JOURNAL OF EDUCATIONAL RESEARCH

DEPARTMENT OF EDUCATION
The Islamia University of Bahawalpur
PAKISTAN

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JOURNAL OF EDUCATIONAL RESEARCH

Vol.11 No. 2	2008

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Impact of Public and Private Sector Involvement in Education Delivery in Nigeria

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Abstract

The focus of this study is two-fold. First is to find the correlation of the following variables: Government insensitivity to education needs; Public and private open encouragement of low productivity; Lack of spirit of hard work among students; Lack of adequate study habit skills; in education delivery in Nigeria. These variables have been shown to affect educational delivery service. Second is their predictive power on educational delivery service. The perceptions of lecturers, principals, teachers and students regarding these variables were captured by applying both quantitative and qualitative approaches. The main instrument used for data collection was a questionnaire, which consisted mainly of closed-ended questions and four open-ended questions. For the closed-ended questions the Likert scale was used. Results show that when government insensitivity, Low productivity, student input and study habits were correlated with educational delivery, government insensitivity had an r value of .234, low productivity had an r value of .450, student input had an r value of .466, and study habits had an r value of .439, all at $p < 0.05$ which were significant. Consequently it is concluded that Government insensitivity, low productivity, students' input, and study habit skills will significantly correlate for education delivery in Nigeria. The regression function model for Educational delivery = 1.602, -.009 government

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insensitivity; + .323 low productivity; student input +198; and study habits +.384. Its F-value = 23.025 with df (4, 142) significant at .000. The regression model was a significant predictor of Educational delivery in Nigeria. It is concluded that low productivity, students' input, and study habit skills will predict educational delivery in Nigeria with the exception for government insensitivity, which had no impact. It was recommended that private sector participation should be encouraged to complement the efforts of the government.

Keywords: Educational Delivery, Academic Journals, Basic Education, Social Abilities, Access

Introduction

The role of education in the development of a society has been vastly documented in academic journals, and we do not intend to revisit it here. When the issue of Nigeria educational system today is raised, the first sets of thoughts that come to mind are: decline in standard, deterioration of facilities, examination malpractices, mass promotion syndrome and the like, before any other thing else. This calls for an in-depth study and analysis of the educational delivery service in Nigeria. UNICEF in its 'state of the world's children' report for 1999' pointed out that about four million Nigerian children have no access to basic education, and that majority of those that are 'lucky' to enter schools are given sub-standard education (Akhaine, 1999). Today, there are about *48,242* primary schools with 16,796,078 students in public schools and 1,965,517 in private schools in Nigeria. In addition, Nigeria has 7,104 secondary schools with 4,448,981 students (Akhaine 1999; and Dike, 2001).

In Nigeria National Policy on Education (NPE, 2004), Education is seen as "the acquisition of appropriate skill and the development of mental, physical and social abilities and competences as equipment for the individual to live and contribute to the development of the society". However, both the individual learners and the nation have encountered a number of challenges in the educational sector. Such challenges range from instability in the academic calendar to indiscipline on the part of the learners, education providers and managers. There are basically two types of educational providers in educational delivery service in Nigeria: government and

private/cooperate. The establishment of educational institutions is for the purpose of meeting the needs of the society through an organized structure (Egbochuku, 2000a). In her attempt to make education available to the populace at a minimum cost, the Nigerian government has taken over the chunk of the financial involvement in public schools. It is observed, that in spite of the fact that the three tiers of Government in Nigeria spend more on education than the private proprietors and cooperate bodies put together; public schools do not only lack basic amenities, but also the performance of their students/pupils in external examinations when compared with those in private schools does not justify government huge investment in education. While private schools are self-sustaining, there are only few government/public schools that are self-sustaining in Nigeria. While private proprietors and managers of schools are able to manage their human and material resources for optimum yield, public school administrators are in no way close to successful handling of their resources.

This has prompted many assessors to wonder why? and then to find solutions to the problem. This study is one of such an attempt. Omengala (2002), in a study traced the challenges faced by public schools' administrators to indiscipline and instability in Nigerian school system. According to him, the causes of indiscipline that often lead to unstable school system in Nigeria are enormous. He summarized some of the issues that need addressing as followings: -

• The required teaching aids are almost absent in public schools, and where such teaching materials are available, they are often badly handled. In addition, when poor teaching method on the part of the teachers is added to this, the result is catastrophic i.e. as the learners might be bored and in no time redirect their energy and attention to non-academic activities.

• Irrelevant and poor curriculum course content and one-sided workload on the part of the learner are also implicated as causes of indiscipline in Nigerian public schools, especially as learners' interests are never sustained for too long.

• In an attempt to implement educational policies put in place by those who may not have been involved in school administration,

some public school managers adopt the autocratic type of leadership. The impact of this type of leadership on the learners is better imagined than experienced.

- Once autocratic type of administration is put in place, rules and regulations are enacted with impunity. The result is that those who are subjected to such rules on regular basis tend to develop instincts for rebellion. So, wherever they allow their instincts to determine their actions and/or reaction, the end results are break down of law and order.

- Conflict of interests among school personnel is never ruled out in most public schools. Such conflict of interests normally lead to in-house fighting and unhealthy competition amongst staff who ought to work in harmony to achieve a common goal – that of educating the learners who study under them.

- At various times, the government had announced free education for the Nigerian learners. But often times, such a declaration is in principle than in actual practice. Under the pretence that funds meant for the running of the school are not forth coming, public school heads have conspired among themselves to introduce levies in their schools. A situation which if not properly handled often encourages rebellion by the students.

- Public school proprietors and managers are aware that the total education of the learners begins from the classroom, but it does not end in the classroom. The learners ought to be engaged in some cultural, social and sporting activities in order to enhance his overall educational development. But the required equipment for such activities is hardly available in the schools. This lack of equipment creates yearning lacuna in the educational development of the individual learners.

- Employees of any organization normally use strike or work – to-rule as a means of drawing the attention of their employers to meet their demands. Whenever members of staff of an organization embark on strike or work- to– rule, the organizational climate is often disrupted. Due to the insensitivity to the plight of the employees by some employers of labour in

Nigeria, such disruption of work climate may last for months leading to loss of several working hours. On the realization of the negative cost of strikes to the nation, the Nigerian government has introduced the principle of "no work no pay". Needless to say that the principle has never worked; since the employees also believe in the affirmation that 'no pays no work'.

- An important factor of indiscipline and instability in schools is parental child rearing practices. Children whose parents reared with the laissez- faire method hardly imbibe the virtue of obedience and respect for constituted authority. When such children combine their home background experiences with negative peer influence at school, they create their own special society, which is governed by their own laws.

- The creation of special societies whether hypothetically or real, is normally the beginning of membership of occultism in institution of learning in Nigeria. At a point in time, membership of occult was without exception, seen as the rule in higher institutions of learning in Nigeria. The negative activities of secret society members are embarrassing to universities management and the Nigerian government, just as the drug menace is to the international communities. When therefore the Federal Government of Nigeria gave universities management three months to sanitize their campuses, the government wanted occultism to be wiped out of her tertiary institutions. Unknown to the government, members had already taken their recruitment drive to secondary schools with a long time plan to move to primary schools.

As Adomeh and (2007) aptly put it, "there is no gainsaying the fact that private and public sector cooperation in education delivery in any nation is not only necessary but also desirable because education is a social service that a nation ought to render its citizens. When both sectors harmonize their contributions to the education of the learners, the results are enormous". This being the case, what then is the problem with the involvement in education delivery services in Nigeria? Why can't both sectors harmonize their contributions to the education of the learners? What can be done to consolidate the gains

of the renewed education cooperation in Nigeria? This research therefore sought ways of harnessing such gains.

The Problem

It is known that education determines, not only earning capacity, but also the very quality of human life (even longevity has relationship to education). In a society that appreciates the educated class, those with good education tend to earn higher incomes; they are also in a better position to live a better and healthy life. Higher education gives one a greater sense of life-risk management and behavioural changes. As Davies noted, confidence, self-reliance, and adaptability are all earmarks of advanced education (Davies, 2001). This is probably why the government in Nigeria tends to bear the financial burden of educational programmes at almost all levels of schooling. In addition, Nigeria has toiled with some educational programs. For instance, by 1973, state governments took over the funding and management of all primary and secondary schools in their states.

This take-over meant that government had to pay all teachers as well as the school management and the provision of infrastructure. When the Universal Primary Education (UPE) was launched in 1976,₦ 250 million was earmarked for education between 1975 and 1980 and UPE was expected to enjoy ₦50 million of the allocated amount to education. 2.3 million Children were expected in primary schools at take-off but over 3 million children turned out. Additional 60,000 teachers and more physical facilities were needed. Hence the UPE scheme, whose aim was to eradicate illiteracy and inculcate numeracy and life skills, had a progressive demise. At the turn of the 1980s, the nation experienced economic downturn and the government budgetary allocation to the education industry reduced drastically. Teachers' salaries were outstanding for several months leading to incessant strikes and closure of schools. This ushered in more private participation with the establishment of many private schools (approved and unapproved) to cater for the needs of the children who remained at home for long periods. Many of these schools that were built in a hurry had substandard infrastructural facilities. Compounding the problem of lack of facilities is the recruitment of unqualified teachers in order to cut cost.

The result is the production of poor quality outputs that were unable to fit into the world of work. To remain afloat and gain prominence, some of these schools engaged in examination malpractice to ensure that their students made good grades in external examinations as a mark of excellence. The UPE program failed due to lack of fund necessitated by corruption, among other factors.

In keeping with the Jometien declaration of 1990, Nigeria again launched another mass-oriented education program; this time branding it the *Universal Basic Education* (UBE). The broad goals are "to universalize access to basic education, engender a conducive to learning environment and eradicate illiteracy in Nigeria within the shortest possible time" (Implementation Blue Print). The then President, *Olusegun Obasanjo,* declared during the launching of the program in *Sokoto* that the nation "cannot afford to fail this time around." However, not long after that, the federal government reported that the falling standard of education in Nigeria is caused by "acute shortage of qualified teachers at the primary school level." It is reported that about 23 percent of the over 400,000 teachers employed in the nation's primary schools do not posses the Teachers' Grade Two Certificate, even when the National Certificate of Education (NCE) is the minimum educational requirement one should posses to teach in the nation's primary schools (*Ogbeifum* and *Olisa*; 2001).

In order not to fall into the same pit as the UPE scheme, prominent scholars have expressed their opinions and given suggestions on the way further, among these are Aghenta (2000) and Egbochuku (2000b). Aghenta argued that the scope of UBE is wide and, as a result, will gulp a lot of resources, both human and non-human, while Egbochuku (2000b) emphasized the need for more counsellors to be trained to facilitate the successful implementation of the UBE scheme. However, there are pointers that the scheme is failing. Government at all levels and genuine private investors will be compelled to ask such questions as: what has actually gone wrong, considering the enormity of its effect on the output from the system in the area of productivity and the degree of acceptance in the labour market and educational institutions? The focus of this study is therefore two-fold. First is to find the correlation of the variables that have been shown that can affect educational delivery service and the

second is to find their predictive power on educational delivery service in Nigeria. These variables are:

1.   Government insensitivity to education needs?
2.   Public and private open encouragement of low productivity?
3.   Lack of spirit of hard work among students?
4.   Lack of adequate study habit skills?

Hypotheses
To answer the aforementioned questions, two hypotheses were formulated and tested in this study.

Ho_1 – Government insensitivity, low productivity, students' input, and Study habit skills will not significantly correlate for education delivery in Nigeria.

Ho_2 – Government insensitivity, low productivity, students' input, and Study habit skills will not significantly predict for education delivery in Nigeria.

Methodology
In this study, the perceptions of lecturers, principals, teachers and students regarding the variables of Government insensitivity to education needs; Public and private open encouragement of low productivity; Lack of spirit of hard work among students; Lack of adequate study habit skills in public and private cooperation in education delivery in Nigeria were captured by applying both quantitative and qualitative approaches. The quantitative approach involved a questionnaire survey, because it gathers data at a particular time with the intention of describing the nature of existing conditions. 143 participants were selected by stratified random sampling technique from three purposively selected secondary schools in Benin City, Edo State. The participants were Lecturers, secondary school Principals, Teachers, and Students. The qualitative approach involved open-ended interview.

The questionnaire consisted mainly of closed questions and four open-ended questions. For the closed questions the Likert scale was used. The open-ended questions were included in order to capture perspectives with a view of verifying qualitative data from the

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interviews. A Pearson-Moment correlation coefficient of 0.65 was obtained for the instrument. The instruments were personally distributed by the researchers and were collected immediately. The data from all the participants were analysed and interpreted in this study.

Results

The first hypothesis was tested at 0.05 level of significance, to determine Government insensitivity, low productivity, students' input, and Study habit skills as correlates for education delivery in Nigeria. Descriptive data generated for testing the 1st and 2nd hypotheses are presented in table 1.

Table 1: Descriptive Statistics of the variables

	Mean	Std. Deviation	N
Government insensitivity	11.510	1.864	143
Low productivity	11.468	2.1355	143
Student input	10.377	2.561	143
Study habits skills	9.587	2.053	143
Educational delivery	10.937	2.220	143

Table 1 shows the distribution of mean scores of the five groups. From the total mean scores presented in the cells Government insensitivity had a mean score of (11.510); Low productivity (11.468); Student input (10.377); Study habits (9.587) and Educational delivery (10.937). Of the five variables under study, four independent variables (Government insensitivity, Low productivity, Student input, Study habits) and one dependent variable (Educational delivery); Government insensitivity had the highest mean score, followed by Low productivity, Student input, Educational delivery and the less was Study habits skills. From this preliminary analysis, Government insensitivity seems to have the greatest impact on the Educational delivery in Nigeria. On the other hand Study habits skills had the less impact. Further analysis was then carried out to find the correlation amongst these variables. The result testing this hypothesis is presented in table 2.

Table 2: Inter-correlation matrix between the independent variables and the dependent variable. Government insensitivity, Low productivity, Student input, Study habits and Educational delivery in Nigerian schools.

		Government insensitivity	Low productivity	Student input	Study habits	Educational delivery
Government insensitivity	Pearson Correlation Sig.(2-tailed)	1	.387* .000	.206* .014	.210* .012	.234* .005
Low productivity		.387* .000	1	.484* .000	.091 .280	.450 .000
Student input		.206* .014	.484 .000	1	.251* .003	.466* .000
Study habits		.210* .012	.091 .280	.251* .003	1	.439* .000
Educational delivery		.234* .005	.450 .000	.466* .000	.439* .000	1

*Correlations indicated with an asterisk are significant at p<0.05 level (2-tailed).

All correlations are based on N=143.

Table 2 shows that when government insensitivity, Low productivity, student input and study habits were correlated with educational delivery, government insensitivity had an r value of .234, low productivity had an r value of .450, student input had an r value of .466, and study habits had an r value of .439, all at p<0.05 which were significant. Consequently the null hypothesis is rejected. It is concluded that Government insensitivity, low productivity, students' input, and Study habit skills will significantly correlate for education delivery in Nigeria.

To test the 2nd hypothesis which states that "Government insensitivity, low productivity, students' input, and Study habit skills will not significantly predict for education delivery in Nigeria"? A regression analysis was done with the variables. This is presented in table 3

The multiple R in this model was .633. The R^2 adj for the four variables was .383, which is the coefficient of determination expressed in percentage, indicates the amount of variance in the

criterion scores accountable by, attributable to the predictor variable. This means that they accounted for about 38.3% variation in educational delivery. It's F-value = 23.025 with df (4, 142) significant at .000.

The prediction equation is given by
Y = 1.602 + -.009, .323, .198, 384X

Where X are the predictor variables (government insensitivity, low productivity, and student input and study habits)
Y is the criterion variable (Educational delivery)

Table 3: Summary of Regression analysis of Government
insensitivity, Low productivity, Student input, Study habits
and Educational delivery in Nigerian schools.

Multiple R .633					
R square .400					
Adjusted r^2 .383					
Standard error 1.74471					
Analysis of Variance					
	Sum of Squares	df	Mean Square	F	Sig
Regression	280.358	4	70.089	23.025	.000
Residual	420.076	138	3.044		
Total	700.434	142			
Parameter estimates					
	B	Std Erro	Beta	t	Sig
(Constant)	1.602	1.151		1.392	.166
Government insensitivity	-.009	.087	-.008	-.105	.917
Low productivity	.323	.084	.310	3.863	.000
Student input	.198	.067	.228	2.944	.004
Study habits	.384	.075	.355	5.116	.000

a. *Dependent Variable: Educational delivery*

It was found that government insensitivity had no impact. Out of the four variables, study habit was the highest contributor to the

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variation with the beta weight of .355, followed by low productivity whose beta weight was .310, followed by student input whose beta weight was .228 and -.008 for government insensitivity. To determine the predictive power of each of the independent variables their regression coefficients were computed using student t statistics and tested at 0.05 level of confidence. The computed t values were significant except that of government insensitivity. The values were as follows government insensitivity -.105, low productivity 3.863, student input 2.944, and study habits 5.116. The F-value was 23.025 significant at $p<0.05$. The regression function for this model i.e. government insensitivity, low productivity, student input, and study habits are therefore:-

Educational delivery = 1.602, -.009 government insensitivity + .323 low productivity, student input +198 and study habits +.384. The regression model was significant predictor of Educational delivery in Nigeria. The 2nd hypothesis which states that Government insensitivity, low productivity, students' input, and study habit skills will not significantly predict for educational delivery in Nigeria was therefore rejected. Result on table 3 shows that the prediction equation indicates that except for government insensitivity the other three variables can significantly predict educational delivery in Nigeria. It is concluded that low productivity, students' input, and study habit skills will predict educational delivery in Nigeria with the exception for government insensitivity, which had no impact.

Discussion of Results

This study first sought to find the correlation of the variables under study with educational delivery service in Nigeria and then their predictive power on educational delivery service in Nigeria. The result showed that of the five variables under study, four independent variables (Government insensitivity, Low productivity, Student input, Study habits) and one dependent variable (Educational delivery); Government insensitivity had the highest mean score, followed by Low productivity, Student input, Educational delivery and the less was Study habits skills. From this preliminary analysis, Government insensitivity seems to have the greatest impact on the Educational delivery in Nigeria. On the other hand Study habits skills had the less impact. Further analysis showed that when government insensitivity, Low productivity, student input and study habits were correlated with educational delivery, they all had

significant r value at p<0.05. Consequently the null hypothesis is rejected.

It was concluded that Government insensitivity, low productivity, students' input, and Study habit skills will significantly correlate for education delivery in Nigeria supporting similar views by Aluede and Adomeh (2007) and Omengala (2002). A comparative study of public and private secondary schools by Dyikuk and Zwalchir (2005) revealed that each type of school has its own merit. According to them, private secondary schools are better funded and equipped. Staff members in private schools are more committed to duty and are better supervised and inspected than in public secondary schools. They also perform better in external examinations than public schools. Public school on the other hand perform better than private schools in the provision of welfare scheme for their staff, availability of infrastructures, recruitment of skilled manpower and concern for the supply of facilities by the Ministry of Education. What these findings by Dyikuk and Zwalchir indicate are that both private and public schools compliment each other in education delivery in Nigeria and should be encouraged to continue to do so as a way of ensuring efficient and effective secondary school delivery system.

Although each of these schools had its own defined aims and objectives their proprietors should have a common focus, namely the education of the Nigerian children, who would be properly trained so that they can be useful to themselves, their parents, immediate community and the country at large. Based on this common interest, there should be competition among schools in order to attract patronage from parents. Parents on their part should decide on the type of school they send their children to. Whenever they feel unsatisfied with the services provided by any of these schools, they should be able to withdraw their children from such schools. Service providers within the educational sub-sector should make efforts to attract parents to their schools by putting personal touches to the services they render. They will then be able to recruit good and dedicated teachers and motivate them for optimal performance. The teaching and learning conditions of such schools should be made not only attractive, but also, conducive for serious academic enterprise. What this means is that school size, class size, instructional materials, physical facilities and student\teacher ratio are pre-

determined with everyone trying to follow the rules; high standards and discipline should be maintained in each school. Once standards are regularly maintained, high level of scholastic achievement is guaranteed (Egbochuku, 2005).

The results of this study further showed that the prediction equation indicates that except for government insensitivity the other three variables can significantly predict educational delivery in Nigeria. It showed that low productivity, students' input, and study habit skills will predict educational delivery in Nigeria with the exception for government insensitivity, which had no impact. This follows therefore, that since education has been considered a great force for national development and positive change, both the government and non-government agencies' participation in education delivery should not be based on the principle of expectancy (i.e., greater returns for their investment) but on the education of the citizenry; Because this is why private initiatives thrive well, while the public sector contribution to education degenerates (Akpa, 2005). According to Azelama, Aluede and Emordi. (2004), the way forward in the education delivery of Nigeria is for both the public and private sectors to consider education as a unique value and commodity with a high level of externality.

Conclusion
It is obvious that education in Nigeria has been politicized over the years and its attendant consequences overlooked. The fact remains that the education industry is cost effective and the government will not be able to appropriate the huge financial requirement for quality education that will meet the developmental needs of the nation alone. If education is to achieve its fundamental role of producing outputs that are able to function effectively in the society and contribute to national development, it should not be left for the government. Private sector participation should be encouraged to complement the efforts of the government. As a matter of deliberate policy, the public sector, political will, and financial strength must be harmonized with the private sector educational interest and zeal. Government's control of education in Nigeria should not be restricted to inspection of facilities in private schools. It should go beyond ensuring that private schools meet the minimum required standard, to actually granting financial assistance to such schools.

After all, the pupils and students being trained in the private schools are Nigerians who are being educated for manpower needs of the nation. Moreover, the studies have also shown that the students themselves have a role to play in education delivery. Students' input and study habit skills were shown to predict educational delivery. However, it is when funds are made available to schools and all non-governmental agencies participate in education delivery that students can put up their best. Finally, Nigerians must have recognized the fact that education has been politicized over the years that is why government insensitivity had no impact on education delivery.

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Relation of Parenting Styles to Adolescent's School Performance at Secondary Level

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Abstract

This study was designed to categorize the current parenting styles and to find out the relationship between a specific parenting style and the adolescents academic performance at secondary level. The parenting styles

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were categorized as democratic, autocratic and laissez faire. These three styles were measured through a questionnaire containing 45 Likert scale items. Adolescent's school performance was measured by the results of 9th grade obtained through BISE Sargodha exam held in 2004(annual). The population for the study was boys and girls student of 10th grade. The sample consisted of 200 randomly selected students from eight secondary schools. Data was collected through questionnaire and result gazette of BISE Sargodha 2004(annual). Relationship between democratic parenting style and autocratic parenting style to board results of students was found insignificant. Relationship between laissez faire parenting style and the performance of students in board results was significant. Relationship between three parenting style in their rural and urban categories and the board results was insignificant except for laissez faire style of urban parents. It was recommended that parents should play their role in learning process of adolescents and they may be guided in expressing a style conducive for improving performance of their adolescents at schools.

Keywords: socio-economic development, modes of education, parent-child interaction, adolescents' academic performance, parenting styles

Introduction

Education is playing an important role in our lives. According to National Education Policy 1998-2010 "Education is now universally recognized to be the prime key to moral, cultural, political and socio-economic development of nation"(p.46). According to Sabzwari (2004) "Education attempts to develop the personality of the child and to prepare him for membership of society" (p.42).

