ISSN: 0974-2123

INDIAN EDUCATIONAL RESEARCHER

International Biannual Refereed Open Access Journal

VOLUME 4 | ISSUE-2 | JULY-DECEMBER-2011

STELLA MATUTINA COLLEGE OF EDUCATION

ASHOK NAGAR, CHENNAI - 600083, TAMIL NADU, INDIA

INDIAN EDUCATIONAL RESEARCHER

Stella Matutina College of Education

Chennai- 600 083, Tamil nadu, India. www.smce-chennai.com

E-mail : smcedn@gmail.com

Indian Educational Researcher

Indian Educational Researcher invites original articles on Education from diverse perspectives. Areas may include, but are not limited to : learning theory and technology, cognition and technology, instructional design theory and application, online learning, computer applications in education, simulations and gaming, and other aspects of the use of technology in the learning process. Quality articles based on first-hand experience, reflection and reading will also be considered for publication. Abstracts of doctoral dissertations can be sent in for wider dissemination.

SUBMISSION GUIDELINES

Length of manuscript

Manuscripts should be approximately 1500-2000 words.

Title/Heading

Include the title of the article, name of author(s), institutional mailing address (if it is a part of a department, please include the name of the institution, city, state, zip code, and country), or other affiliation. Please include an e-mail address at which we can contact you.

Abstract

An informative, comprehensive abstract of75 to 150 words must accompany the manuscript. This abstract should summarize succinctly the major points of the paper.

Citations

The format of citations, references, and other details should be prepared in accordance with the latest version of Publication manual of the American Psychological Association (APA). A list of online resources for APA style can be found at http://www.psych-web/resource/apacrib.htm.

Tables and Figures

All tables and figures must be submitted in publication quality. Tables and figures should be prepared on separate sheets at the end of the running text. Indicate in the text where they are to be inserted. Number and type captions at the top of each table.

Manuscripts can also be submitted via email where possible. The Indian Educational Researcher requires that manuscripts be sent as email attachments in one of the following formats: MS Word or RTF. All files submitted must be uncompressed. No ZIP, SIT, etc. files will be accepted.

Manuscripts should be accompanied by a letter stating that the manuscript is original material that has not been published and is not currently being considered for publication elsewhere.

Manuscripts and editorial correspondence should be sent to:

Dr. Marsiana. Editor, The Indian Educational Researcher, Stella Matutina College of Education,Ashok Nagar, Chennai 600 083, India.

E-mail: smcedn@yahoo.co.in with .copy to radishmohan@yahoo:co.in

Editorial Policy

The Indian Educational Researcher is a research journal that publishes articles related to current issues and debates in the field of national and international education development. It encourages submissions from students, academics, practitioners and others interested in joining this international journal community·

All submitted manuscripts will·- be externally reviewed. Publication decisions are made ultimately by the Editorial Board. The accuracy of information presented in the submitted articles is the responsibility of the author/ s. The views presented in the journal are the personal views of the author/s and do not necessarily reflect the views of the journal's Editorial Board or Stella Matutina College of Education..

Copyright Policy

CONTENTS

EDITORIAL **1**

RESEARCH ARTICLES

1. **Leadership Behaviour of Principals of Colleges of Education in relation to Organizational Culture.** **2**
   Smt. R.G. Teggi, Lecturer
   BW'S College of Education
   Bagalkot, Karnataka.

2. **A Study on Depression of Bereaved Students Affected by Natural Disaster** **20**
   Dr. R. Gnanadevan, Associate Professor
   Annamalai University, Tamil Nadu
   Mr. M. Muthamizhselvan, Research Scholar
   Department of Education, Annamalai University.

3. **Effectiveness of Computer Assisted Instruction for Teaching Botany at Higher Secondary Level** **27**
   Mr. Praveen Dhar. T
   Principal, RP.A. College of Education,
   Marthandam, Kanyakumari, Tamil Nadu.

4. **Multiple Intelligence and ICT Awareness of Prospective B.Ed. Teachers** **33**
   Prof. Dr. P. Annaraja, Associate Professor
   St. Xavier's College of Education, Palayamkottai
   Mr. F.L. Antony Gracious
   Research Scholar.

5. **Utilization of Information and Communication Technologies by B.Ed. Trainees** **44**
   Dr. M. Manivannan, Associate Professor and Head i/ c
   School of Education, Tamil Nadu Open University.

6. **Relevance of Paulo Freire's Educational Philosophy in Indian Education System** **51**
   Fr. Susai Raja, Professor
   St. Joseph's Arts and Science College
   Manjakuppam, Cuddalore.

EDITORIAL

One of the hallmarks of the Teaching Profession is to involve in research and to give advice to clientele from the body of generalized and systematic knowledge. Educational research transfers information that facilitates the creation of knowledge that leads to innovative educational strategies. This issue aims to address the extraction of educational resources and knowledge processing through research that ultimately leads to the desired effect on learning. The contents include thought provoking research and thematic articles by distinguished educationists. Smt R.G. Teggi examines the effect of Organizational Culture on the Leadership behaviour of Principals of Colleges of Education. Dr. R. Gnanadevan and Mr. M. Muthamizhselvan have attempted to study the depression of bereaved students affected by natural disaster in the Coastal districts of Tamil Nadu. Mr. Praveen Dhar probes into the effectiveness of Computer Assisted Instruction for Teaching Botany at Higher Secondary level. Our education must be quality oriented and it must develop multiple intelligence among prospective teachers. Dr. P. Annraja and F.L. Antony Gracious have brought out the significant difference among B.Ed. Teacher trainees in their Multiple Intelligence and ICT awareness. Dr. M. Manivannan highlights the need and benefit of using Information Communication technologies by B.Ed. Trainees. Fr. Susai Raja reflects on Paulo Freire's Educational Philosophy and its relevance to Indian Educational context.

Any research serves its full purpose only when it is conveyed to the intended community. We hope the contributions that have appeared in the present issue will be of immense help to the professional development of teachers.

Dr. J.E. Vallabi
Associate Editor.

Research Article

Leadership Behaviour of Principals of Colleges of Education in Relation to Organizational Culture

Smt. R. G. Teggi, Lecturer
BVVS's College of Education
Bagalkot .(Karnataka)

Abstract

In a comprehensive review of leadership theories, several different categories were identified by Stogdill (1974) that capture the essence of the study of leadership in the twentieth century. The first category dealt with the attributes of great leaders. Leadership was explained by the internal qualities with which a person is born. The thought was that if the traits that differentiated leaders from followers could be identified the successful leaders could be quickly identified and put into positions of leadership. Personality, physical, and mental characteristics were examined. This research was based on the idea that leaders were born, not made, and the key to success was simply in identifying those people who were born to be great leaders. Through much research was done to identify the traits, no clear answer was found with regard to which traits consistently were associated with great leadership. One flaw with this line of thought was in ignoring the situational and environmental factors that play a role in a leader's level of effectiveness. The study of work place is concerned with how do the people feel while they are engaged in work, or during the off period in the work place. The study of this kind has been referred to or labelled as organizational character, milieu, atmosphere, organizational ideology, ecology, field, situation, informal organization, and more recently climate and culture (Hoy, 1991).

Keywords: *Leadership Theories, Great Leaders, Leadership Traits, Organizational Climate, Workplace Environment, Leadership Effectiveness, Situational Factors, Organizational Culture, Employee Engagement, Leadership Research.*

INTRODUCTION

'Leadership' has attracted the attention of sociologists, social psychologists and political scientists in various contexts. No unanimity is, however; found on the precise meaning of the term among the different social scientists. In the words of Edinger, (1967) 'as social scientists have to probe beneath the manifest aspects of leadership and have become correspondingly more sensitive to the relevance of numerous and complex latent facts, they have found it more difficult to agree on what leadership is and does.' This becomes more difficult when one's objective is to construct a view of leadership which will encompass many different types of leaders and varying leader-follow situations. Hence, the concept of leadership has come to be variedly defined by social scientists. Accordingly, leadership, in the words of Fairchild, has been defined as 'the act of organizing and directing the interests and activities of a group of persons, as associated in some project by a person who develops the co-operation through securing and maintaining their more or less voluntary approval of the needs and methods proposed and adopted in their association.' Bass (1985) preferred to define leadership thus: 'Leadership is a kind of interaction between or among people. Any attempt on the part of a group member to change the behaviour of one or more members of a group is an attempt at leadership.' Katz and Khan (1978) maintain that the concept of leadership, as generally understood in social sciences, has three major meanings: the attribute of a position, the characteristics of a person, and a category of behaviour. Tannenbaum, Weschler and Massarik (1959) explain leadership in terms of interpersonal influence which is exercised in specific situations, directed through the communication process and is definitely goal-oriented. To Tead, (1935) leadership appears as 'the activity of influencing people to co-operate towards some goal which they come to find desirable.'· Pigors (1961) opines, 'Leadership as a process of mutual stimulation which, by the successful interplay of relevant individual differences, controls human energy in the pursuit of a common cause.' Terry (1972) has defined leadership as 'the relationship in which one person, or leader, influences other to work together willingly on related tasks_ to attain that which the leader desires.' Stogdill (1948) considered it 'the process of influencing the activities of an organized group in its efforts toward goal achievement.' Halpin (1969) describes leadership 'as a complex social phenomenon that cannot be treated meaningfully apart from related situational factors'. Davis (1967) said, 'Leadership is the ability to persuade others to seek defined objectives enthusiastically; it is the human

factor which binds a group together and motivates it towards its goals'. A review of various definitions will indicate that leadership is a process whereby one individual exerts influence over others so that they will strive toward the achievement of group goals. This concept implies not only willingness to work but also willingness to work with zeal and confidence. Functionally speaking, leadership is to induce or persuade all subordinates or followers to contribute with cheerful readiness to organizational goals as warranted by their capabilities. Leadership is in fact the rare ability to inspire. The leaders stand behind a group to push; they place themselves before the group to lead and inspire it to attain organizational objectives. Leadership is also concerned with development of a climate within an organization which ultimately influences motivation of the followers.

Organizational Culture

Organizational culture is an important influence in the operation of schools. Our perception is that culture can be create the values, symbols, and myths that affect how people interact and relate. One characteristic of transforming cultures is the habit of breaking habits. Culture should not be the bulwark that resists change; it should create an environment where change is embraced and innovation is valued.

Analysis, synthesis, and evaluation are the main thought processes used to keep the culture adaptive. New ideas can be synthesized and programmes can evolve rather than remain static or tied to tradition. Thinking about culture in transforming schools helps focus on how culture can embrace the change process, not impede it.

In such as culture, the behaviour of the organization is change oriented to provide successful service to clients, with the focus on achievement and quality. These organizations live the culture they want by having actions follow words and by reinforcing people for behaving in accord with it. New values, rituals, celebrations, and stories are established to promote change and adaptation.

This culture encourages people to be proactive, not reactive, anticipating needs and finding solutions. The organization also looks forward, defines trends, and finds ways to incorporate new ideas and technology into its operations. Innovation is encouraged and rewarded, and districts make procedural and fiscal resources available to do it.

The culture of an organization is an amalgamation of the values and beliefs of the people in an organization. It can be felt in the implicit rules and expectations of behaviour in

an organization where, even though the rules are not formally written down employees know what is expected of them. It is usually set by management whose decisions on policy usually set up the culture of the organization. The organizational culture usually has values and beliefs that support the organizational goals.

Culture and Leaders

Leaders deal with symbol and images; consequently, they affect culture. Many leaders use metaphorical language, express values, define visions, and manage labels and symbols. Some leaders themselves become legends and a part of an organization's mythology. Their language affects the discourse of the entire organization because it expresses ideas, values, and perceptions of reality.

