

# Village Information Centres (VIC) as Development Agents: An Assessment of Access by Rural Students

Dr. M. Arivanandan

Research Assistant

Centre for Study of Social Exclusion and Inclusive Policy

Pondicherry University

Puducherry 605 014

E- mail: [arivanandan.iitm@gmail.com](mailto:arivanandan.iitm@gmail.com)

## Abstract

The expansion of ICTs has reached most developmental sectors of the world, of which educational development is one of the most significant. However ICTs-based educational benefits are not fully utilized by rural communities especially by rural school students. To solve this issue, a number of developmental initiatives are setting up internet-based information centres in rural areas to disseminate information and enhance the educational performance of rural students. However, the existing socio-economic and cultural conditions of rural areas are creating barriers to obtaining quality education through internet-based information centres. This will lead to educational-based exclusion between urban and rural students. This paper focuses on the influence of computer-based information centres, their impact on the scholastic performance of rural students and the problems arising when rural students do not access these facilities. It also discusses the information centre operators' and parents' involvement in the ICT related educational programme. In this paper, the ICTs represent computer-based internet technology implemented in village information centres and schools.

## Introduction

The rapid development of Information and Communication Technologies (ICTs) is one of the important social developmental indicators in the world. Their benefits are expanding in developed, developing and underdeveloped countries. The leaders of the world's eight major industrialized democracies (the G8 Heads of States Summit 2000) noted that "ICT has become an engine of growth for the global economy and has potential to contribute significantly to sustainable economic development to enhance public welfare, to strengthen democracy, to increase transparency in governance, to nourish cultural diversity and foster international peace and stability" (Robert B. Kozma). In this regard, among developing countries India has an important position in the use of ICTs. However, in rural areas, the uses and benefits are not equally distributed to developmental sectors such as education and

health. There is a need to concentrate more on these two sectors.

This paper focuses on rural-based educational development and the role of ICTs, beginning with Kerry S. McNamara saying that "what the poor need is economic opportunity, improved nutrition and health care, healthy environments, education, and other components of a rewarding and sustainable livelihood.... ICTs can help to achieve these goals but they remain tools, not goals" (Menon, et. al). ICTs are an umbrella term including radios, TV, telephones, newspapers, telegrams, faxes, cell/mobiles and the internet. Computer-based internet and mobile phone technologies are effectively utilized to disseminate information and to enable quick and less expensive global communication. However, the utilization of internet-based technologies has to do more with urban educated people and less with the underprivileged sections living in rural and urban slums. To change this situation, the government, non-government sectors, private and corporate sectors have begun to pay more attention to the introduction of internet services in rural schools and villages by setting up ICT centres. Nevertheless, they have not benefited the majority of people in rural areas much. There are many influencing factors – the social, economic, cultural, political and educational condition of the people. Among these, education is a major factor for non-accessing ICTs.

## Statement of Problem of the Study

Education is a key factor in the development of society but the purpose of education has changed among the younger generation. They are more interested in trouble-free and well-paid employment opportunities than acquiring knowledge from education. Most urban youths are interested in studying computer-based IT and other vocational courses particularly the urban students, while at the same time the interest and the enrolment of students in core subjects like Chemistry, Physics, History, Economics, Anthropology, Geography etc are going down day by day, even though a considerable number of rural students are interested in studying them. This is not a healthy progress in the educational

sector; it can create a wider gap between rural and urban students. The reasons for this situation could be the lack of availability of information about subjects and the opportunity to study IT-related courses, economic conditions (to study IT-related courses is expensive for most rural students) and lack of confidence in IT subjects.

In recent years, providing computer and internet-based education to rural students has become a significant concern of Government, Non Governmental Organisations (NGOs) and corporate sectors. These organizations are setting up rural Kiosks / Village Knowledge centres and Common Services Centres in rural and semi urban areas. These centres provide education-related programmes, health information, e-governance, e-commerce and computer-based skill trainings. It could be a way to create interest in the computer and IT fields. These centres are set up by individuals, Self Help Groups (SHGs), voluntary organizations and school administrations and are located in large villages and schools. Rural students prefer to access these facilities from village information centres, because schools use them for their personal and school administrative purposes. But to access internet facilities in village information centres, the rural students face many social, economic, education and environmental challenges.

#### **Major Challenges for the Education System**

Education is a fundamental right of every Indian child. The Indian constitution's 86th amendment states that free and compulsory education should be provide to all children aged 6-14. The former President of India, A.P.J. Abdul Kalam's 58th Independence Day speech, mentioned that unequal access to educational resources still exists in Indian society, for example, there are three types of families in the villages: the fortunate ones who realize the importance of education and are ready to spend at any cost and guide their children at all critical stages: those families who realize the importance of education but are not aware of the opportunities in time nor the procedures and ways to realize these opportunities for their children. The last category covers those who are economically weak, do not realize the value of education and continue to live in poverty for generations. Providing quality education to all students is a major task for a country like India, which is diverse socially, economically, culturally and politically. With the effective use of ICTs in education, this task can be achieved.