There are three modes of education i.e. informal education, formal education and non-formal education. In all three modes of education different elements: teacher, institution and parent play major role respectively. Parent is the major source of education of their off springs. Literally these are the factors i.e. student, teacher, curriculum, school and home atmosphere around which the

education of a child revolves. According to Thompson (1962) "The home is truly the greatest socializing agency in all contemporary cultures. Parents are varied in their rearing practices and frequently unpredictable. Their interactions with children are often tinged with odd combinations of tradition, personal prejudice, emotional regard and rule-of- thumb procedures". (p.621)

Sabzwari (2004) describes that: There is no doubt that some home environment factors that influence student achievement and discipline include social class of family, early home environment, parenting style, type of parent-child interaction, effect of mother working, parent involvement in school decisions and activities, family and student aspirations, and number of children in the family. There is definitely a significant relationship between class on the one hand, and achievement and discipline on the other. One half to two – thirds of students' achievement and discipline variance is directly related to home variables such as parenting styles of the parents. (pp. 2-3)

In a family, parents are much important for a child. The child starts learning from cradle and lap of his mother. Therefore the role of the parents in child education is very significant. A parent is a teacher, nurse, counselor and manager. Parents set the tone for family life and the environment in which children develop as human beings. They set guidelines for children's growth, development and behavior. In addition, they serve as the models that children follow as they form their own life styles and personalities. According to Draper and Draper (1983) the term parent is defined that "it is 'biological relationships'. Further the parents are the persons who conceive or give birth to a child are called biological parents" (p.15).

God has created diversity in the universe. So human beings are different to each other in their behavior. Likewise parents are also of different behavior. A parenting stage refers to the particular way that a parent consistently behaves towards their children. Style includes the manner in which one treats children, what is expected of them and the kind of rules that are established and how they are enforced. Generally there are following styles of parenting.

a)   Strict parents

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b)   Democratic parents
c)   Uninvolved parents

These styles of parents affect the child's school performance, especially when the child is in his adolescent stage. Normally school starts from the age of five years. When the child reaches IX or X class, he is about the age above 13 years. This period of age is called adolescent period. This is the age when a child is changing to man/ woman.

According to Harlock, (1978), the word Adolescence is derived from the Laten word "adolescere", which means, "to grow". Adolescence is a period of transition when the individual changes physically and psychologically from a child to an adult (p.2). Parents play an important role for the development of adolescents. Parents provide not only the physical needs of the growing individual but also such psychological needs as affection, security and belongingness; parents furnish the growing individual with models of behavior.

There are different problems which adolescents face at school level. These major problems are:
a)   Maladjustment at school
b)   Inter group relations and attitude problems
c)   Behavioral problems

These problems, which often result from the home environment, affect their performance at school, because a child remains for two third time with his family especially with his parents. Naturally, parents behave in different styles. So these parental styles affect the academic performance of the adolescent at school.

The behavior of parents with the adolescent student at home may cause variations in the academic achievement of the students, especially during the secondary level of education, which is also called the formative phase of the adolescents. This study was to find out that how many parents practice 'what sort of parenting style'. Further it would be probed to that which of parenting style is conducive to the learning of the students and which affects inversely on adolescent's level school performance.

Statement of the Problem

Parents are the significant source of education whether it is formal, non-formal or informal systems of education. Simultaneously there are different types of parenting styles hence these styles affect the academic achievements of the students in different manners.

This study, therefore, was designed to categorize the current parenting styles and then to find out the relation of specific parenting style to the adolescent's academic performance at secondary level.

Objectives of the Study

The main objectives of the study were:

i.   To ascertain the different types of parenting styles i.e. the ways they deal with their children.

ii.   To find out the academic achievements of the adolescents at secondary level.

iii.   To find out the relationship of a specific parenting style to the academic achievement of secondary school students.

iv.   To recommend a parenting style conducive to the learning of the adolescents.

Hypotheses

The following hypotheses were included in the study:

i.   There is no significant relation of democratic parenting style to academic performance of adolescents as revealed through secondary board results at secondary level.

ii.   There is no significant relation of autocratic parenting style to academic performance of adolescents as revealed through secondary board results at secondary level.

iii.   There is no significant relation of laissez faire parenting style to academic performance of adolescents as revealed through secondary board results at secondary level.

Review of Related Literature

Man is a social animal. He cannot live alone. All human beings depend on each other in one way or the other way. In the early ages, man live in woods alone like animals without any social set-up, but with the passage of time and due to inner instinct of sociality, human beings start living together to fulfill their basic needs. With increasing of needs, man came more close to each other and in this way family set-up established and then villages and cities developed which are rapidly spreading day by day exultingly a family unit came into being. A family is the basic unit of society of human beings living together in a place.

Merriam Webster Dictionary designs "Family means basic social unit consisting of persons united by ties of marriage (affinity), "blood" (consanguinity), or adoption and usually representing a single household." In a family system the basic character are parents. According to the Webster's New World Dictionary of the American Language, Parent means father or mother, ancestor, any animal, organism or plant in relation to its offspring, anything from which other things are derived, source, origin .

Parenting Styles

Every person deals his children in a particular style in his life and this style depicts in his day-to-day life. Style is the way through which parents treats their children at home. Draper and Draper (1987) stated, "Style includes the manner in which one treats children, what is expected of them and the kind of rules that are established and how they are enforced" (p.18).

Parents come in all different shapes, sizes, and colors. They come from a variety of backgrounds and traditions. Individuals learn how to parent from their own parents, from role models, and from society. Their experiences shape the way they relate to their children and the way they relate to the outside world. The way a family is structured is called the parenting style. Parental involvement is important to children's academic achievement. The important aspect of parental involvement is parenting style. The way a child is generally treated in their home is the parenting style of a child's parent, which can affect the child's engagement in school.

According to Batool, (2003) parenting style explains how the parent responds to his or her child. A parent's style predicts how close he or she is with the child and what is expected of that child. Parents are tutor's determining whether their children became good or bad, bright or dull, kind or selfish (p.207). Berns, (1985) defines "A parenting style is a description of a way of rearing children loving and caring for them, bringing them to maturity, and dealing with their daily behavior. It is a philosophy."

Types of Parenting Styles
People start developing their parenting styles even before their child is born. And, certainly, in the first year or two of parenting, styles are clearly evident. But for many parents, it is in the preschool years that they become aware of their own styles. Ginott, (1975) describes parents are Over-emotional parents, Over- protective parents, Childish parents, Alcoholic parents, Seductive parents, Rejecting parents, Over-conscientious parents, Divorced parents (pp.149-154). According to Demick, Burski, and Biaase, (1993) "Some differentiate the parenting styles as "Baumrind, which distinguished among the impact of autocratic, authoritative-reciprocal and permissive childrearing styles on the personality characteristics of children" (p.3).

Steinberg, Belsky, and Meyer, (1991) describe the types of parenting styles as "Authoritative parents are loving but firm with their children. While they encourage independence, they set clear standards of behavior and explain why these standards must be met".

Authoritarian parents, in contrasts, value obedience for its own sake and they discipline forcefully too obtain it. They are not very responsive to their children's wishes; children obey or else. While loving towards their children, permissive parents set few rules in matters of discipline. They believe that rules tend to inhibit creatively and self-expression, so they generally lit their sons and daughters do what they want. (pp.501-502).

Parenting styles may be

Authoritative	Indulgent
Authoritarian	Indifferent

Following figure describes the four extreme types of parental behavior:

A conceptual relationship between dimensions of cohesion and adaptability in parenting styles

Warm and loving   **Hostile and cold**

Overprotective or indulgent	Dictatorial and antagonistic
Democratic and cooperative	Indifferent and detached

Controlling and restrictive   **Permissive and understanding**

According to the above different types described by different authors following three major types of parenting styles are:
i.   Autocratic Parenting Style.
ii.   Democratic Parenting style.
iii.   Laissez Faire Parenting Style.

Outcomes of Parenting Styles on Adolescents
Every parenting style has its own outcomes on adolescents. Horner, (2001) describes:

i.   Adolescents with authoritarian parents tend to be withdrawn, moody, obedient, fearful of new situations, and have low self-esteem. They also have trouble socializing with others.

ii.   Adolescents with authoritative parents are most likely to foster a positive development. They have high self-esteem, are socially confident, inquisitive, self-assured and self-reliant. They also have high respect for their parents.

iii.   Adolescents with neglectful parents are in the most danger of engaging in deviant behavior. Drug and alcohol use is extremely high in adolescents who were raised by neglectful parents.

Relation of Parental Styles with Adolescence School Performance

Many researches, done in this field show that parent's involvement and their parental styles have important effects on the academic performance of children especially adolescents. At adolescent stage, students face social, critical, emotional and environmental problems. These problems cannot be solved properly only by school or home. When school and family work together, a partnership of support for children develops. Then the education of the child becomes a shared venture, characterized by the mutual respect and trust in which the importance and influence of each partner is recognized. Although teachers, children, families and schools benefits individually, but there partnership enhance the entire process of education especially the outcome of the children. Many researches have been done on the past decade at different levels and different communities and societies to identify the relation of parent/family and parenting styles with student's outcomes at schools.

Davidoff, (1987) describes Parental influence upon adolescents. According to him, Parents play a substantial role in the adolescent's search for an identity. Parental characteristics influence the adolescent's level of self-satisfaction. The adolescent's self esteem depends partly in the amount of praise and criticism that comes from parents. Parents encourage gradual independence while retaining ultimate responsibility. Young people feel less sure of themselves when parents insist on total obedience and when they discipline harshly with threats and force. (p.410)

Procedure of the Study

The study proceeded according to the following steps:

Population

8031 students of class 10th from all boys and girls Govt. secondary schools of District Bhakkar who had just passed 9th grade

examination through Board of Intermediate and Secondary Education Sargodha consisted population for the study.

Sample

Eight Govt. secondary schools were selected randomly, two boys and two girls' secondary schools from rural and two boys and two girl secondary schools from urban areas were taken randomly and from each secondary school 25 students were taken randomly. In this way 200 students were taken as sample as per the following distribution.

Table 1: Details of Population and Sample

S. No.	Population (Gender-wise)	Area	Total Population	Sample Size
1.	Boys 65 Secondary Schools	Urban-06	1978	50
		Rural-59	3123	50
2.	Girls 19 Secondary School)	Urban-05	1205	50
		Rural-14	1725	50

Instruments used

i. A questionnaire comprising 67 statements for determining the parenting styles i.e. democratic parenting style, autocratic parenting style and laissez faire parenting style of the individual students was developed and administered.

ii. Result gazette of 9th class (annual) exam. 2004 of Board of Intermediate and Secondary Education Sargodha.

Method

Questionnaires were distributed among the selected students of 10th class who had just taken the examination of 9th class through the Board of Intermediate and Secondary School Education Sargodha. In boys' schools, the questionnaires were administered personally with the help of the class teachers and with the cooperation of the head teachers.

In girls schools the questionnaires were administered through the class teachers alone without involvement of the researcher. All the

students were given instructions verbally to solve the response the statements of questionnaire.

45 items of the questionnaire for measuring the parenting styles were to be responded on a five point Likert type scale ranging from strongly agreed to strongly disagree with a value from 5 to 1 by the following scale.

Table 2: Weight age of Scale

	Abbreviates	Weight age
Strongly agreed	SA	5
Agreed	A	4
Undecided	UND	3
Disagreed	DA	2
Strongly Disagreed	SDA	1

Academic achievement scores were taken from the result gazette of 9th class (annual) exam. 2004 conducted by the Board of Intermediate and Secondary School Sargodha

Analysis and Interpretation of Data
Data collected through the questionnaire and Board of Intermediate and Secondary Education Sargodha result gazette, were tabulated to the Microsoft Excel software and was further transferred to the SPSS (Statistical Package for Social Sciences) for analysis through utilization of a statistical technique called Pearson Product Moment Correlation.

Maximum possible score of a respondent on all the Likert type items could be 225(45*5) as the maximum and 45(45*1) as the minimum.

Mean scores and $\pm$1SD above the mean was taken for laissez faire, +1SD for democratic and -1SD for autocratic parenting style. The responses were analyzed in the light of given weights relative to five points Likert scale. The responses were distributed under three major

parenting styles i.e. democratic parenting style, autocratic parenting style, lasses faire parenting style. To measure academic achievement/performance of the students the results of the 9th grade students appeared in 2004(annual) exam. As declared by the Board of Intermediate and Secondary Education Sargodha was obtained from result gazette.

The data collected through both the variables i.e. different parenting styles and the academic performance of the students through the Board results was tabulated in the Microsoft Excel software and was further transferred to the Statistical Package for Social Sciences (SPSS) for its analysis through utilization of a statistical technique called Pearson Product Moment Correlation.

Table 3: Correlation of adolescents' board results to democratic parenting style

Variables	Number of students	Mean	SD	Significance p	Pearson's Correlation "r"
Democratic Parenting style	49	167.61	10.89	.839	-.030
BISE results		45.61	10.04		

Table 3 indicates that the mean of board results is 45.61 and of democratic parenting style is 167.61 and the p-value is .839, which is above the level of significance (.05, 2 tail test) and the correlation coefficient is -.030. Therefore, democratic parenting style and BISE results are not significantly correlated.

Table 4: Correlation of adolescents' board results to autocratic parenting style

Variables	Number of students	Mean	SD	Signif-icance p	Pearson's Correlation "r"
Autocratic Parenting styles	31	114.77	30.69	.512	-.122

Board results		51.16	10.98		

Table 4 indicates that the mean of Autocratic parenting style is 114.77 and board results is 51.16 and p-value is.512 which is above than the level of significance, and correlation co-efficient is -.122. Therefore, the Autocratic parenting style and board performance are not significantly correlated.

Table 5: Correlation of adolescents' board results to laissez faire parenting style

Variables	Number of students	Mean	SD	Signific-ance p	Pearson's Correlat-ion "r"
Laissez-Faire Parenting style	120	135.92	7.82	.028	-.201
Board Results		47.39	13.68		

Table 5 indicates that the mean of Laissez faire parenting style is 135.92 and of board results is 47.39 and the p-value is .028 , which is below than the level of significance and correlation co-efficient is -.201

Therefore, board results Laissez faire parenting style and board results are significantly correlated.

Findings
Following findings were drawn from the results of the study:
1.   There is no significant relationship between the two variables, democratic parenting style and the BISE Sargodha results as assessed through students of selected secondary schools, (r -.030, p-value .839).

2.   There is no significant relationship between the two variables, autocratic parenting   style and board results, (r -.122, p-value.512).

3.   There is significant relationship between the two variables, laissez faire parenting style and board results of all adolescents, (r -.201, p-values .028).

Conclusions

Following conclusions were drawn:
The analysis of data and subsequent findings of the present
        study led to the conclusions that:

1.   The relationship between democratic parenting style and the performance of the students in board results is not significant.

2.   The relationship between autocratic parenting style and board results of adolescents is not significant.

3.   The relation of laissez faire parenting style with board results of adolescents is significant

Recommendations

Keeping in view the conclusions drawn on the basis of research findings, following recommendations were made:

1.   Parents' role must be enhanced in the learning process of adolescence.

2.   Parents must be guided for their styles for the improvement in performance of their adolescents at schools.

3.   The school authorities must organize PTA (Parent Teacher Association) for better relation of parents to adolescents for their better performance at schools.

4.   For checking regional differences the researcher may include neighboring districts.

5.   The study may be replicated by using greater sample size to have more valid results.

6.   The styles of the parents may be taken on broad bases, so that the other styles of the parents might be evaluated.

7.   Regression may be applied to illustrate the study more.

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The Effect of Constructivist Teaching Approach on the Achievement of Mathematics Students at Secondary Level

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Abstract

The aim of this paper is to discuss the significance of constructivist teaching approach with reference to teaching of mathematics and to share the findings of an experimental research that was aimed to investigate the impact of constructivist teaching approach on the achievement of 10th class mathematics students in the rural context of interior Sindh. The students were divided into two groups (30 of each). One group was exposed to constructivist teaching approach and was taught basic geometrical concepts and the other group was taught with the help of traditional teaching approaches. The findings of the study showed a significant difference in the mean score of experimental group. There was a mean difference between control group and experimental group. In fact, experimental group scored higher standard deviation than the control group. There fore, the hypothesis that," 10th class mathematics students whose teacher use constructivist approaches as a part of their instructional techniques, will exhibit significantly higher achievement than 10th class mathematics students whose teachers

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used traditional methods of teaching. The study recommends for mathematics teachers to use concept mapping, brainstorming, and mathematical discussions as a teaching approach while teaching mathematical concepts. In order to create interest among students, mathematics teachers should use manipulative and link mathematical concepts with daily life examples. The study also recommends arranging professional development programs for mathematics teachers in the province of Sindh.

Keywords: Constructivist teaching approach, traditional
                  approach, Mathematics, Achievement

Introduction

Mathematics is a reasoning activity that involves observing representing and investigating relationships in the social and physical world, or between mathematical concepts themselves (BOS NSW, 2002). Sorensen (2003) elaborates the teaching methods and strategies that constitute effective teaching of mathematics depend on one's definition of "mathematics." If effective Mathematics is merely a collection of formulas, rules, and procedures that must be memorized and mastered, then many traditional teaching techniques like drilling, individual worksheet practice, and flashcards could be considered effective. However, the current definition emphasizes that mathematics is an integrated whole, a study of structures and the relationships between things, and a way to study and understand the world around us.

The goal of teaching mathematics is changing too – now teachers need to help students develop the skills they will use every day to solve mathematical and non-mathematical problems, which include the ability to reason, to explain and justify ideas, to use resources to find needed information, to work with other people on a problem, and to generalize to different situations, as well as the traditional ability to carry out computations and procedures. Keeping in view the changing nature of mathematics, its teaching requires such methods that develop conceptual understanding of children. This is the reason why constructivist teaching approaches are gaining acceptance by mathematicians all over the world.

The main hypothesis of constructivism is that knowledge is not passively received from an outside source but is actively constructed by the individual learner (Brooks and Brooks, 1999; von Glasersfeld, 1995). In constructivist approach the learner uses existing knowledge as a basis to interpret and construct new ideas, Rosalind Driver (1989:32) writes, "The key feature of constructivist epistemology is that human beings construct mental model of their world and new experiences are re interpreted and understood in relation to existing mental models or schemas.

Constructivist teaching is guided by five basic elements;
i.   activating prior knowledge,
ii.   acquiring knowledge,
iii.   understanding knowledge,
iv.   using knowledge, and
v.   reflecting on knowledge (Tolman & Hardy, 1995).

Activating prior knowledge always paves the way for reflection. This facilitate teachers in developing relationship between the content that is being taught and that was taught previously When teachers are familiar with a student's prior knowledge they can provide learning experiences to build on these existing understandings (Steffe & D`Ambrosio, 1995). Teachers can activate prior knowledge in many ways. These methods include asking different questions, by using brainstorming technique, by developing concept mapping.

The constructivist view takes the position that children construct their own understanding of mathematical ideas by means of mental activities or through interaction with the physical world (Cathcart, et al., 2001). The assertion that children should construct their own mathematical knowledge is not to suggest that mathematics teachers should sit back and wait for this to happen. Rather, teachers must create the learning environment for students and then actively monitor the students through various classroom assessment methods as they engage in an investigation. The other role of the teacher should be to provide the students with experiences that will enable them to establish links and relationships.

Although is in agreement with Baroody and Coslick (1998) who

suggest that teaching mathematics is essentially a process of translating mathematics into a form children can comprehend. Teaching mathematics is providing experiences that will enable children to discover relationships and construct meaning. Students should be assisted to see the importance of mathematics not by rote learning but by investigating and relating to real-life situations.

Context of Study

Mathematics occupies an important position in the National Curriculum of Pakistan. The National curriculum in the subject of mathematics at secondary level is classified into different themes. These include the set theory, numbers and operations, algebra, measurements and geometry, matrices, trigonometry, Information handling and reasoning and logical thinking.

Although Mathematics occupies a significant place in secondary school subjects in the province of Sindh yet its teaching standard is deteriorating day by day. There are numerous reasons behind this falling standard. There are misconceptions about the teaching of Mathematics'; it is thought as a subject based on formulas ; relational understanding is the primary purpose of teacher as well as student ; teacher and students do not find any link of mathematics with daily life , assessment focuses on cramming and regurgitating of facts and so on. Teachers focus on selected topics and themes while teaching mathematics. The purpose of schools is to complete the syllabus rather than developing conceptual understanding of the students.

The present study was conducted in one of the boys' high school of District Naushahro Feroze Sindh. The situation regarding teaching of mathematics in District Naushahro Feroze is not so encouraging. Students who pass the subject of mathematics (even with flying colors) do not perform well at higher secondary level. Majority of them have ample knowledge about the rules and formulas but they are not in position to interpret and understand the variables of the formulae. Teachers have very limited opportunities for grooming their professional skills in mathematics. Very few professional development programs have so for been arranged by the department of education for mathematics teachers in the district.

Majority of teachers use traditional approaches while teaching different concepts of mathematics. These include use of chalk and talk method, solving mathematical problems without involving students in any discourse and activity. Owing to these reasons mathematics is thought as a boring subject.

This study attempts to see the effectiveness of constructivist teaching approach in teaching of mathematics at secondary level in Naushahro Feroze district.

Literature Review
Constructivist teaching stands in contrast to traditional teaching practice in classroom. Traditionally, learning has been thought to be nothing but a repetitive activity, a process that involves students imitating newly provided information in tests. The constructivist teaching practice, on the other hands, helps learners to internalize and transform new information. Transformation of information occurs through the creation of new understanding that results from the emergence of new cognitive structures. Teachers may invite transformations but may neither mandate nor prevent them. Deep understanding is, unlike the repetition of prescribed behavior, the act of transforming ideas into broader, more comprehensive images which escape concise description. In order to investigate the effectiveness of constructivist teaching approaches with respect to teaching of mathematics, different researches have been conducted in different contexts; some of them are discussed as under:

Kim (2005) a Korean Professor conducted a research study. The study was aimed to determine the effectiveness of a constructivist teaching approach in mathematics of elementary school education in terms of academic achievement, self-concept and learning strategies, and student preference for a constructivist teaching approach. This study concluded that constructivist teaching is more effective in terms of academic achievement of students and the students have some preference for a constructivist teaching classroom environment.

Yevdokimov, Kharkov State Pedagogical University, Ukraine, worked on a long term project on teaching of geometry by applying constructivist approach. According to him, "Our results, although

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local, support hypothesis that most of the students can be successfully involved in the conjecturing and proving activities in different levels, if learning has active and constructive nature. In this work we have shown effectiveness of a constructivist approach to organize students' thinking leading to production of conjectures. We found out that a specific learning-teaching environment can significantly contribute to students' progress in learning geometry.

Steffe and Tzur (1994) conducted a research study on the significance of constructivist approach in teaching numbers. The findings indicated that both children interacted well with each other in a cooperative, reciprocal manner. The findings of this study revealed that the children established a shared goal of Constructivism, also, the children used both verbal and non-verbal mathematical communication in the micro world to achieve shared goals and both of these communications were types of social interaction.

Cockcroft (1982) and Ahmed (1987), have suggested that the 'best' mathematics classrooms are those in which pupils are actively involved in constructing their own mathematical knowledge. Within such a framework, mathematics teachers are seen as providing situations and opportunities in which children can develop their own mathematical thinking, rather than as transmitters of knowledge. Pupils are believed to develop their mathematical knowledge and understanding by internalizing and elaborating their own mathematical ideas through interaction with both their classmates and their mathematics teachers.

Research findings indicate that to support effective mathematics learning, opportunities need to be created for children to construct their own mathematical meanings by reflecting on their existing network of ideas and integrating these with their new found thinking from a range of experiences. These experiences support students to see connections between contexts, integrate an appropriate collection of mathematical skills, knowledge and processes, and transfer them across learning areas as well as beyond the school environment.

Research Design

The present research was experimental in nature. In this research the Pretest-posttest Control Group Design has been used to collect data. The following table gives details of the research design adopted in the research study.

