboration with teachers, community and other stakeholders and this kind of leadership in literature is called as *transformational leadership*. Transformational leaders set goals and incentives to push the teachers to higher performance levels, while providing opportunities for personal and professional growth for each individual. Stephen Covey (1989) reminds us that good leadership comes from shared vision and principles. According to Burns (1978) transformational leadership is observed when “leaders and followers make each other to advance to higher level of moral and motivation”. Through the strength of their vision and personality, transformational leaders are able to inspire followers to change expectations, perceptions and motivation to work towards common goals. Bass (1997) suggested that transformational leaders garner trust, respect and admiration from their followers. Leithwood *et. al.* (1999:9) observes that transformational leadership is about building unified common interests between leaders and followers and may be identifies by a number of core leadership activities:

- ◆ Setting directions (includes vision building and communicating the vision, agreeing on goal and the development of high performance expectations).
- ◆ Developing people (includes the provision of individualized support, encourage reflection and provide intellectual stimulation and the modelling of values and practices important to achieve the goals)
- ◆ Developing the Organisation (develop school culture that embody shared norms, values, beliefs and attitudes, promote trust, fostering shared decision making processes and problem-solving capacities; collaborating with the parents, community and system level functionaries.
- ◆ Respond productively to the opportunities and challenges of educating diverse groups of students.

The attempt to engage all the members tend to motivate teachers, increase their self-esteem and is also useful in improving the school. Further to this it has been proposed by Day et al. (2007) that effective leaders are consistently managing several competing tensions and dilemmas and secondly effective leaders are people centered. The Indian education system still needs to move in this direction. The idea of ‘distributed leadership’ in which there are several key players in the formulation of vision and carrying forward the common purpose of education still has not taken off in India. The distributed leadership perspective focuses on how leadership practice is distributed among formal and informal leaders. As Benett et al (2003:3) describes it “distributed leadership is not something done by an individual ‘to others’—rather it is an emergent property of a group or network of individuals in which group members pool their expertise”. The underlying principle of distributed leadership is collaborative rather than bureaucratic which also means the development of new skills and a new gamut of approaches that fit the new role. From a distributed leadership perspective, interactions and communication are a critical part of leadership practice. It also means involving all the teachers and not the select few which could create conflicts and tensions. Few researchers propose that distributed leadership in reality is a form of work redesigned in which the staff feel more responsible for their work, are given greater autonomy and are provided with adequate feedback on performance. The challenge is to develop and foster distributed model of leadership that can transform schools and school systems. In India this kind of leadership is yet not practiced therefore not much empirical evidence is available to conduct the action research or build theoretical base.

If the school heads are able to distribute their work they will be able to devote time in engaging with the instructional activities like taking classes, monitoring the teaching-learning process, being the mentor to the teachers etc.

Sergiovanni (2001) describes 'instructional or pedagogical leadership' as a form of leadership which invests in capacity building by developing social and academic capital for students and intellectual and professional capital for teachers. Instructional leaders aim to build learning enriched schools for staff as well as pupils.

The school heads need to play a role of instructional leader and create conducive school culture for learning, drive instructional change by helping teachers to improve their teaching competency, use data-driven analysis of student achievement and actively engage with the students as well as with their parents. This kind of instructional leadership is almost missing as most of the time is spent by the school heads in the glut of paper work and other administrative tasks.

6.0 Way forward for Indian Research in School Leadership

The preceding analysis makes it clear that school leadership remains an under researched area. There is lack of evidence based research in India to show the relationship between leadership and the school improvement or transformation. The researches do not take into account the diversity in school system and also the different context in which the schools are situated. The very concept of leadership is not well understood and the little attention has been paid on the capacity building of school leaders both at institutional and system level. Research on kind of knowledge, skills and dispositions required of school leaders to perform their jobs well now and in the future need to be undertaken. Research on Contextual differences between schools and how that influences the forms of leadership that seems to operate within these schools is required to be taken up if want to improve and transform our schools. This requires initiation of research on leadership practices particularly action research. The very concept of middle level and teacher leadership also needs to be emphasized as the transformation in school is possibly provided each individual demonstrates the leadership ability.

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Relationship Between Different Dimensions of Commitment of School Teachers

*Goutam Maiti**, *Nimai Chand Maiti*** and *Md. Kutubuddin Halder****

Abstract

The investigators intended to compare the relationship between commitment of school teachers and its dimensions. For the purpose of investigation, random sampling technique was adopted. The sample comprised of 68 school teachers in Kharagpur (Block-I), District Paschim Medinipur, West Bengal. School teachers means primary teachers (who teaches the classes I to IV) and secondary teachers (who teaches the classes V to X or XII). Teacher Commitment Inventory by Dr. (Mrs.) Noorjehn N. Ganihar was used for the collection of data. The obtained data were analyzed using Mean, SD and co-efficient of correlation. The findings of the study revealed that there is significant positive correlation between various dimensions of teacher commitment. And most of the school teachers are moderately committed in their teaching profession.

Key Words: School Teacher, Commitment, Dimension

Introduction

An educational institution performs a significant role in providing learning experiences to lead their students from the darkness of ignorance to the light of knowledge. The key personnel in the institutions who play an important role to bring about this transformation are teachers. No nation develops beyond the quality of its education system, which is highly dependent on the quality of its teachers. If the teacher is committed and has positive attitude then it is sure that his performance will be better and his effort will be fruitful.

Richarson (2003) narrated that education is a nation building activity. The quality of education depends upon ability and efficiency of teachers. If the teacher are well trained, motivated and committed with their profession learning will be enhanced. It is well known that quality and extent of learner achievement deeply depends on teacher commitment. Clinton (1996), in his 'Call for Action

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for American Education in the 21st Century' indicated that "Every community should have a talented and dedicated teacher in every classroom. We have enormous opportunity for ensuring teacher quality well into the 21st century if we recruit promising people into teaching and give them highest quality preparation and training."

Swami Nikhileswarananda opined in his 'Shikshak-Uttaraner Alokbaritika' that success in teaching life (S) depends on 3Ds and 3Qs [$S = 3D + 3Q$]. Here, S means success in teaching life; D means Dignity, Dedication and Devotion; and Q stands for IQ (Intelligence Quotient), EQ (Emotional Quotient) and SQ (Spiritual Quotient). Even, honourable Ex-President of India, Dr. A.P.J Abdul Kalam has written in his famous book 'India 2020: A Vision of the New Millennium'—"Whatever subject you may be a teacher, your role is the most significant than that of others because, you are making the future generation".

Commitment or dedication seems a desirable quality of teachers especially in the field of education. It is defined as an act of committing or pledging or the state of being committed or pledged or an obligation promise, etc. that restricts ones freedom of action (Free Dictionary). It may be a basic source of motivation since a person is more likely to perform when he is committed to a cause.

Related Studies

Steer's (1997) research established that three set of factors; job characteristics, work experience and personal characteristics were significantly related to commitment. Committed employees are also less likely to leave their positions and display other withdrawal behaviour, such as absenteeism (Reichers, 1985). Suja (2007) in a study found that attitude towards teaching, interest in teaching and teaching experience have significant main effect on job commitment of teachers. Singh and Billinngley (1998) stress that low level of teacher's commitment reduces students' achievement.

Crosswell (2006) is of the opinion that teacher commitment is one of the major professional characteristics that influences an educator's success.

Importance of the Study

In any educational institution student is the most important element (celep, 2001) and no education reform is possible without the teacher (Mohanty, 2003). Teacher's commitment is the best predictor of job satisfaction (Usha & Sashikumar, 2007). So this study can be benifited to the new comers in this teaching profession and a deeper understanding to different aspects of teacher's commitment in their teaching profession. Even it should be looked upon both as a precaution and as a prescription for our future progression/advancement.

Delimitation

The area of study has been delimited to the school teachers in Kharagpur (Block-I), District-Paschim Medinipur, West Bengal. Only full time teachers of Government-Aided and Government Sponsored Schools were included in the sample.

Objectives

1. To study the relationship between different dimensions of commitment of school teacher.
2. To categorize school teachers according to their commitment.

Hypotheses

There is no significant relationship between different dimensions of commitment of school teachers i.e.,

1. Psychological perspective,
2. Sociological perspective,
3. Commitment towards the Profession,
4. Commitment towards the Institution and
5. Commitment towards the Students.

Sample

Simple random sampling technique was adopted. The sample of the present study comprised of 68 school teachers out of which 33 were Primary teachers and 35 were Secondary teachers.

Tool Used

A standardized tool prepared by Dr. (Mrs.) Noorjehan N. Ganihar entitled, "Teacher Commitment Inventory" (NTCI) was used in the present study. This inventory consists of 21 items based on the five dimensions. The inventory had 16 positive and 5 negative items. It is having a five-point scale. The reliability of the inventory was computed by spit-half method. The overall reliability of the inventory was 0.74; the overall validity was established by square root of reliability, i.e. $\sqrt{0.74} = 0.86$.

Description of the Dimensions of Teacher Commitment Inventory

The inventory has five Dimensions of teacher commitment, viz.

1. Psychological perspective of teacher commitment closely corresponds to the definitions of psychological identification with goals and beliefs of the organization. Kagan (1958) indicates that identification is motivated

by individual desire to acquire mastery over the environment and to receive nurturance and affection. Therefore, individuals identify an organization and feel committed to it to the extent to which they view organizational experiences as helping them to attain the goal of mastery and support.

2. The Sociological perspective was proposed by Kanter's (1968) theory of commitment. Commitment is central process by which the personality system and the social system become articulated, individuals in the society in general and the organization in particular, because of the benefits and rewards they receive from the society and the organization.
3. Commitment towards the profession refers to the relative strength of an individual's identification and involvement in a particular profession.
4. Commitment towards the institution refers to the core values/beliefs of the organization which may increase the probability that members will act in ways consistent with organization purposes, work more co-operatively and collaboratively with others who also share institution goals and seek ways to enhance the effectiveness of the organization.
5. Teacher commitment is likely to influence the level of performance and the lives of performance of both students and teachers themselves. Students who work with a committed teacher generally outperform students who work with an uncommitted teacher.

Statistical Techniques

Statistical techniques like Mean, S.D. and co-efficient of correlation (r) were used in the present study.

Analysis and Interpretation of Data

It is observed from the Table-1 that–

1. There is a significant positive correlation between scores of Psychological perspective and scores of Sociological perspective, commitment towards profession, commitment towards institution, commitment towards the student and total of all dimensions of commitment.
2. There is a significant positive correlation between scores of Sociological perspective and scores of commitment towards the profession and total of all dimensions of commitment. But no significant positive correlation is observed between score of commitment towards the institution and commitment towards the students.
3. There is a significant positive correlation between scores of commitment

towards profession and commitment towards institution and total of its dimensions (except commitment towards the students).

4. There is a significant positive correlation observed between scores of commitment towards institution & total of all dimensions of commitment (except commitment towards the students).
5. There is a significant positive correlation between scores of commitment towards students and total of all dimensions of commitment.

Table-1: Correlation Coefficient between dimensions of teacher commitment i.e., Psychological perspective, Sociological perspective, commitment towards the profession, commitment towards the institution and commitment towards students.

Dimension	Psychological perspective	Sociological perspective	Commitment towards the profession	Commitment towards the institution	Commitment towards students	Total
Psychological perspective	1.00					
Sociological perspective	0.40 (S)	1.00				
Commitment towards the profession	0.54 (S)	0.31 (S)	1.00			
Commitment towards the institution	0.23 (S)	0.212 (NS)	0.23 (S)	1.00		
Commitment towards students	0.23 (S)	0.02 (NS)	0.05 (NS)	0.06 (NS)	1.00	
Total	0.822 (S)	0.610 (S)	0.7395 (S)	0.556 (S)	0.325 (S)	1.00

Table-2: Mean and S.D of Scores of Different Dimension of Teacher Commitment

Dimensions	N	Mean	σ
Psychological Perspective	68	21.01	2.45
Sociological Perspective	68	12.53	1.55
Commitment towards the Profession	68	21.41	2.03
Commitment towards the Institutions	68	21.99	1.81
Commitment towards the Students	68	13.53	1.13
Total	68	90.46	5.86

The researcher classified sample teachers into highly committed, moderate committed and low committed on the basis of score. The following table presents score range and category of commitment.

Score Range

Score range for the various categories of committed school teachers has been shown in the following table.

Table-3: Score Range of Different Category of Teachers

Serial No	Score Range	Category
1	>96	Highly Committed
2	85-96	Moderate Committed
3	<85	Low Committed

The second objective of the study is to categorize school teachers according to their commitment. Data analysis for teacher commitment inventory involves the summation of the scores given for each item in the inventory and their categorization with the help of score range given in the table-2.

Table-4: Number of Teacher in Different Category

Category of Committed Teachers	School Teachers	
	No. of Teachers	% of Teachers
Highly Committed	7	10
Moderate Committed	53	78
Low Committed	8	12
Total	68	100

The above table-4 shows that most of the school teachers are moderately committed (78%) and then low committed (12%) and highly committed (10%).

Conclusion

It may be concluded from the study that though there is some exception on few dimensions of teacher commitment, it is generally found that there is significant positive correlation on various dimensions of commitment of school teachers. Again it is found that most of the school teachers are moderately committed in their teaching profession. Therefore, the study on teacher commitment is more valuable to administrator, school inspector, policy maker who frame policy, take decision and create condition in which teacher try to maximize their potential and thus derive greater commitment to teaching profession.

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Role of CTC in Teacher Education for Community Development

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Abstract:

School is a miniature community and represents culture, ethos, rules, regulations, duties of larger community outside the school. Hence, teachers are to be oriented for all civic responsibilities and duties as a citizen of the nation for the grass root community development. This can be achieved by integrating citizenship training in teacher education curriculum in pre-service training programmes. Various activities are carried out in the five day residential camp i.e. Citizenship Training Camp (CTC), where the student-teachers are oriented towards the community, civic life and its progress. The educational cultural, physical, health and hygiene, social issues, etc, are discussed in various sessions with experts and shared with the community at large. This paper focusses all these important issues, describes few activities and suggests other along with the course of presentation.

Key Words: Teacher Education; Community Development; Citizenship Training Camps (CTC).