Leaders are intertwined with the culture's creation and management, and possibly its destruction.

The Problem

The problem under taken for the investigation can be stated as:

"Leadership Behaviour of Principals of Colleges of Education in Relation to Organizational Culture".

Brief Review of Related Literature

In the study of Singh (1974) find out that there was no difference in the attitude of teachers due to difference in age; male and female teachers differed in their attitude. Lavingia (1974) stated that female teachers are more satisfied than male teachers; and (ii) there is significant relationship between job satisfaction and stability of teachers. Another researcher has measured the attitudes, job satisfaction, adjustment and professional interests of teacher-educators of different categories based on sex, age, qualification and experience, Abdul (1986) found that teachers in more open climate schools were more satisfied with respect to 'Miscellaneous regarding Personal Characteristics' than teachers in less open climate schools. Kaur (1986) examined From among personal variable (age, intelligence, socio-economic status and need satisfaction), need satisfaction (including physical security, social, ego and total need satisfaction) was found to be a correlate of job satisfaction. Further in the study of Tasnim Isbell (2000) investigated the impact of teacher certification and levels of teacher confidence and efficacy on the mathematics and literacy achievement of elementary school students.

(2006) it is found that both the male and female teachers are dissatisfied but the female section is more dissatisfied than those of the male teachers.

Objectives

1. To study the relationship between leadership behaviour (initiating structure and consideration) of Principals of colleges and organizational culture and its dimensions (total)
2. To study the relationship between leadership behaviour (initiating structure and consideration), organizational culture and gender of Principals of colleges.
3. To study the relationship between leadership behaviour (initiating structure and consideration), organizational culture and age of Principals of colleges.
4. To study the relationship between leadership behaviour (initiating structure and consideration), organizational culture and educational qualifications of Principals of colleges.
5. To study the relationship between leadership behaviour (initiating structure and consideration), organizational culture and teaching experience of Principals of colleges.
6. To study the relationship between leadership behaviour (initiating structure and consideration) and type of management of Principals of colleges.

Hypotheses

Hypothesis: Principals of colleges of education having different leadership behaviour (consideration and initiating structure) do not differ with respect to organizational culture and its dimensions.

Hypothesis: Male and female principals of colleges of education do not differ with respect to leadership behaviour and its dimensions.

Hypothesis: Male and female principals of colleges of education do not differ with respect to organizational culture and its dimensions.

Hypothesis: Principals of colleges of education below 40 years and above 40 years of age do not differ with respect to their leadership behaviour and its dimensions.

Hypothesis: Principals of colleges of education below 40 years and above 40 years of age do not differ with respect to organizational culture and its dimensions.

Hypothesis: Principals of colleges of education with graduate and postgraduate educational qualifications do not differ with respect to leadership behaviour, organizational culture and its dimensions

Hypothesis: Principals of colleges of education with below 15 years and above 15 years of teaching experience do not differ with respect to leadership behaviour, organizational culture and its dimensions.

Hypothesis: Colleges of education with principals under different types of management (aided, unaided, government) do not differ with respect to leadership behaviour, organizational culture and 'its dimensions.

Hypothesis: There is no significant relationship between leadership behaviour (consideration and initiating structure) with organizational culture of principals of colleges of education.

Research Tools

The following tools were used to measure the variables of the study.

1. Leadership Behaviour Descriptive Questionnaire -by E. A. Fleishman, (1973)
2. Organizational Culture Scale by Udai Pareek (2002)

Population and Sample

The population of the study consists of all Principals of Colleges and teachers who are working in colleges of Education under Kamatak University.

The sample of the study was selected from Colleges of Education under the jurisdiction of Kamatak University, Dharwad. The investigator has used the stratified random sampling technique.

Presently there are 74 colleges of education in total (Government, Aided, Un-aided) the data were collected from 64 Principals of colleges and 500 teacher educators.

Data Collection

The investigator personally collected the data from 64 principals and 500 teacher educators of colleges of education about the principals. Clear-cut instructions were given to fill up the responses to the items in the tools. The filled in proformas and tools were collected. The Principals of Colleges were informed the purpose of the study. The Leadership Behaviour Description Questionnaire, Organizational Culture Scale were administered to the teacher educators about the principals and organizations. The collected data was systematically pooled for analysis.

Statistical Techniques

The following statistical techniques were used for analyzing the data as per the objectives of the study stated earlier.

(i) Differential analysis

(ii) Correlation analysis

Data Analysis

Table-1: Results oft-Test between Leadership Behaviour (Consideration and Initiating Structure) Principals of Colleges of Education With Respect to Dimensions of Organizational Culture

Variable	Leadership behavior	Mean	SD	t-value	t-value	p-value
Experimentation	Consideration	67.5735	3.8266	-2.3311	<0.05	s
	Initiating structure	71.1702	5.9129			

♦ The principals of colleges of education having different leadership behaviour (consideration and initiating structure) differ significantly with respect to dimension of organizational culture i.e. experimentation ($t=-2.3311$, $p<0.05$) at 5% level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the principals of colleges of education with different leadership behaviour (consideration and initiating structure) are different on experimentation dimension of organizational culture. In other words, the principals of colleges of education with initiating structure leadership behaviour are higher on experimentation than the principals of colleges of education with consideration leadership behaviour.

Table-2

Results oft-Test between Male and Female Principals of Colleges of Education With Respect to Leadership Behaviour and Its Dimensions

Variable	Sex	Mean	SD	t-value	p-value	Signi
Leadership Behaviour	Male	68.0580	4.2694	4.9977	<0.05	s
	Female	60.3190	5.6602			
Consideration	Male	66.2306	5.0116	4.3374	<0.05	s
	Female	58.3259	6.7188			
Initiating Structue	Male	70.4977	3.8778	4.9851	<0.05	s
	Female	63.4531	5.2459			

From the above table, it is seen that,

♦ Male and female principals of colleges of education differ significantly with respect to their leadership behaviour (t=4.9977, p<0.05) and its dimensions consideration (t=4.3374, p<0.05), initiating structure (t=4.9851, p<0.05) at 5% level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the male and female principals of colleges of education have different leadership behaviour. In other words, the male principals of colleges of education are high on leadership behaviour as compared to female principals of colleges of education.

Table-3

Results oft-Test between Male and Female Principals of Colleges of Education With Respect to Organizational Culture and Its Dimensions

Variable	Sex	Mean	SD	t-value	t-value	p-value
Organization Culture	Male	69.1970	5.2267	3.0504	<0.05	s
	Female	63.9766	3.0613			
Openness	Male	70.7523	5.0606	2.1486	<0.05	s
	Female	67.0000	5.1438			
Confrontation	Male	73.0093	6.4199	2.2011	<0.05	s
	Female	68.3750	3.8663			

Trust	Male	65.4745	9.0424	2.0469	<0.05	s
	Female	59.4375	4.9076			

♦ Male and female principals of colleges of education differ significantly with respect to organization culture (t=3.0504, p<0.05) at 5% level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the male and female principals of colleges of education have differ different organization culture. In other words, the male principals of colleges of education are high on organization culture as compared to female principals of colleges of education.

♦ Male and female principals of colleges of education differ significantly with respect to dimension of organization culture i.e. openness (t=2.1486, p<0.05) at 5% level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the male and female principals of colleges of education are different openness dimension of organization culture. In other words, the male principals of colleges of education are high on openness dimension of organization culture as compared to female principals of colleges of education.

♦ Male and female principals of colleges of education differ significantly with respect to dimension of organization culture i.e. confrontation (t=2.2011, p<0.05) at 5% level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the male and female principals of colleges of education are different on confrontation dimension of organization culture. In other words, the male principals of colleges of education are high on confrontation dimension of organization culture as compared to female principals of colleges of education

♦ Male and female principals of colleges of education differ significantly with respect to dimension of organization culture i.e. trust(t=2.0469,p<0.05) at 5% level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the male and female principals of colleges of education are different on trust dimension of organization culture. In other words, the male principals of colleges of education are high on trust dimension of organization culture as compared to female principals of colleges of education.

Table-4:

Results oft-Test between Age Groups (<40 Years, >40 Years) Of Principals of Colleges of Education With Respect to Leadership Behaviour and Its Dimensions

Variable	Age group	Mean	SD	t-value	p-value	Signi
Leadership Behaviour	<40yrs	63.0697	4.8531	-4.3774	<0.05	s
	>40yrs	68.5665	4.5668			
Consideration	<40yrs	61.0379	5.3604	-3.9516	<0.05	s
	>40yrs	66.7943	5.4198			
Initiating Structure	<40yrs	65.6563	4.3910	-4.8881	<0.05	s
	>40yrs	71.0973	4.0057			

From the above table, it is seen that,

♦ Principals of colleges of education with below 40 years and above 40 years of age differ significantly with respect to their leadership behaviour (t=-4.3774, p<0.05) and its dimensions consideration (t=-3.9516, p<0.05), initiating structure (t=-4.8881, p<0.05) at 5% level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the principals of colleges of education with below 40 years and above 40 years of age have different leadership behaviour. In other words, the principals of colleges of education with above 40 years of age are high on leadership behaviour as compared to principals of colleges of education with below 40 years of age.

Table-5

Results oft-Test between Age Groups (<40 Years, >40 Years) of Principals of Colleges of Education With Respect to Organizational Culture and Its Dimensions

Variable	Age group	Mean	SD	t-value	p-value	Si2ni.
Organization Culture	<40yrs	65.3320	2.7151	-3.3530	<0.05	s
	>40yrs	69.7674	5.6065			
Openness	<40yrs	67.5938	4.1915	-2.8004	<0.05	s
	>40yrs	71.3352	5.2561			

From the above table, it is seen that,

♦ Principals of colleges of education with below 40 years and above 40 years of age differ significantly with respect to their organization culture (t=-3.3530, p<0.05) at 5% level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the principals of colleges of education with below 40 years and above 40 years of age are different on organization culture. In other words, the principals of colleges of education with above 40 years of age are high on organization culture as compared to principals of colleges of education with below 40 years of age.

♦ Principals of colleges of education with below 40 years and above 40 years of age differ significantly with respect to dimension of organization culture i.e. openness (t=-2.8004, p<0.05) at 5% level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the principals of colleges of education with below 40 years and above 40 years of age are different on openness dimension of organization culture. In other words, the principals of colleges of education with above 40 years of age are high on openness dimension of organization culture as compared to principals of col1eges of education with below 40 years of age

Table-6

Results oft-Test between Graduate and Postgraduate Principals of Colleges of Education With Respect to Leadership Behaviour and Its Dimensions

Variable	Education	Mean	SD	t-value	p-value	Signi
Leadership Behaviour	Graduate	65.8919	4.9067	-2.8927	<0.05	s
	Post graduate	70.2660	5.3404			
Consideration	Graduate	64.0112	5.4332	-2.5923	<0.05	s
	Post graduate	68.5108	6.7754			
Initiating Structure	Graduate	68.5719	4.6982	-2.7161	<0.05	s
	Post graduate	72.3438	4.1711			

From the above table, it is seen that,

♦ Principals of colleges of education with graduate and postgraduate educational qualifications differ significantly with respect to their leadership behaviour (t=-2.8927, p<0.05) and its dimensions consideration (t=-2.5923, p<0.05), initiating structure (t=-2.7161, p<0.05) at 5% level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the principals of colleges of education with graduate and postgraduate

educational qualifications have different leadership behaviour. In other words, the principals of colleges of education with postgraduate degree are high on leadership behaviour as compared to principals of colleges of education with graduate degree.