TABLE 1: Research Methodology

STEPS	P R O CE D U R E		AIM
Step 1	Random assignment for Control Group	Random assignment for Experimental Group	To control subject characteristics threat to internal validity
Step 2	PRETEST	PRETEST	To measure the degree of the dependent variable before the treatment
Step 3	No treatment	Treatment	To influence the dependent variable
Step 4	POSTTEST	POSTTEST	To measure the degree of change

Research Questions

1. Is constructivist based instruction better than traditional approach in teaching of mathematics?

2. What are the pretest and posttest scores of experimental and control group of 10th class mathematics students?

Hypothesis

It was hypothesized that 10th class mathematics students whose teachers used constructivist teaching approach ;as a part of their instructional technique; will exhibit significantly higher achievement than whose teachers did not use constructivist teaching approach in teaching of mathematics.

Subjects

The population of this study included students of a Government boys

high school situated in District Naushehro Feroz. The total population of tenth class students was around 200. These students were randomly selected and assigned experimental and control group. They were assigned to two groups of 30 each.

Procedure

Sixty 10th grade students were selected for this study and were divided into two groups (experimental group and control group). The experimental group was taught using the constructivist teaching approach and the control group was taught using the traditional teaching approach. The total hours of the treatment were 30 hours over five weeks. The block time schedule was applied for the constructivist approach while the regular time (40 minutes / hour) schedule was implemented for the traditional approach. The instruments used for this study include 40 items based on the basic geometrical concepts.

Instrument

Protest and post-test was constructed in the subject of mathematics. MCQs were developed in teaching basic concepts of geometry. The items were selected from the mathematics textbook of Sindh Textbook board Jamshoro. Some items were also selected from the data test items bank available at Bureau of Curriculum Jamshoro. The instrument has been pilot tested on a sample similar administered by the investigator to all respondents. Although this procedure was time consuming, it did yield a high rate of return and provided an opportunity to researcher to answer any question of the respondent regarding the instrument. The reliability and validity of the tools has been ensured. In this process some items of the tools were modified and some were dropped.

Analysis of Data

The data was analyzed with the help of SPSS by using its new version. The mean and standard deviation was primarily be used to describe the data obtained from pretest and post test. The t test was also used to calculate difference in the mean score.

Table 2:   (Showing Results of Pretest) of Group 1 and Group 2)
*   Comparative Analysis of Group 1 (Experimental Group)*
*   and*

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Group 2(Control Groups)

Group	Group One	Group Two
Mean	16.06	14.55
SD	5.52	5.09
SEM	0.994	0.925
N	30	30

As the calculated value of t = 1.15 > table value that is 2.00(at Significance Level = .05 and df = 58). Therefore, we can say that the score of experimental and control Group was not so different.

Table 3: (Showing results of Posttest) Comparative Analysis of Group 1(Experimental Group) and Group 2 (Control Groups)

Group	Group One	Group Two
Mean	38.683	26.973
SD	4.418	6.034
SEM	0.807	1.102
N	30	30

As the calculated value of t = 9.01 > table value that is 2.00 (at Significance Level = .05 and df = 58). Therefore, it can be concluded that there is significant increase in the score of experimental Group.

Findings

As can be seen in Table 1 and 2, there is statistically significant difference between pre-test and post-test scores of experimental group and control group. The pre-test arithmetic average score of control group is 14.55and experimental group is 16.06.When we look at post-test scores of experimental group and control group, we also find a difference between the scores of two groups(i.e 38.6-26.97 = 11.53). The experimental group score was 11.53 higher than control group.

This shows that traditional teaching does not positively affect students' score. In fact, there is a decrease in their average scores. To sum up, it can be said that constructivist oriented teaching approaches and traditional teaching have different affects on developing experimental group students' and control group students' mathematics achievement.

Recommendations

The following recommendations are made for mathematics teachers, teacher educators and curriculum developers:

1. In order to develop the conceptual understanding of the students, teachers should relate mathematical concepts with daily life examples.

2. In order to create interest and raise motivation for mathematics teaching among students, Mathematic Olympiads should be organized at distinct level, The District Education department should organized such events

3. Teacher should use manipulatives while teaching geometrical concept, this is the line with constructivist approach of teaching

4. Secondary schools Mathematics teachers have rare opportunity for professionals' development, it is suggested district education Department allocates funds and arranges professional development programs for mathematics teachers.

5. Teacher educators should enrich their mathematics manuals design for in- service teacher. The activities pertaining to constructivist approach should be incorporated in these manuals.

6. There is need to change the focus of assessment of teaching of mathematics. Curriculum developers should include such example & activities in 10th class Mathematics curriculum that help teachers to promote critical thinking and reasoning

abilities of their students.

Conclusion

Teaching mathematical concepts at school level is not an easy task. Rote memorization and regurgitation of formulas do not encourage our learners to explore mathematics. There is need to provide such opportunities that engage our learners in hands -on and minds- on activities while learning mathematics. This entirely needs that our mathematics curriculum developers, teacher educators and teachers make a paradigm shift in their beliefs and practices about teaching of mathematics.

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Attitudes of Sultan Qaboos University Students Towards Some Environmental Problems and Their Willingness to Take Action to Reduce Them

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Abstract

This study aims to investigate the attitudes of Sultan Qaboos University students to some environmental problems, and their willingness to take action to ameliorate these problems. Out of a total student population of 1,700, 317 students from five different faculties of the university contributed to the study. The data was collected by using a questionnaire containing 48 items distributed in 5 dimensions: energy, water, air pollution, waste and desertification. Validity and reliability were examined. The results showed generally that the students hold positive attitudes towards the issues raised, and that female students showed more positive attitudes than males. The results also indicate that students' attitudes towards environmental problems do not appear to be influenced by the university faculties in which they are studying, except in the case of energy, where significant differences were observed between the attitudes of students from the Faculty of Education and the Faculty of Agriculture, the former showing more positive attitudes than the latter. The results also indicate that students are willing to take action to reduce environmental problems; this was not affected by gender or faculty.

Keywords: Environment, Attitudes, Willingness, Environmental Problems, Environmental Education.

Introduction

Educational concerns about the environment can be viewed as a logical consequence of the change in the relationship between human beings and the natural world over the last two centuries, to the view that earth and its resources are valuable only insofar as they satisfy human needs. Clark (1989) explains that this attitude has had a greater negative influence on Nature than natural events such as earthquakes and volcanoes. This change has resulted in the

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overexploitation of both renewable and non-renewable natural resources with resulting unwanted waste materials, which have lead to pollution (Soussan, 1992; Lowe and Thompson, 1992). Dunlop and Van Liere (1978) argue that this view has been challenged by the new environmental paradigm of the exploitation of nature; and that the growth of the human economy should be balanced with environmental protection, so that people can again live in harmony with nature.

This challenge contributed to the development of environmental education at the end of the 1960s, and later received international acceptance as one of the crucial means of developing people's understanding, awareness, beliefs and attitudes concerning the environment. Since that time various studies have been conducted concerning the effect of environmental education on the development of student attitudes towards the environment. The results of this research are inconsistent: Silberstein (1981), Cohen and Wingerd (1993), Stoney (1995), Surbrook (1997) and Zelezny (1998) found that education has a positive effect on student attitudes, while other studies showed no relation between education and attitude (Al-Najede, 1990; Lyons and Breakwell, 1994). Some studies, on the other hand, found that environmental attitudes are influenced by gender (Kuhn, 1979; Schahn and Holzer, 1990, Worsely, 1998)

The relationship between attitudes to the environment and willingness to take action was questioned by some researchers. Dunlap *et al.* (1993) in a study which included 24 countries, both rich and poor, found that 64% of participants believe that environmental problems will affect their health; 50% of participants in 21 of these countries said that the environment should be given priority, even if it leads to a slowdown in economic growth; over 50% of respondents in 17 countries expressed their willingness to pay more to improve the quality of the environment. Inglehart (1995) found that 93% of respondents showed a high level of concern for the protection of the environment. However, 64% of them expressed their willingness to pay more tax for this purpose and 45% of them rejected the idea of any sacrifice in order to protect the environment. Thus, people who hold positive attitudes to the environment do not consistently engage in behaviour congruent with

these attitudes. Some studies concerned about the reasoning behind that, such as Hines *et al* (1986) concluded that environmental behaviour is affected by many components: knowledge, attitudes, verbal commitment and a sense of personal responsibility.

The present study is concerned with investigating the effect of B.A. level academic courses at Sultan Qaboos University in the Sultanate of Oman on the development of student attitudes towards environmental problems, and also on their willingness to take any action that would contribute to reducing them. This university was selected on the basis that it is the only government university in Oman and it is the main source of the development of human resources in this country. The selection of environmental problems was based on their significance for environmental planning in Oman: namely, shortage of water, desertification, air pollution, waste and energy. This study was also concerned with examining the effect of different academic courses taken by students of various university faculties. The following section presents the research questions.

Research questions
This study aimed to answer the following questions;
1   What are the attitudes of Sultan Qaboos University students towards environmental problems?

2   Are there differences in students' attitudes towards environmental problems that can be attributed to the variables of (a) gender or (b) college?

3   Are Sultan Qaboos University students willing to take action to reduce environmental problems?

4   Is there any difference between students' willingness to take action that can be attributed to the variable of (a) gender or (b) college?
5   Is there a relationship between students' attitudes towards environmental problems and their willingness to take action to reduce them?

Sample

The population of the study consisted of students in five colleges, namely: Education, Arts, Science, Agriculture and Medicine, whose total number in 2002/2003 was 1,700 students. The sample of the study consisted of 311 students drawn mainly from students of the final year in each college. The following table shows the distribution of the sample.

Table 1: Distribution of the study sample

Gender	Faculties					
	Educat-ion	Arts	Science	Agriculture	Medicine	Total
Male	27	27	28	17	17	116
Female	58	58	32	36	17	201
Total	85	85	60	53	34	317

Instrument

In this study, a Likert scale was used because it allows for the use of sub-scales and also facilitates investigating the different dimensions of attitudes. This scale is also a popular technique and students are more likely to be familiar with it (Likert, 1967; Oppenheim, 1992). The questionnaire consisted of 48 items distributed into five dimensions: energy problems (13 items), water problems (12 items), air pollution problems (8 items), waste problems (8 items) and desertification problems (7 items). The items within each dimension examine two different facets of each area: students' attitudes towards environmental problems and their willingness to take action to reduce those problems. Validity of the questionnaire was examined by a panel of ten experts in the Social Studies Curriculum and Psychology Departments at the Sultan Qaboos University. Reliability was established by using Cronbach's alpha coefficient for analyzing the results of a pilot study; the results prove that the questionnaire was reliable as the level of reliability reached .824.

Results

Question 1: What are the attitudes of Sultan Qaboos university students towards environmental problems?

Table 2: The means and SD of the students' attitudes

Problem	Minimum	Maximum	Mean	SD
Energy	2.38	4.62	3.6503	.4492
Water	1.92	5.00	3.9146	.4822
Air	1.75	5.00	3.9101	.5331
Wastes	2.00	5.00	3.7906	.5517
Desertification	1.86	4.86	3.5074	.5699

The above results show that students express high levels of concern over environmental problems. It can be observed from the table that water problems come first, with a mean of 3.914, followed by air problems with a mean of 3.910, waste problems coming third with a mean of 3.790, then energy problems at a mean of 3.650, and finally desertification at a mean of 3.507. High concern about the shortage of water could be attributed to the fact that water shortage has become a daily problem that Omani people face in all regions, particularly in interior areas which do not benefit from the desalination plants that have been built in the costal area. Air pollution is a problem which has recently become a cause of concern, due to accelerated economic development and increase in transportation; this may account for students' increasing concern with the problem. The apparently low level of students' concern over desertification could be explained by the fact that Omani students see the desert as a natural phenomenon, and that many Omanis do not yet see desertification as a danger to human development. If fact, the desert is often seen as a source to be developed economically attractive for tourist.

Question 2(a): are there differences between students' attitudes towards environmental problems due to their gender?

Table 3: The means, SD and T-Test results for students attitudes by gender

Gender		Ener-gy	Water	Air	Was-te	Desert
Male	Mean	3.5882	3.8858	3.8222	3.7985	3.4126

	SD	.4677	.5544	.5796	.5152	.5670
Female	Mean	3.6862	3.9308	3.9608	3.7861	3.5622
	SD	.4353	.4358	.4988	.5729	.5657
P <0.05		.061	.425	.026*	.847	.024*

Table (3) indicates that female students hold a statistically significant higher level of concern toward environmental problems than male students, particularly in the areas of desertification (0.24) and air (0.26). These results support the finding of previous literature, which indicates that females are generally more interested in environmental issues than males. (Kuhn, 1979; Schahn and Holzer, 1990; Zelezny, 1998; Worsley and Skrzpiec, 1998; Chin, 1993; Bissonnette, 1999).

Question 2(b): is there any difference between students' attitudes towards environmental problems due to their college?

Table 4: mean scores and standard deviation for students' attitudes by college.

College		Energy	Water	Air	Wastes	Desertification
Education	Mean	3.7529	4.0216	3.9485	3.7294	3.5160
	SD	.41256	.40257	.47999	.55227	.53547
Art	Mean	3.6190	3.8333	4.0000	3.8544	3.5630
	SD	.49196	.57606	.58120	.59225	.61814
Science	Mean	3.6026	3.8722	3.8521	3.8625	3.4881
	SD	.43356	.39490	.57004	.55555	.47438
Agriculture	Mean	3.5312	3.8742	3.7972	3.7264	3.3935
	SD	.43704	.45309	.53889	.52409	.62453
Medicine	Mean	3.7421	3.9853	3.8676	3.7574	3.5588
	SD	.42467	.55636	.42855	.47268	.59825
Total	Mean	3.6503	3.9143	3.9101	3.7906	3.5074
	SD	.44917	.48221	.53312	.55170	.56987

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The table shows that Education and Medicine students hold a higher level of concern toward environmental problems in the areas of energy and water than students from other colleges.

In the case of air, waste and desertification problems, higher levels of concern are held by the students of Arts, Education and Medicine. Students from the Science and Agriculture Colleges report average levels of concern, and lower levels with respect to desertification problems. To determine whether the differences in the means are significant, the ANOVA is used, the results are shown in Table (5)

Table 6 results show that there are no statistically significant differences in students' attitudes toward environmental problems which can be attributed to the institution of study, except in the case of energy problems, for which differences exist at the level of (0.029). In order to determine the source of these differences, Tukey Test was used, the results of which are presented in Table (6)

Table 5: ANOVA results

		Sum of square	Df	Mean square	F	Sig
Energy	Between group	2.154	4	.538	2.727	.029*
	Within group	61.601	312	.197		
	Total	63.755	316			
Water	Between group	1.899	4	.475	2.068	.085
	Within group	71.579	312	.229		
	Total	73.477	316			
Air	Between group	1.752	4	.438	1.552	.187
	Within group	88.061	312	.282		
	Total	88.813	316			
Waste	Between group	1.230	4	.308	1.011	.402
	Within group	94.950	312	.304		
	Total	96.180	316			
Desertification	Between group	1.069	4	.267	.821	.513
	Within group	101.552	312	.325		
	Total	102.620	316			

* P <0.05

Table 6: Turkey test results

	Education	Arts	Science	Agriculture	Medicine
Education	——			✳	
Art		——			
Science			——		
Agriculture	✳			——	
Medicine					——

Tukey * P <0.05

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The above table shows differences between the responses of Education students and Agriculture students, where Education students' attitudes are higher than those of Agriculture students. The mean for the former reached (3.7529) whereas that of the latter is (3.5312). This difference may be attributed to the higher academic level of the students accepted in Education (90%+), and to the fact that Education programs include environmental education.

Question 3:   Are Sultan Qaboos university students willing to take

action to reduce environmental problems?

The following table shows the mean scores and standard deviation of students' willingness to take part in reducing environmental problems.

Table 7: mean scores and SD of students' willingness to take action to   reduce environmental problems

Environmental problems	Mean	Std. Deviation
Water	3.6183	.62753
Waste	3.4953	.72956
Air	303375	.89987
Desertification	2.9989	.92910
Energy	2.9411	.87353

It can be seen from the above table that students hold a high level of positive attitudes toward environmental problems, particularly the problems connected with water (3.618) and waste (3.495). This high level of positive attitudes may be attributed to students' realization of the seriousness of these problems, and the importance of individuals' participation in confronting them. Students may have realized too that the country is facing serious problems in the area of water. However, the table indicates a low level of students' willingness to participate in programmes aimed at reducing energy and desertification problems, with a mean of (2.941) and (2.998) respectively. This result, in the case of the former, may be attributed to the fact that people feel that they can live without air-conditioning

despite the extremely hot weather, or to the fact that the cost of electricity in Oman is relatively low; in either case, this aspect of energy conservation is not a priority.

In the case of problems arising out of desertification, the suggested explanation given above for the low level of student concern over problems of desertification also applies to their apparent lack of enthusiasm for participation in programmes aimed at tackling desertification.

Question 4(a) : Is there any difference between students' willingness
          to take action due to gender?

Table 8: Mean scores, standard deviation and T-test results

		Energy	**Water**	**Air**	**waste**	**Desert**
Male	**Mean**	2.8994	3.5841	3.2974	3.4224	2.867
	SD	.8882	.7132	.9623	.7507	.9699
Female	**Mean**	2.9652	3.6381	3.3607	3.5373	3.074
	SD	.8663	.5733	.8634	.7158	.8984
P <0.05		.519	.461	.547	.177	.056

There are no statistically significant differences in students' willingness to participate in reducing environmental problems that can be attributed to the variable of gender, though female students' level is higher (.056) than male students.

Question 4 (b) : Is there any difference between students willingness to take action that can be attributed to their college?

Table 9: 2-Way ANOVA Results

	Sum of square	**Df**	**Mean square**	**F**	**Sig**

Ener-gy	Between group	3.532	4	0883	1.159	.329
	Within group	237.591	312	0762		
	Total	241.123	316			
Water	Between group	1.934	4	0483	1.231	.297
	Within group	122.505	312	0393		
	Total	124.439	316			
Air	Between group	1.424	4	0356	436.	.782
	Within group	254.459	312	0816		
	Total	255.883	316			
Waste	Between group	1.087	4	0272	507.	.730
	Within group	167.156	312	0536		
	Total	168.243	316			
Deser-tificat-ion	Between group	1.626	4	.407	.468	759.
	Within group	271.151	312	.869		
	Total	272.77	316	.		

The results presented in the above table show no statistically significant differences between students' attitudes towards environmental problems and their willingness to participate in facing those problems which can be attributed to the variable of college of study. This convergence of results, in particular in the areas of air (0.782) and waste (0.730), may be attributed to the fact that all students live in the same urban environment where air pollution is becoming increasingly a matter of concern.

Question 5: Is there a relationship between students' attitudes towards environmental problems and their willingness to take action to reduce them?

Table 10: correlation scale between students' attitudes towards environmental problems and their willingness to take part in reducing them.

Attitudes	Pearson correlation coefficient	Sig.
Contribution	.340	.01

The above table shows a correlation between students' attitudes towards environmental problems and their willingness to participate in reducing those problems. More information on this positive relation and its scale in each area is presented in the following table.

*Table 11: Correlation coefficient of students' attitudes and their willingness to participate in reducing them***:**

Willing to contribution		Energy	Water	Air	Wastes	Desertification
Attitudes	Pearson correlation coefficient	.347	.475	.324	.335	.133
	Sig.	.000	.000	.000	.000	.018
	N	317	317	317	317	317

The results indicate the existence of a correlation between students' attitudes towards environmental problems and their willingness to participate in facing those problems. This result supports the results reached by a number of previous studies conducted on the same issues, among them :(Mathew, 1990; Dunlap et al, 1993, Buhemann, 1998)

Conclusion

The results of the study support the findings of the literature which indicates that positive attitudes among students are growing towards reducing environmental problems. This is promising, showing that young people are becoming more aware of and showing more understanding of the danger facing our planetary environment and their role in controlling environmental degradation and its outcomes. However, it is apparent that the Omani educational system needs to put more effort into raising students' awareness of the importance of their individual and community role in tackling environmental problems, in order to give future generations the chance to live in a healthy environment.

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Status of Female Teachers in Pakistan: Problems and Prospects

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Abstract

Education is a life long process. In this process, teachers play an important role. For this purpose, teachers must be equipped with necessary knowledge, attitude, behaviour and skills. In fact, they require performing their tasks effectively in the classroom according to the situation. However, unfortunately Teacher Education, in Pakistan has remained the most neglected sector of our national system of education. In spite of the fact that each educational policy since 1947 to- date have emphasized the need for improving teacher education programme. Therefore, the aim of writing this article is to determine the status of teacher education and its problems especially to find out the problems of female teachers .This study also suggests the ways and means for empowering female teachers in Pakistan. The study is descriptive survey type in nature. For collecting data, questionaire, and interview schedule was developed and administered on sample population of both rural and urban of Sindh province. The data was analyzed in accordance with the objectives and in the end recommendations were made for the improvement of the status of female teachers in Pakistan

Keywords: Human Right, Educational System, Character
                 Building, Female Education, Teacher Education

Introduction

The progress and prosperity of a society largely depends on the effectiveness of its educational system, and the best educational system is the one that provides equal opportunities of getting education to all its members (male and female). Education is the basic human right that is still too frequently denied to educate females. No national development, in real sense is possible unless the whole population is educated. The role of women in the character building of children, and their contribution to the development of a healthy and progressive society is universally recognized. Female literacy plays a very significant and crucial role in the development of nation and country. The problems of female education in Pakistan

are enormous, and the situation is far behind being satisfactory particularly in rural areas. There are so many factors prevailing behind this worst situation and among them, the most important factor is ineffectiveness of teachers who impart knowledge and skills to the students and mould their behavior towards positive direction. If they face problems and hurdles during their work, naturally they cannot perform their responsibilities effectively. This situation is most horrible in case of female teachers because they have to face two fold pressures both from inside and outside the home, which put adverse effect on imparting education. Teacher Education is one of the most important segments of any system of education. But unfortunately in our system of education it is most neglected sector in spite of the fact that every government has emphasized on the development of teachers and on the solution of their problems. Therefore, this study aims to evaluate present position of teacher education in Pakistan, also to determine the problems of female teachers and to suggest ways and means to improve the situation.

Objectives of the study

This study has been specifically designed to:

1) determine the current status of teacher education and its problems
2) find out the problems of female teachers
3) suggest measures for improvement of teacher education and empowering female teachers in Pakistan

Significance of the study

Educationally Pakistan is at lower level in comparison with other developing countries of the world. Scarcity of quality teachers is one of the most important factors behind this worst situation because teacher occupies a central position in the education system of every society, and the success of a system of education largely depends on the competences/skills of teachers. A teacher is a person charged with the responsibility of helping others to learn and to behave in new and different ways. Professional growth of teachers is the part of education system. Teacher education is not an end in itself. It is a means to an end. The overall goal of teacher education is to produce quality teachers, who have full command on his /her subject and teaching methodologies, have good communication skills and can act as a guide/mentor and co-coordinator. As far as the development of

teacher, education in Pakistan is concerned, it is a matter of satisfaction, of course partially, that conditions are better than what were in the early 50's.

There has been a significant increase in number of institutions, enrollment and teaching staff. According to AEPAM report (2004-05), there are 135 institutions, with 36,563 enrollment and 2,676 teachers in Pakistan. However, when these developments and facilities are compared with the ever-increasing population, this physical expansion appears to be quite dismal. Side by side if we compare male and female data, it clearly indicated gender disparities and inequalities in the quantitative development of Teacher Education .What are the reasons /factors prevailing behind this worst situation? What are the problems of teacher education and teachers? How can we solve these problems? How can we empower female teachers of our country?

The above discussion and research questions highlight that this study on teacher education is very significant from many point of view. This study presents a clear picture of the existing status and position of teacher education as it stands now and explores problems of teacher education, its causes, especially the problem of female teachers. It also suggests recommendations for empowering female teachers. This study will also help in understanding the Government policies and plans regarding teacher education. It would help in locating the priorities and provisions at national level, which we have made as a nation over the last 50 years.