Introduction

Education is always being a need of the community, without education there is no scope of development of the community. In the entire human history, teachers have played a pivotal role in imparting education to the society. The role of teacher was different in Vedic, later Vedic, Buddhist, Medieval, British and Modern period. Regardless of these differences teacher had and continues to have a key role to play which was very crucial in shaping of community in general and education of children in particular. In Vedic period of education, the teacher was considered as an ideal person in the community, who was intellectually, socially, logically, spiritually and morally perfect person. Teacher gave moral and religious education and imparted values by leading a perfect example of 24×7 model in his residential school or Gurukula. However, modern the community has become today, our teachers are working lesser than 24×7, and i.e. they are working only for 8 hours or less. This means the professionalism of highest level

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is disappearing among modern day teachers. The community values were highest in olden days. In Buddhist period, indirectly teacher was playing a key role in development of community. For example, teacher was completely responsible for education, food, clothes and residence of a student monks and he had to treat the students if they fell sick. This was irrespective of disciple's caste or background and hence school had representation of the entire community that is the teacher addressed entire community's needs by being with them. During mediaeval period of education system, the aim of teacher was to train the students in such a way that they should become useful for themselves and the community. The teachers were giving theoretical as well as practical education and that was a major contribution of teacher to the community. These schools have witnessed representation from Muslim and as well as Hindu communities. The most recent example before independence was that of education of Dr. Rajendra Prasad and Raja Ram Mohan Roy etc who graduated from Madarsa background. These schools attempted to reach contemporary social values, community requirement and teachers had freedom to design their curriculum and impart education. In modern education, "moral education class" is compulsorily in the classroom and in these classes teacher trains the student to inculcate moral values for happy life in the community. However, the continuous decline and disconnect among schools and community is a cause of concern. These discussions come up repeatedly in educational deliberations. *There is a recurrent theme in educational literature connecting the teaching of history and citizenship to the promotion of national identity (Jerome & Clemitshaw, 2012).*

That is why in present situation, the teacher has a pivotal role to play in management and guidance of the community in particular. Therefore, the curriculum is modified to incorporate in school and out of school activities and school forms a miniature community. An education committee in the west has endorsed this long ago.

Activities involving experience in actual school and classroom situations and with children in normal life situations, both in school and out, should constitute important elements in the entire teacher education programme. (Education, 1941)

This leads to inclusion of activities related to the community and citizenship training within and outside the school. However, there are no proper guidelines and consensus among stakeholders, which has been emphasised by Jerome.

With no clear tradition of citizenship or citizenship education, those responsible for the recent introduction of citizenship into the National Curriculum had to tread carefully to carry the consent of politicians and educationalists (Jerome, Critical citizenship experiences? Working with trainee teachers to facilitate active citizenship in schools, 2006).

Now, the teachers are getting the opportunity of training for community development work during their pre-service training in the form of Citizenship Training Camp (CTC). The citizenship training camp (CTC) of pre service teacher education programmes provide an opportunity to know the community, where they have to initiate their professional life. These camps in Indian context, give a firsthand information about the community, social problems community mapping, social relationships, faiths and beliefs, social and political exclusion, educational status of community, civic values etc. Thus, varied experiences of civilised community are provided. Jerome summarises *three inter related strands in citizenship training, which include social and moral responsibility; political literacy; and community involvement.*

Through teacher education programme whether it be regarded as general or professional preparation of teachers, planned experiences should be provided as part of the learning process, to give students varied opportunities to come in direct contact with individuals and the community in real life situations as a basis of both training and more careful selection for teaching or other occupations in terms of personality and other significant factors. (Education, 1941)

For the convenience of this paper study, the Citizenship Training Camp (CTC) is considered as *a an inbuilt course of a pre-service training of teachers, where student-teachers are oriented about the society or community in which they live, by bringing them together in a short duration residential programme, and the programme is woven in such a way that they get firsthand information from the experts working in different fields like education, health, hygiene, non-governmental organisation, social upliftment etc. and they are also provided opportunity to interact with the community or society and their representatives.* Thus, the overall aim of the programme is to bring the student-teachers close to the society or community.

Thus, the CTC can play a pivotal role in teacher education for community development. The CTC is a well-scheduled practical activity to train the student-teachers to motivate them for community development in natural setting. Thus, it brings out various challenges which need some accommodation in student-teachers'. Jerome (2006) indicates that to develop skills of participation and responsible action,

Pupils should be taught to: (a) use their imagination to consider other people's experiences and be able to think about, express and explain views that are not their own (b) negotiate, decide and take part responsibly in both school and community-based activities (c) reflect on the process of participating.

The CTC in Action

The CTC is a five days training programme of student-teachers in which the student-teachers have to stay in a nearby rural village in a natural environment. Each day of the CTC programme is divided into 3 sessions. First session is for the fieldwork in the village, next session is for the lectures from resource persons and the last session is for the cultural programme. The aim of all the three sessions is to involve the student-teachers to understand the issues and concerns of community and to motivate them to participate in community development tasks. These three sessions are depicted pictorially in the figure 1, which indicates that the fieldwork is of utmost importance in this training camp, but at the same time importance of cultural programmes cannot be undermined.

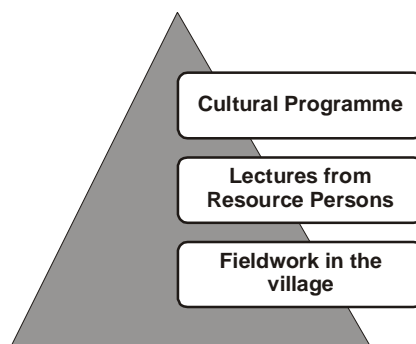


Figure 1. Showing different activities conducted in CTC

First Session–Fieldwork in the Village

Every day the student-teachers have to follow a particular timetable according to it they have to get up early in the morning and perform Yoga, Meditation and to perform some exercises for healthy mind and fitness of the body. This is the implementation of “*a sound mind in a sound body*”. Every day in the first session student-teachers, have to perform different activities, which are depicted in figure 2, and these are to be taken only as an example, where as the organisers can devise their own programmes

Figure 2. Showing some fieldwork activities as part of CTC

1. *Fieldwork in the Village (Survey)*

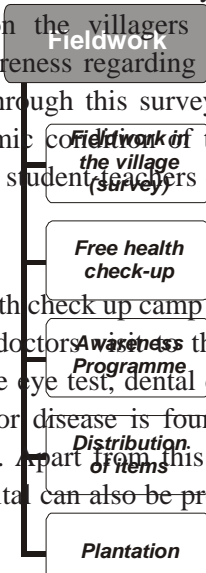
The fieldwork is for the student-teachers to do a survey of the village where in they administer a questionnaire on the villagers to know about local population, education, occupation, awareness regarding education of children, family planning, health (AIDS) etc. Through this survey, the student-teachers will come to know about socio-economic conditions of the village. According to social conditions of the villagers, the student-teachers conduct the awareness programmes for them.

2. *Free Health Check-up*

The student-teachers conduct a free health check up camp for the villagers where the government doctors or internship doctors at the village government hospitals. A routine health check up like eye test, dental check up, blood check up etc. are done and if any problem or disease is found in case any of the villager then further reference is made. Apart from this free health check up, free vaccination from government hospital can also be provided to the children.

3. *Awareness Programme*

This is a very important programme where villagers are invited to gather at some particular place where they get awareness regarding health issues, family planning, education, government schemes etc. In this programme, all the student-teachers explain one after another, the importance of the above aspects in the local language, and in case of doubt, satisfactory answers are given. Apart from



these aspects, few social evils like drinking habit (alcoholism), child labour, domestic violence etc. are also discussed. The student-teachers discuss some good habits and motivate them to adapt these good habits for better life.

4. *Distribution of Items*

This is one of the important and difficult jobs, as it needs lot of patience and good behaviour and real empathetic feeling towards the community. In this activity as it's first stage the student-teachers collect old clothes, toys, books from the donors beforehand and then sort them out, give them a shape of gift. In second stage, they identify the villagers who are in very vulnerable condition and most needy. According to their needs and based on the data gathered they distribute the donors' gifts without hurting the emotions of the villagers. This activity could be optional to the student-teachers and planned systematically.

5. *Plantation*

Plants' life is very essential for our lives so we have to grow more plants. In this programme with the help of agriculture experts and farmers, the student-teachers have to plant at least one plant. These plants should be in such an area that the villagers can easily water them and take care after departing of student-teachers.

Second Session–Lectures from Resource Persons

The second session of each day is earmarked for invited guests or eminent scholars to deliver lectures on various issues related to community development. The examples of eminent scholars or resource persons by whom guest lectures can be held are depicted pictorially in figure 3.

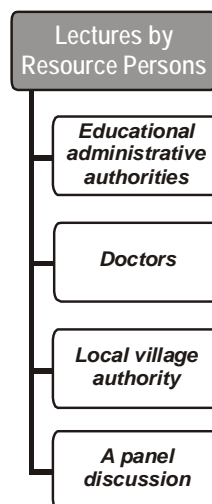


Figure 3. Showing examples of lectures by resource persons

1. *Educational Administrative Authorities*

Educational administrative authorities like Block Education Officer (BEO), Educational Officer (EO) etc. are invited to explain the recently framed educational policies and field level practices to the student-teachers. This platform can be used to discuss their experiences in schools education to know the current situation in education system.

2. *Doctors*

Doctors explain the student-teachers various issues and problems of health and hygiene, unhygienic environment and advent of new diseases and their prevention. They discuss the importance of vaccinations to babies, regular health check up, AIDS etc. These discussions give immense knowledge regarding health to the student-teachers, which they can spread in the whole village.

3. *Local Village Authority*

Presently, three tier system of governance is being followed in India, where Gram Panchayat is available at the village level. Any local village authority like village Sarpanch can be called to discuss the issues of the village. He/she will be the right person who can explain the village conditions and the problems like remote schools, power problem, road problem, water problem apart from these various kinds of other problems can be discussed. The authority can also give information about the facilities and amenities provided by the government. These kinds of lectures can encourage the student-teachers to think about their own community and the problems faced by them which lead them to think and do something for their community apart from their regular duties.

4. *A Panel Discussion*

This is the last academic activity of the programme where experts and resource persons can be called to discuss the village problems and discuss the probable solutions, which can be conducted by inviting government officials.

After this panel discussion, a brief report of the respective village can be prepared. This could be submitted to the local bodies, Panchayati Raj institutions. A small step may bring a big change in the village. This step definitely lights a candle of the community development in the heart of prospective teachers.

Third Session–Cultural Programme

The third session of day is cultural programme, which have to be organised by the student-teachers and the local villagers can be involved in it. Following are the suggestive programmes (figure 4), which can be conducted in the cultural programmes of CTC.

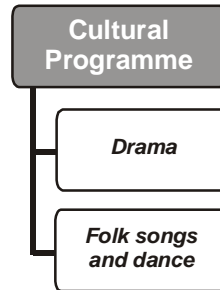


Figure 4. Showing examples of Cultural Programme

1. *Drama*

There are various issues or themes on which drama can be performed like, education, midday meal, health, dowry system, drinking habits etc. The student-teachers have to select different themes write a small script and perform the drama. This activity will develop artistic and aesthetic sense of the student-teachers and some heart touching dramas will put a lifelong impact on the student-teachers.

2. *Folk songs and dance*

Villagers feeling can be understood only through their folk songs in their own dialect. These songs will show their culture and values. Few villagers can also be invited for their folk dance, which shows their talent and their feelings.

On the final day a valedictory speech from eminent personality can be conducted, certificate to the student-teachers are distributed, and this ends the CTC programme.

Influence of CTC

After finishing the camp, each student is asked to write the report of the camp. Jerome has viewed extracts of such reports after citizenship training and analysed. *A number of extracts from the student-teachers' assignments have been found out, which illustrate four lessons learned through citizenship training project viz.:* ♦ *active citizenship motivates pupils;* ♦ *small is beautiful;* ♦ *collaboration with colleagues is important;* ♦ *critical observation of colleagues can help avoid pitfalls.*

After the CTC programme, the teacher trainees develop and amass ecological dimensions that influence agricultural practices. This knowledge helps them to enrich their real life situations. This increases the relevance of education to community thereby making learning more community specific and practical life.

The teachers can design and organise their content and learning experiences from the community for the classroom.

In his study about Student-teachers and their Attitudes towards 'Race': in the context of the role of citizenship education Wilkins tried to explore the students' attitudes to 'race' issues, and discussed the implications for initial teacher education institutions as they prepare student-teachers for delivering citizenship education. He found that through building strong links with local communities to address local concerns, through placing managing for change at the centre of the school structure, incorporating the socially transformative agenda of schooling into both staff development and curriculum planning, it is possible to work even within the highly restrictive culture of education today (Wilkins, 2001).

There is a need to develop capacity of teachers with regard to identifying and contextualising the content areas and linking them for community development. These include agricultural and non-agricultural areas like folk culture including songs, festivals, fairs and games. The National Curriculum Framework for Teacher education, 2010 (NCFTE, 2010) has also given details of role of community knowledge in education. Thus, CTC tries to achieve vision of teachers and teacher education, "Teacher education programme need to broaden the curriculum (both school and teacher education) to include different traditions of knowledge; educate teachers to connect school knowledge with community knowledge and life outside the school" (NCFTE, 2010, p21). Therefore, the NCFTE (2010) advocates for courses like 'teacher and learner in society' and 'gender, school and society'. There is a need to develop community-centred model for teaching and learning based on socio-cultural aspects. This will help in sharing of common experiences, conversation, extended time activities, collaborative learning etc. All these are possible in Citizenship Training Camps (CTC). Thus, the CTC training has a great role in community development through teacher education programmes.

Conclusion

At present, the CTC programme is being conducted in various teachers training institutions of Karnataka, Kerala, and Tamil Nadu etc. After knowing the significance of the CTC programmes for Teacher Education it can be implemented in almost all teacher education institutions of India. This will become a motivating factor to the student-teachers for developing their community and help them in future to work for their community upliftment and to become good and ideal citizens of their nation. This orientation of teacher trainees in these camps give lot of ideas about community, civic rules, culture,

customs, that is basic requirement of teachers working in a particular community. Thus, it opens new vistas of community development through teacher education.

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Teacher Commitment in Higher Education: Role of Internal Quality Assurance Cell

*Arghadip Paul**

Abstract:

In the present organizational set up, quality of education in Higher Educational Institutions (HEIs) is depended largely on professional commitment of the staff. Professional Commitment of the Teacher has been identified as a crucial factor in determining and influencing educational outcomes. Management scientists and researchers have discussed organizational Commitment on the basis of three approaches, i.e. exchange based approaches, attitudinal approaches and normative approach. Kanter (1974), Mowday, Steers, and Porter (1979), Meyer and Allen (1991), Brown (1996) provided their own theories and views on organizational commitment. However, among these, the popular most theory is Meyer and Allen theory, which discussed organizational commitment on the bases of three dimensions, i.e. Affective Commitment, Continuance Commitment and Normative Commitment.