Education is a key tool for understanding and acquiring new knowledge about the world. It aims

to propose a better set of skills, attitudes and values to live successfully in modern society. But today, the idea of education has changed; it is seen as a commodity to be purchased in order to build a 'skill set' to be used in the market place, especially by multinational corporations ( Joshi and Murthy, 2004).

In India, education has two faces. On the one hand, there are millions of children in lower income groups, particularly in rural areas, and nearly 40% of them cannot complete their primary education. Influencing factors include poverty, low standards of education, inadequate teaching materials, high ratio of students and teachers and outdated teaching methods. These lead to poor educational performances by rural students and more dropouts. Sometimes, students are forced to work as child labour in hazardous places.

On the other hand, children, particularly those from the middle and upper classes, attend private schools in urban areas and are subjected to extreme competitive pressures from an early age to acquire basic language skills and memorize vast amounts of information in order to qualify for admission to the best schools. Parents and teachers exert intense pressure on young children to acquire academic skills at an age when children should be given freedom and encouraged to learn as a natural outcome of their innate curiosity, playfulness and eagerness to experiment.

Another major challenge to India's educational system is the status of female education. Though the government has made significant efforts to reduce the disparity between girls and boys in education, the problem continues. According to a 2011 survey, the male literacy rate is 82.14% and the female is 65.46%. The overall literacy rate has increased from 65.35% in 2001 to 74.04% in 2011. The increase of literacy rates among males and females is 6.29 and 11.3 %respectively. It is inspiring to observe that the gap in male and female literacy rates has decreased from 21.69 in 2001 to 16.68% in 2011. (Registrar General of India, Government of India, 2011).

The problem of illiteracy among girls not only affects the particular individual, but also her family and the progress of the nation. The lack of education in women has had a negative impact on the health, nutrition, mortality and education of children. The India Registrar General (1995) survey indicates that the infant mortality is inversely related to the mother's educational level. Kerala still stands first among all Indian states in the female literacy rate, followed by Mizoram. According to the 1991 census, the states of Uttar

Pradesh and Bihar alone had 63 million women who were illiterate. In the health sector, the infant mortality rate was lower and life expectancy rate higher in Kerala, but in states like Uttar Pradesh and Bihar, the life expectancy was lower than any other states in India (Velkoff, 1998). Gender inequality, poverty, domestic responsibility and social discrimination are the major reasons for female illiteracy as well as poor facilities like toilets, the distance of the school from home and low enrolment, all contributing to high dropout rates among girls.

Quality private school education in urban areas and low quality government school education in rural areas are the two faces of education in India. Benefits offered by the government have reached the educational centres of urban areas but are rarely enjoyed by rural students. In the competitive world, access to quality education is essential to reach a high status in society. In this connection the governments have made many efforts to provide quality education to the people, particularly to villagers, for example, Operation Blackboard (1986), the Non-Formal Education Scheme (1986), the Shirka Karmi Project (1987), Mahila Samkya (1989), Lok Jumbish (1992), District Primary Education Programme (1994), Midday Meal Scheme (1995) and Sarva Siksha Abhiyan (2001). Education in rural India has changed from the mere enrolment of the student to completion of primary school. But gains in enrolment do not imply completion of graduation (Azim Premji Foundation, 2004). In 2009 the Government of India implemented the Right to Education Act, a significant milestone in the educational sector. However we have not yet reached the goal of education for all, total literacy and better education for the rural masses. The following are some of the reasons for the low educational standard of students in rural areas.

### Influence of Social Exclusion in Education

The national family health survey in 1989-99, analyzed the attendance of schools by children

aged 6-17 years in rural and urban areas in India. The total attendance of urban children aged 6-10 was 90.4% but at the age of 15-17 it drastically declined to 63%. On the other hand, rural children's school attendance was 79.4% at 6-17 years and 44% at 15-17 years (Azim Premji Foundation, 2004). The survey shows that there was a huge dropout from primary education to middle and secondary standard. The age of 15 - 17 is a crucial age for education. During this period students make decisions for their future education, with some rural students going for higher secondary education and many going for work due to their family's poor economic condition. This commonly happened to female students of rural areas. There are other factors too such as failure in the examination, lack of interest in higher education, lack of awareness of the importance of education, family pressures and environmental conditions. Social exclusion in India is caused by the disparities between people - caste, class, location (rural and urban) and gender. The Indian social system, especially the rural community, is generally based on caste. People belonging to the lower caste are socially, economically and educationally backward compared to upper caste people. Among lower castes, the women are more deprived. Therefore, education-based exclusion is a major problem in the rural, lower caste females. These people are already suffering problems of caste disparity and gender discrimination leading to education-based discrimination in rural areas and creating a major setback to national progress as well as injustice to society.