Delimitation of the Study
Teacher education is a vast domain, which covers many aspects. In fact, it is very difficult for a researcher to cover each aspect of teacher education. Therefore, the study has been very specific and delimited to only Public Sector teacher training institutions and schools of Sindh province and private / unrecognized training institutions and schools have not been included in the study. This study has also been delimited to those teacher-training institutions, which offer only B.Ed. / M.Ed. programs in Sindh. Those institutions, which offer CT/PTC and other refresher course, are not included in this research.

Literature Review

Teachers are the builders of the nation. They are teachers of the teachers. Therefore, the training of them is a most crucial task. In Pakistan, Teacher Education is the legacy of past. It was introduced in the Indo-Pak sub continent during the British rule. In 1854, Wood Educational Dispatch emphasized that there is a need of systematic programme of teacher education.

"In England when systematic attempts began to be made for the improvement of education, one of the chief defects found to be the insufficient number of qualified schoolmasters and the imperfect method of teaching which prevailed. This led to the foundation of normal and model schools for the training of masters and the exemplification of the best method s for the organization, discipline and instruction of elementary schools. This deficiency has been more palpably felt in India, as the difficulty of finding persons for the work of tuition is greater; and we desire to see the establishment , with as little delay as possible , of training schools and classes for masters in each Presidency in India …….." (Naik, 1951).

From 1854 to 1947, much quantitative and qualitative advancement were made in the system of teacher education. At the time of independence, Pakistan inherited the system of education including teacher education from British and there was an urgent need to change this system according to our socio-cultural patterns. In 1947, First Education Conference was held, in which Primary and Secondary Education Committees recognizing the role of teachers in Pakistan, and declared that "A properly, trained and reasonably well paid teaching professionals are essential to the building up of a great state" (1st Educational conference, 1947). Because of the recommendations, some developments were made in this regard. In 1959, the report of the commission on National Education came out. In this report (p.274), many valuable suggestions were given for the improvement of teacher education.

According to the report, "The provision of suitable teachers and their training is a matter of national importance" (National Commission on Education, 1959). Since 1959 and onward, there has been much educational activity in the country. Many significant changes and developments have been introduced in the field of teacher education.

These innovations include determination of new goals, re-organization of administrative structure, revision of curricula, providing all necessary physical facilities and instructional materials and revision of service conditions and salaries of teachers. In 1998-2010, the new education policy "IQRA" was announced which emphasized on the production of quality teachers and on making teacher education programs more effective. According to policy statement,

"The quality of education is directly related to the quality of instruction in the classrooms. Teacher is considered the most critical factor in the entire education system being the major implementer of all educational reforms at the grass root level. It is well-established fact that the academic qualification, knowledge of subject matter, competency and skill of teaching, and the commitment of teacher produces similar impact on the quality of education of the students at relevant level. Recognizing the deteriorating quality of education at various levels, efforts need to be intensified to accord adequate priority to the effectiveness of teacher education programmes in the country"(Government of Pakistan, 1998).

The analysis of data clearly presents that there is gender differences in the development of teacher education. Keeping in view this situation, valuable measures should be taken on urgent bases.

Methodology
There are number of methods, techniques, strategies and devices available in the field of educational research. In fact, it is the nature of research problem as well as the nature of available literature that determine the choice of method. This research study is a descriptive survey type in nature with special reference to Sindh province. As a sample of study, 10 districts of Sindh province were randomly selected.The data was collected by using following techniques.

a) **Questionnaire:**
   After detailed review of literature, the problems of female teachers were categorized into three areas:
   • Socio-Cultural Conditions
   • Education
   • Service/Job conditions

A questionnaire having four open-ended questions relating to above problems of female teachers was prepared. After developing questionnaire, it was pre-tested on the small group of 30 teachers. They were asked to report about the difficulty of understanding the questions. Then in the light of views given by pre-tested group the questionnaire was reviewed and revised again, retested, until all the teachers of the group understood the questionnaire. Then it was administered to the sample population of 500 teachers having 10 years of teaching experience of primary / secondary schools of public sector. They were randomly selected from the sample districts of Sindh.

    b) Interview Schedule:
        An interview schedule was prepared having 06 structured questions relating to different aspects of Teacher Education. The interviews were conducted by the researcher to heads / Principals of schools, heads of teacher training institution, DEOs and EDOs.

    c) Study of Related Literature:
        Data was collected by making an exhaustive study of the different policies from 1947 to date. It was also collected by using various related web sites.

Data Analysis and Discussion
a)Questionnaire
In all, 500 questionnaire were administered / mailed, out of which 375 (75%) were returned. In response of questionnaire, female teachers mentioned a long list of problems relating to their family, education and service conditions. The data collected by research tools was analyzed question wise in accordance with the objectives of study. The respondents from each question have been given total sample size and overall percentage return.

1) Problems relating to socio-cultural conditions
This category of problems pertains to the attitude of different members of society / family like parents, husband, in-laws etc.

towards female teachers. 70% teachers opined that the illiterate parents are generally not aware of the importance of education for their female children. They also regard her as second-class citizen, especially in rural areas. On the other hand, if she is married then in most of the cases her husband and in-laws just consider her as a commodity, they expect her to cater the needs of the whole family and also play her responsibilities inside the home perfectly as a mother, wife, and "Bahoo". Beside, male members do not allow a women to make plans about family, because they also consider her a machine of reproducing a child every year, as a result she faces various health problems like frustration , depression , anxiety and other emotional strains. This attitude of family makes her feel sick, and she cannot pay attention on her work as a good teacher. The respondents especially working in rural areas pointed out that due to the problem of security, safety and imposition of unnecessary barriers in the name of culture and religion, where the feudal augment the situation, their work has been suffered. They also mentioned the problem of non-availability of proper transportation, which becomes one of the major hurdles in performing daily life duties.

2) Problems relating to Education

In this section of questionnaire, the teachers were asked to point out the main problems relating to their education i.e in-service teachers training program. 80% of the teachers mentioned that there is lack of facilities and resources essential for teacher education. Practical aspect of teacher education is being neglected, no application of learnt methods is found in routine work of the school. Over-crowdedness of the class is also a problem. Due to shortage of teacher training institutions most of the trainees who come from far-flung areas face the problem of adjustment in these institutions; they also pay extra charges for accommodation. Expensive education, irrelevant curricula ,poor selection policy for admission ,short duration of the program, dilemma of medium of instruction, absence of code of ethics to generate professional honor and dignity , traditional approaches towards training of teachers, lack of research in teacher education are important problems marked by the respondents.

3) Problems relating to service/job

Female teachers (75%) pointed out many problem, they are facing during their job, in which low status of teachers in society, strict/unbalanced recruitment rules / political pressures ,posting in distant and far flung areas, insufficient and unattractive salary package, lack of incentives /opportunities especially for female teachers working in rural areas, un conducive working environment , teachers politics, lack of cooperation from the side of head/principal and parents, lack of proper democratic supervision, traditional type of curriculum and lack of teaching aids are important problems which continuously disturb female teachers.

In response of the last question, respondents suggested so many ways for the solution of the problems and this will be discussed in last.

b) Interview schedule

The researcher with the principals/Heads of schools and the heads of teacher training institutions as well as DEOs and EDOs conducted 50 interviews. The summary and detailed discussion of their views is given as under:

Sr. No	Questions	Frequencies and % out of 50	
1.	Are you satisfied with the current status of teacher education at B.Ed and M.Ed. level? If not why?	Satisfied	Not Satisfied
		10(20%)	40(80%)
2.	It is said that teacher education has developed only in terms of physical expansion and there has been little improvement of its instructional programs. How far do you agree with this view?	Agreed	Not Agreed
		35 (70%)	15(30%)
3.	How far do you think the existing curricula of teacher education at B.Ed / M.Ed. level adequately fulfils the needs of teachers and is quite appropriate to make them	Agreed	Not Agreed
		38(76%)	12(24%)

	effective teachers? What changes you suggest in this regard?		
4.	It is said that policies toward teacher education remain confined only to the documentation and paper work and were hardly implemented. Is it really correct	Agreed	Not Agreed
		45(90%)	05(10%)
5.	Are you really satisfied with the existing situation relating to female teachers in Pakistan? If not, what to do?	Satisfied	Not Satisfied
		09(18%)	41(82%)
6.	What measures would you suggest for the improvement of teacher education at B.Ed / M.Ed. level?	Suggestions for the improvement of teacher education are given in the last	

Q. No.1 Are you satisfied with the status of teacher education at B.Ed. and M.Ed. level, If not why?

Out of 50 respondents to whom the question was, asked 40 answered totally in negative terms. They felt completely dissatisfied with the present status of teacher education. In this connection, they expressed different reasons behind this deteriorated condition of teacher education, including expensive education, scarcity of teacher education institutions, non-practical curricula in which more emphasis is placed upon the general and academic preparation and less on professional growth, inadequate physical facilities, in appropriate and admission policy, non-conducive environment. The rest 20% expressed their views doubtfully. Although they found to be a little satisfied but even then they expressed their concern to the improvement of teacher education.

Q. No.2 It is said that teacher education has developed only in terms of physical expansion and there has been little improvement of its instructional programs. How far do you agree with this view?

The majority of educationist (70%) answered positively. They agreed that teacher education has developed only in terms of physical expansion. The quantitative standard is much higher than what it was in the past. They said that today we have more institutions, better-qualified teachers, with good facilities but the fact is that there is little improvement in its instructional program. Qualitatively the standard has gone down. They emphasized that now the time has come when we should seriously think over it and try our best to improve the standard of teacher education.

Q. No.3. How far do you think the existing curricula of teacher education at B.Ed. / M.Ed. level adequately fulfils the needs of teachers and is quite appropriate to make them effective teachers? What changes do you suggest in this regard?

76% educationist opined that the existing curriculum of teacher education at B.Ed. and M.Ed. level does not fulfill the needs of today's requirement. It is hardly fulfils the needs of teachers in relation to the requirements of modern life. Therefore, they said, it is essential to review, revise the subject according to the necessities and requirements of effective, responsible, self-reliant professionals.

Q. No.4 It is said that policies toward teacher education remain confined only to the documentation and paper work and were hardly implemented. Is it correct?

90% educationist interviewees agreed with this view. They were of the opinion that the main problem of education in Pakistan is improper implementation. Policies are made but not implemented which have created lot of problems in uplifting the standard of education in general and teacher education in particular.

Q. No.5. Are you really satisfied with the existing situation relating to female teachers in Pakistan? If not, what to do?
About the existing situation, relating to female teachers in Pakistan the majority of educationist (82%) said that the position of female teachers is still far from being satisfactory. The majority of teachers particularly of rural areas fall prey in socio cultural and educational problems. There are still a lot of things to be done for the improvement and betterment of female teachers in Pakistan. They need high status as a teacher, respect, better working conditions, a

good salary package and incentives, and better facilities / conditions for their further professional growth. In this regard they recounted many suggestions which will be discussed in the last.

Q. No.6. What measures would you suggest for the improvement of teacher education at B.Ed. / M.Ed. level?

In response to the above question educationist suggested so many measures for the improvement of teacher education. A detail discussion will be given in last.

Findings

1. 70% teachers were of the opinion that they are facing many socio-cultural barriers as working women, especially in rural areas, in which strict behavior of parents /in-laws, problems of security, safety, health and non-availability of transportation are most important.

2. 80% teachers pointed out that there is lack of facilities and resources essential for teacher education, which includes expensive education, irrelevant curricula, short duration of the program, and dilemma of medium of instruction, absence of code of ethics to generate professional honor and dignity, traditional approaches towards training of teachers, lack of research in teacher education.

3. 75% respondents indicated that they are facing many problems during their jobs like, low status of teachers in society, strict/unbalanced recruitment rules / political pressures ,posting in distant and far flung areas, insufficient and unattractive salary package, lack of incentives /opportunities especially for female teachers working in rural areas, un-conducive working environment , teachers politics, lack of cooperation from the side of head/principal and parents, lack of proper democratic supervision, traditional type of curriculum and lack of teaching aids.

4. 80% teachers were not satisfied with the current status of teacher education.

5. It was found that majority of educationists (70%) were of the opinion that teacher education has developed only in terms of physical expansion, there is no or little improvement in quality.

6. 76% educationists were said that the existing curriculum of teacher education at B.Ed/ M.Ed level does not fulfill the needs of today's requirement.

7. 90% respondents opined that the main problem of education in Pakistan in improper implementation of polices and plans.

8. 82% respondents were of the opinion that the existing situation relating to female teachers is still far from being satisfactory.

Recommendations

Keeping in view all these facts, following are the recommendations for the improvement of teacher education and empowering female teachers in Pakistan.

*   Special emphasis on the right and responsibilities of women to be laid in every walk of life. This will help in making the male population aware of the rights of women.

*   In order to improve the status of teachers in society as a first and basic step, it is essential to change or improve the attitude of the public toward social and educational status of teachers' especially female teachers, by emphasizing Islamic teachings and values, which may be given to men and women on equal footings in all respect. Therefore, it is suggested that an awareness programme should be launched on a massive scale by using different types of media including radio, television etc. about teacher education and its importance for the cause of national development.

- The government as well as all concerns should pay attention to the problems, and must take practically steps for the improvement of current status of teacher education. Whatever policy or plan is made for teacher education it should be properly implemented. Nothing should remain un-implemented, but all that concerning with teachers should not only be confined to paper work.

- More practical, functional aims and objectives should be determined, which should be easily attainable and clearly defined and must be useful for reduction to behaviorist terms.

- The existing curricula should be reviewed and revised according to the demands of socio-cultural changes in the country. The curriculum of teacher education should be more practical, and functional, and should also be applicable in the real classroom situation. It is also suggested that Vocational and Agro-Technical subjects, population education, drugs, aids, human values, human rights and any possible innovation in the near future, should be introduced in the programme.

- The existing teachers training institutions especially for females are quite meager to meet the growing needs. Therefore, in each district of the province, a separate training college / institution should be established.

- There is a need to review the existing recruitment and selection policy for the appointment of teachers. For this purpose, it is suggested that the appointments may be on the recommendations of the teachers training institutions from where they have received their training, because these organizations are in better position to give the report of the merit and aptitude of student teachers for the appointments in the teaching profession. Appointments should be only of trained teachers.

- For the development of teachers, the service conditions and salary structure need to be improved and revised. They should be give opportunities to move to the higher grades if they possess the required qualifications and experience. It is also suggested that for female teachers special loans should be released if they need so.

- The working environment of the institutions should be free from politics and gender biases / disparities so that the teachers may do their work with full of potentials, devotions and dedication.

- The Refresher Training Opportunities should be given to all in-service teachers on regular basis.

- A posting of female teachers in far-flung areas from their residences is one of the main causes of shortage of female teaching staff. Therefore, process of posting, the concerned authorities should carefully monitor transfer and it should be ensured that the female teachers are not transferred /

- All female teachers working in rural areas should be given special allowances.There should be special arrangement of transportations for female teachers for their respective institutions so that they may reach on their duties on time, safe and sound.

- For needy female student teachers full free ships / scholarships should be offered and this process should be monitored very strictly.

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Supervision of Instruction and the Role of Subject Matter Knowledge in the Training of Economics Teachers

*Burman Musa Sithole

Abstract

This study investigated the nature and quality of supervision given to Economics student teachers and the relevance of possession of Economics subject expertise by university and school-based supervisors in the preparation of Economics teachers. The indicative small-sample case study design was used to gather data from trainee teachers of Economics, their university supervisors and cooperating teachers to whom they were attached during teaching practice. Results suggest that the training and development of Economics teachers could be

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enhanced if both university and school-based cooperating teachers are well-versed in the content and pedagogy of Economics.

Keywords: Supervision, Subject Matter, Teacher Training, School-based supervision, Teaching Practice

Introduction

In the early 1970s George Stigler came to the conclusion that Economics as a school subject was not easy to learn or teach (Becker, Green & Rosen, 1990). Stigler's conclusion was not accepted by the education establishment and worldwide the teaching of Economics in secondary schools expanded greatly in the 1970s and 1980s (ibid). Although data on the status of Economics in African secondary schools were not readily available, studies have shown that the number of students taking Economics in American high schools has grown more than twenty-fold since the early 1950s (Leamer, 1975) and in England it is one of the most popular subjects for 16- to 18- year-olds (Whitehead, 1985). Mackey, Glenn, & Lewis (1977) found that despite the increasing progress in Economics education in American schools, teacher preparation in Economics is still a critically insufficient. The strengthening position of Economics in the curriculum will not guarantee high levels of economic literacy among learners unless both the quantity and quality of classroom instruction are correspondingly increased (ibid). Research conducted on secondary school teaching has focused mainly on the pedagogy of traditional school subjects and business subjects have largely been ignored. As a consequence, the body of current research on secondary school Economics education is not particularly large (Kimmit & Burnett, 2006). For this reason, the primary purpose of this study was to examine issues concerning the effectiveness of practicum Economics teacher preparation in the face of rising school enrolments in Economics.

Teaching practice (TP) plays a very important part in teacher preparation in many countries and continues to be a major part of teacher preparation programmes, and for some is considered the most important aspect (Lortie, 1975; Ryan et al., 1980). In light of this, this study sought to assess the quality of Economics teacher-preparation by investigating the nature and quality of teaching

practice supervision and assessment given to Economics student teachers at Midlands State University (MSU) in Zimbabwe. At the time the study was carried out, business education students at MSU were enrolled to study for undergraduate degrees in Accounting or Economics + Education and holders of first degrees in Accounting or Economics were enrolled in the Postgraduate Diploma in Education (PGDE). Instruction in methods of teaching was done by subject specialists but teaching practice supervision was done by all members of the Faculty of Education. While in the schools on TP, the student teachers were attached to qualified teachers in commercial subjects departments whose areas of specialization could be in any of the subjects with a commercial bias like Economics, Commerce, Accounting, Business Studies or Management of Business.

Mackey, Glenn and Lewis (1977) noted that one of the problems encountered in the preparation of Economics teachers in the United States was that most pedagogical training that the trainees received was focused on general teaching methods and not on subject-specific strategies for teaching Economics. The same can be said of interdisciplinary supervision as practiced at MSU; the problem with interdisciplinary supervision is that non-subject specialists may not be able to scrutinize Economics lessons, lesson plans and schemes of work in sufficient detail to enable them to provide adequate feedback and follow-up that is essential after observing such lessons. Marks (1990) argued that the development of student teachers would be enhanced if their mentors, both master teacher and university supervisor were well-versed in the content and pedagogy of their various disciplines. Thus, while MSU supervisors and school-based mentors shared the goal of preparing Economics student teachers to be effective classroom practitioners, some may not have had sufficient subject matter expertise to effectively do so.

Research Questions

Of particular concern in this study were the questions:

(i)   Do supervisory practices of university and school-based supervisors contribute to the effective training of future Economics teachers?

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(ii)   How relevant is Economics subject matter knowledge in the supervision of Economics student teachers?

Literature Review

Mackey, Glenn and Lewis (1977) observed that many methods instructors today do not have an adequate understanding of Economics and the various teaching strategies applicable to Economics. It has been argued that subject matter knowledge is a prerequisite to effective supervision in teacher preparation (McNamara, 1992; Kasanda, 1995). This view is further supported by Chikunda (2000), who, in his evaluation of attachment teaching practice at Mutare Teachers' College in Zimbabwe came to the conclusion that as a basic requirement, students' supervision, both by school and college supervisors should be subject-specific so that assistance students get will not only be limited to issues such as class control, motivation and use of media. Supervisors who lack subject matter expertise are unable to detect incorrect content presented by student teachers (Kasanda, 1995) and this can adversely compromise the quality of students' professional development.

A distinguishing feature of Economics knowledge is that it is generally abstract and based on theories and assumptions made a priori. Ryba (1987) says that when teaching Economics there is much more to "knowing" Economics than knowing the assumptions associated with the various Economics models; what is much more fundamental is the need to develop a thorough understanding of the subject's fundamental structure, of its key concepts and of the skills needed to acquire understanding. The challenge facing teachers is to transform knowledge of the discipline of Economics into lessons on economic literacy (Seiter, 1989) and this involves the "ability to conduct objective, reasoned analysis of economic issues" (Banaszak, 1987:2). It follows that expert guidance in the translation of economic theory into practice is needed in the practicum in order to give prospective teachers of Economics the opportunity to develop theories and practices of Economics instruction that are consistent with the nature of the subject.

Related to subject content expertise is a body of knowledge about teaching that is important and is termed pedagogical content

knowledge. Recent research indicates that pedagogical content knowledge is central to classroom instruction (Gudmundsdottir & Shulman, 1987). It is a blend of content and pedagogy needed to communicate effectively to learners; such knowledge is grounded in deep understanding of one's subject matter and of what learners already know, including their misconceptions and preconceptions (Shulman, 1987 cited in Firestone, 1993). According to Gudmundsdottir and Shulman (1987), knowing the different ways topics can be taught and the pros and cons of each approach is pedagogical content knowledge that is influenced by general pedagogical knowledge. Marks (1990) says that pedagogical content knowledge represents a class of knowledge that is central to teachers' work and would not typically be held by non-teaching subject matter experts or by teachers who know little about that subject. The concept of pedagogical content has some implications for teacher education; Marks (1990) and Marland (1998) argue that it is important for student teachers to learn about subject-specific pedagogy in methods courses at university so that they work to develop their pedagogical content knowledge in schools. Marks go further to argue that subject courses must be taught by competent instructors who have some understanding of the pedagogy of the subject. By corollary, supervision of the same students must be by these same competent instructors. The development of student teachers would be enhanced if their mentors and university supervisors were well-versed in the content and pedagogy of their various disciplines (Marks, 1990).

Methodology
Research Design
The case study design was used. "Case study" is a generic term for the investigation of an individual, group or phenomenon (Sturman, 1994). Case studies allow the researcher to become familiar with the data in their natural setting and to fully appreciate the context (Punch, 1998). In regard to this study, the perspectives of the supervisory triad influenced the effectiveness of Economics teacher training. To understand the quality of Economics teacher preparation, it was necessary to understand the viewpoints of the Economics students themselves and those of the university lecturers and school teachers who supervised them.

Multiple sources of data were accessed through interviews, observation and document analysis in an attempt to increase the credibility of case study methodology through the triangulation of data collected The concept of triangulation is central to achieving credibility of case studies as it involves the use of different data sources or different methods of data collection to complement one another (Tawney, 1975 cited in Sturman, 1994).

Participants

Participants in the study were 6 Economics student teachers (Student 1, Student 2, Student 3, Student 4, Student 5 and Student 6), 6 school-based supervisors to whom the students were attached during their TP (Mentor 1, Mentor 2, Mentor 3, Mentor 4, Mentor 5 and Mentor 6) and 5 MSU lecturers (Lecturer 1, Lecturer 2, Lecturer 3, Lecturer 4 and the Teaching Practice Coordinator). The selection of the students was done using the guidelines of purposeful sampling (Wiersma, 2000) and they were chosen because (1) they were majoring in Economics education, (2) their practicing schools were confined to schools in Gweru urban and peri-urban area for ease of accessibility and (3) they agreed to participate in the study. Once the students were identified, their mentors automatically fell into place.

Data Collection

Data was collected using interviews and direct observation of students being supervised. Archival university TP documents were used to complement these methods. Interview schedules for the two categories of supervisors were designed to elicit information on the key aspects of supervision (in line with the research questions) like supervisors' teaching experience, subject specialisation, supervisory practices and the significance of subject expertise in supervision. The schedule for students was mainly intended to cross-check supervisors' practices during supervision and it elicited information on their conception of effective supervision, the nature of supervision they received and quality of guidance given.