In an organizational set up teacher commitment is considered as similar to organizational commitment. Researchers have discussed teacher commitment on the bases of different aspects, i.e. commitment to profession, commitment to teaching, commitment to institution, and commitment to students. The present paper has mainly focused on the role of Internal Quality Assurance Cell (IQAC) to enhance commitment of the teacher and other staff of the HEIs. IQAC as a soul authority of quality assurance and continuous improvement of HEIs, should look after the strategies like SMART Goal setting, Employee Engagement, create and maintain the culture of optimization, value and recognition of individual work, proper communication and feedback, recruitment of employee as per the institutional need, Training and job enrichment programmes for staff, look after the job satisfaction of the staff, compensation programmes, etc.

Key Words: Organizational Commitment, Teacher Commitment, IQAC

Introduction

It is well-established fact that employees who are engaged in their work and committed to their organizations give organization crucial competitive

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advantages—including lower employee turnover and higher productivity in terms of quality and quantity. Thus, it is not surprising that organizations of all sizes and types have invested at a significant extent in policies and practices that improve engagement and commitment in their workforces. However, the concept engagement and commitment are mostly used in management sector, specifically in business organization.

In the present arena of globalization our educational system faces some new concepts that are effecting the system enormously. Professionalism, Consumerism, Integration of global economy etc. are although new in education but already became a buzz. All these are the factors that are changing the quality concept of education. The educational institutions of the present day are not only institutions but also became an organization that has to compete the educational market to survive. The concepts of business organization are introducing in educational sector swiftly.

However, in present educational organizational system, quality become an important aspects that organization must be assured for their stakeholders, mostly for the customers, i.e. students. For that reason, quality of education has received a great deal of attention in recent years. Researchers have found that students' participation and learning in school depend on several factors. Undoubtedly teacher is one of them. Involvement of students in their activities depend a great extent on teacher's involvement in their activities. By considering this, in their report, Indian Education Commission (1964-66) stated that, "out of different factors which influence the quality of education and its contribution to national development, the quality, competence and character of teachers are undoubtedly the most significant." Further, the quality and competency of teacher depends a great deal on the level of their involvement in relation to the profession exerted, to the organization one is part of and the professional satisfaction that one feels, in short on their professional commitment.

Teacher professional commitment has been identified as a crucial factor in determining and influencing organizational outcomes. Commitment is believed to be vital for organizational productivity, quality and performance. Higher commitment among school staff influences the future success of education and institution. Keeping teachers in their profession is indeed vital to maintaining standards and improving institutional performance specifically in terms of student academic achievement.

Approaches of OC

The concept commitment has received a great deal of attention in business and organizational studies. Commitment is generally defined as the state or quality of being dedicated to a cause, activity etc. or an engagement or obligation that

restricts freedom of action. It is a psychological relationship between the employees and his/her organization, which would provoke the employees to get attached to the organization so that they would not leave voluntarily.' (Meyer and Allen, 1984). It is conceptualized as a high level of attachment to an organization, activity or person. Organizational behaviour researchers, management scientists generally mentioned three approaches of organizational commitment.

1. *Exchange Based Approach*

Becker (1960) introduces the "exchange based definition" or "side-bet" theory of Organizational Commitment. According to this theory individuals, regardless of the stressful condition they may undergo, are committed to the organization as far as they hold their positions, they gets benefits from the organizational for their commitment. However, if they are given an alternative benefit, they may be willing to leave the organization. This is the approach that is related to the cost of living in the organization.

2. *Attitudinal Approach*

Attitudinal Approach refers to the psychological attachment formed by an employee in relation to his identification and involvement with the respective organization.(Portar et al., 1974). Attachment to the organization characterised by an intention to remain in it, identification with the values and goals of the organization; and willingness to extra effort on its behalf.

3. *Normative Approach*

Normative perspective refers to an employee's commitment to continue working for the organization based on notion of moral obligation. According this approach commitment is the feeling of obligation or responsibility to continue employment.

Conceptual Framework of Organizational Commitment

Organizational commitment is one of the focuses of research in business and management. Kanter (1974), Mowday et al. (1979) Meyer and Allen (1991) Brown (1996) provides different conceptual framework of the concept Organizational behaviour. However the concept introduced by these researchers is correlated.

Kanter's View

According to Kanter (1974), the issues of commitment are important because it occurs at the intersection of the organization's systemic needs and human experiences and needs. She considered commitment to be "a process of into social system."Commitment by her definition is the process through which people become willing to their loyalty and energy to a particular social system,

because that particular system is “expressing the needs and nature of the person.”

Therefore, commitment is seen as being simultaneously social and psychological and denoting an intrinsic attachment to the particular social system. Kanter identified three different kinds of commitment: control, cohesiveness and continuance.

Control commitment, according to her, refers to the willingness of people to conform to the rules and authority of the organization are seen as morally correct and matching the individuals. This commitment implies those conditions that help the employees to enjoy a sense of self-esteem, self-confidence, social proud, and belief in the values and goals of the organization of which they are member.

Cohesive commitment is where individuals develop positive relationship with others in the organization and see themselves as a member of a ‘tight’ and supportive group. This type of commitment includes the feeling of attachment and bonds and the satisfaction of interacting with others that attach the individuals to the group.

Continuance commitment is where individuals choose to participate and remain members of an organization, and are committed to the social role within the organization. This type of commitment is related to the advantages and benefits of the financial conditions of membership in a social group.

Kanter’s theory stresses on organizational empowerment that can enhance organizational commitment. Her theory states that work environments that provide access to information and opportunity to learn and develop are empowering and influence employees work attitudes and behaviours. This theory found a positive association between workplace empowerment and organizational commitment. According to Kanter (1993), employee who have access to information and opportunity to learn, experience a higher degree of satisfaction and begin to trust the management. Employees belongs to such environments are more committed to their organization.

Mowday’s View

Mowday, Steers and Porter(1979) defined organizational commitment as the relative strength of the identification of individuals with and involvement in their particular business organization. Commitment is seen in their study, as being both attitudinal and behavioural. In their study, an important distinction has been made between attitudinal and behavioural commitment.

Attitudinal conception of commitment, according to them, included at least three factors:

- a) A strong belief in and acceptance of organizational goals and values;

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- b) A willingness to exert considerable effort on behalf of an organization or profession and
- c) A strong desire to maintain membership in an organization or profession.

In contrast, a behavioural view of commitment has been considered to be a function of the costs and rewards associated with membership of an employing organization or profession.

Mowday et al. (1979, 1982) identified three major commitment related attitude.

- a) Identification, or a strong belief in the organizational goals and values;
- b) Involvement or a willingness to exert effort for organization and
- c) Loyalty or a strong desire to maintain membership of the organization.

The dimensions proposed by Kanter (1974) and Mowday et al. (1979) are quite similar. The dimension of Loyalty appears to be very similar to continuance commitment. Some links also can be made between Kanter's control commitment and Mowday's et al.'s (1979) dimension of identification, as both of these ideas focus on the link between the individual's personal values and goals and those of the organization.

One point of difference however is that Kanter's ideas seem to focus on the organization having control over the individual and Mowday et al. see it more as "like attracting like". The strength of this attitude of commitment can be directly linked with the employee having an active and positive working relationship with the organization.

Meyer and Allen's View (1991)

Recently Meyer and Allen (1991) have incorporated Kanter's (1974) and Mowday et al.'s (1979, 1982) theories with a number of other authors to construct a three-component model of commitment this model is based on three main components of commitment those being affective, continuance and normative commitment. Meyer and Allen (1991) defined this component as:

Affective Commitment refers to the employees'-s emotional attachment to, identification with, and involvement in the organization. Employees with a strong affective commitment continue employment with the organization because they want to do so.

Continuance commitment refers to the awareness of the costs associated with leaving the organization. Employee whose primary link to the organization is based on continuance commitment remains because they need to do so.

Finally, normative commitment reflects a feeling of obligation to continue employment. Employees with a high level of normative commitment feel that they ought to remain with the organization.

Organizational commitment, in these terms, is multidimensional. However it is important to note that Meyer et al. (1979) unlike Kanter (1974), do not consider these dimensions to be “types” of commitment, by which employees can be categorized. Instead, they see them as components of commitment where the employee, at any one time, may reflect varying degree of all dimensions. In this sense, each employee may be typified by a profile that constitutes these dimensions. Along with this dimensions, it is also recognized that employees may have alternative commitment foci within the work environment work-team, which may include their supervisor, career path, clients or customers (Kelin, 2001)

Brown's View (1996)

Brown proposed the elimination of the distinction between the attitudinal and behavioural approaches to commitment and the three types of commitment (affective, continuance and normative) and simplified the idea of commitment' into a single concept:

Commitment to a particular entity is a distinct phenomenon, albeit a complex one that may differ depending on how certain factors, pertinent, to all commitment, are perceived and evaluated by an individual.

In addition, Brown (1996) referred, to a set of factors that were common to all commitment these factors were: 'focus, terms and strength'. Bader on this ideas proposed by Brown, a teacher might have several foci of commitment that were related to the strength of psychological attachment to the focus of strength of psychological attachment to the focus of commitment, for example, the school , the students, teaching work the profession, or the subject taught. The second factor, 'terms', might involve an arrangement to work in a particular institution for a defined period of time, for example, to work in a particular institution in a rural region for 5 years, the third factor, strength, was related to the intensity of commitment.

Teacher Commitment

Commitment has received a great deal of attention in business and organizational studies, compared to the relatively little research that has addressed commitment among teachers. Somech and Bogler (2002) claimed that the study of commitment, particularly in teaching profession, had remained largely unexamined by educational research workers. Reyes (1990) also argued that in research of organizational commitment, very few studies has used educational organizations as unit of analysis.

However, teacher commitment has been considered to be a crucial factor in influencing institution effectiveness. Riehl and Sipple (1996) also asserted that

commitment was one of the all-metal factors that were able to improve educational outcomes, especially students' academic achievement. Bryk and Driscoll (1988) showed that teacher commitment is the factor that increases student commitment.

Like organizational commitment teacher commitment is also multidimensional. Many dimensions of teacher commitment have been suggested by the researchers. Most of the researchers used Meyer and Allen's analysis of organizational commitment as a foundation for understanding the phenomenon of teacher commitment. Teachers work within the structures and environment of organizations, such as educational institutions and educational systems. Therefore, teacher commitment could be discussed in terms of the organizational dimensions of affective, continuance and normative commitment as suggested by Meyer & Allen (1991). Researchers like Tusi (1996), Lous (1998), Huber (1999) Crosswell (2003) have undertaken research based on the assumption that teacher commitment is equivalent to organizational commitment.

However, the profession of teaching is unique in a number of ways, Its very nature involves a complex and rich combination of working relationship with not only the organization (school and educational system) but also a number of other stakeholders, including parents, students and colleagues.

A number of researchers have attempted to distinguish between the meanings that teachers have ascribed to the word commitment. becker (1960) and Lacey (1997) define commitment as the investment in a particular career, in this case teaching. Whereas, Lortie (1975) regards commitment as the willingness an individual enacts in investigating personal resources to the teaching task. The different aspects that teacher commitment can take are investigated below.

Commitment to Institution or Organization

Teacher commitment to institution has been defined, measured, and researched rigorously (Yousef, 2000) compared with other dimensions of Teacher Commitment. Teacher Commitment to institution has been studied to examine both its nature and effects by a number of researchers (e.g., Somech & Bogler, 2002). These authors found that elementary school teachers had significantly higher levels of organizational commitment than high school teachers. Teachers who are highly committed to their institution are expected to engage in school activities to achieve the institution goals, exert considerable activities to achieve the institutiongoals, exert considerable effort beyond minimal expectations, and remain working within the organization. In this study, teacher commitment to institution is conceptualised as teachers' belief and acceptance of the goals and values of the institution, teachers' efforts for actualization of these goals and values, and the teachers' strong desires to keep up membership in the institution.

Teacher Commitment to Profession

Blau (1985) defined professional commitment as “one’s attitude towards one’s profession or vocation.” Teacher commitment to profession is defined as the advancement of individual vocational goals and the drive and commitment associated with completing these goals (Colarelli and Bishop, 1990). Somech and Bogler (2002) stated that Teacher Commitment to Profession involves an affective attachment to the profession or occupation, which is associated with the personal identification and satisfaction as a teacher.

Teacher Commitment to Profession is important because it enables an individual to develop the needed skills and relationships to have a successful career regardless of the organization within which he or she is employed (Colarelli & Bishop, 1990). According to Meyer, Allen, and Topolnytsky (1998), individuals might choose to redirect their emotional energy toward the profession to which they belong. There are at least two implications of this. First, such individuals might be more likely to participate in the work of their professional associations. Second, a focus on the profession might increase the likelihood that employees would improve their professional skills, knowledge, and abilities. As such, Teacher Commitment to Profession is conceptualized as the strength of teacher motivation and involvement to work and to improve professional skills, knowledge, and teaching abilities.

Teacher Commitment to Teaching

Commitment to Work is referred as the degree to which a person wants to be engaged in work (Warr, Cook, & Wall, 1979). Meanwhile, Lodahl and Kejner (1965) defined Commitment to Work as the extent to which a person identifies his or her work psychologically. It could be inferred that a person with strong work commitment would have more positive feelings toward occupation than those with weak work commitment. Comparable with this study in the education context, Teacher Commitment to Teaching is conceptualized as the psychological link between teachers and their teaching. It is reflected through teachers’ willingness to exert their effort in providing effective teaching, to show greater enthusiasm in teaching the subject matter, and willingness to devote extra time to students (Tyree, 1996). In fact, Teacher Commitment to Teaching plays an important role in determining how long the teacher remains in the teaching profession (McCracken & Etuk, 1986). In relation to this, Teacher Commitment to Teaching is conceptualized as teachers’ willingness to be engaged in teaching work.