Table-7

Results oft-Test between Graduate and Postgraduate Principals of Colleges of Education with Respect to Organizational Culture and Its Dimensions

Variable	Education	Mean	SD	t-value	p-value	Sign
Organization Culture	Graduate	67.2938	3.9061	-3.3521	<0.05	s
	Post graduate	72.2656	7.5660			
Openness	Graduate	69.2875	4.2390	-2.6669	<0.05	s
	Post graduate	73.3036	7.1110			
Confrontation	Graduate	70.8625	5.3852	-3.7519	<0.05	s
	Post graduate	77.3661	6.8867			

From the above table, it is seen that,

♦ Principals of colleges of education with graduate and postgraduate educational qualifications differ significantly with respect to their organization culture ($t=-3.3521$, $p<0.05$) at 5% level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the principals of colleges of education with graduate and postgraduate educational qualifications are different on organization culture. In other words, the principals of colleges of education with postgraduate degree are high on organization culture as compared to principals of colleges of education with graduate degree.

♦ Principals of colleges of education with graduate and postgraduate educational qualifications differ significantly with respect to dimension of organization culture i.e. openness ($t=-2.6669$, $p<0.05$) at 5% level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the principals of colleges of education with graduate and postgraduate educational qualifications are different on openness dimension of organization culture. In other words, the principals of colleges of education with postgraduate degree are high on openness dimension of organization culture as compared to principals of colleges of education with graduate degree.

♦ Principals of colleges of education with graduate and postgraduate educational qualifications differ significantly with respect to dimension of organization culture i.e. confrontation (t=- 3.7519, p<0.05) at 5% level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the principals of colleges of education with graduate and postgraduate educational qualifications are different on confrontation dimension of organization culture. In other words, the principals of colleges of education with postgraduate degree are high on confrontation dimension of organization culture as compared to principals of colleges of education with graduate degree.

Table-8

Results oft-Test between <15yrs and >15yrs of Teaching Experienced Principals of Colleges of Education With Respect to Leadership Behaviour and Its Dimensions

Variable	Experience	Mean	**SD**	t-value	p-value	Signi.
Leadership Behaviour	<15years	64.0548	3.5133	-5.4232	<0.05	s
	>15years	70.0152	5.2068			
Consideration	<15years	61.8763	4.1643	-5.2976	<0.05	s
	>15years	68.5305	5.8331			
Initiating Structure	<15years	67.1645	3.6183	-4.5100	<0.05	s
	>15years	71.9271	4.8060			

From the above table, it is seen that,

♦ Principals of colleges of education with below 15 years and above 15 years of teaching experience differ significantly with respect to their leadership behaviour (t=-5.4232, p<0.05) and its dimensions consideration (t=-5.2976, p<0.05), initiating structure (t=-4.5100, p<0.05) at 5% level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the Principals of colleges of education with below 15 years and above 15 years of teaching experience have different leadership behaviour. In other words, the principals of colleges of education with above 15 years of teaching experience are high on leadership behaviour as compared to principals of colleges of education with below 15 years of teaching experience.

Table-9

Results oft-Test between <15yrs and >15yrs of Teaching Experienced Principals of Colleges of Education With Respect to Organizational Culture and Its Dimensions

Variable	Experience	Mean	SD	t-value	p-value	Si5!11
Organization Culture	<15years	65.6319	1.8081	-5.2921	<0.05	s
	>15years	71.4974	6.1755			
Openness	<15years	68.8603	4.1357	-2.1955	<0.05	s
	>15years	71.6458	5.9485			
Autonomy	<15years	65.4044	4.3489	-2.4848	<0.05	s
	>15years	69.0833	7.2919			
Collaboration	<15years	70.0735	7.2541	2.4904	<0.05	s
	>15years	66.0417	5.4247			

From the above table, it is seen that,

- Principals of colleges of education with below 15 years and above 15 years of teaching experience differ significantly with respect to their organization culture (t=-5.2921, p<0.05) at 5% level of significance. Hence the null hypothesis is rejected and alterative hypothesis is accepted. It means that, the principals of colleges of education with below 15 years and above 15 years of teaching experience are different on organization culture. In other words, the principals of colleges of education with above 15 years of teaching experience are high on organization culture as compared to principals of colleges of education with below 15 years of teaching experience.

- Principals of colleges of education with below 15 years and above 15 years of teaching experience differ significantly with respect to dimension of organization culture i.e. openness (t=-2.1955, p<0.05) at 5% level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the principals of colleges of education with below 15 years and above 15 years of teaching experience are different on openness dimension of organization culture. In other words, the principals of colleges of education with above 15 years of teaching experience are high on openness dimension of organization culture as compared to principals of colleges of education with below 15 years of teaching experience.

♦ Principals of colleges of education with below 15 years and above 15 years of teaching experience differ significantly with respect to dimension of organization culture i.e. autonomy ($t=-2.4848$, $p<0.05$) at 5% level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the principals of colleges of education with below 15 years and above 15 years of teaching experience are different on autonomy dimension of organization culture. In other words, the principals of colleges of education with above 15 years of teaching experience are high on autonomy dimension of organization culture as compared to principals of colleges of education with below 15 years of teaching experience.

♦ Principals of colleges of education with below 15 years and above 15 years of teaching experience differ significantly with respect to dimension of organization culture i.e. collaboration ($t=2.4904$, $p<0.05$) at 5% level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the principals of colleges of education with below 15 years and above 15 years of teaching experience are different on collaboration dimension of organization culture. In other words, the principals of colleges of education with below 15 years of teaching experience are high on collaboration dimen_sion of organization culture as compared to principals of colleges of education with above 15 years of teaching experience.

Major Findings of the Study

1. The principals of colleges of education with initiating structure leadership behaviour are higher on experimentation dimension of organizational culture than the principals of colleges of education with consideration leadership behaviour.
2. The male principals of colleges of education are high on leadership behaviour as compared to female principals of colleges of education.
3. The male principals of colleges of education are high on organization culture as compared to female principals of colleges of education.
4. The male principals of colleges of education are high on openness dimension of organization culture as compared to female principals of colleges of education.
5. The male principals of colleges of education are high on confrontation dimension of organization culture as compared to female principals of colleges of education.

6. The male principals of colleges of education are high on trust dimension of organization culture as compared to female principals of colleges of education.
7. The principals of colleges of education with above 40 years of age are high on leadership behaviour as compared to principals of colleges of education with below 40 years of age.
8. The principals of colleges of education with above 40 years of age are high on organization culture as compared to principals of colleges of education with below 40 years of age.
9. The principals of colleges of education with above 40 years of age are high on openness dimension of organization culture as compared to principals of colleges of education with below 40 years of age
10. The principals of colleges of education with postgraduate degree are high on leadership behaviour as compared to principals of colleges of education with graduate degree.
11. The principals of colleges of education with postgraduate degree are high on organization culture as compared to principals of colleges of education with graduate degree.
12. The principals of colleges of education with postgraduate degree are high on openness dimension of organization culture as compared to principals of colleges of education with graduate degree.
13. The principals of colleges of education with postgraduate degree are high on confrontation dimension of organization culture as compared to principals of colleges of education with graduate degree.
14. The principals of colleges of education with above 15 years of teaching experience are high on leadership behaviour as compared to principals of colleges of education with below 15 years of teaching experience.
15. The principals of colleges of education with above 15 years of teaching experience are high on organization culture as compared to principals of colleges of education with below years of teaching experience.
16. The principals of colleges of education with above 15 years of teaching experience are high on openness dimension of organization culture as compared to principals of colleges of education with below 15 years of teaching experience.

17. The principals of colleges of education with above 15 years of teaching experience are high on autonomy dimension of organization culture as compared to principals of colleges of education with below 15 years of teaching experience.
18. The principals of colleges of education with below 15 years of teaching experience are high on collaboration dimension of organization culture as compared to principals of colleges of education with above 15 years of teaching experience.

Implications of the Study

The study reveals that the principals with below 15 years of teaching experience differ with the principals with above 15 years of teaching experience. Hence, it can be concluded that experience make principals to think more towards leadership behaviour and organizational culture.

The various dimensions of organizational culture marked differences prevailing across institutions. The colleges or institutions with its qualified principals and teacher educators with central skills and activities, tend to display a higher strength on most dimensions of organizational culture. Organizational culture has a significant effect on how principals and teacher educators view their organizational responsibilities and their job satisfaction, organizational culture assumed senior principals supports for better strategic intervention and effective skills for better development of leadership behaviour qualities.

REFERENCES

- Bass, B. M. (1985) Leadership and Performance Beyond Expectation. New York: Free Press.
- Davis, K. (1967) Human Relations at Work. New York: McGraw Hill.
- Halpin, A. W. (1969) Administrative Theory in Education. London: The Macmillan Company.
- Hoy, W. K. (1991) Open Schools I Healthy Schools. London: Sage Publications.
- Khaki, K. (2005) Exploring the Beliefs and Behaviours of Effective Headteachers in the Government and Non-Government Schools in Pakistan. Dissertation Abstracts International, 66 (5) Pp.2839-A.

- Massarik, F. (1959) Leadership and Organization: A Behavioural Science Approach. New York: McGraw-Hill.
- Pigors, P. and Myers, C.A. (1961) Personnel Administration: A Point of View and a Method. New York: McGraw Hill.
- Stogdill, R. M. (1948) Personal Factors Associated with Leadership. A Survey of the Literature, Journal of Psychology, 25, Pp. 35-71.
- Tead, 0. (1935) The Art of Leadership: What is Leadership. New York: McGraw Hill Book Co., Inc.
- Terry, G. R. (1972) Principles of Management. Homewood: Illinois, Richard D. Irwin, Inc.

Research Article

A Study on Depression of Bereaved Students Affected by Natural Disaster

Dr.R.Gnanadevan, *Associate Professor, Annamalai University, Tamilnadu,*

Mr.M.Muthamizhselvan, *Research Scholar, Department of education, Annamalai University*

Abstract

In this study an attempt has been made to study the depression of bereaved students affected by natural disaster. Depression scale standardized by the investigator has been used for the present study to measure the depression of bereaved students. The sample includes 300 bereaved students affected by natural disaster studying in various schools at Nagappattinam and Cuddalore district of Tamil Nadu. The present study reveals that the depression of bereaved students affected by natural disaster is high. There is a significant inverse relationship between depression and academic achievement. The bereaved students who lost their mother are highly depressive than the students who lost their father and close relatives. The bereaved students who live with their guardian are highly depressive than the students who live with their parents. The bereaved students whose parents are uneducated are highly depressive than the students whose parents are educated.

Keywords: *Depression, Bereaved Students, Natural Disaster, Academic Achievement, Parental Loss, Guardian Care, Parental Education, Psychological Impact, Secondary Education, Emotional Well-Being.*

INTRODUCTION

Coastal Tamil Nadu is a disaster-prone area. The maximum loss of life was reported in the Nagappattinam and Cuddalore district. The students affected by the natural disaster are facing psychological problems, social problems, financial problems, and legal problems. They are overwhelmed with the following symptoms like misery, despair, extreme confusion, anger, bereavement, guilt, depression, loneliness, anxiety, hyperactivity, disorganized behaviors, difficulty in making decision and loss of interest in education etc.

Depression is a very real and serious problem for both children and teens. Negative life events especially failure in the achievement domain and actual and threatened loss in the interpersonal domain have been found to be particularly the cause of depression (Beck,1987). Natural disaster is a negative life event. Depressed individuals express lack of energy, low self esteem, and loss of interest, loneliness, hopelessness, powerlessness and thoughts of death. Research has shown that childhood depression often persists, recurs and continues into adulthood, especially if it goes untreated. The presence of childhood depression also tends to be a predictor of more severe illnesses in adulthood. For the present study the investigators are interested to study the depression of bereaved students affected by natural disaster.