Data Analysis

The data collected consisted of field notes from interviews, completed lesson observation forms and notes from Economics lessons observed. The constant comparative method of analysis was used to guide data analysis (Glaser & Strauss, 1975; Goetz &

LeCompte, 1981). The data collected from interviews, direct observation and document analysis were compared and cross-referenced to facilitate the profiling of the perspectives of the supervisory triad. This triangulation of data was meant to remove concerns that may have to do with contextual validity of the findings.

Discussion

Profiles of Supervisors

A total of five lecturers were involved in the study and among them was the Teaching Practice Coordinator. This writer, as the only Economics major in the Department of Applied Education took the role of non-participating observer. The profiles of university supervisors are given in Table 1 below:

Table 1: Lecturers' Profile

Lectu-re	Gender	Age (years)	Experie-nce in Schools (years)	Experie-nce in Teacher Educati-on (years)	Area Specializa-tion
	F	47	11	13	Home Economics Education
Lectur-er 2	F	49	14	11	Psychology of Education
Lectur-er 3	F	40	13	6	Chemistry Education
Lectur-er 4	M	47	23	1	Account-ing Education
TP Coord-inator	M	39	9	7	Biology Education

All lecturers in the sample were mature with vast teaching experience in both secondary schools and teacher education. It is assumed that the responses that lecturers gave relating to the supervision of Economics student teachers were a result of their vast experience(s) as teacher educators

Six teacher mentors of Economics student teachers were identified and below is their profile according to gender, age, teaching experience and subject specialization.

Table 2: School-based Supervisors' Profile

	Gender	Age (years)	Teaching Experience (years)	Subject Specialization
Mentor 1	M	37	9	Economics
Mentor 2	M	35	12	Economics
Mentor 3	F	41	14	Economics
Mentor 4	M	29	3	Accounting
Mentor 5	M	36	14	Economics
Mentor 6	F	43	17	Accounting

What is clear from the table is that overall; Economics student teachers were supervised by teachers who were relatively mature and experienced. All the 6 teachers were holders of first degrees and postgraduate teaching qualifications. All but 2 of the school-based supervisors were Economics majors and were conversant with Economics subject matter..

Supervisors' and Supervisees' Perceptions of Effective Teaching Practice Supervision
The concept of effective supervision is much debated and difficult to define (Boydell, 1986, cited in Kauffman, 1992). This was quite apparent considering the diverse though convergent responses from lecturers and school teachers. Although the wording from individuals differed, lecturers and teachers were unanimous on the notion that during supervision they would be trying to give students basic skills necessary to plan lessons, organize learning experiences, optimize learner involvement, assess learners' learning and evaluate their own teaching; supervision involved, among other things, monitoring, guiding, correcting, highlighting strengths and weaknesses of teacher trainees.

Responses from all 6 students indicated that their perceptions of teaching practice supervision were not different from those of their supervisors. To them supervision involved among other things,

helping students to teach better (Student 4), finding out students' strengths and weaknesses and giving advice (Student 5) and checking if students were putting into practice what they learnt in methods courses (Student 1). It was apparent that that the expectations of the supervisory triad were convergent and those they had similar if not the same expectations.

Supervisory Practices of University and School-based Personnel
TP supervision can be viewed as a nurturing process where supervisors are the nurturers who help provide the environment for the pedagogical and professional development of the student (Chikunda, 2000).To assess the extent of nurturing taking place, supervisory practices of university and school-based personnel were examined. University lecturers' supervisory practices were guided by the MSU Teaching Practice Regulations (2000) which stipulated a minimum of three mandatory supervisory visits by university staff and these were to be carried out within the 10 weeks that students would be out in the schools.

The supervisory practices of mentors were quite varied. For instance, Mentor 1 indicated during the first week of TP he gave demonstration lessons while the student sat-in and observed and in week two the student taught while he observed. Mentor 2 indicated that he followed his school's policy of two supervision visits per term and only did the third visit to satisfy the university's requirements. Mentor 3 said she almost always sat in every lesson that the student teacher conducted. Mentor 4 and Mentor 5 supervised their mentees 1 - 2 times a week while Mentor 6 said she supervised the student once a week.

An analysis of TP Office documents revealed that students had been supervised at least twice each by both school and university lecturers. What was apparent though was that mentees seemed to receive much more guidance from school mentors than from university supervisors:

> My mentor helps me to plan most of my lessons and also makes suggestions on   the   use   of   AVA.
> (Student 3).

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> I am more confident now. Mr…(Mentor 5) is very helpful. He has been to my lessons three times and he taught me how to evaluate lessons critically. (Student 5).

It seemed most students benefited more from their school-based mentors who offered them guidance on how to come up with appropriate instructional methods and materials relevant to the teaching of Economics. School-based mentors seemed the more influential in their supervisory roles and this could be because of their close and more frequent day-to-day interaction with students compared to university supervisors.

Checking Economics Lesson Plans and Schemes of Work

Teachers with ample knowledge of Economics are able to plan effectively for the introduction, organization and delivery of basic concepts (Seiter, 1989). According to Perrott (1982) planning is the most important aspect of any teaching situation. It is therefore imperative that Economics trainee teachers must be able to develop effective lessons by planning for the interaction of teacher, learners, Economics subject matter, resources and other factors that are expected to produce learning or a change in behaviour of learners. Planning for teaching is subject content-based and for effective scrutiny of teaching plans, one may need some degree of Economics subject mastery in order to provide adequate feedback to the student(s).

All 5 lecturers indicated that they always looked at lesson plans and schemes of work. 4 said they only looked at these documents to check if students were following the correct format when planning and 1 who was an Accounting major said he sometimes discussed content-related issues since he had a working knowledge of Economics. A look at completed supervision reports confirmed that planning of content taught was hardly checked. Supervisory comments almost always centered on the statement of lesson objectives, of which everyone was familiar:

> Lesson objectives and media appropriate. Approaches and activities outlined in detail (Lecturer 1).

Inadequate preparation of lesson. Other aspects of lesson planning are OK. (Lecturer 2).

Sketchy lesson development details. Behavioural and achievable lesson objectives. Chart included. (Lecturer 3).

Add detail to lesson development stages. Well stated introduction. Lesson objectives were clearly stated. (Lecturer 4).

As for the supervising teachers, all 6 said they always checked students planning including content. A look at the teachers' supervision reports however, did not substantiate their claims; they seemed to fall in the same trap as lecturers by writing generalized comments such as:

Plausible objectives and detailed strategies. The media selected was appropriate. (Mentor 2).

Teacher encouraged to use a variety of teaching aids. Detailed strategies for lesson. (Mentor 4).

A clear pattern that emerged from these observations was that despite the importance of planning in teaching, supervisors were clearly not doing justice to the scrutiny of Economics student teachers' teaching plans, particularly lesson plans. It is the lesson plan that expands the content of the sub-topics in the scheme of work and gives the teacher a clear idea as to how to carry out learning activities in such a way that learning objectives and the acquisition of economic literacy can be achieved.

Discussing and Giving Guidance on Economics Content Knowledge

Most Economics teachers graduate from institutions of teacher education without having received adequate training in the practical applications of basic economic concepts in classroom situations (Mackey, Glenn & Lewis 1977; Walstad & Watt, 1985). Seiter (1989) was of the view that the quality of instruction in Economics depends on the pedagogical knowledge of teachers and that there was a positive relationship between teacher's knowledge of

Economics and levels of economic literacy by the learners they taught. To achieve this, subject-specific guidance by supervisors is needed because Economics student teachers are supposed to employ experiential teaching strategies that make the subject matter meaningful for learners and to help them to become critical thinkers who can conduct reasoned analyses of economic and business issues. Supervisors not conversant with the subject matter being taught may rely for their supervision on giving guidance relating to general methodology only without giving assistance relating to subject-specific pedagogy (Stone, 1984).

Responses from university supervisors indicted that they rarely discussed Economics subject matter knowledge and its articulation:

> I sometimes discuss explaining of Economics concepts especially when I have some idea of what is being taught. (Lecturer 2).

> I discuss Economics concept development. I did "A" Level Economics and I know some of the stuff. Only that I'm now rusty. (Lecturer 4).

> I am not an Economist so what is there to discuss? (Lecturer 3).

A look at completed lesson observation forms revealed that university supervisors' comments were mostly generalized accounts on general methodological issues:

> Revision on each test item was made which was time-consuming. Pupils gave solutions to questions on the chalkboard and teacher highlighted on key points. (Lecturer 3).

All 6 school-based supervisors, including the Accounting major said they always or almost always discussed concept development and content knowledge. This was confirmed by comments in some of their supervision reports:

> …the teacher also shows maturity in content knowledge and relevance of the subject matter. (Mentor 2).

Teacher showed a clear mastery of the topic on Balance of Payments. (Mentor 5).

The pattern that emerged from these findings was that tutoring that was subject-specific come from school-based supervisors while MSU lecturers concentrated on giving general methodological advice. If subject-specific supervision leads to better pedagogical practices by trainee teachers, then why not empower the school supervisors? There may be need to involve Economics mentors more in the supervision of Economics students; most of the mentors were subject specialists and they could sit-in with lecturers in students' lessons and in post-observation conferences in advisory roles to non-specialist lecturers.

Competency in Supervising Economics Student Teachers

To find out whether possession of Economics knowledge or lack of it had any effect on the supervision of Economics students, supervisors were asked on whether they felt that they were competent enough to supervise these students. 4 of the teachers with an economics background felt that they were very competent. Cited as reasons were teachers' experiences in the teaching of the subject and their positions of responsibility in supervisory roles:

I am an Economist and my post of HOD has refined my supervisory skills. I am very competent (Mentor 2).

I am very competent. I have years of experience supervising student teachers and teachers in my department. (Mentor 5).

Responses from lecturers ranged from "no problem", "not comfortable", "fairly comfortable" to statement by one that:

I am not an Economics teaching specialist and I wouldn't do it out of choice. However I give general pedagogical advice (Teaching Practice Coordinator).

What emerged is that while school based supervisors are comfortable and confident in their supervisory practices, university supervisors had reservations and only supervised these students in the execution of their duties. This may explain why some lecturers thought that students grudgingly accepted pedagogical advice from them:

These students only accept my advice as a matter of respect otherwise they don't seem willing. They know my content deficiency (Lecturer 3).

Most accept my advice but generally they are argumentative. I avoid advising on content (Lecturer 4).

Subject matter knowledge in student teacher supervision is invaluable. As Marks (1990) observed, the professional development of student teachers could be enhanced if school-based and university supervisors were well versed in Economics content and its pedagogy. Some students felt that Economics content knowledge is a very important aspect in teaching because it forms the basis of the whole Economics teaching process. One of the students made an interesting observation:

Content knowledge is more important than its presentation (Student 2).

There was also the opinion that supervisors must check that content and graphical presentations were done correctly, especially in static equilibrium analysis where incorrect depiction of graphical relationships between economic variables will automatically lead to flawed analyses.. 2 students were of the view that Economics can be highly theoretical and abstract at times so much that emphasis of supervision should be to check students' ability to apply economic theory to everyday life for the benefit of learners.

Evidence gathered here suggests that supervisors who lack subject expertise did not perceive themselves as competent supervisors of student teachers because they were not conversant with economic theory and principles; they may have relied for their supervision on giving general pedagogical advice at the expense of subject-specific guidance. This could have serious implications on the quality of supervision given to these students, especially by university lecturers. One student asked:

Is a distinctive grade based on the assessment of general methodology only as good as one based on the assessment of both content and methodology? (Student 4).

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The general consensus among students was that the best way to supervise them was to use subject experts who could pick out errors in content which non-specialists could not do. Commercial subjects like Commerce and Economics use certain terminologies which non-specialists may overlook or even penalize students for their "misuse". An example cited by one student, not involved in this study, was the use of the term "scarcity" which in the everyday sense may be used to refer to a shortage whereas in Economics it means a condition where wants exceed the means of their fulfillment necessitating choice between alternative uses of available resources, hence opportunity cost.

Conclusion
What emerged from the findings of this study was that while an attempt to effectively supervise MSU Economics student teachers on attachment teaching practice was evident, the quality of such supervision could be enhanced if some modifications to current supervisory practices were made. The university should value content and pedagogy since the two go hand in hand; teaching Economics involves explaining Economics concepts fully and modifying teaching methods to pull economic facts together for the benefit of learners. To ensure that student teachers blend content and pedagogy effectively, an attempt could be made to see to it that at least 1 or 2 of the mandatory supervision visits by university staff are by Economics subject specialists. Such specialists, through their past experiences and observations will be better placed to advise students on what should be taught, how it should be taught and what instructional strategies work best. To increase the effectiveness of teacher training in Economics education, efforts must also be made to increase the in-service training of methods instructors. Such programs should also focus on the teaching of basic economic concepts and applying these concepts to typical classroom situation.

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Dilemma of Training of Literacy Personnel in Pakistan

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Abstract

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Literacy helps in socio-economical development of any country. Many programmes of literacy failed due to improper implementation of its programmes. There are several factors involved in the implementation of the project. Among them most important is the training of literacy personnel i.e. administrators, managers, supervisors and instructors. In this regard literacy instructors are the pivotal target group. This research paper investigates the process of training of literacy instructors with the essential training needed to develop job related skills. Study concludes that instructors understand that literacy is key to human development but instructors are not included in the formulation of literacy programmes.

Keywords: Literacy, human development, Teachers' training, cognitive dimensions, communication skills

Introduction

Literacy is a key for human development. It is an instrument of stability and a mean of effective participation in society. The advancement of science and technology has opened new avenue of life, that is, swift communication is mainly through symbol, numbers, alphabets and signs. Only literate person can use these signs effectively. Thus an illiterate person is certainly aware of his inability to interact independently in the existing environment, to gain knowledge, to share benefits and to enjoy modern progress of life.

Literacy is a pre-requisite of education and a source of human development. In this regard UNDP (2001, pp.141-144) states that countries are economically under-developed because most of their people illiterate and unable to utilize their potential capabilities. Literacy accommodates communication and understanding between individuals, groups and nation. It enables them to utilize their maximum potential. Literacy is a mental tool which has cognitive dimensions. It differentiates the literate and illiterate and develops a sense of control over one's environment. Developing countries like Pakistan have low literacy rate. it is due to uncontrolled retention of children at primary level and because of lack of training of literacy personnel. A UNESCO (1998. p58) point out that survival rate to

grade 5 was very low in developing countries. While the repetition rate in each grade at the primary level was average 13%. In Pakistan this position is changed, now there is no repetition up to grade three.

Teachers' training is necessary component for the promotion of literacy. It develops a rich level of competency and understanding, bind teacher-student relationship, which consequently helpful in gaining knowledge. Mainly there are two ways for the training of literacy personnel; one is formal training while other is non-formal training. According to Reenen (1996, pp.167-168) effective training blends these modes of training. Formal training refers to classroom instructions within an organized school setting which is hierarchically structured and where instructors are guided by experts. This mode is beneficial for conveying paradigms of thinking and information, applying knowledge and developing communication skills. While non-formal training is based on the premise that is designed for the deliberated organized programmes. However the non-formal way of training is non-programmatic and non-instructional. It is planned, staffed, organized and structured out the formal school system.

Yates and Bradley (2001, p.223) comments that training at a distance is as effective as training in the conventional institutions. A good way for training of literacy personnel is in-service training by non-formal way (at a distance) to up-grade their skills and to learn new teaching techniques. Although in distance education personnel training looks likes weakest but on job it proved to be highest. In this regard Kaplan and Edelfelt (1996, pp.32-33) point out that the teacher should have a comprehensive understanding of education and its role in formal and non-formal institutions.

Literature review

Training of personnel (staff development) is a process that improves job-related knowledge, skills and attitude of the school employees. The participants in staff development activities may be school board members, central office administrators, principals and non-formal certified staff. Training and professional development is an essential component of any literacy programme as literacy rate in Pakistan for the year 2007 was 54% which was for very low (Economic Survey, 2007). Thus the training of literacy personnel supports the basic

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skills, personal effectiveness skills. It is also useful for the classroom setting and to improve learning.

Rapheal and Hiebert (1996, p.285-286) stress that an appropriate training of teachers' is necessary for the promotion of literacy because a teacher is able to create shape of literacy class and engage students in literacy activities. Teachers adopt such strategies and skills in reading, writing that help students to their literacy performance. Teachers can assess and evaluate student's progress and adjust their instructions accordingly. Due to appropriate training of instructors, they are capable to organise year, day and time to create learning environment for literacy centres. UNESCO (1987, pp.12-14) categories literacy personnel and the process of training as:

1. Category A: policy maker and administrator at central level. These include the political leaders, including ministers and parliamentarians, permanent secretaries, chief of the planning bureau, director general, deputy director general and directors.

2. Category B: Administrators and technical personnel at provincial and district level. Provincial directors, superintendents, supervisors, bureau chiefs, head of technical units (curriculum and material development), head of training institutes and research units. Head of NGOs for providing education and head of non-formal education projects.

3. Category C: Field operational level personnel. Project officers of non-formal education projects, local supervisors, instructors, facilitators, monitors, local teachers, volunteers and NGOs personnel working in non-formal activites at local level.

Frame work of training programmes of all the categories was as:

Table 1: Strategies of training

Objectives of training plan	Strategies of training	Institution building. For	Network of Training

		training	**resources**
Need of training arises due to change (push factors) aspiration (pull factors)	Awareness of needs Analysis of problems. Knowing options. Adopting a situation. Teaching a skill. Integration in system.	Mobilize all human material resources for training. Objectives. Structure Personnel - Budget – Facilities Equipment Process/method Evaluation	Exchange of ideas. Utilization of resources. Sharing of facilities (Inter/Intra) horizontal and vertical

Source: UNESCO (2000) Training Manual for the Training of Literacy Personnel, Bangkok: UNESCO Principal Regional Office for Asia and Pacific.

A number of OECD countries are gradually expanding enrolements of school children and improving the quality of formal education. They are also contributing in adult education by providing the training of literacy personnel as to promote literacy. (Mitter and Bastos 1999, p.158)

According to Hillier (2002, p.2) there was lack of educational institutions for the training of literacy personnel. Thus great emphasis was laid on the social exclusion of aduts to enable them to participate in learning by improving their literacy and numericy skills and to explore the action required for life long learning. While Papen (2005, p.134) states that Department of International Development (DID) initiated some innovative projects for the training of literacy personnel as to promote adult's literacy and numericy. The personnel of Department of International Development and researchers have developed a new approach that is development of oriented activities to support people in the use of literacy and numericy as to change their lives.

Robinson and Latchem (2002, p.28) state that distance education provides teachers training in general and professional training in many fields through universities and distance educational institutions. Distance education is a cost effective way for training

and development of teachers. It is self managed learning process but in developing countries training is provided at very low level.

According to Okech et al (2001, p.216) facilitators working in distance education have less schooling as compared to personnel working in formal educational system. The facilitators in distance education have no training and very little supervisory suppot. For instance, in India, Total Literacy Campaigns (TLC) relied on the volunteer facilitators. In Bangladesh distance education organisers are paid a small fee for the privilege of organising classes, while facilitators are entirely rewarded by learners. In Ghana the volunteers of National Functional Literacy Programme (NFLP) cells have no training for teaching but they are promised a special reward in the form of bicycle and sewing machine. Whereas Sargent and Litt (2007, p.127) describes that in India the training of instructors is inadequate. The umber of untrained instructors are at the peck as compared to progressive countries in the world. Instructors training is diversified which is confusing, thus a uniform organization for instructors training and a proper co-ordination of the course for adults be intensified.

Literacy personnel training is a key for literacy effectiveness. In this regard Bridsall, Levine and Ibrahim (2005, p.129) describe that the best programmes are those which involve literacy personnel in designing literacy personnel training programmes and establish a mechanism for short term/long term training programmes for literacy personnel. There are a few literacy personnel training programmes which are capable to promote literacy in India i.e. Botswana Primary Education Improvement Project, The Basic Teachers Education Diploma, Teachers Support Net Work for Distance Education and Malawi School Support System.

Demography:

Table 2: Academic Qualification of Instructors

S. No	Qualifications	Number	Percentage
1	M.Ed	23	14.29
2	B.Ed	13	8.07
3	C.T	37	22.98
4	PTC	86	52.60

| 5 | Others | 3 | 1.86 |

The questionnaire for instructors of NGOs was administered personally, through pre-paid mail and through email. The percentage of academic qualifications of instructors of NGOs was 14.29% MA/M.Sc, while 8.07% BA/B.Sc, 22.98% FA/F.Sc and percentage of most of the instructors' i.e. 52.60% was Matric whie the other qualifications are 1.85%.

Table 3: Experience of instructors

S. No	Qualifications	Number	Percentage
1	0-5 years	53	32.92
2	6-10 years	71	44.10
3	11-15 years	25	15.53
4	16-20 years	9	5.59
5	21 and above	3	1.86

Instructors experience up to five years was 32.92% while from 6-10 years it was 44.10%. This is due to the fact that most of the NGOs were registered under the registration Act 1981. this coincide with the other instructors experience that 11-15 years it was 15.53%, while 16-20 years it was only 5.59%. this mean that before 20 years there were only a few NGOs working in the field of literacy and basic education while the experience above 20 years was negligible that was only 1.86%.

Methodology
The objectives of the study were to elaborate the needs and advantages for the training of literacy personnel. To explore the potential role of distance education in the field of literacy through training of literacy personnel and to explain the deficiencies of training of instructors in developing countries like Pakistan. The population of this study was instructors of NGOs working in the field of literacy in Province of Punjab, Pakistan. The total population was 3212 instructors. Out of this population 5% sample was randomly chosen i.e. 161 instructors. A questionnaire was drafted on five points rating scale and presented for the validation to the ten experts. After validation necessary corrections were made in the light of expertise suggestions. Than, this questionnaire was administered for the opinion of instructors' of NGOs. Date was analysed by using

mean score on the responses of instructors, then findings, discussion, conclusion and recommendations were made.

Analysis of data

The questionnaire for instructors of NGOs was administered personally, through pre-paid mail and through email. The percentage of academic qualifications of instructors of NGOs was 14.00% MA/M.Sc, while 8.27% BA/B.Sc, 23.00% FA/F.Sc and percentage of most of the instructors' i.e. 65.13% was Matric. They are arranged in rank whereas rank is as defined by Wood and Zhu (2006. P.96) is the percentage/mean of cases falling at above or below a specified score in a distribution.

To check the provision of training to the instructors' data was collected from the instructors of NGOs working in the field of literacy. There were total 3212 instructors of NGOs working in Punjab province, Pakistan but only 6% of them were chosen randomly i.e. 192 out of which 161 responded. Questionnaire was ranked according to mean score.

Table .4: Summary of the responses from literacy instructors

Statements	Mean	Ranks
Instructors training is necessary component for promotion of literacy	4.22	1
Instructor's short term training programmes may also be arranged through non-formal institutions	4.20	2
Instructors' in-service training up-grade their skills.	4.19	3
Instructors' training improves job related knowledge.	4.16	4
Instructors' training helps the students to increase the literacy performance.	4.01	5
Innovative projects for the training of literacy personnel may be launched.	3.98	6
Instructors' training modifies the attitude of instructors.	3.90	7
Instructors' training improves the effectiveness of literacy centre.	3.88	8

A good way for instructors' training is non-formal in-service training.	3.78	9
Instructors' training is necessary to cope with changing world.	3.75	10
Instructors' training provides new teaching techniques.	3.73	11
Instructors' training supports adults in the use of literacy and numericy.	3.68	12
Instructors' training helps in promoting teacher-students relationship.	3.67	13
Instructors' training at a distance is as effective as training provided through conventional institutions.	3.58	14
Diversified instructors' training may be more helpful.	3.36	15
Instructors' training through distance education is cost effective.	2.92	16
Distance education mode is used to provide training.	2.41	17
Instructors' training assists in assessing and evaluating students' progress.	2.40	18
Literacy teachers' training accommodates diversification.	2.31	19
Managers provide training support.	1.89	20
Literacy instructors are involved in designing the training programmes.	1.85	21

The mean and median range between 4.51 to 1.85. The highest mean score 4.51 is of statement 6 (Instructors understand that literacy is a key for human development). The next to highest is statement 7 (Instructors' training is necessary component for promotion of literacy) with mean 4.22 and the third highest is statement 19 (Instructors' training is necessary to cope with the changing world) with mean score 4.20. At rank 4 statement No is 11 (Instructors in-service training up-grade their skills) with mean score 4.19 while at the rank 5 is of statement number 13 (Instructors training improve jab-related knowledge).

