

THE INTERNATIONAL JOURNAL OF HUMANITIES & SOCIAL STUDIES

Estimation of the Internal Efficiency of Government High Schools in Rural Areas of District Mardan

Syed Muhammad Amir

Ph.D. Student, College of Humanities & Development Studies, China Agricultural University, Beijing, China

Syed Wajid Ali Shah

Principal, Government Higher Secondary School no.1 Mardan, KPK, Pakistan

Shaheen Nigar

Professor, Institute of Development Studies, KPK Agricultural University Peshawar, Pakistan

Liu Yonggong

Professor, College of Humanities & Development Studies, China Agricultural University, Beijing, China

Najam-Us-Saqib

Ph.D. Student, Institute of Development Studies, KPK Agricultural University Peshawar, Pakistan

Khadim Nabi

Ph.D. Student, Institute of Development Studies, KPK Agricultural University Peshawar, Pakistan

Ilyas Khan

Ph.D. Student, China University of Political Science and Law, Beijing, China

Abstract:

The present study was conducted to estimate the internal efficiency of government high schools in rural areas of district Mardan and determination of factors affecting the internal efficiency. Among the rural schools, five were selected purposively due to bad reputation. A sample of 86 respondents was taken randomly of selected schools. Input-output ratio and percentages were applied for data analysis and it was observed that the input-output ratio was more than 5 for sampled schools i.e. they were internally inefficient. The factors which affected internal efficiency in government high schools were low quality of education, lack of students' interest in education, continuous repetition of students, poorly preparedness of students by earlier schooling, withdrawal of students from schools, ignorance of students' parents, custom of early marriages, inadaptability of students with school environment and poverty.

Keywords: Internal efficiency, input-output ratio, rural areas, government high schools

1. Introduction

At world level, more than half of the population and more than 70 per cent of the poor are found in rural areas where general problems are hunger, literacy and low school achievement. To achieve sustainable development, education for people of rural areas is very essential. Education strategies are now placing emphasis on rural development. Such strategies need to address the provision of education for the many target groups; children, youth and adults with equal preference to both genders. An elaborate set of policy measures at all levels of education systems should be adopted for this difficult and vital challenge. Technologies are changing quickly and globalization is also increasing which reveal that better education and training have become crucial for sustainable livelihoods and for competitiveness of rural economy. For many years, the approach followed by policy makers and education specialists has been to focus on agricultural skill training. Rural development through education needs a holistic approach going beyond the narrow boundaries of the traditional agricultural education and training concept. There is huge number of rural communities and in some cases totally rural-based population in all countries of Asia. A number of governmental and non-governmental organizations are working for poverty alleviation in rural areas through basic education and agricultural education. Education provides entrance to better occupations and employment and is the main source through which the people of low income groups get access to higher income groups. Unemployment in illiterate exists in much proportion as compared to educated people (UNESCO, 2002).

The rural life in Pakistan is characterized by tradition, taboos and conservatism. Due to lack of education and exposure to the outside world, the people have not been able to grow over their superstitious and mythical beliefs. An atmosphere of self-righteousness prevails in the rural society and there seems no desire for betterment. This attitude of people has resulted in low levels of living. Agriculture is the main source of livelihood in rural areas and low production is related with illiteracy of farm people. Education is not the basic ingredient for increasing land productivity, but it is the important tool for farmers to understand techniques, to acquire skills

and to be motivated for more production. Every development depends upon skill and intelligence and schooling is the source which provides opportunities to learn skills and use intellect. Agriculture also needs more knowledge and skill because it is not only an art but it is a science too and with its mechanization, it requires more schooling. The major emphasis should be on education because it brings transformation in social and economic structure of rural areas which is possible through proper management of existing rural educational institutions (Zia, 1984).

The relation between education system and rural development can be understood by the fact that education is the only source of human resource development which is the improvement of the quality, attitude and performance of the population in their economic, social and cultural life. In rural areas, there are more problems relating to human resources than in urban areas like unproductive social and economic life so these problems can be eliminated through education. Developing education would mean development of the rural sector as it leads to maximum utilization of material and human resources for the betterment of the community life such as developing good relations among the individuals for cooperative living and better understanding of each other for the attainment of social goals and ultimately for fulfillment of the objectives of rural development. Education is the only tool through which the ever expanding knowledge of world can be transmitted. To keep oneself aware of the changing requirements of modern technology, a productive education system is required for the rural people resulting in productive manpower, accelerative development process and abolition of miseries and conflicts of mankind. For all such requisites of rural development, it should be at top of priority list to investigate the present situation of the education system. If the hurdles due to which education system fails to achieve its objectives of providing effective education to majority of rural masses were removed completely, then it would be very easy to promote development process. One of the basic and important problems in education system is poor internal efficiency. So, it is very important to remove the factors of poor internal efficiency of education in rural sector for effective education system (Jansen K. and H. Reiff, 1984).