Teacher Commitment to Students

According to Kushman (1992), Commitment to Students is grounded in the ideas

of teachers' high efficacy and expectations. Kushman also claimed that Commitment to Students is not only focused on students but also includes teaching and student achievement mission of schools. According to Louis (1998), Commitment to Students motivates teachers to deal with students undergoing personal crises, or to be more sensitive and aware of student development and their achievement. Low levels of Commitment to Students might affect student achievement, less sympathy toward students, and lower tolerance for frustration in the classroom (Firestone & Pennell, 1993; Louis, 1998). Rosenholtz (1989) asserted that teachers who are committed to their students will be positively engaged with their students, work harder to make classroom activities more meaningful, and introduce new ways of learning. As such, Teacher Commitment to Students is conceptualized as teachers' involvement or responsibility in student learning.

Levels of Teacher Commitment

Teachers' commitment to their job or the organization can be identified into three levels. Blau and Boal (1987), Porter et al. (1974), Meyer and Allen (1997), in their research, claimed that commitment exists in the organizational structure mostly in three level, i.e. Higher, Moderate and Lower levels. Crosswell (2006) also found that teachercommitment exists in school organizational set up into similar three levels.

Higher level commitment implies a strong acceptance of the organization's goals and values and the tendency to attempt to stay with the organization.

Moderate level of commitment implies a rather reasonable acceptance of organizational goals and values and the tendency to attempt to stay with the organization.

Lower level of commitment implies the lack of acceptance of organizational goals and values, and the reluctance to attempt to stay with the organization.

Teacher Commitment and Role of IQAC

As mentioned earlier that teacher commitment is highly related with quality of education.is crucial for the better student involvement, learning and achievement. In other word a fully committed teacher is considered as a real asset for the organization. For that reason, researchers in education are trying to discover or identify the factors that can increase the teacher commitment to the educational organization. In Indian Higher education there has no doubt a crisis of quality. As quality of higher education is very much depend on Teacher behaviour, specifically on teacher commitment, educational researchers, worldwide, are trying to invent the ways by whichteacher commitment may be increase. For over-all quality assurance in Indian higher education, National Assessment and

Accreditation Council (NAAC) instructs to set up Internal Quality Assurance Cell in every higher educational institutions in India.

However business management Scientists have identified some factors that may also apply to the educational organization.

1. *Goal Setting*

Goal setting is the basic factor which is most important to enhance organizational commitment because it has positive relation with employee engagement which consequently made a positive impact on engagement of employee at work place (Tubbs, 1986, 1993; Kmight et al., 2001; Dweck et al., 1993; Sujan et al., 1994). Goal setting is not only important in human recourse management field, it has been used in different other fields of management like; total quality management, management by objectives and improvement process of management system (Zabaracki, 1998; Odiorne, 1978; Muczyk and Reimann, 1989). After studying the literature it's reasonable to say that goal setting can increase employee commitment at work place. This will lead to easily achieve employee engagement and commitment in a better way.

Developing sound goals is critical to managing employees' performance. In this context psychologists and management scientists refers to build or construct a SMART goal. A SMART goal is defined as one that is specific, measurable, achievable, result-focused and time-bound.

2. *Employee Engagement*

Many researches have already been enquired into relationship of engagement of employees and organizational commitment. There is a dissent among researchers about the meaning of employee engagement. There are many delimitations in literature about engagement of employee, but the closest to meanings is that; the employee who work for his organization devotedly and keenly (Tritch, 2003 a, b). Simply engagement also gives the meaning that, employee who himself deliberately work more than his or her job requirements. Employee willingness to bind with organizational voluntarily is also another name of engagement (Gubman, 2004).

IQAC as a soul authority of quality assurance in Higher Educational institutions should follow the management system that ensures the engagement of all the staff. IQAC should adopt the participative management system to improve the commitment level of the staff.

3. *Optimisation*

Optimism and commitment of employee have a great connection. Literature has shown a lot about this particular factor to enhance organizational commitment. Optimism is basically defined as an aspect of behaviour and attitude of humans,

which means that in every situation one's belief that the outcome or result would be positive. Optimism is the way of thinking of any individual in which he or she only think that the output will be the best in any uncertain situation (Peale, 1956). Optimism is linked with self-efficacy in which an individual believes to fulfil any task successfully (Gist and Mitchell, 1992). Extensive literature is there to support the ideology that the optimism linked with employee performance and it enhances the engagement and commitment.

4. Value and Recognition

Researchers have found that to stay committed, employees should feel valued and recognised by management. A survey in Britain business organizations highlighted that the majority of employees in the organisations feel undervalued and uninvolved. The key findings showed that only 9% strongly agree that their views and participation are valued by their organisation and that only 27% are strongly committed to help their organisation succeed. It also shows that low levels of commitment are portrayed across all levels of staff: managers are only slightly more committed than non-managers to organisational goals, and show no more understanding of goals than their staff.

The survey underling an important factor that management have to committed first before they say other staff to be committed. The management has to create the instances of being committed. Only then they can commit a teacher. Another important factor that the survey revealed that value and recognition may increase teacher commitment to the job. The value and recognition by the management authority works like a reinforcement for the school staff. IQAC should develop a system that valued , appraise or recognise the staff's good practice for the organization.

5. Communication and Feed-Back

Good communication and feedback between management and employees is a means to reduce work abstain among the institutional staff. A positive relationship between communication and commitment was detected highlighting the importance for management to ensure that communication channels remain open to allow for better transmission of information. IQAC should follow-up this method to commit the staff for the benefit of the organization.

6. Recruitment and Selection

HR practices, such as recruitment and selection, also play an important role in gaining employee commitment (Meyer & Allen).

By providing realistic job previews and accurate information, applicants are better able to determine whether the job is appropriate for them. If they are aware of the available choices, applicants will be more dedicated to the organisation

that they opt for. Similarly, selection procedures try to identify those individuals who are likely to be committed to work. This is done through various methods such as psychometric testing. However all individuals vary in their propensity to become committed, due to personal characteristics, expectations or organisational choice variables.

However in present Government or Government aided educational organization has little scope for recruitment and selection as per their organizational need as the recruitment process generally organized by certain government recruitment board or committee. IQAC as a soul authority of quality assurance , should link the government recruitment committee and must inform their own organizational need to the proper authority. So that recruitment bodies can consider the organizational matter.

7. Training or Job Enrichment Programme

After the initial recruitment of an employee, induction training and socialisation are carried out, which are vital in gaining employee commitment. (Drucker, 2009) It is essential to reinforce a sense of self-worth within new comers, which can be achieved through a supportive environment. According to Tannenbaum (1991), training is an important part of the socialisation process. He found a strong positive correlation between commitment and employee's motivation for training. Training should be continuous to give employees a sense of recognition and the feeling that their development is valued by the organisation.

In educational institution continuous job enrichment training should be provided to the staff. So that, they can improve themselves, and can do better for the development of the organization. IQAC should organize programme such as orientation programmes, refresher courses, technological knowledge enrichment programmes etc. to improve teacher or staff commitment.

8. Job Satisfaction

Job satisfaction is said to have the largest effect on commitment. Therefore, this factor should be increased to improve an employee's commitment to an organisation. This can be done by providing performance appraisals, reward systems or benefits, which are perceived as fair and satisfactory. Since there is a positive relationship between satisfaction with performance appraisal and commitment, IQAC need to ensure that their performance appraisal systems is perceived by employees to be fair before they can expect higher commitment from them. In terms of assessment and promotion, the fairness in the decision making process is crucial for commitment. The IQAC should communicate clearly how decisions are made and why some people and not others did get promotions.

9. *Compensation Programmes*

Compensation programmes positively affects employee motivation and makes them feel owners of the organization. In Britain business organization research suggests that companies, which have implemented compensation programmes like, Employee Stock Ownership Plan. Or ESOP's, tend to boost employee productivity and sales growth. However compensation programmes can also decrease affective commitment, because they require employees to stay for a period of time to receive their contribution, increasing costs to the organisation. In terms of pursuing a cost-effective method, consideration needs to be given to these schemes. This type of programme is fruitful mostly for the staff who are continuance committed. IQAC should use the method to be committed those teachers or staff who are being identified as continuance committed. In other cases this method should be avoided in educational organization.

Conclusion

The present paper advances ideas and relations associated with teacher commitment in primarily in higher educational institutions, but with recognition that teacher commitment is important in all fields and all levels of education. However the body of the research findings on which these ideas and relations are based is very limited, because only a relatively small amount of research has been done in this area.

There is some important recommendation for IQAC of the higher educational institutions, by following which, the commitment level of the staff may be increase. The methods should be applied as per the organizational need and the personal need of the staff. Before apply any method IQAC should also identify the commitment level first. And then the treatment should be applied as per the level and types of commitment to achieve the organizational goals. However the general aim of these methods is to increase the level of Affective commitment and lowering the level of continuance commitment.

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The Relation between Language Comprehension and Understanding and Application of Number Operations among Primary School Children

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Abstract:

Mathematics should be envisioned as a vehicle to train a child to think reason and use effectively in daily life. This investigation has attempted to find out how far understanding of number operations and application of numbers to physical situations is related to language comprehension. Standardized tests were made to evaluate the understanding of number operations, application of numbers to physical situations and language comprehension, both oral and written. The sample consisted of five hundred and two boys and girls from rural and urban areas of south Bengal. The findings showed that the language comprehension is highly related to understanding of number operations and application of numbers to physical situations.

Key Words: understanding of number operations, application of numbers to physical situations, language comprehension.

Introduction

The basic areas of cognition in primary schools are language acquisition and mathematical ideas. The two areas are, in fact, highly interrelated. That is, language is the vehicle of communication of ideas immanent in mathematical concepts. At the lower primary level students must achieve a basic level of numeracy and competence in dealing with numbers. At this stage the learner should also achieve basic vocabulary and symbolism related to numbers, geometrical objects, money, time etc. But the picture of normal primary school classroom is not a happy one. A survey by Aggarwal (2000) found that 19.8% of class I students are underachiever as compared to 59% of class III students and 72.2% of class IV. Another report (ASER 2011) in India by NGO Pratham also supports the same picture. Only 61% of class V students and 26.9% of class III students can recognize numbers up to 9.

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There is therefore a need to find out the causes behind this aversion and lack of utility of the leaning mathematics learnt at the primary school. May be one of the causes is due to language comprehension. Children come from a variety of backgrounds and the elaborated or formalized language of the teacher and the books may pose an intimidating barrier towards assimilation of the ideas offered to them. Gersten, Jordon & Flojo (2005) found that reading difficulties is one of the causes for slower progress in mathematics. Donlan, Cowan, Newton & Lloyd (2007) also supported this view by saying that general verbal abilities are related to mathematics achievement.

Bernstein (1978) also tried to account for this underachievement. According to him, working class language which he named as restricted code is inferior to middle class language or formal school language, which was named by him as elaborated code. If middle class children can switch over from restricted code to elaborated code, they can learn more. But working class children generally use restricted code and so they are less educable.

For learning mathematics language development is necessary. The importance of acquiring language skills for cognition can be seen in the study by Swarnalekha (1997). This study revealed that remarkable improvement in the problem solving area of mathematics can be attained by paying attention to language comprehension skills of children. However language is not always the sole deciding factor for cognition. A study by Usha (2001) found that urban children were better than rural children in using all the selected grammatical categories and communicative functions, but did not differ in language performance. Socio economic status has a significant effect on language performance. Gersten, Jordon & Flojo (2005) also supported same view. Another study by Aunola & Nurmi (2008) found that performance on math word problem is strongly related to performance on reading comprehension.

So it is important to find out whether this is indeed the case. That is whether the language ability of the children in primary school affects their understanding of basic arithmetic and their applications.

Objectives

1. To investigate the relationship between language comprehensions both oral and written and understanding of number operations among lower primary school children.
2. To investigate the relationship between language comprehensions both oral and written and the application of numbers to physical situations among lower primary school children.

Hypotheses

Ho1. There is no relationship between language comprehensions both oral and written and understanding of number operations among lower primary school children.

Ho2. There is relationship between language comprehensions both oral and written and the application of numbers to physical situations among lower primary school children.

** The hypotheses have been elaborated with respect to gender, location.

Method

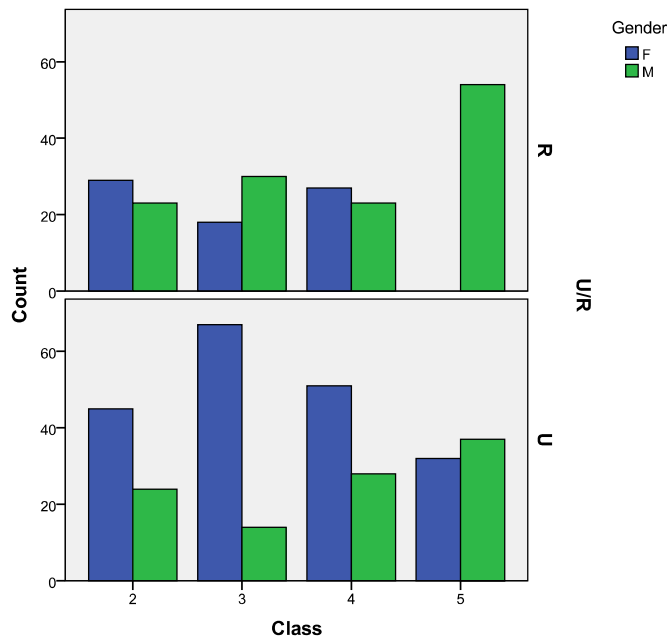
Population

Lower primary school going children in Kolkata and South Bengal are population for the study. In particular, children in class– II, III, IV, V (age 6/7 to 10/11 years) were the target population.

Sample

Govt. Sponsored schools were approached and chosen until the requisite Sample size was obtained. The final sample was as follows.

Total–502 Students (268 girls and 234 boys)



Operational Definition of Variables

Understanding of Number Operations: The power of comprehending the logic behind number operations is referred to as understanding of number operations.

Application of Numbers to Physical Situations: The ability to use number operations appropriately in everyday life is defined as ability of application of number to physical situations.

Language Comprehension: Understanding oral and written language and ability to apply them.

Tools

The following investigative tools were used to collect data for study.

1. Test on understanding of number operations (developed by the investigator).
2. Test on application of numbers to physical situations (developed by the investigator).
3. Test on language comprehension: Oral (developed by the investigator).
4. Test on language comprehension: Written (developed by the investigator).
5. Culture fair(or free) intelligence test (A measure of “g”); Scale 1 and Scale 2. Cattell B.R. (1959).

Reliability and Validity of the Tests

The *content validity* of the test was ensured by seeking the opinions of three experts in mathematics education. *Parallel test validation* was calculated by finding the correlation between intelligence scores and scores of three tests. They were found to be significant.