OBJECTIVES OFTHE STUDY

The study has the following objectives:

1. To find out the level of depression of bereaved students affected by natural disaster.
2. To find out whether there is any significant relationship between depression and academic achievement of bereaved students affected by natural disaster.
3. To find out whether there is a significant difference in the depression of bereaved students affected by natural disaster with respect to different sub-samples of the study.

METHOD OFSTUDY

The normative survey method was used to find out the depression of bereaved students affected by natural disaster. Depression scale standardized by the investigators has been used to find out the level of depression. It consists of 23 statements. The statements in this scale are related to depression symptoms such as hopelessness and irritability, cognitions such as guilt or feelings of being punishment, as well as physical symptoms such as fatigue, weight loss and lack of interest in study. Each item (statement) has five alternative responses namely 'Strongly agree', 'agree', 'undecided', 'disagree', and 'strongly disagree'. The subject.is asked to indicate his or her choice. Each item is to be awarded the score of '5,4,3,2,1' respectively from strongly agree to strongly disagree.

Academic achievement is determined by the marks secured by the bereaved students at the half yearly examination. It is taken from the school register.

The tool was administered to a 300 bereaved students affected by natural disaster studying in various schools at Nagappattinam and Cuddalore district ofTamil Nadu. The purposive sampling technique has been followed for the present study. The data has been

subjected to statistical techniques like descriptive analysis, differential analysis and correlational analysis.

STATISTICAL ANALYSIS

Table -1

Comparison of Mean Depression Scores of Male and Female Bereaved Students

Sub-samples	N	Mean	Standard deviation	't' value	Level of significance at 0.05 level
Male	151	77.72	16.21	1.39	Not Significant
Female	149	74.79	19.99		

Table - 4

Comparison of Mean Depression Scores of Bereaved Students who have Live with their Parents and Guardian

Source of variation	d.f	Sum of squares	Mean squares	F	Level of significance at 0.05 level
Between groups	2	12262.65	6131.32	20.93	Significant
Between groups	297	86966	292.81		

Table 3

Comparison of Mean Depression Scores of Bereaved Students who have Lost Their Mother, Father and Other Relatives

Sub-samples	N	Mean	Standard deviation	't' value	Level of significance at 0.05 level
Students who lost their Mother	44	91.63	10.95	6.08	Significant
Students who lost their Father	90	72.85	18.94		

Students who lost their Mother	44	91.63	10.95	6.38	Significant
Students who lost their relatives	166	74.04	17.38		
Students who lost their father	90	72.85	18.94	0.50	Not Significant
Students who lost their relatives	166	74.04	17.38		

Table -4

Comparison of Mean Depression Scores of Bereaved Students who have Live with their Parents and Guardian

Sub-samples	N	Mean	Standard deviation	't' value	Level of significance at 0.05 level
Students who live their parents	188	68.52	17.75	11.42	Significant
Students who live with their guardian	112	89.25	9.54		

Table -5

Comparison of Mean Depression Scores of Bereaved Students whose Parents are Educated and Uneducated

Sub-samples	N	Mean	Standard deviation	't' value	Level of significance at 0.05 level
Students whose parents are educated	130	72.55	20.00	3.13	Significant
Students whose parents are uneducated	170	79.10	16.21		

RESULTS AND DISCUSSIONS

The mean and standard deviation for the depression scores of total group are found to be 76.26 and 18.21 respectively. It may be remembered that a student can get a maximum score of 115. Hence, it indicates that the depression of bereaved students affected by natural disaster is high. The mean value for all the samples of the study indicates that the depression of bereaved students affected by natural disaster is high with respect to all the sub-samples:

The co-efficient of correlation has been determined to find out the relationship between depression and academic achievement of bereaved students. It is found to be -0.90 and it is significant at 0.01 level. Hence, it indicates that there is a significant inverse relationship between depression and academic achievement of bereaved students affected by natural disaster.

The ’t’ value has been calculated to find out the significant difference between the male and female bereaved students in their level of depression (Table- I). There is conclusive evidence in the study to show that there is no significant difference between the male and female bereaved students in their depression as’t’ value ('t'=1.39) is not significant at 0.05 level.

The depression of bereaved students who have lost their mother, father and other close relatives are subjected to analysis of variance. The details of the analysis of variance are given in the (Table 2). The 'F' value (F=20.93) is found to be significant at 0.01 level. Therefore, it is concluded that the bereaved students who have lost their mother, father and close relatives significantly differ in their level of depression. The mean scores of sub groups are compared for significance of difference and’t’ test is applied. It is presented in Table 3.

The result of the Table-3 reveals that the bereaved students who have lost their mother and those who have lost their father differ significantly in their depression as't' value ('t'=6.08) is significant at 0.01 level and the bereaved students who have lost their mother and those who have lost their relatives differ significantly in their depression as't' value ('t'=6.38) is significant at 0.01 level. It further reveals that the bereaved students who have lost their father and those who have lost their relatives do not differ significantly in their depression as't' value ('t'=0.50) is not significant at 0.01 level. The mean value indicates that the students who have lost their mother (mean=9 l. 63) are highly depressed than the students who have lost their father (mean=72.85) and close relatives (mean=72.85).

The’t’ value has been calculated to find out the significant difference between the bereaved students who live with their parents and those who live with their guardians in their level of depression (Table-4). The result of the Table-4 reveals that the bereaved students who live with their parents and those who live with their guardian differ significantly in their depression as 't' value ('t'=l1.42) is significant at 0.01 level. The mean value indicates that the students who live with their guardian (mean=89.25) are highly depressed than the students who live with their parents (mean=68.52).

The 't' value has been calculated to find out the significant difference between the bereaved students having educated and uneducated parents in their level of depression (Table-5). The result of the Table-5 reveals that the bereaved students having educated and uneducated parents differ significantly in their depression as 't' value ('t'=3.13) is significant at 0.01 level. The mean value indicates that the students whose parents are uneducated (mean=79.10) are highly depressed than the students whose parents are educated (mean=72.55).

CONCLUSION

The present study reveals that the depression of bereaved students affected by natural disaster is high. There is a significant inverse relationship between depression and academic achievement of bereaved students affected by natural disaster. The students who have lost their mother are highly depressed than the students who have lost their father and close relatives. The students who live with their guardian are highly depressed than the students who live with their parents. The bereaved students whose parents are uneducated are highly depressed than the students whose parents are educated.

A child with depression may pretend to be sick, refuse to go to school, cling to a parent, or worry that a parent may die. Older children may sulk, get into trouble at school, be negative and irritable, and feel misunderstood. Because these signs may be viewed as normal mood swings typical of children as they move through developmental stages, it is essential to accept the grief and grieving people and treat them with utmost sensitivity, respect and enable them to cope physically, psychologically and spiritually.

REFERENCES

- Asim Civitci, (2010). "Moderator role of Self-esteem on the Relationship between Life Satisfaction and Depression in Early Adolescents". Journal of Emotional and Behavioural Difficulties, Vol.15,(2), 141-152.

- Beck, A.T., (1987). "Cognitive models of depression". Journal of Cognitive Psychology: An international Quarterly, Vol.15-37.
- Coralie Joy Wilson, Debra Rickwood and Frank Patrick Deane, (2007). "Depressive Symptoms and Help-Seeking Intention in Young People". Journal of Clinical Psychologist, Vol. 11,(3), 98-107.
- David H. Barlow and V. Mark Durand. (2005). Abnormal Psychology:An Integrated Approach. New Delhi: Cengage Leaming India Private Limited.
- Elizabeth A.W.Segull and Annette B. Weinshank, (1984). "Childhood Depression in a Selected Group of Low Achieving Seventh Graders". Journal of Clinical Child and Adolescent Psychology, Vol. 13,(2), 134-140.
- Linda Teri, (1982). "Depression in Adolescence: Its Relationship to Assertion and Various Aspects of Self mage". Journal of Clinical Child and Adolescent Psychology, Vol.11 (2),101- 106.

Research Article

Effectiveness of Computer Assisted Instruction for Teaching Botany at Higher Secondary Level

Mr. Praveen Dhar T.

Principal, RP.A College of Education, Marthandam,

Kanyakumari Tamil Nadu - 629 165

Abstract

The introduction of computers in schools in the early 1980s was accompanied by high expectations about the potential of this new technology for improving student learning at school. In this century, expectation research outcomes, and new developments will be considered in relation to the prevailing educational computer applications, i.e., computer-assisted learning, word processing and logo. The investigator, who did his academic studies in Botany discipline, has genuine interest to know the effectiveness of Computer Assisted Instruction over Lecture Method for teaching Botany at Higher Secondary Level. The aim of the present investigation was to test the effectiveness of Computer Assisted Instruction over conventional Lecture Method for teaching Botany. For the present investigation the researcher adopted Experimental Method. The present study revealed that Computer Assisted Instruction is an effective tool for teaching Botany at Higher Secondary Level.

Keywords: *Computer-Assisted Instruction, Lecture Method, Botany Education, Higher Secondary Education, Teaching Effectiveness, Educational Technology, Experimental Study, Student Learning, Instructional Methods, Science Education.*

INTRODUCTION

In an ideal world, each learner would get the attention and resources to learn the absolute maxim. As it is in schools, however, a single learner is one among others in a class, and the classroom teacher should promote learning simultaneously in many students. The teacher might wish to spend more time and direct all of his or her teaching skills towards every individual learner's need.

Teachers are well aware of how individual interests and learning progress in many areas must be forfeited to the necessity of ensuring general group progress.

In the present day school education, life science occupies an important place. Various developments in this field can be attributed to man's intellect and can be considered as his major intellectual and creative achievement. Computer Assisted Instruction covers in detail the theory, design, development, implementation and evaluation of Computer Assisted Instructional materials. Work on both main frame and microcomputer is done in this course. Typically it attracts students with some back ground in computing, programming and instructional design.

Need and Significance

As observed by Hilgard and Bower (1977) "Computer Assisted Instruction has now taken as so many dimensions that it can no longer be considered as simple derivative of the teaching machine or the kind of programmed learning that Skinner introduced". Edmonds (1986) discussed the use of computers as a medium for teaching, a tool for learning and a manager of learning. In his report he concluded that its special characteristic is seemed to be its ability to take a non-trivial role in an interactive situation.. The investigator, who did his academic studies in Botany discipline, has genuine interest to know the effectiveness of Computer Assisted Instruction over Lecture Method for teaching Botany at Higher Secondary Level. So the investigator wanted to try out the suitability of Computer Assisted Instruction for teaching of Botany at Higher Secondary Level.

Statement of the Problem

The present study is entitled as **"Effectiveness of Computer Assisted Instruction for Teaching Botany at Higher Secondary Level".**

Objectives

1. To test the effectiveness of Computer Assisted Instruction by comparing the pre - test achievement scores of Computer Assisted Instruction group with that of Control group which is taught by traditional Lecture Method.
2. To test whether there is any significant difference among Computer Assisted Instruction group and Control group with regard to post- test achievement scores.

3. To test the effectiveness of Computer Assisted Instruction by comparing the post-test achievement scores of the Experimental and Control groups based on the variables of sex and locality

Hypotheses

1. There will be a significant difference between Computer Assisted Instruction group in pre- test and post- test achievements.
2. There will be a significant difference between Control group in pre- test and post- test achievements.
3. There will be a significant difference between pre and post- test achievements of Control and Experimental groups with regard to the variables sex and locality.

Methodology

Method: - The investigator used experimental method for the present study. Experimental design was parallel group.

Sample: - The sample consisted of 62 students of standard XI from Government Higher Secondary School Marthandam, Kanyakumari District, Tamil Nadu.

Tools used:- The investigator used Computer Assisted Instruction Package for the Experimental group and the Control group was taught by Lecture Method. The investigator used Group test of Intelligence for equating the groups. The investigator also prepared an achievement test in Botany for taking the entry and exit behavior of students.