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The lowest mean score 1.85 is of statement 29 (Literacy instructors' are involved in designing the training). The second lowest mean score 1.89 is of statement No 25 (Managers provide training support). The third lowest statement is 28 (Literacy teachers' training accommodates diversification) with mean score 2.31. forth lower statement at rank number 21 is (Instructors' training assists in assessing and evaluating student's progress) with mean score 2.40 and fifth lower statement at rank number 20 is (Distance education mode is used to provide instructor's training) with mean score 2.41.

The highest mean score reflect that instructors know the importance of literacy as is a key for human development so it strengthens the economy of the country. The next highest statement shows that instructors' training is very necessary for the up-gradation of literacy the highest statement coincide with this statement as instructors' training cope with the changing world. The forth and fifth highest statement at rank no 4 and 5 show that instructors' instructors training improve job-related knowledge and their skills

The lowest mean score reflect that Literacy instructors' are not involved in designing the training programmes as it mean score is only 1.85 which is unfavourable. The mean of next lowest statement describes managers do not provide training support. The third lowest statement is at rank number 22 is also unfavourable so it states that literacy teachers' do not accommodates diversification. The forth and fifth lowest statement at rank no 4 and 5 show that instructors' instructors through distance education is not provided properly so instructors' are unable to assess and evaluate students progress.

Findings

1. Instructors understand that literacy is a key for human development.

2. Instructors' training is necessary component for promotion of literacy.

3. Instructors' training is necessary to cope with the changing world.

4. Instructors in-service training up-grade their skills.

5. Instructors training improve jab-related knowledge.
6. Distance education mode is used to provide instructor's training.

7. Instructors' training assists in assessing and evaluating student's progress.

8. Literacy teachers' training accommodates diversification.

9. Managers provide training support.

10. Literacy instructors' are involved in designing the training.

Conclusions

From the finding and discussion it is concluded that instructors' know the importance of literacy thus their training help in promoting literacy. Through instructors training they are capable to cope with the changing world. While instructors in-service training up-grade their skills and provide job related knowledge but unfortunately Pakistan and other developing countries when design a training programme for instructors they are not involve in designing the training programme. Instructors are not able to accommodate diversification. Managers are the key for providing any training programme but they are not interested to support training programme for instructors. As distance education is cost effective, statement No 23 with mean 2.92 but instructors are not provided training through this mode.

Recommendations

Instructors may be involved in designing the training programmes. As instructors have to implement that programme in their literacy centre. Managers are the head of literacy centres therefore they may support training facilities to instructors. For this, at government level, facilities and incentive may be provided to managers for the arrangement of training programmes. Instructors may also be provided short term and long term in-service training as it is helpful in assessing and evaluating the students' progress. For the training of instructors distance education mode may be used as it is cost effective.

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Dropouts Problem among Karnataka (India) Tribal Children: Where Rubber hits the Road?

*Nanjunda

Abstract

The population of Scheduled Tribes in India according to 2001Census is 7.43 million. Education of Scheduled Tribe children is considered important, not only because of the constitutional obligation, but also a crucial input for total development of tribal communities. The literacy levels of the Scheduled Tribes according to the 2001census are 27.10% as compared to overall literacy rate of the total population i.e., 65.38%, which shows a dismal picture of Scheduled Tribes education. So long as there is a gap between the literacy levels, the position of Scheduled Tribes will remain backward. Lack of education may lead to child exploitation, child labor, population explosion,

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etc., so the need of the hour is to bring quality education through 100% school enrolment and retention with more emphasis on the girl child education. This paper deals about various vital reasons as pointed by the children for their absence for schools including some policy suggestions for impart inequality education among the tribal children in order to uplift themselves and to overcome the socio-economic problems.

Keywords: Tribe, Soliga, Absent, Ashram school

Introduction

India is one of the few countries in the world having the largest tribal concentration. The tribal of this country are having fascinating rich cultural heritage and played a significant role in enrichment of composite culture. The objective and comparative studies of pre-literate societies and their contribution to great indigenous culture of India is essential before they are totally eclipsed in the fast changing cultural canvass of India. Such in-depth, comparative and analytical studies may throw light and provide missing cultural links in understanding complex Indian heritage.

The policy to promote educational interests of the weaker sections of the people, especially the Scheduled Castes and Scheduled Tribes, has been enshrined in our Constitution as a Directive Principle of State Policy. Therefore, the main thrust continues to be on education. The general level of literacy is very low and is lower still in the case of Backward Classes. The Scheduled Tribes represents one of the most economically impoverished and marginalized groups in India. Karnataka has a high proportion of the tribal population. Education of tribal women is recognized as indispensable for their growth and development. The education of tribal women according to 2001 census, the Scheduled Tribe female literacy is 8.07%as compared to the male literacy of 12.68% in Karnataka. So long as there is disparity between male and female in education levels the difference between the position of men and women would continue to exist (Rekha, 2000).

The tribal women's access to education in the country is inadequate and discriminating because of ignorance, lack of motivation, etc.. Thus education is the key catalyst to the development of human

resources. Lack of education is largely responsible for the exploitation and pitiable plight of the tribal women. For the tribal, education disseminates knowledge, knowledge give inner strength, which is very essential for the tribal for attaining freedom from exploitation and poverty. So due to ignorance arising out of illiteracy, the tribal have not been able to take advantage of new economic opportunities. Empowerment of women covers aspects such as education, economic status etc. Abolition of gender based discrimination in all institutions and structures of society and participation of women in policy and decision process at domestic & public level are sew dimension of women empowerment (Liteen and others, 2005).

Despite the significant progress that has been made the past 15 years in achieving universal primary education, approximately 115 million children do still not go to school. Especially in South Asia figures are alarming. Children who do not go to school in South Asia constitute more than one third of all children who are not enrolled in school around the world. If we look at the net primary school enrolment ratio (1998-2002) we see that in India only91% of the boys in the 6-10 age group were enrolled, for girls this figure was 76% (Bellamy,2004). It is important to keep in mind that these figures relate to children who are officially enrolled in school, but who are not necessarily attending. Looking at the net primary school attendance these numbers go down to 80% for boys, and 73% for girls. However, the attendance lists kept by teachers are not always accurate, and the actual attendance figure might be even lower (Carol, 2004).

When we then look at UNICEF's gross secondary school enrolment ratio (including all children, regardless of age) the figure is 56% for boys, and only 40% for girls. Only a segment of the total number of children, which are not enrolled in school, can be found in the statistics of working children. There are thus a number of children that are excluded from these figures. These children can be classified as nowhere children, a term coined by D.P. Chaudhri (1999). According to the Planning Commission of the Government of India, deriving their figures from the Census of India, incidence of tribals was 5.4 percent while incidence of nowhere children was 45.2 per cent in 199121. There has been a shift from the research-focus on

tribals alone to the out-of school segment as a whole, which thus includes nowhere children. In order to design policy to also get these children in school, it is important to learn how they are spending their time. The results presented in this paper are derived from qualitative research that was conducted in three tribal areas in Karnataka between September and December 2006.

Methodology
The proposed research consisted of three major components; in-depth schools studies, community norm study and an institutional ethnography for about one year. Data collected from five sources: household members, teachers, and adults (18-25-age group) ashram school students, other community members, tribal welfare officials and NGOs. Study was conducted in selected 50 Ashram Schools in the tribal belt of Karnataka (India).

Selection of Ashram Schools
Two types of schools had selected for the study a) schools located near the main roads b) schools located in the remote areas. Since the samples of the study are heterogeneous and complex in social structure, 25 samples from each two category had been selected to draw more representative samples for the study.

Tools used for data collection
Following types of data collection method have been used to conduct this present study 1.Case Study 2.Interview 3.Participant observation 4.Ethnography 5.Unobsturive method 6.Content analysis

Analysis of data
Data analysis had incorporated both qualitative and quantitative data sets to insure triangulation of result. The qualitative data has been analyzed using *NUD*IST* database software and the quantitative data has been analyzed using SPSS software.

Result and Discussion
Karnataka is the 8th the largest state of India, with a total population that constitutes only 8.65% of India's population as a whole, is one of the most sparsely populated states. Being one of the driest regions,

Karnataka is also among the poorest states of India. It is a predominantly rural state, with agriculture and animal husbandry as the most important sources of income. According to UNICEF for example, 14 % of all tribal children aged 5-14 in India are drop outs and are engaged in different labour (Bellamy, 2004). According to the Census of India 2001, there are 11% million children. According to the Indian Ministry of Labour, 9% million children aged 5-14 tribal children are working/

Karnataka is one of the least performing states in terms of tribal literacy. The state also has a tremendous gender gap in terms of both school enrolment and literacy (State Education Department Report, 2001). There are several factors in identifying the reasons for absence of tribal children in school. We will first give an overview of demand-factors such as livelihood strategies, poverty, gender, caste, family crises, which we found were crucial for school absence is concerned. Looking at livelihood strategies it appears that during seasons with a great demand for agricultural labour, such as the crop-cutting season, the attendance of children, especially girls, decreases.

These children are not found in the field, but are required to stay home to take over household duties such as caring for siblings, so that the mother is able to go to the field to do wage work. Like the 10-year-old Rangi (name changed), oldest daughter of parents who are out in the field all day during the crop-cutting season, told me: "I have to be here to take care of my brothers, because who else is here to do this?" However, we cannot simply argue that children do not go to school only because parents have to do agricultural work.

Similarly, where as many children can be found in the field looking after cattle, it is not the case that these children do not go to school because they have to look after cattle. Often other factors are operational. In some cases parents might be aware of the importance to educate their children and try to send their children to school, but if the children are reluctant, the parents might lack the determination to make sure their children are indeed going to school. Here it is important to recognize the social capital of a child: if a child is surrounded by one or more educated relative who encourages him to go to school, it leads to increased motivation for the child to learn and to go to school regularly. The 12-year-old Syama explains: "But

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my uncle is literate, and he always encourages me to go to school. I want to continue the tradition of being literate in the family. I want to continue studying in the future and go outside the village to be a doctor". Likewise, if a child is not blessed with a learning environment at home, he or she is prone to fail and eventually to drop out of school. Migration occurs in various forms in the tribal areas. It can have both negative and positive consequences for the education of children.

In some cases, especially with temporary migration of the whole household, the effects on the education of a child are negative, especially when the household leaves the village for a couple of months every year, and the child needs to leave school, and falls behind. However, temporary migration of only the father to the city in search of work could be positive, as it can also lead to increasing awareness about education for both boys and girls. Economical problems within the household do lead to absence of children in school. These may be a result of a crisis in the family, for example the illness or even death of a parent. This often results in the burden of working, in order to feed the household, falling on the shoulders of the child. Sons, suddenly the "man of the household", are required to tend animals, either their own or those of others in order to make money, and girls, especially the oldest daughter, have to stay home doing household chores, or are sent to the field to do agricultural work, especially during crop-cutting season. The 13-year-old Manchavva had to dropout of school when his father fell ill. His father complains: "I do not want this for my child, but if I die, Manchhva needs to know how to be the man of the household. He is the oldest, and thus the only one who can do this work". Caste also influences whether children are sent to school in societies in Karnataka. The sub caste system is still of significant importance among Karnataka tribes, especially in the northern areas.

The traditional perception that tribals do not recognize the importance of education does not hold true anymore. Yet, there are still certain castes that, because of traditional work arrangements, do not send their children to school, and these include upper castes as well. For example, we found Soliga boys and girls expected to help out in the household of a socially higher ranking family member. Gender also plays a role. In general, there are more boys than girls

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attending school regularly. Of the total number of children enrolled in any school up to class V in the three tribal areas, 55% are boys. The difference is especially apparent on upper-primary level, where only 32% are girls 22%. For this there are various explanations. For example, it is often considered not safe for a girl, once she is a teenager and thus sexually vulnerable, to go out side the village for her education some time even from her house. Another reason given for keeping girls at home is related to household chores. In some cases it is a necessity for girls to stay home and, for example, take care of their younger siblings.

This is often a result of economical crisis. In other cases household chores are looked upon as a good preparation for a girl's married life. Marriage then is another important reason behind gender discrimination. Quoting the seventeen-year-old Macha, "Education is useless for girls, because they are just living in our houses doing female chores. For us boys it is useful, so we can get a job". Some parents do not recognize how education can help their daughter in her future life, while others are reluctant to invest in her, since she is going to her husband's house after her marriage, like a father expresses, "But I cannot afford a good education for all my children, and in the future, the girls will be married off to another house, while the boys stay in my house". Thus, when a family has money for only one child's education, they will prefer to spend it on the boy. However, within some castes more and more people are interested in the amount of education the potential spouse of their child has received. Therefore, there is often overlap between the factors gender and caste mentality.

The supply-side of education: The next section will deal with supply-factors, since the quality of offered education is crucial when parents decide between sending their children to school, and keeping them at home. In all sample tribal areas, all children, disregarding caste, have access to the same educational facilities. These facilities are within reach of the children. Government school buildings are often built just outside the village, whereas private school owners have been able to open their schools in buildings in the middle of the village. The location of the school influences the parents when deciding to which school they should send their children. Especially small children are more likely to be sent to a school that is nearby the

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house. This number only reflects on children who are attending school within their village, thus excluding the children who are attending a school outside the village.

Further , keep in mind that these are enrolment figures and do not say anything about attendance along a busy road which has to be crossed by many people in order to reach the government school, a father wants to postpone sending his two youngest sons to school, "since they are too young and scared to cross the main road". In the three tribal areas that were included in the research, the general perception of villager son the quality of education offered by the government is negative. Most villagers prefer the private school than government schools, but complain that they cannot bear the costs of private education. They believe that teachers are more committed and that children learn much more than children who are enrolled in a government school. In some schools, there are too few teachers appointed for too many children. Appointed teachers are usually present, and thus teacher absenteeism, a problem regularly mentioned in the literature, did not occur during my research, apart from the absence of teachers due to other government programmes, which they are required to attend. The fact that teachers reside outside the village and leave as soon as the school hours are over (or even earlier) makes communication between parents and teachers difficult. It thus would be better if teachers were appointed in their own village. Another issue is the lack of female teachers. There were only a few female teachers in the schools. This is unfortunate, since female teachers often serve as a role model for girls, as one of the teachers explained.

The presence of female teachers could positively influence the enrolment and attendance of girls. The ten-year-old girl Radha told me she aspired to be a "madam in school". Among the children in all tribal areas, there is a fear of punishment by the teachers for skipping school, for not knowing the right answers or for not being clean or properly dressed. But children, as well as their parents and other villagers, also complained about the limited knowledge they actually gain after finishing a number of classes. When a parent asked a boy who studies in class ten to speak English to me, he replied (in Marwari, their local language):"If the headmaster does not even know how to speak English to her, then why should I? "Quoting a

twenty-year-old boy from another village: "If you ask someone here who is enrolled in class V to read or write, he will not be able to do so, because he does not learn this in school". However, some parents did not blame the school: "My youngest daughter Sannavva is in class III, but cannot count until twenty. Radha is in class IV, and cannot even read a book properly. But my oldest daughter Pinki could do all these things when she was their age. As opposed to the other two girls, Pinki was very studious and always did her homework. She studied in the same school as Radha and Kabita, and she is doing fine. So I do not blame the teachers".

Both children and their parents mentioned the financial aspect of education as an obstacle. While primary education is supposed to be free, in all schools children were expected to pay fees. The fee structure however, is not transparent. Fees differ according to gender, caste, and class-level, and also per village. Furthermore, teachers and parents give different accounts on the exact amount that has to be paid for "admission" or "building maintenance". Boys of a general caste in class IV and V for example were expected to pay a yearly fee of Rs.60. Some households complained about having to pay the government schools yearly fee of Rs.151. In addition to these school fees, there are also the expenses for school uniforms (to have a uniform made is Rs.150-200) and stationary, which constitute a huge burden on the household's finances. Government schools were, however, still cheaper than private schools. These charged the children a monthly fee of Rs.30-70. In the three tribal areas an average wage is Rs.77/- for one day of agricultural work or labour in a stone factory.

Conclusion
The problem of absence of children can unfortunately not be solved just by raising the quality of the offered education. Quality of education is not a sole reason for not sending children to school. But when the performance of school is inadequate, children may only be sent when their duties are not required elsewhere; for example, in the household or herding the cattle. For some, school attendance then becomes a residual activity. In other cases, when parents decide the money required for a child's education can better be spent on other basic requirements, children might drop out altogether. Dropping out might also is a result of failure in standards. And once dropped out, it

is unlikely the child will find its way back into the education system. Explanations for this might be the reluctance to go over the same curriculum again, and often they find that they just get used to working.

Closing remarks: When children who are out of school, for whatever reason, are not required to help out in the household, they can be found roaming around their house or in the village, and we might then consider them as nowhere children. It goes without saying, that these nowhere children also do some work to help their parents out in the household. But this work is not the reason that keeps them out of school. It is clear that the issue discussed here is a complex one. Overall, the awareness of the importance of education is present among all villagers, regardless of caste. We have seen that many factors can lead to the non-attendance of children in school, and more than often there is overlap. Both parents and children also seem to be convinced that the child will do the same work as their parents. Thus, the absence of a (government) job-perspective for children also leads to a preference to keep them at home and to prepare them for their future occupation as animal-herder, agricultural laborers, or in some cases shopkeeper.

Continue of the debate around quantity verses quality of education still is on. Before this, policymakers should note that quality and quantity are intertwined and cannot be separated. It is real sense of urgency. Differences expressed pertained to the placement of priorities for the achievement of universal education, and are in turn related to the broader views held on the nature of the challenges. If state is really interested in the eradication of tribal illiteracy or at least mind to minimize the problem it must and should seriously think about the quality of primary education at present. Probably a new population policy may help in this regard. Resources need to be targeted at expanding provision if Govt. think providing alternative income generation programmes to the poor parents who would like to send children to work, then resource will have to diverted to making the curriculum relevant and of high quality(Chaudhri, 1997).

Given the manifest failure of the standard schooling system to include hard-to –reaching children, special efforts need to be made

in this area and particular attention should be given to first generation learners. Some noted that high rates could put off many aspiring to secondary and higher levels of education, thus eroding the incentive to send children regularly and consistently to school. Without providing of universal coverage and equivalent standards in terms of quality, it is not feasible or just to penalize parents who do not send children to school. Clearly, meaningful and genuine universal elementary education is associated not only with universal access to well-functioning schools but also with certain out-of – school initiatives. Children have varying capacities, apart from individual intelligence; depend on factors such as adequate nutrition good health and freedom to attend school regularly. It follows that thee prerequisite have to be ensured for effective and genuine universal education.

To conclude, how elementary education should be made universal is central to the concern for making it universal?. It is necessary to make sure that such education is effective. Apart from the need to scrutinize the education system, non-educational measures that prepare children for education and facilities the process of learning are also needed. India is one of the countries having largest number of tribals in the world, also country having highest percentage of dropouts at higher primary level. Poverty and overpopulation are intertwined with this problem (Myron, 1999). At the same time, it has pioneered a number of different educational models for addressing the problems of hard to reach children, models which reflect a shared value given to the welfare of children and the need to ensure their right to education, but very different philosophies and modalities. If we seriously try with this model with some addition or subtraction suiting our culture and traditions which are more effective and under what circumstances, we believe that the experiences, of India will have made a major contribution to a long standing problem beyond boundaries.

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Does the School Administrator's Technology Skill Impact Teacher Competency to Integrate Technology in the Classroom?

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Abstract

The purpose of this article is to raise awareness that the principal's or administrator's role in the integration of technology on a regular basis is important to the success of technology competent students of the 21st century. It cannot be stressed strong enough how important leadership in technology integration is. It should be part of the school administrator's vision that technology is integrated in every classroom by every teacher on a regular basis. In order for the staff to properly implement technology in today's classrooms, the administrator must know how to encourage, inspect, and model this use of technology themselves.

Keywords*:* technology, administrator, teacher competence, technology integration

Introduction

Does the school administrator's technology skill impact teacher competency to integrate technology in the classroom? The school administrator's skill in using technology has a definite impact on

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teachers' competence in integrating technology in the classroom.

This purpose of this article is to examine what impact the principal's or school administrator technology skill has on the competency of teachers to integrate technology into their lessons on a regular basis. "The National Center for Education Statistics (2000) indicates that principal leadership has been described as one of the most important factors affecting the effective use of technology in classrooms" (Kincaid & Feldner, 2002). The effective leader of technology is an instrument of change. As a change agent, the administrator must be willing to make the necessary change to use technology himself before he can encourage the use of it by others. The teaching staff must see the administrator being comfortable using technology to present meetings and workshops to them. They must feel like their administrator has the knowledge to help them with their technology issues, be it from the standpoint of how to use the equipment effectively to what kinds of technology use is most effective for a particular lesson.

Are teachers using the technology in a way that impact student achievement?
Teachers must not only be using technology in the classrooms, but they should be using it in a way that impact student learning. Research shows that most teachers agree that technology has the ability to enhance student leaning in many positive ways, from the most reluctant learner to the most zealous. As Rother (2005) stated,

> "Teachers view computers as an effective classroom tool for teaching reading and writing skills, conducting math drills, and developing the ability to think critically. Computers and the Internet engage and motivate digital-age children, challenge gifted children, provide opportunities for remediation and practice, and expand students' views of the world" (Rother, 2005).

Teachers are not alone in their understanding of this concept of technology integration in the classroom. Research (Ivers, 2003; Jonassen, Howland, Moore & Marra, 2003; Lowyck & Elen, 2004 as cited in Chen, 2008), has revealed that learning with technology can

foster student understanding by engaging students in high-order thinking, self-regulated learning, and collaborative or cooperative learning. In order to receive higher student achievement from the use of technology, teachers have to be using technology as more than just a supplement to their own lectures. It is hard to pinpoint just how much impact technology integration is having on student achievement because there are so many other factors at work that it is impossible to isolate technology as the single cause in improving student achievement. However, as Miller (2008) says, "The introduction of a new technology into the classroom often produces changes in both student and teacher behaviors, which may by themselves affect student achievement" (p. 34).

The Milken Exchange on Education Technology reports that the results of many small-scale studies from research projects and grants indicate that technology under the right conditions accelerates, enriches, and deepens basic skills' motivates and engages students in learning; helps relate academics to the practices of today's workforce; strengthens teaching; increases the economic viability of tomorrow's workers; contributes to school change; and connects schools to the world (Schacter, 1999, as cited in Miller, 2008, p. 34).

How often are teachers using technology in today's classrooms?
Even though most every teacher will admit that they believe technology is important for students to use in the quest for knowledge in the 21st century, many teachers exhibit inconsistencies in actual practice of what they believe. Research shows that most teachers do not integrate technology into instruction in ways to facilitate student's problem solving, collaborative, or cooperative learning, and self-regulated learning (Chen, 2008; Ivers, 2003).