The internal consistencies of the tests were calculated by finding the inter item and item total correlations. The inter item correlations were largely found to be significant. The reliability of the tests was further measured by Cronbach’s alpha and found to be satisfactory.

Results

The tests were administered on the sample and the responses were recorded and tabulated and subjected to quantitative analysis.

The Table-1 showing the correlation between language comprehension oral and language comprehension written with understanding of number operation.

Table-1: Results of Coefficient of Correlation (Number operation)

	ALL TOTAL ORAL				ALL TOTAL WRITTEN		
	U	R	T		U	R	T
Gn	.15**	.17#	.24*	G	.22*	.19#	.31*
B	.10#	.31*	.22*	B	.35*	.48*	.44*
T	.14**	.32*	.23*	T	.28*	.45*	.37*

The Table-2 showing the correlation study between language comprehension oral and language comprehension written with application of numbers to physical situation.

Table-2: Results of Coefficient of Correlation (Physical situation)

	ALL TOTAL ORAL				ALL TOTAL WRITTEN		
	U	R	T		U	R	T
G	.18**	.08#	.26*	G	.17**	.30**	.32*
B	.03#	.41*	.24*	B	.24**	.49*	.40*
T	.13**	.37*	.24*	T	.21*	.50*	.35*

U-Urban, R-Rural, G-Girls, B-Boys, T-Total.

*-Sig. at 1% level, **-Sig. at 5% level, #-Not significant

Interpretation

H01: Table1 show that this hypothesis may be rejected as there is 1% level of correlation between language comprehension and understanding of number operations both in the case of oral and written language comprehension, when the whole sample is looked at together. That is, the more children can comprehend both oral and written language, the more they can understand number operations. In other words more children can comprehend both oral and written language, the more they can understand number operations.

Gender wise analysis: The hypothesis may be rejected both in the case of girls and boys both for oral and written language comprehension. Undoubtedly both in the case of boys and girls this understanding is influenced by comprehension of language.

Location wise analysis: The hypothesis may be rejected in case of all rural and urban primary school children as there is 1% correlation between both oral and written language comprehension and understanding. Table 1 show that rural girl students lag behind urban girl students in their comprehension of school language.

The testing of this hypothesis reveals that, in general, language comprehension and understanding of number operations develop side by side as children progress in classes. This fact further strengthens the negation of this hypothesis and asserts the fact that understanding of arithmetic does depend on children's comprehension of school language. A study by Kavin. J. Grimm (2008) found that reading comprehension is related to conceptual understanding.

Ho2: Table 2 show that this hypothesis is to be rejected. There is indeed a strong association between language comprehension and the application of numbers to physical situations. That is, comprehension of such language both spoken and written does affect the actual use of arithmetic concepts in life situations. This finding is complemented by a study by Marria et.al. (2008), which found that performance on mathematics word problems is strongly related to performance on reading comprehension.

Gender wise analysis: Tables 2 show that there is significant correlation between language comprehension and application both for boys and girls when the whole sample is looked at together.

Location wise analysis: Table 2 show that the hypothesis is also to be rejected in the case of urban and rural children. There is a strong, significant correlation between mathematics application and language comprehension, both oral and written, for both urban and rural children. But in case of rural girls this is not applicable.

The implications of these observations are serious. They indicate that rural girls do not imbibe school language. Thus alienation from school language among rural girls possibly prevents them from familiarity and usability of what they learn in school. This hypothesis thus shows that applicability of arithmetic ideas is dependent on the child's internalization of language used in school, both in spoken and in textual form. However the fact that needs stressing here is that of the urban rural divide. Rural children with their dialects, accents and unique language uses are disadvantaged in their identification and use of arithmetic in their surroundings. The particular finding related to applicability of concept is further elaborated by Franklin (2005) and Fazio (1994) who found that students who do not understand what they read, encounter difficulty in solving mathematics problems.

Implications of the Study

This study underlines the vital role of language comprehension in understanding and application. This study also highlights the role of language comprehension in the acquisition of concepts. Once again the constructivist classroom, with its multi way dialogues can be the answer. Teachers, too, require being aware of the

backgrounds of their students, and tailoring their language and teaching methods likewise.

Conclusion

The outcome of this investigation may appear rather obvious. At the same time, every aspect of it requires thorough circumspection. The investigation showed that language comprehension and understanding of number operations are highly related. That means, a comprehensive understanding can happen only when children are in full control of school language, both oral and written. Comprehension of school language will help to clothe the concepts that are imparted in school. Language will be able to provide the examples related to concepts and lend the concepts depth of understanding. Without proficiency in language the child will find difficulty in understanding what is required in the applicative situation and thus be unable to discern the choice of skill in the solution of problems. A notable finding from this investigation is that rural girls lag behind urban girls in all the attributes studied. This implies that rural children lose out possibly because of their unfamiliarity with formal school language. This hampers their understanding of number operations and finally disempowers them in their ability to apply their knowledge.

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The Right to Education for Children with Special needs in North-East India

Subhash Sarkar and Pinku Kundu***

Abstract:

The equality of educational opportunity has been established as a right for all including the children with disabilities in India through the promotion of legislations, policies and schemes in the past few decades. In spite of that effort, dissatisfaction among the people with disabilities in North-East India in respect to the enjoyment of equal right to education is evident in the literatures. The present study attempted to find out the status of the right to education of the children with special needs in North-East India in the ground of the question of equality. The result of this secondary data based study shows that the average percentage of national increase in elementary enrollment is 0.70 whereas it is 0.32 for the North-East region. The average ratio of girls to boys in enrollment of elementary children with special needs is 0.23 in North-East in comparison to national average of 0.18. A difference of 0.51% also exists in comparison to national average in the percentage of aids and appliances provided to the requirement. While concerned to the average percentage of barrier free access in schools North-East lag behind in a wide difference of 36.67%. There remains a difference of 204 resource teachers in average in respect to national availability. The difference is 21.97% and 13.22% respectively in average of NGOs involved in inclusive education and out of school children with special needs. This inequality in educational right can only be addressed with the proper and effective implementation of the policies, legislation and schemes which can generate the atmosphere of trust and equality among the people. The policies intend to eradicate the school drop out rate in elementary education for children with special needs seek a relook as and when the North east is concerned.

Key Words: Right to Education, Children with Special Needs, Equality of Educational Opportunity, North-East India.

Introduction

Human right to education of all people was first recognised by United Nations' Universal Declaration of Human Rights in 1948. Article 24 of the UNCRPD

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emphasizes the need for governments to ensure equal access to an “inclusive education system at all levels” and has also stressed to provide reasonable accommodation and individual support services to persons with disabilities in order to facilitate their education. The Salamanca Declaration, 1994 encouraged governments to design such an education system which can respond to diverse needs. In regard to the maintenance of social justice and equality of opportunity, education takes a major role which is also recognized in Article 46 of the constitution of India. The right to education is a fundamental right in India for children between the ages of six to fourteen. This has been enshrined in Article 21(A) of the Constitution of India. According to section 26(a) of the Persons with Disability (Equal Opportunities, Protection of Rights & Full Participation) Act, 1995 the fundamental right to education for the children with disabilities has been extended up to the age of eighteen years. Thus, the equality of educational opportunity has been declared as human right, fundamental right and empowerment right for all including the children with disabilities. Government of India has promoted legislations, policies and schemes in the past few decades to provide equal rights to education. RTE Act, 2009 is one of the few Acts that actively acknowledges that discrimination is an important barrier in full enjoyment of rights and the full participation of children in education. The Principles of the UN Convention emphasize, “Full and effective participation and inclusion in society”, “non-discrimination and equality of opportunity”. SSA has given major emphasis on some areas of intervention for inclusive education such as Survey for identification of children with special needs (CWSN), Assessment of CWSN, Providing assistive devices, networking with NGOs/Government schemes, Barrier free access, Training of teachers on IE, Appointment of resource teachers, Curricula adaptation. North-east India accounts for 7.9% of the total land space of the country where there are reflection of dissatisfaction among people in regard to the enjoyment of equal opportunity of right to education. As per the state report card, 2013-14, a total number of 2.50 million children with special needs have been enrolled in elementary education in India wherein the north eastern states, the disability population ranges between the ages of five to nineteen are respectively for the states Tripura is 13,878, Manipur is 13,080, Mizoram is 3207, Nagaland is 6568, Assam is 111892, Arunachal Pradesh is 7108 and for Meghalaya it is 14,083. A Report prepared by Shishu Sarothi (2005), a leading NGO working for the children with special needs in north-eastern India found the status of implementation of the disability enactments in this region. It mentioned the availability of trained manpower in disability rehabilitation field is inadequate in Assam. There are only 4-5 institutions offering a few R.C.I. recognized training programmes. Other North-Eastern states where the respondents felt that availability of trained manpower in disability rehabilitation field is inadequate are Mizoram, Meghalaya Nagaland and Tripura. The

authorities have also failed to give full effect to the statutory mandate of identification and reservation of jobs for persons with disabilities. Apart from a few centrally sponsored campaigns, no specific efforts have been made to create awareness about causes and prevention and early detection in a few states. Rajeev Bhardwaj in employment news (2014) has focused the major hurdles playing role against reaching the rights of inclusive education in north-east region of India. He found that architectural barrier, Poverty, attitudes and lack of trained personnel and flexibility of curriculum are the major constrains towards accessing the educational right.

Rational of the Study

As we complete more than five years of implementation of the Right to Education Act 2009, it is time to vet it against the emerging understanding of 'inclusive education'. This is important because "the right to education is being increasingly recognized as the right to Inclusive education". 'Inclusive Education' is today "acknowledged as the most appropriate modality for states to guarantee universality and non-discrimination in the right to education". A journalist, Lolano P. Khuvung (2008) mentioned in his report that the implementation of the recommendations of National Policy on disability, 2006 in the XIth five year plan and the annual plan and any kind of financial allocation are yet to be seen for the disabled in the north-east. There does not exist any kind of observation or reports in this regard from the commissioners of the disabilities at the respective states and central government level. It has also failed to draw adequate attention of the Comptroller and Auditor General and Public Accounts Committee except for some isolated cases. The report also mentions that the disability issue has not received substantial attention especially when it is in the North Eastern States of India.keeping all these in view, the present study intends to find out in the ground of the question of equality, the status of the right to education of the children with special needs in North-Eastern states of India in regard to the accessibility of educational opportunity.

Objectives

1. To find out the status of school enrollment of children with special needs at elementary level in North-Eastern states in comparison to the national situation.
2. To investigate the ratio of Girls to Boys and Girls with Disabilities to Boys with Disabilities in enrolled children in North-Eastern states in comparison to the national situation.
3. To examine the arrangements available with special reference to barrier free access in school, support of aids and appliances, resource teachers available and NGOs involvement to facilitate inclusive education in North-Eastern states in comparison to national situation.

4. To point out the school dropout rate in elementary education for children with special needs in comparison to the national situation.

Data Collection

Data were collected from various sources such as Elementary Education in India, State Report Cards, 2013-14; National Survey on estimation of Out of school children, 2014; The fourth Annual report on the status of inclusive education of children with disabilities; Data on disability, Census of India, 2011. Sarvashiksha Abhiyan, 2009-10. Data were collected regarding children with special needs at elementary level on the concerned parameters such as school enrollment, gender wise enrollment ratio, barrier free access in school, support of aids and appliances, availability of resource teachers and the number of NGOs involved to facilitate inclusive education. The children with special needs includes children with low vision, blindness, hearing impairment, loco-motor disability, mental retardation, mental illness, leprosy cured, autism, cerebral palsy, multiple disability. The data on school going children attending elementary education in government schools have been considered for this study.

Method

After collecting data, the average percentage of each of the parameters concerned and the average ratio wherever necessary were calculated to draw out the national status and the status of north-east India respectively. The difference among the average percentages for each of the parameters was calculated. The data have been presented in tabular and graphical form for their interpretation.

Results and Discussion

The concerned parameters were analyzed to describe the status of the right to education of the children with special needs in North-Eastern states in terms of equality of educational opportunity.

Table-1: Average Percentage of Enrollment of Children with Special Needs in Elementary Education in India & North-Eastern States

	Average Percentage of enrollment of children with special needs in 2009-10	Average Percentage of enrollment of children with special needs in 2013-14	Average percentage of increase in enrollment
India	0.89	1.59	0.70
North-Eastern states	1.13	1.45	0.32

Table-1 shows that the average enrollment of children with special needs in elementary education in India for the year 2009-10 was 0.89% which has been raised to 1.59% in the year 2013-14. In the north-eastern states the average enrollments were 1.13 and 1.45 respectively for the year 2009-10 and 2013-14 which is also depicted in the graph-I. This clearly reveals that whereas the average percentage of increase in enrollment is 0.70 in the national scenario, the increase is only 0.32% in average in the north-eastern states. It indicates a clear inequality to educational right for the children with special needs in north-eastern states in terms of their enrollment in elementary schools.

Figure-1: Average Percentage of Enrollment of Children with Special Needs in Elementary Education in India & North-Eastern States

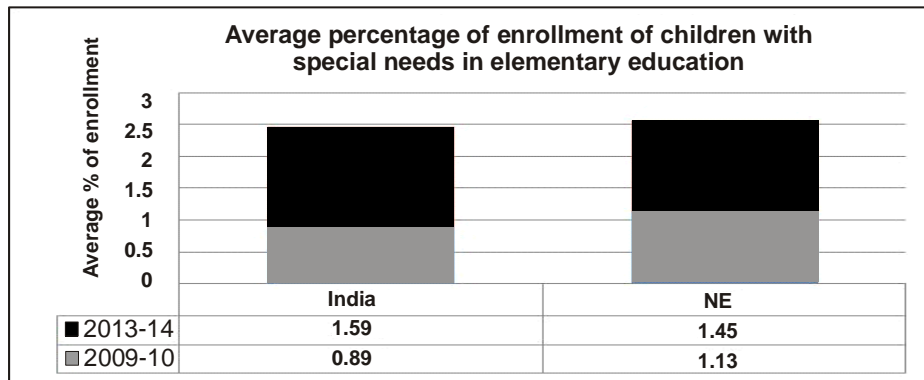


Table-2: Average ratio of Girls to Boys and Girls with Disabilities to Boys with Disabilities in Enrolled Children in 2013-14

	Average ratio of enrolled children		
	Girls to Boys in total enrollment	Girls to Boys in enrollment of children with special needs	Difference in the ratio of enrollment
India	0.91	0.73	0.18
North-Eastern states	0.97	0.74	0.23

Table-2 describes the girls to boys average ratio of enrollment in India as well as in the north-eastern states. The average ratio of girls to boys in total enrollment is 0.91 and girls to boys in enrollment of children with special needs are 0.73 for the national situation. Whereas the north-eastern scenario indicates that average

ratio of girls to boys in total enrollment is 0.97 and in case of the ratio of girls to boys in enrollment of children with special needs is 0.74. Here the disparity again comes out among the nation and the north-east. Where the difference of ratio is 0.18 in India, whereas it is 0.23 when concern about the north-east. It is shown in the graph-2.