Analysis and Interpretation

Table:-1 t-test between the mean scores of Experimental and Control groups in Pre- test achievement.

GROUPS				CRITICAL RATIO	LEVELOF SIGNIFICANCE
EXPERIMENTAL GROUP		CONTROL GROUP			
MEANl	STANDARD DEVIATION 1	MEAN2	STANDARD DEVIATION N2	0.22	N.S
7.20	0.17	6.65	0.12		

Table:-2

t-test between the mean scores of Experimental and Control groups for Post- test achievement.

GROUPS				CRITICAL RATIO	LEVELOF SIGNIFICANCE
EXPERIMENTAL GROUP		CONTROL GROUP			
MEAN I	STANDARD DEVIATION 1	MEAN2	STANDARD DEVIATION 2	4.11	0.01
17.39	0.25	15.07	0.4		

Table:-3

Sex wise comparison of students on post -test achievement

SEX	MEAN	STANDARD DEVIATION	CRITICAL RATIO	LEVEL OF SIGNIFICANCE
MALE	17.21	0.5	1.83	N.S
FEMALE	19.64	0.61		

Table:-4

Locality wise comparison of students on post- test achievement

LOCALITY	MEAN	STANDARD DEVIATION	CRITICAL RATIO	LEVEL OF SIGNIFICANCE
RURAL	15.47	0.53	16.69	N.S
URBAN	19.31	0.59		

Comparison of pre-test achievement scores of Experimental and Control groups revealed that there is no significant difference between the Experimental and Control group with regard to pre-test. Meanwhile there is a significant difference between the two groups with regard to post-test achievement scores.

The present investigation also revealed that there exists no significant differences in the mean scores of achievement in Botany of Higher Secondary School students with respect to the variables sex and locality.

Findings and Discussion

1. There is no significant difference between Computer Assisted Instruction group and Control group with regard to pre- test achievement.
2. There is a significant difference between Control group and Experimental group with regard to post-test achievement scores.
3. There is no significant difference between pre and post- test achievements of Control and Experimental groups with regard to the variables sex and locality.

Edwards (1993) conducted a study to investigate whether the use of pencil -paper method or the use of computer software would contribute more significantly to the generation of more complex concept maps in mathematics. The findings indicated that the Experimental group who used computer software produced concept maps with more branching levels. Lara (2001) in an experimental study examined the effects of Computer Mediated Peer Interaction on the quality of secondary foreign language students' writing students .The results obtained were similar to the present investigation.

Conclusion

From the above results it can be concluded that Computer Assisted Instruction is a more effective tool for teaching many topics in Botany. It is a more effective tool than conventional Lecture Method. In the conventional method there is only development in the cognitive domain but the Computer Assisted Instruction is activity oriented and makes developments in all domains.

References

- Edmonds, Earnest (1986). "Where next in Computer Aided Leaming?" London: Cited in the British Journal of Educational Technology 11(2) pp.97.
- Edwards, Barry Wayne (1993). "The effect of using Computer Based Organizational Software for Generating Mathematics Related Concept Maps". Dissertation Abstract International, USA: ProQuest information and learning. 55(9)pp 2799-2800.

- Hilgard E.R. and Bower, G.H. (1997). Theories of Leaming. New Delhi: Prentice Hall of India Pvt. Ltd.
- Lara, Semones (2001). "An examination of the effects of peer interaction in computer mediated environment during the early phase of writing process". Dissertation Abstract International. 62(2).. Pp 498.

Research Article

Multiple Intelligence and Awareness of Prospective B.Ed. Teachers

Prof. Dr. P. Annaraja, Associate Professor
St. Xavier's College of Education Palayamkottai.

F.L. Antony Gracious
Research Scholar

Abstract

The present study Multiple Intelligence and ICT Awareness of prospective B.Ed teachers was probed to find the relationship between Multiple Intelligence and JCT Awareness of Prospective B.Ed Teachers. Data for the study were collected using self-made Multiple Intelligence Inventory and ICT Awareness Scale. The investigator used stratified random sampling technique for selecting the sample. The sample consists of 242 Prospective B.Ed Teachers. For analyzing data; 't' test and Pearson's product moment co-efficient were the statistical techniques used. Finding shows there was no significant relationship between Multiple Intelligence and ICT Awareness of prospective B.Ed teachers.

Keywords: *Multiple Intelligence, ICT Awareness, Prospective B.Ed. Teachers, Correlation Study, Educational Technology, Teacher Education.*

INTRODUCTION

The prime function of education is to draw out the potentialities of the child and develop them to meet the challenging situation in life. Proper education will keep the child to understand the society and to adjust with the social environment. For the development of the child we are providing education to adjust this world. Whereas the school education can be better through proper teacher education; it can be nurtured through teacher education. Teacher education is providing quality education to their prospective teachers in educational philosophy, educational psychology and educational technology apart from the techniques of teaching.

SIGNIFICANCE OFTHE STUDY

Today we are living in a world of science and technology, where an explosion of knowledge is taking place and stepping into the modem technocratic age. For a meaningful life of an individual needs academic excellence to adjust to his environment. Education is the process of helping the child to adjust to the changing world. Therefore, we can say "education as the reconstruction or reorganization of experience, which adds to the meaning of experience and which increases the ability to direct the course of subsequent experiences". According to multiple Intelligences; each person possesses all Intelligences. Most people can develop Intelligence to an adequate level of competency. Intelligences usually work together in complex way and there are many ways to be intelligent within each category. Multiple Intelligence says that students can be intelligent in diverse ways. In the technologically sophisticated modem work fields, these Intelligences can play a vital role of equipping ICT technologies.

ICT include electronic networks embodying complex hardware and software linked by a vast array of technical protocols. ICT can be defined as "anything which allows us to get information, to communicate with each other, or to have an effect on the environment using electronic or digital equipment". Some authors use the term learning technologies, while others simply describe it as technology. ICT is becoming a ubiquitous component of the physical and social world occupied by young children. It is an important part of the private and work lives of most people, including those who support young children learning and development, whether as parents, family members, caregivers, or early childhood educators. The teacher can interact with students of different ages from infants to adults, students with different abilities and students with learning disabilities. If a student is to be prepared for their future, then it's an essential attribute of effective teacher is awareness of the realities of the world in psychology and technology. Then only the prospective B.Ed teachers can mould future generation. So the investigator wants to study the variables Multiple Intelligence and ICT Awareness of prospective B.Ed teachers.

STATEMENTOFTHEPROBLEM

Statement of the problem is entitled as "Multiple Intelligence and ICT Awareness of prospective B.Ed teachers". The investigator adopted the following definitions for the terms used in this title.

MULTIPLE INTELIGENCE

Multiple intelligence is a set of skills allowing individuals to find and resolve genuine problems they face. Multiple Intelligence include verbal linguistic intelligence, logical mathematical Intelligence, visual spatial intelligence, bodily kinaesthetic Intelligence, musical rhythmic Intelligence, interpersonal Intelligence, intrapersonal Intelligence, naturalistic Intelligence and existentialistic Intelligence of Howard Gardner.

ICT AWARENESS

ICT stands for Information Communication Technology; ICT refers to usage of electronic devices. ICT Awareness are technical and technological, Browsing or Surfing, Designing or Authoring, Communicating or Teaching and Maintenance or Hardware/ Software skills; which are needed for an effective teacher to teach effectively.

PROSPECTIVE B.Ed TEACHERS

Prospective B.Ed Teachers are the student-teachers who undergo a pre-service training on teaching learning process that provides experiences for development towards good teaching. B.Ed is skill process, undergoing training in teaching skills at the colleges of Education.

OBJECTIVES

To find the relationship between Multiple Intelligence and ICT Awareness of Prospective B.Ed Teachers.

NULL HYPOTHESES

1. There is no significant difference between age above 22 and age below 22 Prospective B.Ed Teachers in their Multiple Intelligence.
2. There is no significant difference between married and unmarried Prospective B.Ed Teachers in their Multiple Intelligence.
3. There is no significant difference between UG and PG Prospective B.Ed Teachers in their in their Multiple Intelligence.
4. There is no significant difference between age above 22 and age below 22 Prospective B.Ed Teachers in their ICT Awareness.

5. There is no significant difference between married and unmarried Prospective B.Ed Teachers in their ICT Awareness.
6. There is no significant difference between UG and PG Prospective B.Ed Teachers in their in their ICT Awareness.
7. There is no significant relationship between Multiple Intelligence and ICT Awareness of Prospective B.Ed Teachers.

METHOD

Multiple Intelligence Inventory and ICT Awareness Scale developed by the investigators were used for the data collection. Content Validity was found through educational experts and reliability of the tools was found through test-retest method. The reliability of Multiple Intelligence Inventory and ICT Awareness Scale were 0.76 and 0.88 respectively. The investigator has adopted survey method for this study. Population for this study were Prospective B.Ed Teachers studying in colleges of Education affiliated to the Tamilnadu Teachers Education University, Chennai at Tirunelveli, Thoothukudi and Kanyakumari districts. The investigator used stratified random sampling technique for selecting the sample. The sample consists of 242 Prospective B.Ed Teachers. For analyzing data; 't' test and Pearson's product moment co-efficient were the statistical techniques used.

DATA ANALYSIS

Table -1:

Difference between Multiple Inteligence of Prospective B.Ed Teachers by their age

Dimensions	Age	N	Mean	S.D	t' value	Remarks
Verbal	Above 22	96	9.67	2.57	3.159	Significant
	Below 22	146	10.88	3.12		
Logical	Above 22	96	10.74	3.075	0.646	Not Significant
	Below 22	146	10.47	3.191		
Spatial	Above 22	96	14.69	4.011	1.167	Not Significant
	Below 22	146	15.25	3.462		
Musical	Above 22	96	34.31	10.067	1.509	Not Significant

	Below 22	146	36.22	9.312		
Kinaesthetic	Above 22	96	15.24	4.044	1.492	Not Significant
	Below 22	146	14.41	4.34		
Naturalistic	Above 22	96	13.61	3.972	4.188	Significant
	Below 22	146	15.79	3.955		
Existentialistic	Above 22	96	16.97	5.218	0.473	Not Significant
	Below 22	146	17.26	4.304		
Inter Personal	Above 22	96	16.02	4.688	0.549	Not Significant
	Below 22	146	16.29	2.865		
Intra Personal	Above 22	96	15.8	3.011	0.92	Not Significant
	Below 22	146	15.42	3.194		
Multiple Inteligence	Above 22	96	146.64	27.252	1.657	Not Significant
	Below 22	146	152	22.762		

(Table value of 't' at 5% level of significance is 1.96)

Table-2:

Difference between Multiple Intelligence of Prospective B.Ed Teachers by their Marital Status

Dimensions	Marital Status	N	Mean	S.D	T' value	Remarks
Verbal	Married	41	9.2	*2.561*	2.887	Significant
	Unmarried	201	10.64	2.992		
Logical	Married	41	10.71	2.326	0.287	Not Significant
	Unmarried	201	10.55	3.288		
Spatial	Married	41	14.61	3.667	0.797	Not Significant
	Unmarried	201	15.11	3.7		
Musical	Married	41	35.59	10.146	0.089	Not Significant
	Unmarried	201	35.44	9.564		
Kinesthetic	Married	41	16.1	5.328	2.272	Significant

	Unmarried	201	14.46	3.936		
Naturalistic	Married	41	14.44	4.495	0.841	Not Significant
	Unmarried	201	15.03	4.014		
Existentialistic	Married	41	18.59	6.36	2.18	Significant
	Unmarried	201	16.85	4.218		
Inter Personal	Married	41	14.9	4.774	2.461	Significant
	Unmarried	201	16.44	3.383		
Intra Personal	Married	41	16.88	2.532	2.981	Significant
	Unmarried	201	15.31	3.169		
Multiple Intelligence	Married	41	151	33. 159	0.32	Not Significant
	Unmarried	201	149.64	22.727		