The following table indicates the rate of completion of schooling among children of Scheduled Castes (SC), Scheduled Tribes (ST) and other backward communities. The SCs are comparatively higher than the STs and lower than the Other Backward Communities (OBCs) in all kinds of social and economical status.

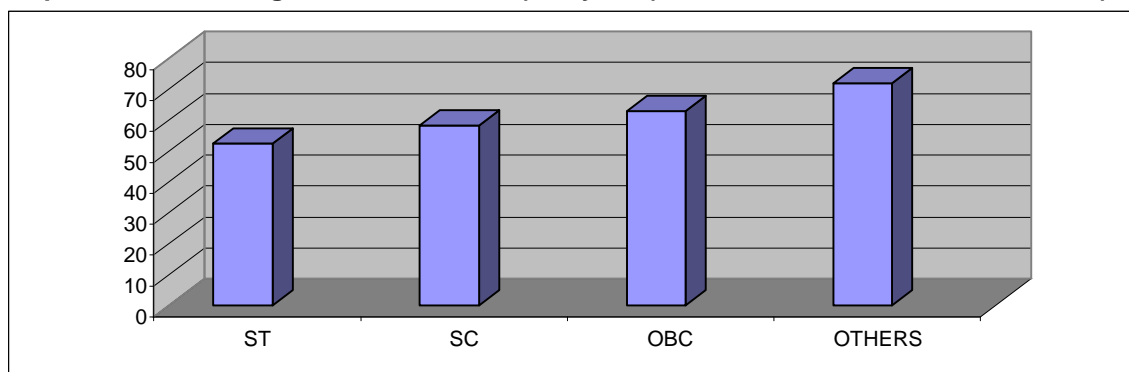
**Table 1: Completion of Schooling (10-12 years) by Caste (RCH 2002-2004)**

Social Group	SC	ST	OBC
Male	36.3	32.6	44.8
Female	32.3	26.6	44.1

Sources: Report of Social Exclusion of Scheduled Caste Children from Primary Education in India, 2006

The following table indicates that the educational and economic status of SC and ST children depends on their domestic condition and other infrastructure facilities. It shows that they are disadvantaged in education compared to children from other castes. Girls are even more disadvantaged compared to boys in the lower economic group; however this condition is less in the higher economic group.

**Graph 1: Percentage of Children (6-14years) who can read and write (NSSO, 2005)**



Sources: Report of: Social Exclusion of Scheduled Caste Children from Primary Education in India, 2006

Graph 1 shows the reading and writing capacity of students from different communities. Among the STs only 52.2% of students have the capacity to study and communicate well in their subjects while 72.2% of students from other underprivileged communities are capable of reading and writing effectively. Even in a developed state like Tamilnadu there are lacunae in school education. Mr. Justice Chandru, of Madras High Court, pointed out that in a study conducted by the Chief Educational Officer of Coimbatore district in schools run by local bodies, there were 12,650 students in the middle school sections who could not read and write Tamil, their mother tongue. "This is really a sorry state of affairs in the Education Department and especially in schools which are run by the state agencies" (The Hindu, November 28<sup>th</sup> 2007, p.10). A national level survey states that there is a difference between government schools and private schools in reading and solving minor numerical problems. The government education department needs to take necessary action otherwise this will lead to major problems in society and create a large gap between government and private schools students. This is a serious issue for low income rural families, who cannot afford private school fees (India Together, 2007).

### **Education through ICTs and its Challenges**

Information and knowledge are widely accepted as a new form of wealth, a driving force for the development of individuals, communities and nations. The new curriculum in education insists on increasing the creativity of children from school level onwards. To promote this skill, the new ICTs play a key role in schools. However, it is a major challenge in rural schools with minimum infrastructure facilities and low ratio of teachers trained in computers. Moreover most rural students are first generation school goers or first time computer users so computer teachers play a vital role in effectively promoting and sustaining

the ICTs based education programme in the rural schools.

In general, the accessibility and benefits of the information centre are based on the attitude, interest, involvement, economic capability of parents and infrastructure facilities of village information centres and involvement of the village information centres' instructors, specifically in schools, as it depends on the interest of school teachers and the availability of computers in schools. In India the ratio of computer is less than six computers per school and one computer for seventy two students on average (Vivek Bharadwaj, 2007). Moreover, most computers are used only for school accounts and the personal work of rural school teachers.