Figure-2: Average ratio of Girls to Boys and Girls with Disabilities to Boys with Disabilities in Enrolled Children in 2013-14

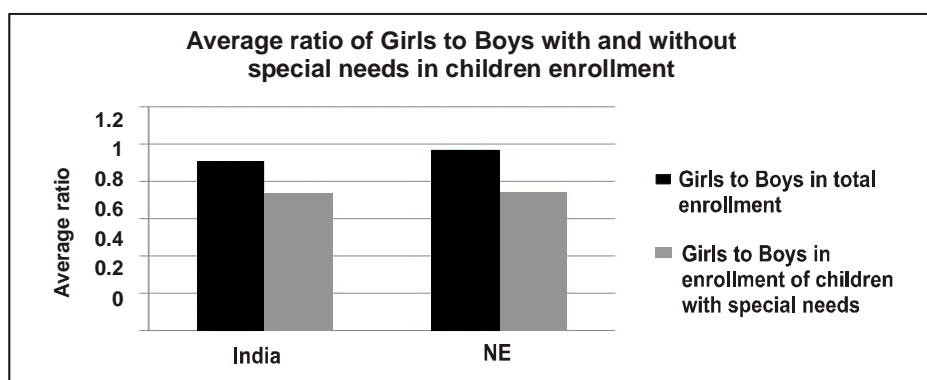


Table-3: Average Percentage of Aids & Appliances Provided in India and the North-Eastern States

	Average % of aids & Appliances provided	Difference in average % of supply of aids & appliances
India	62.15	0.51
North-eastern India	61.64	

Table-3 shows average percentage served in relation to the requirement of aids and appliances in India and north-eastern India respectively. The result indicates that whereas in India 62.15% requirement of aids and appliances has been provided by government, in north-east states the percentage is 61.64. Thus, here also a difference of 0.51% exists which has been reflected in the graph-3 clearly.

Figure-3: Average Percentage of Aids & Appliances provided in India and the North-Eastern States

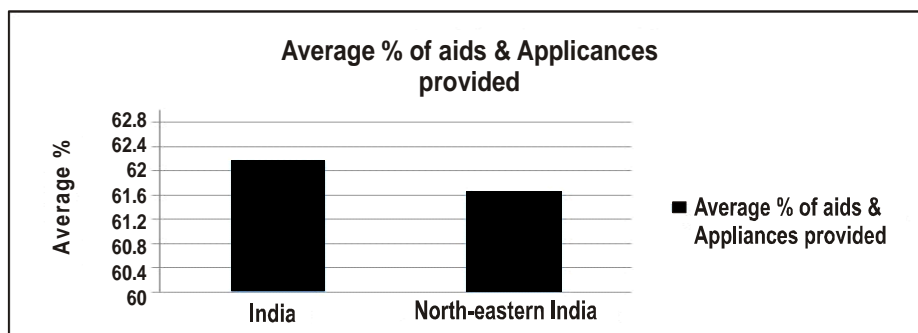


Table-4: Average Percentage of Barrier Free Access in Schools

	Average % of Barrier Free Access in Schools	Difference of average % of Barrier Free Access in Schools
India	48.10	36.67
North-Eastern India	11.43	

Table-4 reflects the national situation and the situation of north-east India in respect to average percentage of barrier free access in schools. It shows a wide difference of 36.67% whereas in India in average the barrier free school is 48.10%, only 11.43% schools are barrier free in north-east India. The above fact is shown in the figure-4. In his report Teresa Rehman, a journalist in Northeast India mentioned that of all kinds of human rights, rights of the persons with disabilities are most neglected in the northeast region (Info change News & Features, January 2010). Physical barriers in the environment together with social discrimination limit and often extinguish opportunities for disabled people to work and lead a normal life.

Figure-4: Average percentage of Barrier Free Access in Schools

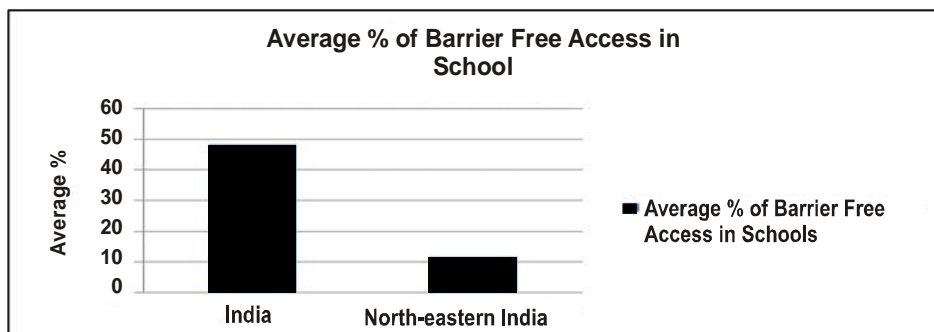


Table-5: Average no. of resource Teachers available in India & North-Eastern States

	Average no.of Resource Teachers in each state under SSA	Difference in average no. of resource teachers available
India	360	204
North-Eastern India	156	

Table-5 shows the average number of resource teachers available in India is 360 in each state whereas the number is only 156 when the north-east India is concerned. There remains a huge difference of resource teacher i.e. 204. The discrepancy among the resource teachers available is clearly reflected in the figure-5. The Talukdar of DLU, North-east region stated that education and access which can change things on the ground can be the point to be started with. There are reservations and employment in government services but not enough qualified applicants (Lolano P. Khuvung, 2008).

Figure-5: Average no. of resource Teachers available in India & North-Eastern States

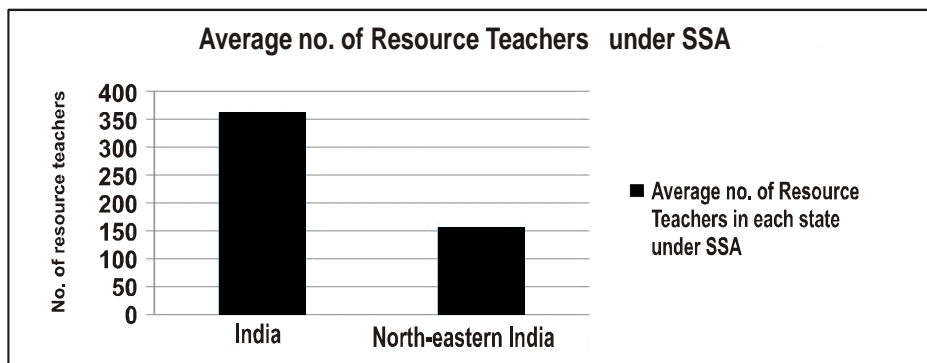


Table-6: Average % of NGOs Involvement in IE under SSA

	Average % of NGO involved in IE under SSA	Difference in average % of NGO involved in IE under SSA
India	32.54	21.97
North-eastern India	10.57	

Table-6 points out the average percentage of NGOs working to facilitate inclusive education under SSA in India and in north-east respectively. The average percentage is 32.54 for India but it is only 10.57% in case of the north-eastern states which is also depicted in the figure-6. Thus, the difference is too high of 21.97%.

Figure-6: Average % of NGOs Involvement in IE under SSA

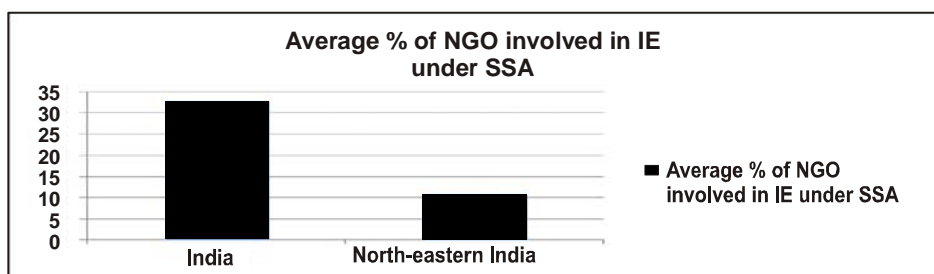
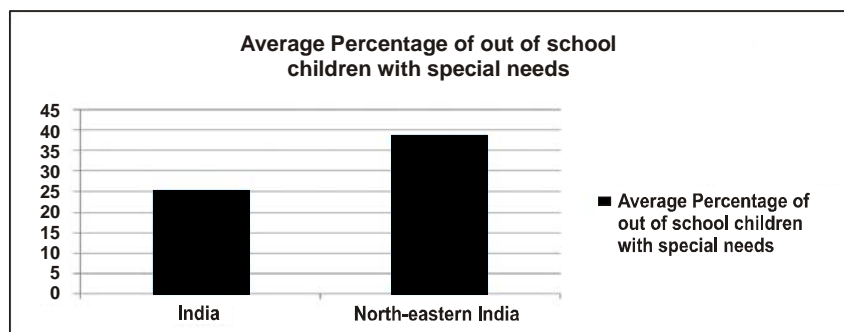


Table-7: Average Percentage of out of School Children with Special Needs Among 6-13 years age (2014)

	Average Percentage of out of school children with special needs	Difference in average % of out of school children with special needs
India	25.37	13.22
North-Eastern states	38.59	

Table-7 shows the average percentage of out of school children with special needs at the elementary stage. It reflects that in India the drop out rate is 25.37 in the year 2014 whereas in the north-east India it is 38.59%. Thus, a clear gap of 13.22% drop out rate exists between the national situation and the north-east zone which is shown in the figure-7.

Figure-7: Average Percentage of out of School Children with Special Needs among 6-13 years age (2014)



Conclusion

The rate of increase in percentage of enrollment of children with special needs in elementary education at the time of inception of Right to Education Act and five years after its implementation is much less in North-eastern states in comparison to the national average. This inequality in educational right can only be addressed with the proper and effective implementation of the policies, legislation and schemes which can generate the atmosphere of trust and equality among the people. The ratio of Girls to Boys in enrollment is least affected by disability in India as compared with the North East which also need to be encountered with positive and effective training and awareness with the special educators. The arrangements available with special reference to barrier free access in school, support of aids and appliances, resource teachers available and NGOs involvement to facilitate inclusive education again North-Eastern India is lagging behind the national situation which requires a positive environment in education to minimize the gap. Policies have been made to eradicate the school drop out rate in elementary education for children with special needs but it also seeks a relook as and when the North east is concerned.

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Wiki and Collaborative Learning: Prospects and Challenges

*Indrani Nath**

Abstract

Traditional system of education was absolutely teacher centric and hardly provided students any freedom of choice, expression or even participation in the teaching learning process. Modern education however has shifted from this teacher centric approach to more student centric approach. Role of a teacher is now considered to be that of a facilitator and aim of education is no longer considered to be only accumulation and storage of facts and figures but construction of knowledge. With the rapid development of science and technology it also has a deep impact on education. Among the emerging web technologies impacting education wiki stands as one that is widely promoted as a collaborative learning and writing tool and is gradually gaining popularity in the educational setting. This paper tries to relate how in this 21st century wiki technology be used in educational setting for construction of knowledge in a collaborative manner. It is a theoretical paper mainly written on the basis of secondary data source like books, journals and research papers published in India and abroad.

Key Words: collaborative learning, constructivism, learner centred approach, wiki.

Knowledge can be defined as facts or views or experiences of a person or group of persons gained through experience or learning. Peter Druker uses the concept of knowledge economy in 1969 in his book named 'The age of discontinuity' to express the gradual shift of economy of goods to an economy of knowledge where knowledge is considered to have an economic value and therefore a driving force behind social as well as economic development (Druker 1969). Knowledge economy requires highly skilled personnel at all levels to deal with rapid technological changes. The fact that knowledge plays a crucial role in economic growth is also reflected in World Development Report. For countries in the vanguard of the world economy, the balance between knowledge and resources has shifted so far towards the former that knowledge has become perhaps the most important factor determining the standard of living-more than land, tools and labour. Today's most technologically advanced economies are

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truly knowledge based (World Bank, 1999). Druker, the noted economist wrote in 2001 edition of *The Economist* that next society will be knowledge society where knowledge will be the key resource and knowledge workers will be the dominant group in its workforce (Druker 2001). According to the UNESCO World Report *Toward Knowledge Societies* (2005), knowledge societies are about capabilities to identify, produce, process, transform, disseminate and use information to build and apply knowledge for human development. An intelligent society must be in a position to generate knowledge corresponding to transnational knowledge societies and networks. Because of the world wide revolution that occurred in the field of electronic information and its enormous impact in almost every sphere of human life, the role of technology in the field of education has also increased manifold. To meet this changing scenario, higher education institutions throughout the world is striving to re-construct curriculum, pedagogy and evaluation procedure to ensure that all students have acquired necessary skills and knowledge to fit into the modern technology and knowledge based society.

In the traditional teacher-centred approach in education the teacher was considered as the main authority figure, an expert who knows everything in the class-room and therefore his function was to fill the empty minds of the learners mainly by using lecture method or chalk and talk method with knowledge which he felt was most appropriate for them. The learners were expected to accept everything as presented to them by the teachers without even raising any question. They were never allowed to think rather they were taught to mug up and reproduce what was taught to them. They were mere puppets in the hands of the teacher. The primary objective was dissemination of a relatively fixed body of knowledge by the teacher to the student. Active inter-action between teacher and student or among students was not allowed. Learning was dull, monotonous and life-less.

The traditional teacher-centred, transmission model of learning has gradually shifted to a more facilitative approach to teaching that is more learner centred. In this approach the main focus is on the students. Here they enjoys much more freedom and enjoys learning as they are no more passive recipients of knowledge but are active participants in the knowledge creation process. This approach consists of two types of learning: inquiry based learning and cooperative learning. In the inquiry based learning the teacher allows the students to explore and actively participate in learning and the role of the teacher is that of a guide who helps the students only when required. In cooperative learning, the students are responsible for their own learning and development. Each one progresses at their own pace. The idea behind this style of teaching is that student can learn better when they are given more freedom and allowed

to interact with their peers. This approach to some extent has its origin in constructivist's developmental theory of learning.