(Table value of' t' at 5% level of significance is 1.96)

Table-3:

Difference between Multiple Intelligence of Prospective B.Ed Teachers by their Levels of Study

Dimensions	Levels of Study	N	Mean	S.D	t' value	Remarks
Verbal	UG	196	10.53	3.139	1.452	Not Significant
	PG	46	9.83	2.025		
Logical	UG	196	10.64	3.361	0.657	Not Significant
	PG	46	10.3	1.954		
Spatial	UG	196	14.77	3.694	2.314	Significant
	PG	46	16.15	3.502		
Musical	UG	196	34.56	9.783	3.071	Significant
	PG	46	39.33	8.028		
Kinaesthetic	UG	196	14.45	4.117	2.221	Significant

	PG	46	15.98	4.553		
Naturalistic	UG	196	15.07	4.337	1.071	Not Significant
	PG	46	14.35	2.806		
Existentialistic	UG	196	17:25	4.866	0.722	Significant
	PG	46	16.7	3.8		
Inter Personal	UG	196	15.95	3.688	1.994	Not Significant
	PG	46	17.15	3.578		
Intra Personal	UG	196	15.35	3.332	2.361	Significant
	PG	46	16.54	1.709		
Multiple Intelligence	UG	196	148.56	26.28	1.709	Not Significant
	PG	46	155.46	15.563		

(Table value of't' at 5% level of significance is 1.96)

Table-4:

Difference between JCT Awareness of Prospective B.Ed Teachers by their age

Dimensions	Age	N	Mean	S.D	t' value	Remarks
Network	Above 22	96	2.38	1.431	0.062	Not Significant
	Below 22	146	2.36	1.48		
Internet	Above 22	96	3.6	2.003	0.722	Not Significant
	Below 22	146	3.78	1.764		
Protocol	Above 22	96	3.64	1.958	0.203	Not Significant
	Below 22	146	3.58	2.013		
Communication	Above 22	96	2.99	1.31	0.906	Not Significant
	Below 22	146	3.14	1.286		
Basic	Above 22	96	2.72	2.025	0.244	Not Significant
	Below 22	146	·2.78	1.874		
ICT in Education	Above 22	96	1.83	1.185	0.584	Not Significant
	Below 22	146	1.75	1.094		
Hardware	Above 22	96	2.56	1.238	1.491	Not Significant
	Below 22	146	2.82	1.378		

Software	Above 22	96	2.03	1.325	0.256	Not Significant
	Below 22	146	1.99	1.339		
ICT Awareness	Above 22	96	21.77	5.592	0.693	Not Significant
	Below 22	146	22.25	4.967		

(Table value of 't' at 5% level of significance is 1.96)

Table-5:

Difference between JCT Awareness of Prospective B.Ed Teachers by their Marital Status

Dimensions	Marital Status	N	Mean	S.D	t' value	Remarks
Network	Married	41	2.2	1.4	0.831	Not Significant
	Un Married	201	2.4	1.47		
Internet	Married	41	3.73	1.924	0.079	Not Significant
	Un Married	201	3.71	1.852		
Protocol	Married	41	3.66	1.905	0.195	Not Significant
	Un Married	201	3.59	2.008		
Communication	Married	41	2.9	1.375	0.977	Not Significant
	Un Married	201	3.12	1.279		
Basic	Married	41	2.63	2.107	0.443	Not Significant
	Un Married	201	2.78	1.898		
ICT in Education	Married	41	1.63	1.067	0.913	Not Significant
	Un Married	201	1.81	1.142		
Hardware	Married	41	2.59	1.245	0.706	Not Significant
	Un Married	201	2.75	1.345		
Software	Married	41	1.95	1.161	0.279	Not Significant
	Un Married	201	2.01	1.366		
ICT Awareness	Married	41	21.29	4.921	1.03	Not Significant
	Un Married	201	22.21	5.274		

(Table value of 't' at 5% level of significance is 1.96)

Table-6:

Difference between JCT Awareness of Prospective B.Ed Teachers by their Levels of Study

Dimensions	Levels of Study	N	Mean	S.D	t' value	Remarks
Network	UG	196	2.36	1.466	0.121	Not Significant
	PG	46	2.39	1.437		
Internet	UG	196	3.79	1.844	1.296	Not Significant
	PG	46	3.39	1.915		
Protocol	UG	196	3.64	2.001	0.638	Not Significant
	PG	46	3.43	1.94		
Communication	UG	196	3.1	1.315	0.354	Not Significant
	PG	46	3.02	1.22		
Basic	UG	196	2.78	1.938	0.321	Not Significant
	PG	46	2.67	1.921		
ICT in Education	UG	196	1.77	1.108	0.445	Not Significant
	PG	46	1.85	1.229		
Hardware	UG	196	2.73	1.332	0.379	Not Significant
	PG	46	2.65	1.32		
Software	UG	196	1.98	1.318	0.468	Not Significant
	PG	46	2.09	1.396		
JCT Awareness	UG	196	22.18	5.108	0.742	Not Significant
	PG	46	21.54	5.691		

(Table value of 't' at 5% level of significance is 1.96)

Table-7:

Relationship between JCT Awareness and Multiple Intelligence of Prospective B.Ed Teachers

Sample	Calculated value	Table value	Remarks
Total (242)	0.072	0.113	Not Significant

FINDINGS

Findings based on the hypotheses and followed by data analysis are given as follows;

1. Table -1 shows that; there is a significant difference between age above 22 and age below 22 Prospective B.Ed Teachers in their Verbal Intelligence and Naturalistic Intelligence.
2. Table -2 shows that; there is a significant difference between married and unmarried Prospective B.Ed Teachers in their Verbal intelligence, Kinaesthetic Intelligence, Existentialistic Intelligence, Inter Personal Intelligence and Intra Personal Intelligence:
3. Table -3 shows that; there is a significant difference between UG and PG Prospective B.Ed Teachers in their in their Spatial Intelligence, Musical Intelligence, Kinaesthetic Intelligence, Existentialistic Intelligence and Intra Personal Intelligence.
4. Table -4 shows that; there is no significant difference between age above 22 and age below 22 Prospective B.Ed Teachers in their ICT Awareness.
5. Table -5 shows that; there is no significant difference between married and unmarried Prospective B.Ed Teachers in their ICT Awareness.
6. Table -6 shows that; there is no significant difference between UG and PG Prospective B.Ed Teachers in their in their ICT Awareness.
7. Table -7 shows that; there is no significant relationship between Multiple Intelligence and ICT Awareness of Prospective B.Ed Teachers.

Conclusion

Based on findings; study shows that age below 22 Prospective B.Ed Teachers are better than age above 22 in their Verbal Intelligence and Naturalistic Intelligence. Married are better than unmarried Prospective B.Ed Teachers in their Kinaesthetic Intelligence, Existentialistic Intelligence, and Intra Personal Intelligence. But unmarried are better than married Prospective B.Ed Teachers in their Verbal Intelligence, Inter Personal Intelligence.

PG Prospective B.Ed Teachers are better than UG and Prospective B.Ed Teachers in their Spatial Intelligence, Musical Intelligence, Kinaesthetic Intelligence and Intra Personal intelligence. But UG Prospective B.Ed Teachers are better than PG and Prospective B.Ed Teachers in their Existentialistic Inteligence.Whereas, there is no significant difference between the ICT Awareness of Prospective B.Ed Teachers by their age, levels of study and

marital status and also there is no significant relationship between Multiple Intelligence and ICT Awareness of Prospective B.Ed Teachers.

References

- Aggrawal Y.P. (1996) Educational Research, Arya Book Depot New Delhi.
- Aggarwal. Y. P. (2000) Statistical methods, Sterling publishers Pvt. Ltd, New Delhi.
- Anderson, G. & Arsenault, N. (1998) Fundamental of Educational Research. Taylor & Francis, London and New York.
- Babbie, E. (1990) Survey Research Methods (2nd Ed.). Wadsworth, Belmont, CA.
- Bain, J.D., Ballantyne, R., Mills, C., Lester, N.C. (2002) Reflecting on Practice: Student Teachers' Perspectives. Post Presses, Flaxton.
- Bryman, A.(2001) Social Research Methods. Oxford University Press, London.
- Brynian, A. (2008) Social Research Method (3rd Ed.). Oxford University Press, New York.
- John W. Best (1977) Research in education, Prentice Hall oflndia, Pvt. Ltd. New Delhi.
- Kochhar, S.K. (1991) Secondary school administration, Sterling Publishers, New Delhi.
- Kothari, C.R. (2000) Research methodology, Wishwa Pirakasha Pvt. Ltd.
- Mangal, S.K. (1985)Advanced Educational Psychology, Prakash Brothers Luthiana
- Sharma, R.A. (2007) Psychology of Teaching-learning Process, R. Lall Book Depot, Meerut.

Research Article

Utilization of Information and Communication Technologies by B.Ed. Trainees

Dr. M. Manivannan

Associate Professor and Head i/c

School of Education, Tamilnadu Open University

Abstract

The study investigates the utilization of Information and Communication Technologies (ICT) by B.Ed. trainees in teacher education programs. A structured questionnaire was administered to a sample of B.Ed. trainees to assess their frequency, purpose, and proficiency in using various ICT tools such as computers, the internet, multimedia, and educational software. Data were analyzed using descriptive and inferential statistics to identify patterns in ICT usage and differences based on gender, academic performance, and teaching specialization. Findings reveal that while most trainees have access to ICT resources and demonstrate basic proficiency, their usage for instructional planning and innovative teaching methods is limited. The study highlights the need for integrating ICT training more effectively into teacher education programs to enhance digital competency and improve teaching-learning outcomes

Keywords: *ICT Utilization, B.Ed. Trainees, Teacher Education, Educational Technology, Digital Competency, Computer-Assisted Learning, Internet Usage, Instructional Technology.*

Information and communication technologies (ICTs) include radio, television, computers, multimedia, cell phone and the Internet. They have been touted as potentially powerful enabling tools for educational change and reform. ICTs help to expand access to education, strengthen the relevance of education to the increasingly digital workplace, and raise educational quality. They also help in making teaching and learning into an engaging, active process connected to real life. However, the experience of introducing different ICTs in the classroom and other educational settings all over the world over the past several decades suggests that the full realization of the potential educational benefits of ICTs is not automatic.

The effective integration of ICTs into educational system is a complex and multifaced process. This process includes enough initial capital, getting the technology, curriculum and pedagogy, institutional readiness, teacher competencies, and long-term financing.

When there are a lot of advantages over using of ICTs for education, proper utilization of such ICTs in education process is stressed and strengthened. The ICT literacy and usage of ICT are to be checked in the period of teacher training. The effective use of ICT gadgets simplifies the teaching-learning process. The efficient teacher uses ICTs effectively always for promoting the learning of students. Therefore, after analyzing the need for ICTs in education, the investigator showed interest to identify the usage of ICTs by Bachelor of Education (B.Ed.) trainees.

Rationale of the Study: Around 400 million people are illiterates in our country. But the country has become one of the superpowers in technology. The realization is already there in our country to use ICTs for education purpose, but the utility is meagre. No doubt, India considers education is a primary force for the development of the Nation. So, the initiative has been made vigorously from the use of satellite in the early 1970s to presently exclusive satellite for education 'Edusat'. The country's first online educational enterprise came with the private initiative, when the National Institute of Information Technologies, Delhi established in 1981. The National Association of Software and Services Companies' (NASSCOM) Market Intelligence Service reports that thee-learning market in India is in an infant stage, and in 2002, it was approximately US$ 4.5 million with an expected 4 year cumulative annual growth rate of 20-25% (NASSCOM, 2003).