A study conducted by Larenz, Gravely & Ooms (2006), shows that teachers and students perceptions about how often technology is used and how helpful that technology is can be quite different. It was perceived by teachers that their use of technology was higher than the perception of use by the students, even though when used, students did say that they found the use of technology as helpful to slightly below very helpful levels. However, Larenz, et al. (2006), said their study confirms Manoucherhri 1999 and Plomp et al. 1996 findings that computers are not being used very much in

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mathematics classes and …science classes. The study conducted by Larenz, et al. concluded that about 40% of teachers in the study used technology only occasionally and that "Only 1 teacher out of 5 in the study reported having students regularly use technology to enhance understanding or to explore concepts in more depth and to gather and organize information. The percentage of teachers never using technology for these purposes is around 10%" (Larenz, Gravely, & Ooms 2006, 31).

Are teachers competent in integrating technology into their daily planning of lessons?

Most teachers do not feel competent that they are able to fully integrate technology in their daily planning of lessons. Miller (2008) says that leaders must not overlook the fact that some teachers still today have a real fear of implementing technology in the classroom. Miller (2008) cites Creighton, (2003) as saying that principals must understand and address the reasons some faculty resist or sabotage the implementation of technology; ignoring their fears will be detrimental to the implementation. If teachers have a fear of technology themselves, they are less likely to plan for technology for use by their students. This attitude of teachers has to be changed. Miller (2008) goes on to say that "effective leaders of change understand that change is a process requiring buy-in from a significant number of faculty members, which often takes 3 to 6 years to be implemented at a high level (Creighton, 2003; Dwyer, Ringstaff, Sandholtz, 1991; Hall & Hord, 2005; Ritchie, 1996). Therefore, implementation must involve a strategic plan." (p. 31) This plan should include a method to help teachers gain confidence in using technology in their daily lives as well as in the classroom. When teachers are comfortable with the use of web browsing in general, they will feel comfortable surfing the web to look for resources to supplement and enhance their daily lessons, for instance. The administrator is the key to setting up this successful strategic plan to encourage the regular and ongoing use of technology among the staff.

Can the technology skills of the administrator affect teachers' feelings of competency in using technology in the classroom?

The administrator must be a risk taker and challenger when it comes to technology. He must not show a "fear" of new advances in

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technology. He must indicate to the staff that he is willing to learn how to use new technology as well as expect them to learn and embrace the use of it. He should make every effort to utilize the new technology himself whenever possible and let the staff know that he is using it. He should also make time in the busy work day of the staff for them to come together to learn from each other how to implement any new technology into their daily lessons.

The research is conclusive on the importance of technology in the classroom. Research shows that using technology in the classroom has great benefit to students of the 21st Century. Although everyone agree that technology is important for students, the ISTE standards are not addressed in the State Curriculum Standards or on teacher appraisals and evaluations. Because of this oversight, school administrators are not as vigilant in monitoring teachers' use of technology in the classroom as they should.

> "…Principals who exhibit leadership are instrumental in modeling the use of technology in classrooms. They understand how technology can support best practices in instruction and assessment, and they provide teachers with guidance. In a study of three schools identified as successful integrators of technology, Wilburg (1991) found in all three cases, the administrator was a strong advocate and user of computer technology. This seems to support the notion that administrative modeling may be one key to integrating technology." (Kincaid and Feldner, 2002, 8)

Ask any teacher if technology is important in the educating of children in this century, and they will unanimously agree that it is important. Then ask how many teachers actually utilize technology regularly in the classroom, the response will not reflect this belief. When asked why they do not use technology as regularly as they should, teachers have a variety of opinions. Chen (2008) found several reasons teachers give for not implementing technology as well as they could or should. Teachers reported that the culture of high stakes testing prevents little time for teachers to undertake innovative initiatives in the classroom. Teachers also reported a

limited or inappropriate understanding of how to integrate technology in the most practical manner. With the climate of accountability all around and teachers being held accountable for how well students do on state testing, teachers are reluctant to sway too far from their comfort zone of how to get the tested skill mastered by their students. Teachers are reluctant to change their routines to support innovative practices that will require more energy in monitoring student's behavior, plus the added worry of addressing technical problems that often do occur and that result in interrupted instruction time and heightened classroom management problems.

What role does the school administrator play in getting more teachers to use technology on a regular basis?

What are some indications of schools that have high use of technology over those schools that have less usage? Of the most technologically advanced schools the key factor in their success is the administrator. Schools whose teachers use technology regularly and in a variety of lessons and settings, have administrators who are technologically savvy and who uses technology themselves when modeling lessons, communicating with staff, during staff meetings, etc. Studies show that administrative support is critical to the integration of technology (Hogen, 1994; Honey & Moeller, 1990, cited in Colburn, 2000, p. 218).

School administrators must realize that it takes time for teachers to embrace and learn to feel comfortable using technology daily. Administrators can help teachers by providing extra time for them to plan how to integrate technology in their classrooms. "At times, this might mean asking one teacher to cover for another who needs an extra hour of planning time. It might mean allocating substitute teaching budgets for rotating release time. It might mean writing a grant for funds to meet technology goals. Or it might mean providing incentives for before- or after-school meetings during which teams of teachers can plan for technology integration within a grade level or subject area" (Colburn, 1998).

When teachers see their administrator comfortable with technology, and they know that they can call on their administrator for help when needed, it makes the teachers feel more comfortable and competent in using the technology themselves. School administrators who

acknowledge, praise and reward teachers for implementing technology are also more likely to have a faculty who are more competent in using technology (Flanagan & Jacobsen, 2003).

Teachers are reluctant to use things that they do not understand or things that are new. It is the role of the school administrator to provide trainings and follow ups on those trainings to help teachers become knowledgeable about how they can implement the technology in their classroom. The more opportunity they have to use the technology, the more likely they will use it. School administrators sometimes have to mandate that certain technology be used regularly, such as email communication between the faculty and the administrator, using technology programs to record grades and create lessons plans, etc. Making it mandatory does bring about another problem, though. Problems such as hardware failures and no internet connection can be a terrible reality that can sabotage a teacher's most tried effort.

The school must see to it that the technology is available when needed for the teachers to use. Effective technology integration cannot take place without the necessary technology infrastructure. "If hardware and software are not available when needed, integration will not be seamless and effective" (Flannagan & Jacobsen, 2003, as cited in Miller (2008), p. 30). "Access to properly functioning hardware and software is important to successful experiences with technology. In contrast, non-functioning or failing equipment and networks, are going to present a challenge to teachers and students as they try to go about their work" (Colburn, 2000, p. 210).

Conclusion

Technology integration should be a clear part of the school's mission and vision in order for the integration to happen smoothly, and in order for students to achieve high levels of achievement (Barnett, 2003; ISTE, 2005a; North Central Regional Educational Laboratory, 2005, as cited in Miller 2008). Schools and school districts leadership must be proactive and provide the needed support for the integration of technology into the curriculum. It must be a long-term commitment that is received and accepted by all stakeholders in order to be successful (Miller, 2008; Barnett (as cited in Miller, 2008); Flanagan & Jacobsen, 2003).

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Clearly it is the school administrator who can make this integration of technology in the classroom smooth and seamless. The administrator has the power to provide the necessary personnel, time, and support that teachers need in order to be successful. Administrators must realize that some real issues exist with teachers' feelings of incompetence and fear even in this century. When administrators can be there to provide support for teachers in a manner in which they need it, through on-going professional development and close monitoring, plus added hardware and infrastructure networking reliability, teachers will be more likely to take the risk and utilize technology more in their classrooms.

Administrators should also be knowledgeable about what kinds of implementation of technology are useful for students in helping achieve high achievement on standardized tests. Just using technology for drill and practice isn't going to make that huge of a difference. Teachers must be knowledgeable about how to use technology in a globally sound way to help students connect with others globally and work together to come up with solutions to problems. Administrators need to encourage teachers to utilize technology themselves to help make their workload easier so that they can find more time to devote to planning collaborative learning adventures for their students. Only when administrators and teachers work together with a shared vision of technological savvy for their students and faculty will this integration of technology become successful.

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Strategies and Challenges of Information and Communication Technology (ICT) Infrastructure Development for University Education in Nigeria

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Abstract

ICT in education has become an important tool in addressing challenges in teaching and learning. ICT infrastructure availability and adequacy is significant in effective use of ICT in education. This study employed a due consultation with existing literature, observations, interview and experience. It examined the strategies and challenges in developing ICT infrastructure in universities. The outcome of the study revealed the strategies for infrastructure development to include the need: for a comprehensive policy of ICT in education, to determine ICT needs for universities, to review existing infrastructure, to create awareness and sensitization of personnel on users' needs and infrastructure challenges, and for collaboration among many stakeholders. It also revealed the challenges facing infrastructure development to include: inadequate fund and electricity supply, lack of comprehensive plan, and low level of awareness on the ICT usage and its requirements by personnel. It was recommended that there should be a comprehensive policy and plan on ICT in education, ICT infrastructure development should be given a priority with adequate funding, and various stakeholders should be involved in sourcing for ICT infrastructure in education.

Keywords: Infrastructure, Information and Communication Technologies, Sensitization, Awareness, Digital Inclusion

Introduction

Infrastructure is central in achieving the goal of digital inclusion, enabling, sustainable and affordable access to ICT (Wessels 2006).

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The introduction of ICT into universities clearly changes the way education is conducted. Not only is it possible to work with distance learning and achieve a closer collaboration between different universities, ICT also paves the way for a new pedagogical approach, where students are expected to play more active role than before (Alabi 2004). Successful open and distance learning depends largely on well-established and properly maintained ICT infrastructure. ICT in education has been a welcome development even in the classroom. ICT enhances teaching and learning in campuses in a variety of ways. According to Hawkins (1998), advances in ICT facilitate progress and improvement in education. Lecturers can convert their power-point slide presentation to pdf files (electronic documents), which students can download and print from a web site. Teachers may also use other web sites for illustration within their classroom lectures. Students may be asked to participate in online discussion forum and to discuss the lecture afterwards among them (Bates 2001).

In Nigeria there has not be explicit policy on ICT. The National policy on education does not give any guidelines on school technology plan. National policy on education cannot adequately take care of the need of the Nigerian educational system. There is the need to revise the Nigeria National Policy on education. Such revision should be taken to involve stakeholders in the area of education so that they can ensure that the policy covers issues related to learning about ICT and learning through ICT (Yusuf 2005). Indeed an explicit policy on ICT in education should provide guide to development of ICT infrastructure. In Nigeria the available infrastructure for ICT in most of these universities are grossly inadequate. It was observed that most university students still visit internet off campus because of too much demand on the internet on-campus. The bandwidths shared on most of these systems at cyber cafés are still low; hence much time is still wasted on internet browsing. Olaniyi (2006) was of the view that most of the institutions of higher learning in Nigeria have started building their ICT centres but they focus mainly on internet facilities without considers other components that make up ICT centre ICT infrastructure has not be the priority of government. Government policy has been the deregulation of telecommunication industry. ICT

infrastructure is therefore mostly provided by private entrepreneur for business purpose (Akinsola O. S. et al.).

Strategies for Developing ICT Infrastructure

Infrastructure availability is of great important in preparing for effective use of ICT in education. Infrastructure refers to the hardware or equipment, software applications and services associated with ICTs, including telecommunication and electricity, grid networks (Gesci 2007). The basic infrastructure needs to be established and sustained to provide enabling ground for education. According to Akinsola O.S., Marlien E.H. and Jacobs S.J., ICT infrastructure could be categorized into: Hardware which comprises of telephones, computers, LAN network, hub, printer, scanner, television set, fax, codec camera, projector, radio, video, CD, audio tape players, and microphone. Software includes windows 2000 server, XP, 98 MS office and others.

There is the need for policy development for ICT in education National policy on Education ought to embrace a comprehensive ICT in education. Many countries in the developing world do not have a comprehensive education policy and where they do, it can be too rigid to accommodate up-dation or any new intervention in schools, whether ICT or otherwise. As a consequences ICT policies, where they do exist, do not address education needs and more often than not, come under the jurisdiction of the telecommunication regulator or IT country policy (Gescl 2007). In the process of policy formulation of ICT in education, key stakeholders would be brought together to carefully consider the opportunities, challenges and implication of the intended policy, ownership paves the way for smooth implementation since the stakeholders are part of design and formulation. A well planned policy will avoid a situation in which there are schools with expensive equipment but no technical support, or trained teachers without infrastructure or infrastructure without trained teachers.

Infrastructure development for ICT in education takes into cognizance the connectivity and computing requirements of the educational institutions based on their educational objectives. In Namibia, for instance Gesci helped the Ministry of Education to determine the connectivity and general ICT needs for educational

institutions through detail questionnaire sent to all schools and through discussions with key Ministry officials, other government departments, private sector players and NGOs involved with ICTs in Education in any way. (Gesci, 2007). The study and review of the existing infrastructure of ICT in Educational is significant in developing ICT infrastructure. A review of institution infrastructure typically involves a survey of existing and planned computing and connectivity infrastructure for all educational institutions. The survey of national infrastructure is also important which covers the existing and planned telecommunications and electricity infrastructure networks within the country, a review of national ICT plans and policies for infrastructure development and a review of the major infrastructure and service providers, their offerings and capabilities. The survey and review of all existing institutional and national ICT and connectivity infrastructure would determine the gaps between existing and required infrastructure.

Creating awareness and sensitization of personnel is a necessary step in developing ICT infrastructure in education. Organization of seminars, conferences and workshops for top management and other critical staff within the Ministry of Education, National University Commission (NUC), and in the universities and with other stakeholders are necessary in ICT infrastructure development. These workshops, seminars and conferences aimed at raising the level of awareness of the infrastructure challenges, to discuss the users need and various infrastructure options, to promote and encourage multi-stakeholder approaches, to solicit feedback from management and staff. ICT infrastructure development requires collaboration among many stakeholders. ICT infrastructure is not within the purview of Ministries of Education, or NUC or individual universities. The effective deployment of ICTs in education will therefore require that Ministries of Education collaborate with other ministries and government bodies responsible for infrastructure and ICT and associated policy development and planning. Ministries and NUC also need to establish close working relationships with the private sector and civil society involved in developing and promoting ICT policies, plans and infrastructure. Ministry of Education should hold meetings with other important ministries and stakeholders. The meetings are important and used as avenues to share the infrastructure needs and requirement, to request for consideration of

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educational institutions in the National ICT planning process and to keep abreast of national ICT developments.

International organizations such as the John D; Catherine T. F, and Mac Arthur Foundations has provided substantial support to four universities it helps strengthening infrastructures of the university in ICT among others. The foundation built on infrastructure for ICT at university of Ibadan; with Mac Arthur Foundations support the University of Ibadan has moved from having only 25 dial-up links to the internet, to campus-wide computer network using wireless technology (Igwe 2005). The Mac Arthur Foundation was awarded grant to Bayero University which has made it invest heavily in ICT, it recently opened a new centre for ICT. In Ahmadu Bello University (ABU), grant support from Mac Arthur Foundation has helped to upgrade ICT by increasing internet bandwidth, purchase new computers, and computerizing management reporting functions, and institute a university – wide strategic planning process. University of Port Harcourt is making progress in ICT infrastructure. The Nigerian Ministry of Science and Technology will build a local network for the university. Mac Arthur Foundations' encouragement has enhanced University of Port Harcourts' collaboration with the private sector illustrated by Shell Petroleum Development Company's contribution of an ICT centre for the university (Igwe 2005).

Challenges of Infrastructure Development for ICT in Education
ICT is heavily dependent on appropriate technological infrastructure. Developing countries, particularly Nigeria has really embraced ICT as an instrument to enhance the quality of education, accessibility to learning resources, creating opportunities for open learning, it is worthy of note that the use of ICT in education is still faced with myriads of constraints which have restricted its efficient and effective use, it also constituted challenges to the use of ICT in education. ICT infrastructures which include computer hardware and software, bandwidth/access, connectivity are grossly inadequate, and have constituted constraints on its effective usage. Funding has been a great challenge to infrastructure development for ICT in education. Investigations indicate that the formidable challenge facing National Open University of Nigeria (NOUN), is lack of financial support to

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build the required infrastructure and to produce learning materials for its over 9,000 students registered in the first year (Omofaye).

In Nigeria University system, the challenges posed by non-availability of adequate fund in building adequate infrastructure have also become a recurring decimal also on the ICT infrastructures. Many universities are relying on donations and philanthropic gestures in developing available infrastructure for ICT in universities.

Federal University of Technology Akure (FUTA) is an emerging ICT driven institution. The university received the donation of the ICT centre from the Central Bank of Nigeria. Union Bank of Nigeria also equipped one of the computer rooms, while other ICT implementation: acquisition of computers, networking of academic and administrative departments, is carried out from the meagre resources internally generated revenue (IGR) (Omofaye). Universities in Nigeria which are ICT driven institutions were particularly faced with the problem of funding. Obafemi Awolowo University (OAU) Ile-Ife, university of Ibadan (UI), and University of Lagos, all have things in common. They sought and obtained financial support from donor agencies such as Carnegie, Rockefellers and other foundations.

Inadequate electricity supply is also a great challenge to the development of ICT infrastructure in education. The issue of electricity supply has become a national emergency issue that needs to be focused. Most of the internet and computer centers have been relying on generating plants to sustain the service as a result the over-head cost is enormous to sustain the business Bandwidth costs are very expensive individual access to the internet is highly restricted because of high cost per hour connectivity. There is therefore non-availability of internet access in some tertiary institutions because of the recurrent cost of bandwidth.

Conceptual Framework
ICT is a wide range of activities and equipment including all the tools, applications and information, which are available and accessible via computers. It encompasses various forms of information delivery systems such as televisions, radios, newspapers, computers; the internet (Okwudishu 2004).ICT in education

encompasses an array of academic perspectives: training and education, learning and knowledge, technology and the investigation of individual market segments. ICT focuses on the crucial issue of how people communicate and learn in an electronic environment. ICT in learning depends on effective communication of human knowledge, whether this occurs in a face-to-face classroom or across the internet. In general, the more interactive the approach, the greater the demands on the communication network, although the transmission of text is less demanding than the transmission of visual images and sound. Many of the recent advances in ICT in education have been driven by expansion of fixed-line network capacity and the growth in internet use. Of particular interest to many e-learning fields has been the emergence of the World Wide Web, which offers a user-friendly graphical interface through which learners can gain access to a huge range of information, including images, data files and sound as well as text. More recently there has been a rapid growth of new mobile communication technologies that offer internet access while by passing both the fixed-line network and the web.

The internet is a major driver of ICT in education. Bandwidth is a major issue in the deployment of e-learning. Bandwidth refers to the amount of information that can be sent or received at a point on a computer network: the greater the bandwidth, the greater the carrying capacity and speed of transmission. The higher the quality and quantity of audio, video, interaction and processing tasks, the more sophisticated the communications technology required. Bandwidth costs money, so there is a financial imperative to manage the amount of bandwidth used for e-learning, particularly where it is used to support remote and distance users who may not have access to fast data connections. Furthermore, the content and services that can be accessed through internet are dictated by the bandwidth available. The purpose of this study was to examine the existing policy of ICT in education, the ICT needs for university education, the status of ICT infrastructure, strategies of infrastructure, strategies of infrastructure development and challenges facing ICT infrastructure development. The study was designed to answer the following questions.

1. What is the policy of ICT in education?
2. What are the ICT needs for universities?

3. What is the status of ICT infrastructure?
4. What is the level of awareness and sensitization of personnel on user's needs?
5. What are infrastructure challenges?
6. What role can collaboration among various stakeholders play in developing infrastructure for ICT in universities?

Methodology

This study is a descriptive research which is qualitative in approach. The information was gathered from academic staff and students, of universities in Nigeria. The information was gathered using unstructured interview, using face to face, phoning method, text messages and e-mail messages. Participatory experience and observations were used to supplement the data.

Study Outcomes

Policy of ICT in education

There is no explicit policy on ICT in university education. 80% of the respondents subscribed to this view. Individual universities handles issue pertaining to ICT in education based on their orientation and experience. Some universities paid attention to the use of ICT in university administration, specifically on students' registration, admission and school fees' payment. In many universities private business owners are allowed to establish internet facilities and services for students' academic activities, this view was corroborated by 75% of the respondents. Never-the-less there is rarely any academic programme that directly connected to the use of ICT.

ICT needs for universities

Universities desire adequate ICT facilities to supplement face to face teaching. Students need to have academic interaction with students across the world. The need to train and develop among students habits to have individual study and to have exposure to views outside their immediate environment was prominent. Quality and up-to-date learning materials are required from academic staff to elevate the quality of education and their product. Academic staff need to compete and compared favourable with colleagues all over the world. 70% of the respondents perceived ICT as an instrument to disseminate information concerning, conferences, professional

development, scholarship, sabbatical, readily create awareness for career prospect and development. ICT sells the universities to outside world in terms of quality of programmes, curriculum, and development of personnel, conferences, journal publications, awards and information for posterity.

Status of ICT Infrastructure

It has been observed that internet facilities are springing up in many universities. The ICT infrastructure like CD-ROM, radio, tape, television, mobile phones are available and adequate but they are rarely recognized as ICT infrastructure that can be put into educational values. Computers are receiving due recognition as well as internet. 65% of the respondents said that computers available for internet browsing are grossly inadequate to meet the demand of people for its usage.Bandwidth that is available in many cyber cafés cannot meet the demand of users. Inadequate provision of electricity for use especially for ICT facilities has been a hindrance to the use of ICT in education. 85% of the respondents subscribed to this view point.

Level of awareness and sensitization of personnel on users' need

The level of awareness on the extent to which ICT could be useful in education is still low many lecturers rarely understand the usefulness of ICT in education. A large number of lecturers are aware that internet could be browsed as a source of teaching materials, students could browse to get information required in their assignment, use it to send messages to friends, have access to international conferences and forums, and moreover a useful instrument for research purpose. 80% of the respondents supported this view. The level of sensitization of personnel on users' need is still very insignificant. Up to 65% of the respondents were of the view that many lecturers are yet to develop themselves to meet the challenges of ICT in education. Conferences have been viewed as rich sources where academic staff can be more educated on the use of ICT, most especially those conferences whose theme are focusing ICT in education. Universities authorities' encouragement in the area of awareness and sensitization is minimal, because they are not making it mandatory for them to sponsor academic members of staff to conferences.

Infrastructure challenges
Challenges facing infrastructure is enormous. Up to 75% of the respondents corroborated the view that universities do not get adequate fund to install ICT facilities and computers that are available are grossly inadequate. Computers are still luxury in many universities many academic staff could not be provided with computers. 70% said that Internet facilities are faced with problem of getting adequate building facilities, furniture, electricity, and technician and software providers. The issue of bandwidth is rendering some internet unmanageable. Many universities are relying on fund from donors, philanthropist, internal generating revenue (IGR), and even students to run the cyber – cafés. In most of the universities it has become business venture so as to meet their financial expenses.

Collaboration among stakeholders
Collaboration among various concerned groups has be prescribed to meet ICT infrastructure demand. Government is not able to meet the need of universities as far as getting required infrastructure is concerned. This view was supported by 65% of the respondents. Over the year the recommended UNESCO prescribed fund of 26% of annual budget is hard to meet by Nigerian government. The only way university could meet its financial and facilities requirement is to look up to other stakeholders. Many stakeholders like banking establishment, oil companies and foreign aids have been making their marks on the provision of "infrastructure in education.

90% of the respondents said that Education Trust Fund (ETF), has been supporting universities in provision of building infrastructure but it is of great importance if it shows interest, in ICT infrastructure development. University alumni associations' impact on ICT infrastructure is very minimal. Students in some faculties across universities in Nigeria have been showing interest in building ICT infrastructure on campuses. In some cases they willingly contributed to building up ICT infrastructure. The efforts of students' union in contributing to building of ICT were minimal.

Conclusion and Recommendations

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The development of ICT infrastructure for university education in Nigeria has posed a great challenge. There is no explicit policy on ICT in universities, hence ICT infrastructure was not properly directed and planned in the face of meagre resources. ICT needs for universities have not been properly grasped by the expected users. The level of awareness of the personnel is still low; many are yet to be conversant with various ways of putting ICT to use in classroom situations. ICT infrastructures in universities are grossly inadequate, much attention was paid to internet, while others essential equipment are lacking such as CD-ROM, radio, tape, television and others. Available internet facilities could meet the need of users.