Constructivism is a theory based on observation and scientific study of how people learn. It says that people construct their own understanding and knowledge of the world, through experiencing things and reflecting on those experiences. In the constructivist model, students are actively involved in the learning process. The role of the teacher is that of a facilitator who coaches, mediates, prompts and helps students to develop and assess their understanding and learning. In constructivist class room both teacher and students considers knowledge not as mere accumulation of facts but as a dynamic ever changing views of the people around that can be analysed, explored, altered and re created. This theory believes that students should be exposed to data and should also be allowed to interact with other students so that they can learn from exchange of different views, opinions and experiences. This learning technique develops necessary skills and confidence to use technology to gather information, critically analyse those to understand the real problem, create solutions or develops new ideas and establishes or justifies them, presents those to get feedback and subsequently revise those if required. Piaget's theory of cognitive development believes that knowledge is constructed from the understanding of the world around the learners and their realization of what is already known and what they discovered from the environment.

The impact of information technology on society and education is enormous because of the worldwide revolution in the field of electronic information. The sharing of information, particularly through ICTs has the power to transform economies and societies. Knowledge societies must be built upon four pillars: freedom of expression, universal access to information and knowledge, respect for cultural and linguistic diversity and quality education for all. A knowledge society requires on time delivery of appropriate and up-dated knowledge, skills of knowledge search and retrieval, thinking and analytical skill, creativity and life-long willingness to learn.

In this context wikis can be used as a source of information and knowledge, as well as a tool for participants in group projects or to engage in learning with each other by using wikis as a collaborative environment in which to construct their knowledge (Boulos et. al; 2006).

Constructivism is approached from a variety of perspectives in wiki research including reflective, communal or social learning. Reflective learning refers to structured approach that enables students to reflect upon their understanding. Wikis allows learners to participate in collaboratively building resources. An essential part of reflective learning is that learners should be encouraged to

reflect on their knowledge and make it explicit. Wikis allow this reflection to be done collaboratively, moving closer to a fully social constructivist mode of learning. Social constructivists, on the other hand, believe that learners learn by social and communal activities. Meaning is shaped and knowledge is constructed through discussion and exchange of ideas with peers and teachers (Higgs and Mc Carthy, 2005). The collaborative nature of the wikis means that they enact knowledge building with and for others, with the focus being on community rather than on the individual learner. Collaborative learning becomes more powerful when it takes place in the context of a community of practice. A community of practice consists of people engaged in collective learning in a shared domain. Thus, learning becomes a collaborative process of a group. Wiki can serve as a knowledge platform for a community of practice where members of community can share their knowledge with the group, put up interesting pieces of information, work together, discuss issues etc (Schaffert, Bischof, et al. 2006).

Wiki can be used to facilitate computer supported collaborative learning i.e. the development of collaboration by means of technology to augment education and research (Angar, Raitman and Zhou, 2004). This enhances peer interaction and group work and facilitates sharing and distributing knowledge and expertise among a community of learners (Lipponen, 2002). Wikis enhance asynchronous communication and cooperative learning among students and promote cooperation rather than competition (De Pedro et al., 2006).

Teachers should be trained to teach the students to be critical thinkers and should make them learn to analyze and evaluate every bit of information they come across before accepting and using them. Students should be motivated continuously to construct knowledge rather than to reproduce what they have learnt from class lectures and text books. Teachers can provide learners with different tools such as problem solving, inquiry based learning activities with which students can formulate and test their ideas and hypothesis, draw conclusions and then convey their knowledge in a collaborative learning environment. Thus, it will help to transform students from a passive recipient of knowledge to an active participant in the knowledge creation process. Teachers can give writing assignments to students like reviewing an article or book, writing reports etc where students can take the help of Wikipedia as a tool for the said purpose. In this regard project based learning activities can also be undertaken.

During the last few decades because of an immense accelerated growth of science and technology as a result of innumerable new inventions and innovations in almost every field that it has touched nearly every aspect of human life and living and has left deep impact on even learning needs and style as well. Learning can no longer be confined within a particular place with a fixed place

and time schedule i.e. formal educational institutes with a fixed time table instead learning can be considered as an ongoing process that takes place from the interactions with others and the world around us. The emergence of new technologies has even changed the process of acquiring, storing, analysing, computing, comparing, collaborating and sharing or communicating information/knowledge. This vast and rapidly growing pool of information and knowledge bank has implications at all levels of education. The most important need is to change the emphasis of instruction away from transmitting fixed bodies of information towards preparing students to engage in continuous acquisition of knowledge and understanding in terms of pedagogy, the preparation for continuous learning implies a shift towards more active form of instruction.

Collaborative learning is a method of teaching and learning in which students can work together as a team to explore a significant question or to create a meaningful project. The root of this concept of collaborative learning can be traced in Vygotsky's social learning theory. The theory is based on the notion that knowledge is developed as a result of one's interaction with others in a social environment. Thus, it can be said that collaborative learning has a "social constructivist" philosophical base, which views learning as construction of knowledge within social context and where each individuals are together considered as a learning community. He suggested that learning takes place through interactions that students have with their peers, teachers and other experts. Consequently, teachers can create a learning environment that can maximize the learners ability to interact with each other through discussion, collaboration and feedback. According to Gerry Stahl, 2004 learning is not a matter of accepting facts but is a dynamic on-going process and is evolved as a result of complex interactions primarily taking place within the communities of people.

Some Significant Benefits of Collaborative Learning can be Stated as

- i) it develops higher level thinking skills,
- ii) stimulates critical thinking,
- iii) develops social interaction skill,
- iv) develops inter personal relationships,
- v) builds self-esteem,
- vi) develops team spirit
- vii) develops positive attitude,
- viii) enhances student's satisfaction level,
- ix) creates an active learning environment.

The new generation of learners are more techno savvy and they have varied interest and need. To fulfil these varied needs and interest e-learning can play an important role. Collaborative theory proposes that with the help of new technology i.e. computer supported collaborative learning (CSCL) could pave way for newer means or techniques for acquiring, storing, analyzing, constructing and disseminating knowledge. In this context wikis are widely being promoted as a collaborative learning and writing tool and is gradually gaining popularity in educational settings. Wiki is a collection of inter linked web pages that allows its users to read, write and edit text. In the wiki environment, shared responsibility for the quality and accuracy of the content and building a reusable repository of knowledge are the goals of wikis (Godwin-Jones, 2003).

Features of wiki can be stated as:

- i) Any wiki user can read, write or edit content.
- ii) It is possible to keep a record of changes made in the content when, by whom and number of times.
- iii) Wiki enables students to create and share document or ideas.
- iv) Through internet wikis are available to anyone from any place at any time across the world.
- v) It allows group work.
- vi) Wikis are organised according to the content.
- vii) It allows the teacher or facilitator to keep a track of who are actually participating in the group and who are not.

Perhaps the most interesting feature of wiki is that it provides a common learning platform that can be shared with others leading to both cooperative and collaborative learning opportunities. It can be used by the educators for professional and curriculum development. It can help teachers to collaborate with their fellow colleagues on various issues including preparation of lesson plans, academic calendar and so on. According to Gerry Stahl (2004), learning is not a matter of accepting facts but is a dynamic on-going process and is evolved as a result of complex interactions primarily taking place within the communities of people.

While collaborative learning and writing can be of great value to student learning at almost all levels of education with special emphasis on higher education, the implementation of a technology supported collaborative learning is also a real challenge. This paper tries to focus on how wiki can be used effectively for collaborative learning, its prospects and challenges.

Few Related Research Findings

Waters (2007) describes the wiki as a collaborative tool for curriculum develop-

ment. He claims, “the use of wikis has made collecting and utilising inputs from teachers more convenient, but more inclusive” (p. 41). Having more teachers able to contribute to the discussion can bring about a cultural change involving more collaboration with colleagues on curriculum development and sharing lesson plans.

Hetherington (2007) describes a one-year project which used a wiki to create a virtual news room for journalism students. The idea was to replicate a professional news room and to provide “a space for students peer editing of news and feature stories enhancing the collaborative, creative and critical literacies of those involved”.

Bold (2006) incorporated Wikis in a Masters on-line course to support collaboration. The study reported that wiki allowed students to be in charge of joint reporting, editing, reporting and maintained work without burdening a single individual to serve as a project coordinator.

Chong and Yamamole (2006) investigated a group of 20 people who had not met prior to the study, yet felt comfortable in exchanging ideas in a wiki writing project. Their study suggested that anonymous writing gave student a private space; therefore, collaboration between strangers could facilitate independent thinking, clear understanding of the team members and also contributed to the high quality output.

Hewitt and Peters (2006) asked 15 students to construct wiki articles on any topics in a graduate level distance education course. They found that students considered that building a knowledge base in a wiki project was not only an authentic task for themselves but also a value added activity for future classes.

Klobas (2006) raises the issue of intellectual property and suggested that wikis represent a major shift in the concept of personal ownership of ideas and that educators will have to consider what content from a wiki is acceptable to be handed in for assessment. Copyright issues need to be considered also when adding and linking content to wiki. Students need to make accurate acknowledgement of their sources and they may need to be taught how to do this. Students may also require support and facilitation in the inquiry process to promote critical thinking and thinking from multiple perspectives to make most of the opportunities for collaboration.

Role of Teacher

In this regard the role of teacher or facilitator is also very important. They also need to change their attitude, methodology and pedagogy. The most important need is to change the emphasis of instruction away from transmitting fixed set of knowledge to engage students in more active form of continuous acquisition

of knowledge and understanding in terms of pedagogy also. The aim of learning should not be restricted to acquisition and storage of knowledge but construction of knowledge in a collaborative manner. So, more active forms of instructions should be introduced and practised. They must introduce the concept of wiki in class room, encourage the students to develop an interest in this matter, initially help them in forming small groups or learning communities where they can learn to work in group, share their ideas, experience and knowledge in a constructive manner. At the formative stage the teacher may assign specific task or responsibilities to individual students or small groups which they need to complete using wiki. The entire process can be run under the supervision of the facilitator. When choosing a wiki one need to consider the features available like how far it is user friendly, media and file support facilities, hyper links available to web pages and so on.

According to Denennen (2003), while teaching on line the e-facilitator has four roles to play. They are as follows:

- i) Pedagogical role: to encourage student in knowledge building or summarises discussions and offers constructive criticism.
- ii) Social role: to create a friendly and nurturing environment or community feel, exhibit a generally positive tone, foster some humour, display empathy and inter-personal out-reach.
- iii) Managerial role: Coordinate assignments with set dates, assign groups and partners, present clear expectations, set off hours, grading and feedback and over all course structuring.
- iv) Technical role: Assist participants with technology related issues and thereby clarify the problems encountered thereafter.

Prospects

The advantage of wiki in teaching and learning is in the provision of shared learning space that can be added to and modified by many users from different physical locations simultaneously or at different times. This common space sharing facilitates or enables for collaborative and cooperative learning.

Facilitators can assign or involve students in several types of activities using wiki in order to help students to achieve several pedagogical objectives like:

1. To develop the habit of reading and summarising important articles or documents.
2. To develop writing skills.
3. To learn to conduct various research activities.
4. To provide opportunity to work in group.

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5. To develop digital communication skill.
6. To create a learning community.
7. To develop a sense of ownership.

Duffy and Bruns (2006) suggest several ways in which wikis can be used to enhance learning opportunities for students:

1. It can be used for students to add summaries of their thoughts from the prescribed readings, building a collaborative annotated bibliography.
2. In distance learning environment, the tutor can publish course resources like syllabus, handouts and students can edit and comment on these directly.
3. It can be used as a knowledge base for teachers, enabling them to share reflections and thoughts regarding teaching practise and allowing for versioning and documentation, essential to the usability of such a resource is that it is searchable, has easy navigation and categorisation and file management.

Some other classroom activities and interactions that can be initiated using wiki includes:

1. To get students interact with the other group members to share their ideas, knowledge and experience.
2. To initiate concept mapping.
3. To record field trip observation and reaction.
4. To facilitate student debate.
5. To share important information.
6. To draft class room policies.
7. To facilitate healthy student debate.

The Staff and Departmental Development Unit at University of Leeds (2006) suggested several complementary ways to encourage students participation in a class using wiki:

1. Assign specific authoring/ editing responsibilities to individual students or small groups.
2. Use the students interactions with wiki participation as a part of the summative assessment of the course.
3. Integrate wiki closely into the rest of the course:
 - i) refer to wiki in teaching sessions
 - ii) provide key information via wiki (assignment, marking scheme and so on).

Advantages of using wiki

1. Anyone can edit.
2. It is easy to use as well as to learn.
3. It is a flexible tool that can be used for various learning activities.
4. It widens access to web-publishing.
5. No need to wait for a publisher to create a new edition or to update any information.
6. People from any part of the world can work on the same document.
7. The wiki software keeps track of every edit made on any document.
8. It can be used for completing various assignments as given by the teacher.

Challenges

Though the prospect of using wiki for collaborative learning is immense, yet it is true that Wiki technology also has its limitations or weaknesses. The technical aspect is that for using this technology effectively for teaching-learning one must have minimum knowledge of operating computer, must have internet access, must be acquainted with the techniques. Social aspect is that to many teachers as well as students who are mainly not familiar or comfortable with this technology prefers face to face traditional method of teaching learning only. Lack of provision for adequate training and support system for both teachers and students is also a matter of much concern. Teachers, students and other users must be trained and provided enough time to get familiar with the techniques as well as with the wiki environment. Therefore proper planning, implementation and monitoring is very important. One must have the knowledge of issues concerning cyber crimes and the safety measures that can be adopted in this regard. It is vulnerable to hacking. Edited articles, reports or any other writings may be controversial or contradictory and it therefore may lead to unnecessary editing quarrel. However the most crucial issue in this regard is the students reluctance to contribute. They need to be constantly motivated to use wiki. Thus, simply considering wiki as a teaching-learning tool and making it available is not enough. Thus, the main objective of wiki is gathering of information from a community of participants with a shared interest as opposed to the traditional concept of teaching-learning.