ICTs are dominating now in all our private spheres, social and working environment. The implementation of Sarva Shiksha Abiyan (Education for All) helps the schools to get the infrastructure and learning facilities. Computers are provided to the larger numbers of schools in Tamilnadu. So, the teachers are to be motivated and trained to use the technology. Availability of technological gadgets alone will not ensure the usability. The properly trained teachers on the gadgets of lCTs are only able to use for classroom teaching. The trainees of Bachelor of Education should be trained in usage of ICTs for teaching-learning process and quality enhancement. Therefore, the present study is essential for understanding the level of usage of lCTs by the trainees of Bachelor of Education.

Objectives of the Study

The following are the objectives for the present research:

1. To study the utilization of Information and Communication Technologies by B.Ed. Trainees in the State of Tamilnadu.
2. To investigate the utilization of lCTs by B.Ed. trainees based on the variables - gender, locality, medium of instruction, and qualification.
3. To find out utilization of lCTs such as radio, television, cell phone, computer, Internet, multimedia, compact disc and EDUSAT based on the variable - gender.
4. To elicit the issues related to utilization of lCTs by the learners ofB.Ed.
5. To recommend the ways and means to use ICTs effectively by B.Ed. trainees.

Population and Sample

A total population was 65,000 B.Ed. trainees studied in the academic year 2009-2010 in 648 Colleges of Education affiliated to Tamilnadu Teachers Education University. Out of this population, a total of 320 B.Ed. trainees were selected as a sample for the present study through simple random sampling technique.

Tools

The tool namely "JCT Utilization Scale" was constructed and used for the present investigation. The Test-Retest method of reliability showed a correlation coefficient of 0.878 which indicates high reliability of the tool. The juries participated in validating the tool opined that the tool had face validity and content validity. With regard to Scoring Procedure, the scoring for each statement is 4 for>16 hours of utilization of ICT which is considered as very high utilization, 3 for 10-15 hours of utilization (high utilization), 2 for 5-9 hours of utilization of ICT (moderate utilization), 1 for 1 4 hours of utilization of ICT (low utilization) and 0 for Not at all utilization of ICT (nil utilization).The interview schedule was used as a supplementary tool in the present study.

Variables

The investigator selected the gender, locality, medium of instruction and qualification as independent variables.

Research Design

The investigator wanted to collect the data, which give the basic information reflecting utilization of ICTs by B.Ed. trainees in teaching-learning process. Therefore, an exploratory research approach similar to that of a survey was found to be more appropriate.

Data Collection and Statistical Techniques

The investigator collected the data from the subjects through the teaching faculties. of colleges of education by distributing the tool. The investigator conducted interview for 10 B.Ed. trainees. Quantitative analysis was made on the data collected by finding the mean, standard deviation, and 't' value. The quantitative analysis of the data was supplemented by the results obtained through qualitative method such as interviews.

Analyses and Findings

The scores of the variable 'Information and communication technologies' were analysed based on independent variables gender, locality, qualification and medium of instruction.

Table 1: Test of Significance as per the Variables

Variable	Number of B.Ed. trainees (N)	Mean	Standard Deviation (S.D)	't'	Result Significant Difference at
Male	160	23.5	4.32	2.88	0.01 level
Female	160	22	5.02		
Rural	160	17.3	4.89	3.47	0.01 level
Urban	160	19	3.95		
UG Degree	160	23.2	6.32	3.85	0.01 level
PG Degree	160	25.67	5.25		
Tamil	160	25.4	5.32	4.17	0.01 level
English	160	26.5	6.12		

Table 2: Test of Significance as per Gender on ICT

ICT Gadget	Variable	Number of B.Ed. trainees (N)	Mean	Standard Deviation (S.D)	't'	Result at 0.01 level
Radio	Male	160	22.5	6.32	2.45	No significant difference
	Female	160	24	4.5		
Television	Male	160	25.32	5.6	3.96	Significant difference
	Female	160	27.5	4.23		
Cell Phone	Male	160	26.25	3.62	3.5	Significant difference
	Female	160	24.5	5.25		
Computer	Male	160	23.5	5.26	6.72	Significant difference
	Female	160	19	6.57		
Internet	Male	160	26.35	4.5	4.12	Significant difference
	Female	160	24	5.6		
Multimedia	Male	160	25.6	6.21	3.79	Significant difference
	Female	160	23.1	5.57		
Compact Disc	Male	160	24.6	5.11	1.70	No Significant difference
	Female	160	25.5	4.26		
EDUSAT	Male	160	23.25	3.18	5.49	Significant difference
	Female	160	21	4.16		

The result showed in Table 1 reveals that there is significant difference between the attributes of gender; locality; qualification; and medium of instruction on JCT utilization at 0.0 I level. When we compare the mean values of variables, we could find the results: Male students

were utilizing the ICT more than the female students. Rural students were utilizing ICT lesser than the urban students. The utilization of ICT was more among PG qualified students when compared to UG qualified students. English medium students have used the ICT more than the Tamil medium students.

The Table 2 reveals that utilization of radio and compact disc by male and female students showed that there was no significant difference between them. Significance difference was found among male and female students in utilization of television, cell phone, computer, internet, multimedia and Edusat. The difference has come because of availability, accessibility and training for B.Ed. trainees on ICT Education. The individual interest and motivation have also played role in utilization of ICT.

During interview, the subjects revealed the remedial measures for overcoming the problems of using ICTs in education.

1. The Education Department should give the orders to the schools to procure the ICTs gadgets and facilities.
2. The Education Department should insist the in service teachers to get technological literacy.
3. Each institution should ensure the availability and accessibility of ICTs for education of children in schools.
4. A separate room with infrastructure and staff for handling ICT gadgets should be given to the schools.
5. B.Ed. trainees should be allowed to use ICTs of college and school during their study.
6. The separate fund allocation should be given to the schools to develop and use ICTs for the education of children.
7. Educational CDs should be procured for the use in classroom.
8. Radio and television programmes related to the education of children in school should be arranged.
9. Classrooms should be set with a techno-friendly environment.

Recommendations

The findings of the study have many implications on education incorporating ICTs.

1. The National Policy on ICT in Education should be brought out and implemented for raising the quality of education.
2. ICTs should be used as a medium in education for the faster and easier learning, and building most up-to-date knowledge.
3. ICTs should be inbuilt in curriculum whenever the revision takes place. ICT should not be a subject alone to take up the theoretical knowledge but it should an application tool to be used for teaching and learning.
4. ICTs should be infused into the entire curriculum of teacher education. Throughout their teacher education experience and professional development programmes, pre- and in- service teachers should learn how to incorporate ICTs into their own subjects.
5. ICTs must be used in innovative and motivating ways in education to develop self-learning, interactive learning and self-paced learning.
6. Suitable combinations of media- print, audio, video, and technologies like computers and the Internet- must be selected according to the needs of the learners.
7. The Colleges of Education should be equipped with ICT gadgets for the utilization of trainees.
8. The University should take the initiative to produce the CDs for the subjects which will help the learners for their learning.
9. Reference materials and books should be uploaded in the website of the University in order to facilitate the learners to access the material as they require.
10. It is very important that all trainee teachers are to be trained on appropriate ICT competencies which will enable them to utilize the ICT for their learning and teaching.

Epilogue

The present study focused that ICTs contribute for the effective teaching and learning of B.Ed. trainees. It is essential to prepare the trainee teachers as technologically literates and effective users of ICTs in their learning and teaching process which will promote the quality of education.

Conceptual Article

Relevance of Paulo Freire's Educational Philosophy in Indian Educational System

Fr. Susai Raja, Professor
St. Joseph's Arts and Science College
Manjakuppam, Cuddalore

Abstract

The study investigates the utilization of Information and Communication Technologies (ICT) by B.Ed. trainees in teacher education programs. A structured questionnaire was administered to a sample of B.Ed. trainees to assess their frequency, purpose, and proficiency in using various ICT tools such as computers, the internet, multimedia, and educational software. Data were analyzed using descriptive and inferential statistics to identify patterns in ICT usage and differences based on gender, academic performance, and teaching specialization. Findings reveal that while most trainees have access to ICT resources and demonstrate basic proficiency, their usage for instructional planning and innovative teaching methods is limited. The study highlights the need for integrating ICT training more effectively into teacher education programs to enhance digital competency and improve teaching-learning outcomes

Keywords: *ICT Utilization, B.Ed. Trainees, Teacher Education, Educational Technology, Digital Competency, Computer-Assisted Learning, Internet Usage, Instructional Technology.*

1. Introduction

Thomas Merton in his book Faith and Violence has made the following statement: "When a system can, without resort to overt force, compel people to live in conditions of abjection, helplessness, wretchedness that keep them on level of beasts rather than men, it is plainly violence. To make them live on a subhuman level, to constrain them in such a way that they have no hope of escaping their conditions, is an unjust exercise of force.

Those who in some way or other concur in that oppression and perhaps profit by it are exercising violence even though they may be preaching pacifism.

And their supposed peaceful laws, which maintain this spurious kind of order, are in fact instruments of violence." Amidst several revolutionaries in socio-politico-economic scenario, it is Paulo Freire, an influential revolutionary educationist stands in the field of education echoing education as "Practice of Freedom." This article reflects on Paulo Freire 's Educational Philosophy, his process of Conscientization, his Pedagogical method and its relevance to Indian Educational context.

2. Paulo Freire's Educational Philosophy

Freire argued that educators should reject a "banking" model of education in which the teacher "owns" knowledge and "deposits" it in students. Instead, he promoted a "problem-posing" method in which teachers and students learn together through dialogue. Problem-posing education depends, then, on a dialogical theory of praxis and knowledge and a revised relationship between teacher and student.

2.1. Dialogue, Praxis, and Knowledge

Freire defined dialogue as "the encounter between humans mediated by the world in order to name the world." At its broadest, the concept of dialogue represents, for the Catholic Marxist Freire, the dialectical process of moving from thesis to antithesis to synthesis. At times, Freire uses the term interchangeably with another key term, "praxis," or "reflection and action upon the world to transform it." Freire also presented dialogue as a pedagogical process, in which teachers and students actively pursue learning through discussion and debate of sociopolitical realities, processes that entail a particular theory of knowledge. For Freire all learning is relational and knowledge is produced in interaction.

2.2. Problem-Posing Education and the Teacher-Student Relationship

Problem-posing education relies on a transformed and transformational, respectful relationship between teacher and student. According to Freire, "through dialogue, the teacher-of- the-students and the students-of the-teacher cease to exist and a new term emerge: teacher-student with student-teachers. The teacher is no longer merely the one who teaches, but one

who is taught in dialogue with the students, who in their turn while being taught also teach." Problem-posing education, according to Freire scholar Moacir Gadotti, is "a horizontal relationship fed by love, humility, hope, faith, and confidence."

2.3. Ontological Vocation

For Freire, man's ontological vocation is to be a subject who acts upon and transforms the world and in so doing, move towards ever new possibilities of fuller and richer life individually and collectively. But Freire saw human society as divided into two groups, the oppressors and oppressed, a class society where the masses are treated as 'objects', 'things' to be managed, directed and manipulated by the oppressors. This oppressive situation denies the masses of their right to self- affirmation as responsible persons. It interferes with man's ontological and historical vocation to be more fully human. The result is an all-pervasive de-humanization. Dehumanization marks not only those whose humanity has been stolen but also of those who have stolen it. Hence, the task of humanization becomes a major challenge. And in the struggle for humanization, Freire warns, the oppressed must not become in turn oppressors but rather, restorers of the humanity of both.