In planning of ICT infrastructure, there should a comprehensive policy of ICT in university education and ICT needs for university should be determined. ICT infrastructure should be given priority with adequate funding. It is also important to review the existing infrastructure, create awareness and sensitize personnel on users' need and ICT infrastructure challenges. Moreover, collaborative efforts of various stakeholders in Education go along way in enhancing ICT infrastructure development. It is very necessary and important for various stakeholders to be involved in sourcing for fund to build ICT infrastructure in universities. Alumni and Students Union Associations should show interest and commitment in building ICT infrastructure in universities.

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Effectiveness of Government Plans and Policies for Universal Primary Education in Pakistan

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Abstract

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The purpose of study was to evaluate the Effectiveness of Government Plans and Policies for Universal Primary Education in Pakistan to identify the impediments that hindered the efforts for achievement of UPE in Pakistan and suggest measures to improve the state with regard to universalization of Primary Education in the country. The main objective of the study were: (i) to review the Government education policies, plans and the provision for the achievement of UPE in Pakistan, (ii) to critically analyze policy statements, implementation procedures, provisions and strategies, (iii) to identify factors affecting the implementation of plans and policies regarding UPE and (iv) to suggest measures to make the plans and policies more effective in achieving UPE in Pakistan. All education policies and Development Plans, developed since inception of Pakistan were analyzed to evaluate their effectiveness. In addition opinion of Planners, Administrators, Heads of institutions and teachers was gathered through submission of an exhaustive questionnaire administered in person. Part I of the questionnaire included major factors like economical, physical, administrative, students' related factors, teachers' related factors, curriculum related factors, students' school leaving reasons, accessibility factors and policy/plan implementation factors to seek the respondents' view about their effects on efforts to achieve UPE. In part II 30 items from part I were selected and the respondents were asked to prioritize these factor and in the part III of the questionnaire the respondent were asked to prioritize the remedial measures to overcome the effects of 30 factors selected in part II, on efforts to achieve UPE. The total sample included 1000 subjects which comprised 120 planners, administrators and heads of institutions, and 880 teachers from different strata of schools stratified as Federal Government Educational Institutions(C/G), educational institutions of Federal Government Educational Directorate, Islamabad, educational institutions of Directorate of Elementary Education, Rawalpindi, Army Public Schools, and educational institutions of NGOs. Document analysis of educational policies and the plans, revealed that the major objective of these entire document was to achieve UPE since the inception in Pakistan in 1947. UPE has been repeated by number of national conferences and

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policy documents, shifting the goal further into future and it is presently set for the year 2015 in agreement with the education MDGs. However, the political instability and the inconsistency in educational policies and constrained resources were major factors in holding back the capacity of the primary education system to respond effectively in achieving this goal. In -depth study of policy documents revealed unrealistic and idealistic targets with insufficient and non commensurating financial support. Major findings of the study were the poverty, lack of political will, resources constraints, political interventions, lack of commitment of teachers, lack of trained teachers and their shortage , poor curricula, female teachers administrative problems, and access to schools, which were the main constraints in achievement of UPE.A genuine effort is required for the implementation of policy strategies ensuring consistency and eliminating the gap between the educational and the financial planner

Introduction

This paper provides an overview of different education policies and plan formulated by the government to achieve the target of universal primary education (UPE) in Pakistan. Pakistan has been through many educational policies and five year plans which served as conceptual frameworks and plans of action for the development of education in the country. In 1947, the First Educational Conference was held in Karachi. In 1959, the Commission on National Education put forward its recommendations for the advancement of education in the country. They were followed by Educational Policies of 1970, 1972, 1972-80, 1979, 1992 and 1998-2010. Quite recently a draft of National Education Policy 2008 has been formulated. In this document a complete review of the previous policies has been made and identified the major deficiencies in our education system like access and quality of education and their

causes. The policy actions suggested widening the access and raising the quality of our educational system. During the period, nine five year plans were also prepared and put into practice which, inter alias, touched the system of education in the country at length. These policies and plans prioritized their targets as per the needs of the people emphasizing Universalization of Primary Education (UPE), and increasing literacy rate for the country, as their ultimate combined objective. Despite the high hopes and aspirations, the outcomes have not really been realized and the country still lags behind in achieving the literacy and UPE targets as per requirement of Millennium Development Goal (MDG).

Universal Primary Education
The problem of Universal Primary Education stands out among all others for sheer magnitude and stupendous ness. All the countries in the region are committed to achieve the target of UPE. To achieve the aim of universal primary education in South Asian Region, UNESCO adopted Karachi Plan at the UNESCO Regional meeting of Representatives of Asian Member states on primary and compulsory education, in Karachi from December 28, 1959 to January 9, 1960. Karachi Plan was a historic document which helped in assessing the needs of the region in the realm of Universal Education within the framework of the plan and also highlighted the problems that the region faced in implementing the programme of universal education. The need for free primary education was emphasized by the United Nations General Assembly (1948). This assembly adopted the universal declaration of human rights, which among other things stated that: "Everyone has the right to education. Education shall be free for at least the elementary and fundamental stage, Elementary education shall be compulsory"(Article 26-Universal Declaration of Human Rights1948). The emphasis on basic education was demonstrated at the world conference on Education for All held in Jometien, Thailand (1990).The term "basic" was coined to show changes in emphasis and indicate that primary education is a complete and terminal phase of schooling in itself. Jometien Conference (1990) ensured that all participating countries commit themselves to providing every child, youth and adult the opportunities to achieve an acceptable level of learning. It therefore, represented the world leaders and organisations' commitment to basic education globally. It also guaranteed donors'

support to countries that could adopt the basic policies of "Education for All".

Primary education means general education of the children up to the age of nine years. It includes every child of five or six years of age. Primary education normally begins at the age of five and the majority of children continue for five years up to the age of ten. Primary education comprises classes 1 to 5 and enrolls students of age group 5-9. (Shami and Hussain 2006; p.18)

Problems of UPE in Pakistan

Referring to EFA assessment for Pakistan, population explosion, resource constraints, undue political interference, political instability, lack of coordination, disparities and imbalances, inefficient management and information system are the emerging issues and problems to UPE achievement in Pakistan. The study also reveals the causes of the low enrolment including distance of access to school, income of household and education of parents. (GoP 2000; pp.26-27). Pursuing the causes of non-achievement of UPE in Pakistan different agencies undertook different studies. Bureau of Educational planning, Ministry of Education in collaboration of USAID, undertook a study in 1976 and gave its findings. According to these findings, the salient in-school factors affecting UPE include poor physical facilities, high drop out, low retention, teachers' absenteeism, and lack of supervision, untrained teachers and parental apathy. Among the out of school factors, poverty was identified as the major factor hindering UPE. (Khawaja 1984; p-9)

According to Khalid and Mujahid various constraints which hinder the efforts to achieve UPE are: poverty of parents, women status in society, and disinterest for female education, girls' domestic work, lack of community participation, shortage of female teachers, lack of physical facilities, irrelevant curricula (Khalid and Mujahid 2002; pp26-29).Low female participation, high population rates high drop out rate, school accessibility, poverty school timings are the other impediments to achieving UPE in Pakistan, according to Abbas. (Abbas, 1993; p. 45).The draft "The National Education Policy 2008, paints a dismal picture of education sector by carrying out the current situational analysis, and highlights the serious barriers to achievement of UPE in Pakistan as the access to educational

opportunities, the lack of confidence of parents in the public sector schools, the inequity in Education and Political interference and corruption in Recruitments, transfers and postings.

Review of different education policies introduced in the country since its inception reveals the following facts:

a   The target period for achievement of UPE in Pakistan was extended in almost all the policies without giving a reason for shifting the target date.

b   Almost all the government efforts failed to achieve the desired target of UPE in any policy period and hence had to be extended on account of varied factors.

c   No continuation of policies is found over the years. All policy documents seem to be issued as an independent document. Lack of continuity of policies is one of the impediments in achieving UPE in Pakistan.

d   The policy documents are replete with verbosity, non committal orders and instructions. Unnecessary details, vague objectives and a number of generalizations made them difficult to be understood for implementation.

e   Lack of planning for the training of implementing agencies for the implementation of the policies.

f   Political appointments in the education sector, a major source of state employment, further damaged public education. Many educators, once ensconced as full time civil servants, rose through the system despite having little interest and experience in teaching.

g   The widespread phenomenon of non-functional, even non-existent "ghost" schools and teachers that existed only on paper consumed a handful of budget, hence became a serious factor of non-achievement of UPE in Pakistan.

h   Provincial education departments have insufficient resources and personnel to monitor effectively and clamp down on rampant bribery and manipulation at the local level.

i   Among the most prominent challenges faced by teachers today in Pakistan are, lack of support from communities

and parents, lack of teacher education standards and lack of training opportunities.

Review of Targets and Achievements of Five Years Development Plans

The First Development Plan was formulated in 1955-60.Since then in all subsequent Plans, Universal Primary Education was mentioned emphatically, which is evident from gradual increase in Resources allocation in almost all the Development Plans. In The First Plan percentage allocation was 16.85% which was subsequently reduced in Second and Third Five year Plans to 15.92% and 6.21 % respectively. However, in the subsequent Plans the percentage allocation was enhanced gradually indicating the desire of the government to achieve the target of UPE. However the actual resource utilization depicts a different picture. The funds were generally under utilized in most of the planned periods, especially during the second plan period the utilization was minimum i.e. 24 % except in the non-planned period where the fund utilization was maximum. The non- utilization of 100 percent allocations may be one of the causes of non achievement of UPE in Pakistan. The optimal utilization of resources could not be ensured on account of a number of reasons like: unrealistic targets, inaccurate costing of different projects/activities,   indifferent attitude of implementing agencies, untrained administrative set up, untimely release of resources, lack of coordination between educational planners and financial advisers, lack of mobilization of parent support, lack of monitoring system, lack of scientific use of various management techniques like path goal theory, Planning Evaluation Review Technique (PERT) etc. All the Development Plans emphasized the achievement of UPE targets. The desired targets were not achieved in any of the planned period. However, from the sixth period onward the situation had improved considerably and the achieved targets were quite nearing the desired planned targets. The non achievement of 100 percent targets may be attributed to unrealistic targets, lack of political commitment and training of the personnel responsible for executing the plan.

Methodology and Procedure
Population
It comprised the following:

a. All the Policy makers and Planners in the Ministry of Education and its affiliated organization involved in policy making process.
b. All Administrators of Directorates of Education and Heads of Educational Institutions of the twin cities of Islamabad and Rawalpindi
c. All the Primary School Teachers of Educational Institutions of the twin cities of Islamabad and Rawalpindi.

Sample
The sample included all those who are either involved directly or indirectly in planning and development of education policies/plans. It also covers individuals responsible in executing the policy directives as administrators and teachers. The sample was selected in the following way:

Stratification of Educational Institutions
In the first step, the education institutions were stratified into the following strata:

    (1)   Educational institutions of Directorate of Elementary Education, Rawalpindi.
    (2)   Educational institutions of Federal Directorate of Education(C/G), Rawalpindi.
    (3)   Educational institutions of Federal Directorate of Education, Islamabad.
    (4)   Army Public Schools established in Rawalpindi and Islamabad
    (5)   Private educational institutions from Rawalpindi and Islamabad.
    (6)   Educational institutions administered by the non government organizations (NGOs) in the twin cities.

Educational Planners/administrators/Heads.(Category-I): It comprised personnel selected from Ministry of Education, Islamabad, Academy of Educational Planning and Management, Islamabad and Personnel from National Commission of Human Development, Islamabad, named as planners, personnel from Directorate of Elementary Education, Rawalpindi, Directorate of Federal Government Educational institutions, Islamabad and Rawalpindi, called as Administrators and Heads of institutions

selected from the sample schools . The total size of the sample was 120 selected by purposive sampling, comprised 25 planners,35 Administrators from the Directorate of Elementary Education, Rawalpindi, Directorate of Federal Government Educational institutions, Islamabad and Rawalpindi 60 Heads of Institutions of both public and private sector in twin cities of Islamabad and Rawalpindi.

Teachers (Category-II)

It comprised teachers selected randomly from primary and the secondary schools where primary education was imparted during the time of survey, from different strata

    (1)   Teachers from educational institutions from the Directorate of Federal Government Educational Institutions, Cantonment and Garrison, Rawalpindi. Sample size 140 teachers.

    (2)   Teachers from educational institutions from the Directorate of Federal Government Educational Institutions, Islamabad. Sample size 140 teachers.

    (3)   Teachers from educational institutions from the Directorate of Elementary Education, Rawalpindi. Sample size 190 teachers.

    (4)   Teachers from the Army Public Schools. Sample size 120 teachers.

    (5)   Teachers from educational institutions, administered by private sector in the twin cities. Sample size 230 teachers.

    (6)   Teachers from the Educational institutions administered by Non-Government Organizations (NGOs) in the twin cities. Sample size 60 teachers.

Results:

Based on review of literature, document analysis and analysis of data collected from respondents, following results are inferred:

  a Educational Planning in Pakistan is characterized by inconsistency due to political instability in country, and setting new goals and targets from scratch by every new government Also the targets set are unrealistic, overambitious and unachievable.

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b   The strategies developed over time for achievement of UPE failed in achieving the desired results due to a variety of barriers and bottlenecks including the resource constraints.

c   Major constraints to UPE are found to be poverty of parents, poor quality of education imparted at primary level, accessibility, non-committed and untrained teachers, difficult and unattractive curricula, poor teaching methodology, ill-conceived policy targets, parents' indifferent attitude towards girls' education, lack of community involvement etc.

d   The ever increasing out of school population of age group 5-9 years is a major threat to the efforts for achieving UPE.

e   Accessibility is another major bottleneck which must be ensured through opening of new schools in close proximity of students' homes, provision of transport facilities, provision of physical amenities in schools like ware, toilets, electricity and security for both teachers and students.

f   Female participation rate at primary level in the rural areas is the lowest which needs immediate attention to achieve UPE target.

g   Community participation lacks in the country where parents and the community are unaware of the value of their contribution in educational system. They need to be educated about their role in school administration for the sake of education of their own children. Effective feed back system will also help in streamlining their functioning and efficiency.

h   Management system of schools lacks effective supervision due to a large number of schools scattered at large distances administered by an Assistant Education Officer without or with very little administrative support.

i   Share of education at present is minimum i.e. 2.5 percent of GDP which needs to be revised to minimum of 4 percent immediately with a working to improve further in future according to absorbing capacity of the educational system.

j   Finance discipline to be ensured to avoid wastage through pilferage and corruption.

Recommendations
Policy and planning

A vivid, simple and comprehensive policy should be framed for long term at national level. It should be considered as a sacred document

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which should not remain at the mercy of political authorities for making frequent changes at will. This aspect may need a constitutional coverage. All targets and objectives should be achievable, realistic and well executed. In the policy making process, the views and comments of all the section of society and the stakeholders may be sought. This can be achieved through an open discussion on media. In the previous policies a number of problems have been noticed which need to be taken care of by ensuring involvement of administrators and primary school teachers for effective implementation of various strategies and instructions contained therein the policy. In order to ensure 100 percent implementation of various strategies, political will would be required to achieve UPE. There should not be any political intervention in the educational matters and the educational managers must be provided freedom of action at all levels.

Financial Constraints

The educational allocations need to be revised from existing 2.5 percent of the GDP to minimum 4 percent of the GDP in line with UNESCO directive. This step must also enjoy the constitutional support. The existing economic state of the country may not allow implementation of this step immediately so in order to tackle the problems causing due to financial constraints, the following measures are suggested:

a   All administrators must be provided training in financial management.

b   Maximum efforts to be made to avoid/reduce the wastage of resources.

c   Local resources to be mobilized like utilization of Zakat and Usher funds in primary education.

d   Resources once allocated to primary education sector must not be re-appropriated to other heads of education sectors.

e   The unutilized resources must not be relapsed to government treasury. These must be fully utilized. In case of savings in any project that amount must be used only in projects related to only primary education.

f   Heads of institutions may be provided financial autonomy and allowed to generate their own funds through kitchen gardens, and renting their grounds to people for marriages and other

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functions. This will also help in achieving the goal of community involvement in school affairs.

g   Audit of accounts must be fair, transparent and carried out at regular interval to prevent administrative corruption.

Accessibility

Access to primary education is another serious problem which hinders the efforts for achievement of UPE. Following recommendations are made in this regard:

a   A law for free and compulsory primary education may be promulgated by all provinces.

b   Investment on primary education may be prioritized.

c   Establishing more schools in the proximity of students' residence.

d   Construction of more classrooms in the existing buildings.

e   Provision of physical amenities in existing schools. Local community may be asked to help, or resources generated by school may be utilized.

f   Transport facilities may be provided for students coming from far flung areas.

g   Security arrangements may be provided for female teachers and students.

h   Appointment of trained, devoted and dedicated teachers having experience of interacting with small children.

i   Improvement of school environment making it attractive for small children.

j   Uniform curriculum may be devised for primary classes both for public and private schools.

k   Madrassa schools must be fully utilized for primary education. These schools need to function at par with normal public schools for which regular heads of institution must be appointed along with trained teachers. Normal school programme may be integrated with the religious education programmes at the Madrassa schools.

l   Literacy programmes, Adult Education programmes and non formal education programmes must be organized as a parallel system. Such programmes must be run religiously by assigning responsibilities to organization like Allama Iqbal Open University or some NGOs.

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    m   Private sector may be motivated to establish primary schools in rural areas for which government can provide them free land, wherever possible. Also facilities in tax exemption may be provided to reduce the cost of education for poor students.

Quality of Education

Another factor which has seriously hampered the efforts of achieving UPE is the poor quality of education being imparted at primary level. This can be improved by considering the factors like curriculum, teachers, text books designing, assessment system and the administration.

Curriculum

The education must be made more relevant to the local environment, for which the following measures are suggested:

    i.   Curriculum for primary education should be tailored to the needs and realities of the local situation.

    ii.   Introduce into the curriculum Islam, Pakistani culture and traditions. This is the need of the time.

    iii.   Integrate the concept of Education and work in the curriculum of both formal and non-formal system of education.

    iv.   The curriculum should be broad based and duly balanced to provide a solid base for further education for some, while preparing the majority for a better life and development of community.

    v.   Curriculum should be innovative, creative and activity oriented to discourage rote learning.

    vi.   Medium of instruction at primary level should be Urdu, with English as an additional subject, concentrating maximum on development of various cognitive skills and learning grammar.

Teachers

Teachers play a pivotal role in improving the quality of education, thus there is a need to pay great attention to this segment of quality. The teachers face a number of problems like, lack of support from communities and parents, lack of teacher education standards and lack of training opportunities. Following is recommended in this regard:

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i. Appointment of teachers should be done purely on merit at local bas is based on their qualification and experience. Basic qualification for a primary teacher should be BA/BSC, B.Ed Present teachers with Matric PTC qualification should be provided 6-8 years to acquire the requisite qualification.

ii. Efforts to enhance their status may be made by improving their economic condition, provision basic amenities of life, attractive salaries and fringe benefits and introducing some welfare policies for their future rehabilitation.

iii. In view of the changing role of teachers, efforts must be made to recruit teachers who are considerate, helpful and have sufficient knowledge about child psychology. They must be professionally committed and have pride in themselves for serving a better cause and making the future leadership of the nation.

iv. The teacher training programmes must be effective inculcating in teachers the basic teaching skills. These courses should contribute significantly towards their future rehabilitation after retirement.

v. Their promotions to the next grades must be linked with some publication to their credit.

vi. They must be involved in formulation of policies for primary education. Their views and expressions must be respected in this context

vii. Rules and regulation may be formulated for the accountability of teachers and be enforced religiously to check their absenteeism.

Designing Textbooks

There is a need to seriously focus on designing of text books in order to improve the quality. Following recommendations are made in this regard:

i. Contents should be interesting and absorbing. These should provoke the conceptual learning instead of rote learning.

ii. Local context should be included in textbooks. All illustrations should be made through colourful and attractive pictures and diagrams.

iii. The experienced teachers may be tasked in designing good books.

iv. A competition of various publishers may be held to ensure production of books of the best standard.

v. An extensive review of books may be made through a review committee. Local school heads and administrators can be made members of the review committee to ensure the relevance of contents.

vi. A committee comprising professional textbook writers, experienced teachers and philanthropists may be constituted for producing books of real high standards.

Assessment System

The existing annual examination system compels the children to work hard only towards the end of the year to get through the examination. There is no system of evaluating students' performance continually; hence they resort to selective study and rote memory. Such an evaluation system does not inculcate reading habits among students. This is the age where habits are developed. Thus there is a requirement to develop an assessment system which should regularly evaluate students' performance. Following is recommended in this regard.

i. There should be no examination in first four years of primary education. Children should be given automatic promotion based on their performance throughout the year.

ii. The teachers will need training in continuous evaluation and maintenance of record of children.

iii. At the end of fifth year the students must be tested by the Board of Examination of Elementary Education. The aim of such examination should be to test if the students have acquired essential cognitive skills or not, instead desiring to know about certain peculiar information.

Administration

For improving the quality of education there is need to focus on the existing administrative and management problems and to take measures to overcome these problems. The suggested measures are given below:

i. For effective supervision and management of schools, the area of responsibility of the supervisors must be reduced to ensure effective monitoring of schools.

ii.   Administrative and management training to be imparted to the local managers, administrators and the teachers, with principal focus on:
   (a) Providing formal management training, to examine some basic management concepts and principles in a practical context.
   (b) Encouraging them to seek solutions to existing management problems in their schools.
   (c) Providing a forum for discussion of current management concerns.
   (d) Providing them with strategies for the identification and resolution of school related problems.
iii. Transport facilities should be made available to the managers and supervisors to visit schools at regular intervals and provide on spot counseling and guidance to teachers.
iv. Well qualified and trained heads to be appointed in primary schools.
v. Turn over of the administrative staff should not be frequent.
vi. To make the administrative jobs more lucrative, administrative allowances may be provided, which should be announced with the salary package.

Problems of Parents

Following measures are suggested to help parents to overcome their financial problems and contribute effectively towards achievement of UPE:
   i.   Poverty alleviation: Poverty of parents is a major hurdle to achieving the UPE target. Therefore effective measures need to be taken by government for poverty alleviation. These measures may include:
   • Provision of skills to people by the government through different programmes which can help them to fight against poverty and produce opportunities for leading better life.
   • Provision of interest free loans to people for establishing their own small business on condition of enrolling their children in schools.

- Provision of financial assistance to parents for education of their children.
- Provision of free text books and stationery and uniform to poor students.

ii. Parents need to be motivated for getting their children enrolled in schools. This can be done through community involvement, teachers, political leadership at local level.

iii. Extensive use of media may be made to highlight the educational value in the social and economic development.

iv. Introduction of incentive schemes for increasing the enrolment rate.

v. Parents to be made aware of advantages of having small sized family.

Low Participation and Enrolment Rate

Following measures are recommended:

i. Opening of more primary schools closer to the vicinity of children home.

ii. Construction of additional classrooms in existing school buildings.

iii. Involvement of private sector and NGOs for providing primary education especially in remote areas. Government to provide assistance in the form of land or exemption of taxes to reduce the cost of education.

iv. Motivational campaign through media to influence parents to send their daughters to schools.

v. Establishment of primary co-education schools with female teachers.

vi. Provision of transport facilities.

vii. Ensuring community involvement

viii. Stipends and scholarships for poor students.

ix. Incentives for high achievers.

x. Introduce flexible time schedule of vacation according to local needs particularly agricultural needs where parents desire their children to share their work load in rural areas. This measure will ensure students' attendance in schools and will curtail the tendency of drop out.

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