Conclusion

Wiki based learning can also facilitate the concept of lifelong learning leading to both personal as well as professional development of an individual. It will not only enhance social inclusion and active participation of all but also self-sustainability and develop the spirit of team work, knowledge sharing as well

as construction of knowledge in a collaborative manner. The two chief characteristics or skills that a lifelong learner needs to develop includes reflective thinking and critical thinking as these can help the learner to become more self reliant and this in turn will help them to control their learning process in a more constructive and fruitful manner. There is divided opinion among educators on the issue related to the quality of content developed in a wiki environment. Actually, wikis are protected not by any code or by law but rather by the participation of an active wiki community. Another most important task is to make the students and teachers in particular and the community in general made aware of the how in this 21st century wiki technology can be used even in an educational setting for construction of knowledge in a collaborative manner so that we can also become a part of the knowledge based society actively and positively contribute in the process of knowledge creation. Thus, it can be said that the opportunities offered by wiki technology to enhance learning in collaborative manner is immense, all what is needed is proper planning and its implementation in learning environment at all levels, to develop positive attitude among teachers, students and parents regarding its utility, to constantly motivate the students as well as the teachers to use them in an effective and productive manner and thereby setting a new trend in education with the technological support readily available and making education more updated and realistic in the truest sense of the term.

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Research Abstract

Special Education: Inclusive Education of the Adolescent Students

Title	A Study on the Personality, Adjustment and Attitude Towards Inclusive Education of the Adolescent Students With and Without Special needs.
Research Scholar	Julie Dutta
Supervisor	Debasri Banerjee
Department	Education, University of Calcutta
Degree Awarded	Ph.D. 2015
Availability	Central Library, University of Calcutta

This study has been taken up to explore the personality, adjustment and attitude towards inclusive education among the adolescent students.

Objectives

The objectives of the study are as follows:

1. To study the attitude towards inclusive education of the students with hearing impairment and visual impairment studying in special schools and inclusive schools.
2. To assess the attitude towards inclusive education of the students without disabilities studying in regular schools and inclusive schools.
3. To explore the advantages and disadvantages of special school according to the visually impaired and hearing impaired students.
4. To identify the advantages and disadvantages of inclusive school according to the visually impaired and hearing impaired students.
5. To find out whether those in special schools are willing to go to inclusive schools or not and the causes behind them.
6. To analyze the personality profiles of students with special needs in special schools and inclusive schools.
7. To analyze the personality profiles of students without special needs in regular schools and inclusive schools.
8. To examine the adjustment pattern of students with special needs in special schools and inclusive schools.
9. To evaluate the adjustment pattern of students without special needs in regular schools and inclusive schools.

Research Abstract

10. To find out the pattern of relationship between personality profile and attitude towards inclusive education?
11. To find out the pattern of relationship between adjustment pattern and attitude towards inclusive education?

Sample

The present sample comprise students with hearing impairment, visual impairment and without any impairment ranging in age from 15-20 years studying in regular schools, special schools and inclusive schools .

Tools

1. Information Schedule–Constructed by the researcher.
2. Personality Test–Multivariable Personality Inventory by B.C.Muthayya (1973).
3. Adjustment Test–Indian adaptation of Bell’s adjustment Inventory by Lalita Sharma (1988).
4. Attitude towards Inclusive Education Inventory for children without disabilities in regular and inclusive school (AIEWODRI) constructed by Dutta, J. and Banerjee, D.
5. Attitude towards Inclusive Education Inventory for children with disabilities in special school (AIEWDSI) constructed by Dutta, J. and Banerjee, D.
6. Attitude towards Inclusive Education Inventory for children with disabilities in inclusive school (AIEWDII) constructed by Dutta, J. and Banerjee, D.
7. A separate interview for children with disabilities in special and inclusive schools.

Analysis of Data

Analysis was done using the mixed method i.e. from two perspectives namely quantitative and qualitative.

Findings

It is evident from the study that the hearing impaired and visually impaired students in inclusive schools have very positive attitude towards inclusive education. Regular school students are very eager to the idea that inclusion should be introduced in all the schools. They are very optimistic about the concept of inclusive education getting implemented. However the students in Inclusive Schools observe that students with special needs face lot of problems and are deprived of basic infrastructural facilities. Most of the teachers and

students are indifferent and are unwilling to help. No special care is given to the special students for example facility of Total Communication method or Sign Language is not there. They do not get enough written or visual instructions. Teachers are not acquainted with the writing in the Braille form. Severe problem arise arranging writers during examinations. All the schools in neighbourhood locality do not grant admission when approached. It can be concluded that the present inclusive setup needs to be developed for the healthy development of personality and adjustment among the students.

Research Abstract

Secondary Education: Acquisition of Basic Geometric Ideas

Title	Acquisition Of Basic Geometric Ideas Among Middle School Children With Special Reference To Certain Environmental Effects
Research Scholar	Chandrani Acharya
Supervisor	Aditi Ghose
Department	Education, University of Calcutta
Awarded	Ph.D, 2015
Availability	Central Library, University of Calcutta

Problem

Geometry is a part of mathematics that evokes a variety of sentiments. Some enjoy solving geometric problems and relish in connecting geometry to their surroundings; others balk at the mention of geometry and find its logical exposition beyond their cognition. Geometry being an essential area of mathematics is a must to do for children in secondary schools. Passing the school examination therefore means that students have a modicum of proficiency in geometry. Yet experience shows that many adults cannot cope with the geometry related demands of life. Some adopt avoidance techniques to circumvent those problems, while others suffer helplessness. According to the *Theory of Multiple Intelligence of Howard Gardner (1999)*, visual spatial skills are the abilities of an individual to visualize objects and rotate, transform and otherwise manipulate them. Characteristics of visual spatial intelligence are reading, writing, solving puzzles, interpreting pictures and charts, enjoying drawing, painting and visual arts and recognizing patterns. Visual spatial skills lend themselves to visual sports enthusiasts, such as basket-ball players, racing car drivers, billiard players and chess players. Thus the term *Acquisition of basic geometric ideas among middle school children* is conceptualized as the cognition of those ideas of geometry which form the bases of higher level geometric concepts which are to be acquired by students when they are in the secondary stage of school education, ultimately making them visually spatially adept and aware.

Therefore development of visual spatial skills among children is essential to cope up with their life situations. Geometry is a subject, the cognition of which is paramount in developing visual-spatial skills among children. Cognition of

basic ideas of geometry is also required to explicate concepts in other subject areas such as physics, geography, art and craft etc. Faulty conceptualization of these basic ideas and lack of comprehension can lead to insufficient power among children to solve various problems in life and can also lead to frustration and negative attitude towards geometry.

This research has attempted to find out how far the basic ideas of geometry are really acquired by middle school children. A comprehensive study to this effect was carried out among the children coming from different environments.

Objectives of the Study

The following are the objectives of the study:

To investigate

- ◆ How far the entrants to Class VII have achieved basic concepts related to Geometry.
- ◆ How far the entrants to Class IX have achieved basic concepts related to Geometry.
- ◆ Whether entrants to Class IX have gained more understanding of these concepts than the entrants to Class VII.
- ◆ Whether acquisition of basic concepts related to Geometry is gender related.
- ◆ Whether acquisition of basic concepts related to Geometry depends on the urban or rural environment.
- ◆ Whether there is any difference in acquisition of basic concepts related to Geometry between the students whose parents have different professions.

- N.B.:
- a. *Entrants to Class VII*—Students who have just completed the Class VI course and entered Class VII.
 - b. *Entrants to Class IX*—Students who have just completed the Class VIII course and entered Class IX.

Sample

The sample was chosen from a population which consisted of those students who have completed standard VI and entered standard VII (i.e. upper primary school) and those who have completed standard VIII (i.e. elementary school) and entered standard IX (i.e. secondary school), both from rural and urban area in Kolkata and districts surrounding Kolkata. The sample of the study consisted of 1030 students of class VII and Class IX. The two standards are henceforth referred to as Class VII and Class IX, respectively. It was selected by stratified random sampling method from classes VII and class IX of consenting

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schools at the beginning of the school year. Administration of Cattell and Cattell's Culture Fair Intelligence Scale on the sample ensured that the participants' scores were above the first quartile, thus ensuring their educability. Also the scores were found to be normally distributed. The final sample was as follows:

A personal data sheet was administered to find out the gender and parents' professions of the participants. In the case of both parents with identifiable profession outside the home, one with the more dominant profession was taken to be the deciding factor for inclusion in the particular parents' profession group.

Tools of the Study

The following tools were used for the investigation:

- ◆ Personal data sheet constructed by the investigator to enquire the name, age, class, gender, address (for location i.e. rural or urban) and parents' profession.
- ◆ Cattell and Cattell Culture Fair (free) Intelligence Scale, Indian adaptation by Kapoor, Rao & Singh (1962), The Institute for Personality and Ability Testing, P.O. Box 1188, Champaign Illinois 61824, U.S.A published in India by the Psycho Centre, G- 19H- Block Saket New Delhi-110017.
- ◆ Scale for Geometry entitled 'How Much Geometry Do You Really Know?' constructed by the investigator, for assessing the conceptualisation of basic geometric ideas by the participants. The geometry concepts were identified by consultation with prescribed mathematics text books of the W.B.S.E, C.B.S.E and C.I.S.C.E (formerly I.C.S.E) boards.

Analysis of data

A questionnaire entitled 'How Much Geometry Do You Really Know?' for detailed assessment of the basic geometric ideas indicated for middle schools by the most popular boards of education was constructed and standardized and subsequently administered to the sample. The resultant scores were examined and analyzed by statistical techniques including descriptive statistics, ANOVA and Chi Square calculations. The tests were administered to the sample and responses were analyzed according to the objectives. Suitable hypotheses were constructed as necessary.

Findings

The result yielded a significant improvement in acquisition of basic geometric ideas among children as they proceeded from class VI to class VIII, though many of the basic ideas of geometry were lacking among a large number of students.

The result also yielded a significant gender difference in favour of boys for

the total sample as well as all the sub samples. Location wise too, urban children outperformed their rural counterparts. The home environment wise analysis also showed that children of educated parents were more proficient at geometry, thus shattering the idea that geometric principles can emanate from the practical experiences of children. Moreover Geometry education is possibly oriented towards male interests and perhaps even towards elitist and sterile academic outlooks.

Detailed examination of responses to the geometric questionnaire revealed that many children at the end of middle school have not garnered the basic ideas inherent in geometry. This triggered an added investigation of how well geometry teachers themselves were aware of the basic ideas of geometry. The results revealed that a large number of teachers were either out of touch with the basic axioms and ideas of geometry or were unaware of them in their entirety. This was absolutely a definite pointer to the faulty conceptualization by students in our schools and aversion and incompetence with the subject in later years.

Conclusion

This survey bares the reality of how much geometry students learn during the middle school years. The worrying revelation of this survey is that students do not acquire the basic ideas in geometry and yet they are expected to keep on learning more concepts that depend on these basic ideas. This compounds faulty learning leading to confusion, frustration and aversion to the subject. In fact students do not improve in the attainment of many concepts as they proceed from class VII to class IX. That means they are not being given the time or the opportunities, to give the ideas maturity in their mind.

Though the gender divide in visual spatial skills is purportedly closing, this study reflects the total condition of the population. Girls are seen to lag behind boys in cognition of geometry concepts.

The study also shows that children in the urban environment are more cognizant of geometry concepts. That is, though rural children have so much opportunity for manipulating things, they fall behind urban children in geometry conceptualization. This points to the overwhelming pedantic and bookish nature of the teaching process in our schools.

Prior to this study it was expected that the home environment of the students affects their geometry learning. It was expected that those children whose home environment involves the wielding of tools would be more likely to have better visual skills in the acquisition of geometry concepts. However, the study did not corroborate this idea. Rather, children of parents with deskwork were found to be more proficient in geometry. The exception was that of girls whose parents

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are physical laborers. Girls from this category outperformed girls from other categories.

On the whole, the study points to lacunae in acquisition of basic geometry concepts in the elementary schools. This is probably the reason for the wide spread intimidation by and aversion of geometry among secondary school children.

The study also found that misconceptions of basic Geometry among children could arise out of misconceptions among teachers. Conversely, though some concepts were well cognized by teachers, they were not internalized by the children. This points to a possible lack of empathy by highly skilled mathematicians for the average child in the middle school (Brown and porter 1997).

Mathematics should be visualized as the vehicle to train a child to think, reason, analyze and to articulate logically. Unfortunately, it is observed in the present study that students are not encouraged to think rationally in their own way.

The study thus alerts teachers to the pitfalls in the acquisition of geometry concepts in the elementary schools so that they can ensure the cognition of all the necessary basic concepts and build solid bases in the cognitive structure of the children. Without proper acquisition of basic concepts, further learning of higher order concepts can only be superfluous.

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Secondary Education: Students' Performance in Mathematics
Mathematics Education: *Mathematics Performance of Secondary Students with a Focus on Low Achievement*

Title	Analysis of secondary students' performance in mathematics with a focus on low achievement
Research Scholar	Usashi Kundu
Supervisor	Debjani Sengupta
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Degree Awarded	Ph.D 2015
Availability	Central Library, Calcutta University

The purpose of this research is to analyse mathematics performance of students studying in the secondary stage with special emphasis on low achievement. The important issues which have been considered are (i) effect of gender and location of study on mathematics performance, (ii) association of mathematics scores with scores in other school subjects, (iii) nature of performance in different branches of mathematics, (iv) nature of errors committed by the students, (v) areas of strength and weakness in the different branches of the subject, and lastly (vi) causes of low achievement. The data sources are (i) 1104 Madhyamik examinees of the year 2005–2008, (ii) 671 candidates from class VI–X appearing in the Achievement-Cum-Diagnostic Test in Mathematics, 2008, (iii) 159 candidates of class VI–VIII appearing in annual examination, 2010, (iv) 26 mathematics teachers teaching in the secondary schools, and (v) 10 students of class VIII–X. The results reveal the following:

- ◆ Male students, in general outperform their counterparts and students from Kolkata schools outperform the students from schools located in the outskirts.
- ◆ A positive correlation exists between the marks obtained in mathematics and that of the other subjects.
- ◆ When all the classes are considered together, performance in geometry is the best while the performance in arithmetic is the worst.
- ◆ Male students are better than their counterparts in all the three branches of the subject, i.e., algebra, arithmetic, and geometry.

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- ◆ The occurrence of conceptual error is the highest among the students.
- ◆ There are different portions of mathematics where the students generally show their strength or weakness.
- ◆ The main causes identified by the teachers that are responsible for poor performance of the students are inadequacy of the learning process, weakness of the educational system and adverse effects of factors outside school.
- ◆ Results of the interview on students show that an amalgamation of factors ultimately makes them poor performers in mathematics.

The study has ample implications for the stakeholders in the process of teaching-learning as well as for the policy planners in education.

Indian Journal of Educational Research
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