3. Concientização

The literal meaning of the word conscientization is 'to make aware' or 'awakening of consciousnesses or 'critical consciousnesses. But for Freire, Conscientization is a political-educational process which enables the masses to overcome 'false consciousness', to realize their real situation in society and to take part in changing society in the capacity of subjects. According to Freire, the more a person conscientizes himself, the more he unveils reality and get at the phenomenic essence of the object he stands in front of to analyse it.

Conscientization is a historical commitment. It is a critical insertion in history. This implies that men and women take the role of agents, makers and remakers of the world. In this process, the first step is to discover oneself as oppressed. In discovering oneself as oppressed, one should also know that liberation is, knowing that something can be done and in trying to transform the oppressing situation in which one is. Conscientization thus implies a critical insertion in the praxis and the process of historical change. It is a social process, taking place among men as they unite in common reflection and action upon this world.

3.1. The Process of Conscientization

The Freirean Approach conceives education as a process of 'conscientization' and seeks practices consonant with this aim. The 'how' of conscientization implies a basic starting point: the distinction between education as an instrument of domination i.e. Banking Approach to education and education as an instrument of liberation, i.e. Problem-posing Approach to education. The Banking type of education is designed to prevent critical thinking and perpetuate the status quo. Here the educator is the guardian of a secret. He teaches and the students are taught. The teachers is the one who knows, thinks, talks, disciplines, chooses the content, acts and so on. Only he is the subject in the learning process. It is the 'digestive or nutritive' concept of education.

'Problem-posing education' on the other hand, is an act of knowing together, where the teacher and the learners enter into a dialogue through which they investigate the problems together. The basic assumptions are that 'no one can teach anyone else' no one can learn alone' and that 'people learn together, acting in and on their world'. The mode of learning is dialogue, in which love, humility, hope and faith prevail. This approach abolishes authoritarianism in the classroom, ends irrelevance and arid intellectualization and encourages critical thinking about society.

3.2. Paulo Freire's Pedagogy

Freire views education as the practice of freedom. In its true perspectives, it humanizes people through their conscious action to "transform the world." The importance of education lies in its ability to put people into a "critical confrontation" with their own problems and allow them to be responsible for any resultant change. Thus education must begin with the level at which the people perceive their reality so that their own existential situation can be posed as the problem. Neutral education cannot and does not exist. Education either conditions and domesticates or deconditions and liberates. The hierarchical teacher-student relationship, a relationship of authority and control, effectively limits the student's ability to act as a subject in the learning process. They are relegated to the status of an object where decisions regarding their welfare are largely determined by others and it is this loss of one's control over one's reality that establishes a dehumanizing and oppressive situation. Freire terms this situation the "banking-concept" of education in which teacher student roles are rigidly defined. It is assumed a priori that the teacher "knows" and that the students have yet to learn. Through constant

narration, education becomes an act of depositing the knowledge of the instructor into the student. As such, banking education minimizes the student's creative power, it alienates by imposing a different reality and it oppresses by refusing to address itself to the student's world. Conversely, education as liberation, "implies the problematization of one's situation in its concrete objective reality so that being aware of it, one can also act critically on it." Education needs to be of a problem-posing nature where the power relationship between the instructors and the students becomes equalized i.e. "teacher-students" and "student-teachers," and through open communication (dialogue) they can both critically analyze their own realities and establish their own praxis. In essence, problem-posing education occurs within the context of the individual's existential situation, presenting the individuals with their own experiences as the problem.

This liberating education can be an effective means of illuminating oppression and its causes. Dialogue is the facilitator of problem-posing education and is a prerequisite for individuals engaged in "naming" the world. Dialogue cannot be verbalism, nor can it be simply an exchange of ideas or a polemic argument. Dialogue must be based on life, humility, faith in humankind, and must be an act of critical thinking between individuals. Dialogue must also be extensive. Therefore, it is crucial that dialogue take place in an atmosphere of trust so that the danger of misinterpretation is minimized.

4. Relevance of Paulo Friere's Educational Philosophy to the Indian Education Context

4.1. Indian Pedagogy of Education

To make our Indian Educational System operative, pedagogy of a new society has to be generated. It should form men and women for others in a post-modem world where so many forces are at work which are antithetical to that of pedagogy of sharing. For this purpose, all educational agencies should exhibit a preferential option for the poor and assist the students to understand the reasons underlying the insecurities of 'the poor' and to seek more constructive ways to deal with them.

The social dimension of education should be affirmed in our education in order to facilitate the birth of the new society. The younger generation has to be imbued with a strong commitment to humanizing values of such a Society. Our education should conscientize the

students to change radically the unjust status quo with the awareness of the necessary struggles. Only then does education become contextual and, therefore, relevant. They should be linked with the life- situations. The educational institutions should be the centres of development for the neighbourhood with people's involvement in planning and management of education. The essential function of educational institution is to render intellectual and social service to the community where they are situated rather than limiting themselves intramurally.

The consciousness-raising content requires a stress on our pedagogy of education. Particularly institutions of higher education should generate processes of critical awareness both at social and ecological levels. They should be transformed as centres for forming new synthesis and counter-value systems. The research that is carried out in the universities and parallel Institutes of higher learning must render them as revolutionary think-tanks and dynamic harbingers of change. They should develop the students critical thinking so that they can discern the forces which liberate and those which enslave.

Students need to be conscientized to harsh social facts of life. Unfortunately, very often, education offers resistance to such awareness through various elite ways and means. Students should be made to experience personally the poverty, discrimination and concrete life-situations of the poor, of rag-pickers, children of working mothers, slum dwellers ifa New Society has to be built up. Experiential awareness of the struggles of the poor and the oppressed will surely produce committed leaders of the prophetic Caliber. Today's anti-productive and irrelevant curricula require an urgent transformation.

4.2. Challenges to Indian Education

Any integral philosophy of education, particularly when it envisages transformation of an exploitative educational society into new society, motivated by a pro-existential concern, has to have a space for changes. They are touched upon succinctly below:

Restructuring of institutions, according to the fundamental options appropriate to the Educational Philosophy is a must in order to translate the theory of education into praxis through relevant pedagogy. Educational institutions should have student-teacher-participation in order to educate students for the service of Faith/Dharma through the promotion of justice. Without such participation, no involvement, commitment, genuine love and concern will

develop. Such participation-at-depth is the greatest challenge to educational institutions. In all decision-making and policy-making bodies, both in the administrative and academic sphere, the teachers as well as the taught should have an adequate participation. Thus students and teachers should be real partners in education. This is an essential element of education or a new society, society participation.

Autonomy of Institutions accompanied by accountability should be granted if educational institutions should be creative and innovative in the area of curricula, pedagogical paradigms and evaluation methods in a multipronged way. The management can have a pragmatic institutional planning for social awareness and justice dimension through education with the help of comprehensive and sustained efforts of motivated teachers and students. •

Educators with personal qualities, educational qualifications and professional competence are a real challenge in our times. In order to enable teachers to function efficiently proper working conditions should be made available to them. Norms of accountability should be laid to teachers, by state with incentives to good performance and disincentives for the bad performance. Educators must enjoy responsible freedom to express their views based on scientific research and also to innovate pedagogy of teaching and evaluating. They should be allowed choose their type of work and their working hours.

The vision of a New Society and commitment to struggle for it are by and large lacking in our teachers. Hence, they are just passive spectators of the present oppressive society. They fail miserably in awakening and organizing the students to put their service at the task of building a community of justice and peace. The crying need of the hour is to change this deplorable situation. Hence teachers should have an ongoing formation to enable them to understand the culture of silence among the marginalized, to respond to their contextualized needs and to conscientize the students for suitable liberative praxis. A team of socially conscious and committed teachers has to be formed in a progressive manner. For this, young men and women of outstanding abilities to teach should be encouraged to adopt an academic career.

Adult education tends to become the fastest growing segment of education. Literacy, functional skills, awareness of the socio-economic reality is an integral part of adult education. The price which the individual as well as the whole country pays for illiteracy is enormous.

Illiterates tend to maintain the status quo. Hence a multipronged attack on mass illiteracy is inevitable. The main foci of adult education should be, besides functional literacy, the upgrading of vocational skills, technology and education for citizenship. For the youth, in addition to them, physical and cultural education and participation in rnral development programme should be given importance. In this context, priority should be given to Conscientization and Political Education in order to liberate themselves.

Organized action has to follow experience and reflection in order to bring about the structural change of the status quo in all its dimensions as well as sectors. No authentic educational reform in the interest of the masses can take place unless it becomes a Revolutionary movement of the poor masses themselves. It is therefore, necessary to generate and animate such movements in order to make the oppressed powerful to demand justice with suitable political collaboration. It is moreover, the fundamental right of the people to organize themselves. Political action should be programmed at grass-root levels to reclaim their rights. Joint-committees can collectively fight out corrupt and inefficiency. Only such broad-based organizational participation can ensure a definite way of working to build a New Educational Society through a appropriate philosophy and praxis of Education.

5. Conclusion

In India, education has failed in creating an egalitarian society. Firstly, the educated are not at all ready to involve themselves in the upliftment of the down-trodden. Secondly, education has not pervaded the masses and made them critically aware of their dehumanization. Thirdly, it has not instilled positive values of dignity of labour, selfless-service, total commitment in the concern of the oppressed, equality of persons and solidarity among various religious groups. There is neither training nor models in sufficient numbers to incarnate these values in day-to-day life.

The dire need of today is not status-conscious political leadership or hierarchy-cantered ecclesial leadership but a committed revolutionary leadership both in the secular and religious domain. The leadership must be able to transform the masses that are domesticated as reflexive psycho-somatic automatons into reflective pneumatic persons. "Reality cannot be changed in our consciousness. It can be changed only through revolutionary action." Hence the immediate task is to shift the centre of education from the elite to the poor and the oppressed masses.

Educational process should be geared to conscientize people for the restructuring of society. Such an education should enable the people to come out of their lethargy and confront the basic issues and make the required decisions with discernment for their own advancement as human beings.

References

- Thomas Merton by H. Morissette, in "For or against revolution?" Youth aware p.13
- Peter Lownd. "Freire's Life and Work: A Brief Biography of Paulo Freire," Paulo, Freire Institute at UCLA, (cited 24 October 2006)
- http://www.paulofreireinstitute.org/PF-life and work Peter.html.
- Paulo Freire, Pedagogy of Hope: Reliving Pedagogy of the Oppressed, with notes by Ana Maria Ara o Freire, trans, Robert R. Barr (New York, NY: Continuum Publishing Company, 1994),pp.19-30.
- Paulo Freire, Pedagogy of the Oppressed, trans. Myra Bergman Ramos (New York: Continuum, 1990).
- Paulo Freire, Education for Critical Consciousness (New York: Continuum,1973), 34-35
- Youngman, Frank. 1986. Adult Education and Socialist Pedagogy, London: Croom Helm.

Subscription Details

Would you like to subscribe to our journal "The Indian Educational Researcher"? Fill in the form given below, draw a DD in favour of The Principal, Stella Matutina College of Education, Kamaraj Salai, Ashok Nagar, Chennai - 600 083.

Subscription Rates (Two issues per year)

1.	Individual	Annual	Rs. 200
		Life	Rs. 2000
2-	Institution	Annual	Rs. 300
		Life	Rs. 3000

Subscription / Renewal Form

Category : Individual / Institution Duration : From To
Name : .....
Designation : .....
: .....
Institution : .....
Address : .....
.....
.....
Phone No. : .....
E-mail : .....
Address to which Journal to be sent : .....
.....
.....

DD No. :
Date :
Bank :
Place :

Institution Seal : Signature

Date :

Note : Do not send the subscription through **money order.**