The major limitation for rural students is the location of village information centres. Most are located in the main village which is inhabited by upper castes; low caste people hesitate to enter this area. For this reason the centres do not cater for all sections in villages. Even within the upper caste, very few students regularly use these facilities and then mostly for computer games and other useless activities, rather than for educational purposes. The operators were also found playing computer games as it is easy to handle such students, since they need not pay any attention to them. If students use the computer for educational purposes, the operators should constantly update themselves and be well-equipped, but they are not ready to do this. In many centres in the rural areas of Tamilnadu and Puducherry, low caste and poor students in other communities were hesitant to ask for permission to access the centres.

Caste discrimination is a major factor for non performance and ineffectiveness of education-related programmes in village information centres. The location of houses in rural areas is on the basis of caste. Upper castes live in the main

villages and lower castes mostly live on the periphery. Schools and village information centres are mostly located in the main villages. As a consequence, students from lower castes are reluctant to come to the main village or town to access education-based information in the centres. The non accessibility of girl students in the centres is a major setback to the ICT based education programme in rural areas. Moreover there is a general notion prevalent among people in rural areas that ICTs are used for undesirable activities like watching pornographic movies. This stigma prevents girls from using the information centers..

Family support and environmental circumstances are important factors to improve the education performance of children through the ICTs. In rural areas most parents earn daily wages averaging around Rs.50 to 100 for men and Rs. 25 to 50 for women. The wage is not consistent; most of the time they do not get enough income to maintain their families so it is difficult to send their children to the centres to access the facilities even though the cost is low. The fulfillment of basic needs is of greater priority than using facilities like computer based education..

### **Conclusion and Suggestions for Effective Use of Village Information Centres and Improvement of Rural Students' Scholastic Performance**

The educational system in rural areas is affected by low enrolment and more dropouts in high school and higher secondary level, particularly in lower income groups and SC and ST communities. School dropouts in rural areas is linked to poverty and child labour. Once out of school, these children work in places like hotels, mills, small industries and theaters which at times can be hazardous to their health. They are affected both physically and psychologically. If the rural computer-based ICT programme focuses on school drop-outs and provides training in DTP, computer graphics, designing and other skills, this will create an interest in education as well as supporting their family's economic condition. Rural ICT programme initiatives need to implement the following suggestions to achieve better scholastic performances from rural students.

1. Provide better infrastructure facilities in rural schools to facilitate maximum utilisation of ICT facilities.
2. Motivate rural school teachers to effectively deliver computer and internet-based education to rural students

3. Conduct frequent visits by competent authorities to rural schools and evaluate the performance of students and teachers
4. Conduct frequent parents' and teachers' meetings and discuss the importance and necessity of ICT-based education.
5. Provide incentives to good students through some selection method
6. Motivate all community students to use the computer and internet facilities in village information centres
7. Set up village information centres in places that can be easily accessed by all Provide a considerable number of computer systems with internet facility for the maximum use of the internet for education.
8. Enable students and their parents to understand the realities of computer based education and utility of the internet to improve educational performance.
9. Provide special training to computer teachers and operators of rural information centres on new educational developments, availability of new courses and information about institutions.
10. Create awareness of information technology-related courses to rural students.
11. Conduct advanced computer-related courses through village information centres in rural areas
12. Appoint exclusive teachers to handle ICT courses fully supported by local industries on a part time basis to cover two or three schools in the same region
13. Approach nearby engineering colleges to organize training programmes for the teachers of schools and to conduct various competitions for the students of these schools.

Though education is a significant tool for social development, it has not yet reached all people in society. On the one hand, there are 200 million economically and socially underprivileged children who are out of school in India and for whom education is still a distant dream. On other hand, the country is developing rapidly with the help of information technologies. It is the need of the hour to take effective initiatives to synergize ICTs with education and provide quality education to all children without disparities and discrimination in education and in information dissemination. Finally, ICTs should play an effective role in rural schools by exposing students to the latest communication technologies and improving their competence in education. Attendance in school and better scholastic performance are based on

the collective responsibility of parents at home, teachers at schools, and public in society. These three components have to work together in rural children's educational development with the first two factors being most important for rural children's educational performance.

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Filename: Village Information Centres in India.doc  
Directory: E:\VRI Website\vri-online\ijrs\Oct2012  
Template: C:\Users\Janet  
Wilson\AppData\Roaming\Microsoft\Templates\Normal.dotm  
Title: Information and Communication Technologies (ICTs) as a  
Development Agent of Rural Students Scholastic Performance  
Subject:  
Author: Arivu  
Keywords:  
Comments:  
Creation Date: 17/03/2012 21:24:00  
Change Number: 30  
Last Saved On: 01/01/2014 12:25:00  
Last Saved By: Janet Wilson  
Total Editing Time: 1,622 Minutes  
Last Printed On: 01/01/2014 12:26:00  
As of Last Complete Printing  
Number of Pages: 6  
Number of Words: 4,202 (approx.)  
Number of Characters: 23,956 (approx.)