Education cannot increase the amount of land or raw material but it is responsible for developing skills which consequently raise yield and production. Education is a catalytic agent, stimulating action to seek enrichment in life. To uplift the standard of living of rural people, planning of educational institutions is very important in order to make the perfect utilization of available educational resources (Brubacher J. S., 1962).

A system is efficient when the results are produced with a minimum of wasted efforts or resources. The efficiency of a system or a machine is gauged by comparing the outputs with the inputs. The outputs must be equal to or greater than the inputs for an efficient system. Mobilization of adequate financial resources is not the only problem of educational efficiency but it also includes the matter of the efficient utilization of resources, their proper allocation so as to improve the institutional efficiency.

There are several indicators that are commonly used to measure internal efficiency. These are completion rate, Coefficient of Efficiency, Input–Output Ratio, wastage ratio, wastage rates i.e. dropout rate, repetition rate etc. (Mei-Jiun WU, 2007)

The low internal efficiency of an educational system/ institution is due to the presence of educational wastage. The term ‘wastage’ applied to education is not suitable. The more acceptable phrase would be ‘failure in schools’. Wastage of human learning, teachers’ labor, school building etc. Educational wastage can be said to exist when there is failure of a system to provide universal education, to recruit children into the system, to hold children within the system, to set appropriate objectives and to be inefficient in the achievement of objectives. Among the above forms of wastage, the most evident wastage in world and also in Pakistan is wastage due to failure to hold children within the system which results in production of dropouts and repeaters, thus making the education system inefficient. A drop-out is defined as a pupil who leaves school before the end of the final year of the educational cycle in which he is enrolled. Dropout does not constitute leaving school after the completion of a compulsory cycle without going on to the succeeding cycle. The second major symptom of educational wastage is repetition. Repetition means a year spent by a pupil in the same grade and doing the same work as he did in the previous year (Brimer M.A. and L. Pauli, 1971).

Abagi O. and G. Odipo. (1997) examined extent of efficiency in the primary level of education in Kenya. The study identified inefficiency about the primary education system in Kenya. The pupil-teacher ratio and completion rates were very low. In primary schools, teaching-learning time was not utilized in efficient way. The cause of such inefficiencies was misallocation of resources to educational levels.

Shah S. W. A (2002) conducted research on evaluation of the internal efficiency of Allama Iqbal Open University Islamabad (AIOUI) through wastage rates. The results revealed that the internal efficiency was high and the overall wastage rate in AIOUI was low.

The following objectives were made for the study:

1. To estimate the internal efficiency in the sampled schools.
2. To find out factors affecting internal efficiency in sampled schools.
3. To give suggestions for improving the internal efficiency of sampled schools on the basis of study findings.

2. Materials and Methods

2.1. Universe of the Study and Sampling Procedure

District Mardan constituted the universe of the study. The total number of Govt. high schools in Mardan is 90. Out of these 90 schools, 64 are located in rural areas and 26 are in urban areas. Out of 64 rural schools, five schools were purposively selected for the study because of poor reputation. The selected schools were Govt. high school Sowaryan, Sari bahlol, Fatma, Toru Maira and Naseer kali. One concern of the study was to find out factors affecting internal efficiency, so students, their parents and teachers were considered to be the most appropriate source for providing this information. Out of total population of 547 students, 547 parents and 136 teachers, 7% were taken as sample size. As such, total 86 respondents were taken for the study and the respondents were randomly selected for data collection. (See Table. 1)

Name of school	Number of Students	sample	Number of Teachers	sample	Number of students' parents	sample	Sample size
GHS Naseer kali	208	14.6	44	3	208	14.6	32
GHS Sowaryan	63	4.4	20	1.4	63	4.4	10
GHS Toru Maira	89	6.2	22	1.5	89	6.2	14
GHS Fatma	113	7.9	25	1.7	113	7.9	18
GHS Sari Bahlol	74	5.2	25	1.7	74	5.2	12
All	547	38.3	136	9.3	547	38.3	86

Table 1: Distribution of sample schools and respondents
 Source: Field Survey, 2011

2.2. Data Collection

The study was based on both primary and secondary data. Primary data were collected from the respondents and secondary data was obtained from the school records. An interview schedule was designed for respondents. The questionnaire was used for all 3 categories of respondents i.e. students, their parents and teachers. Data were collected through face to face interview from the respondents and through survey of school records.

2.3. Data Analysis

After collection of data, it was analyzed using inputs and outputs of the educational cycle (2006-011) of selected government high schools. Then internal efficiency was measured through input-output ratio. The factors affecting the internal efficiency were determined and interpreted through percentages.

Figure I illustrate the framework for determining Input-output ratio (IOR) which is the indicator for estimation of the internal efficiency. Input means the total number of student-years i.e. the number of years spent by all students in a particular educational cycle and output simply means the number of successful completers i.e. those students who completed their educational cycle (2006-011) without dropout or repetition.

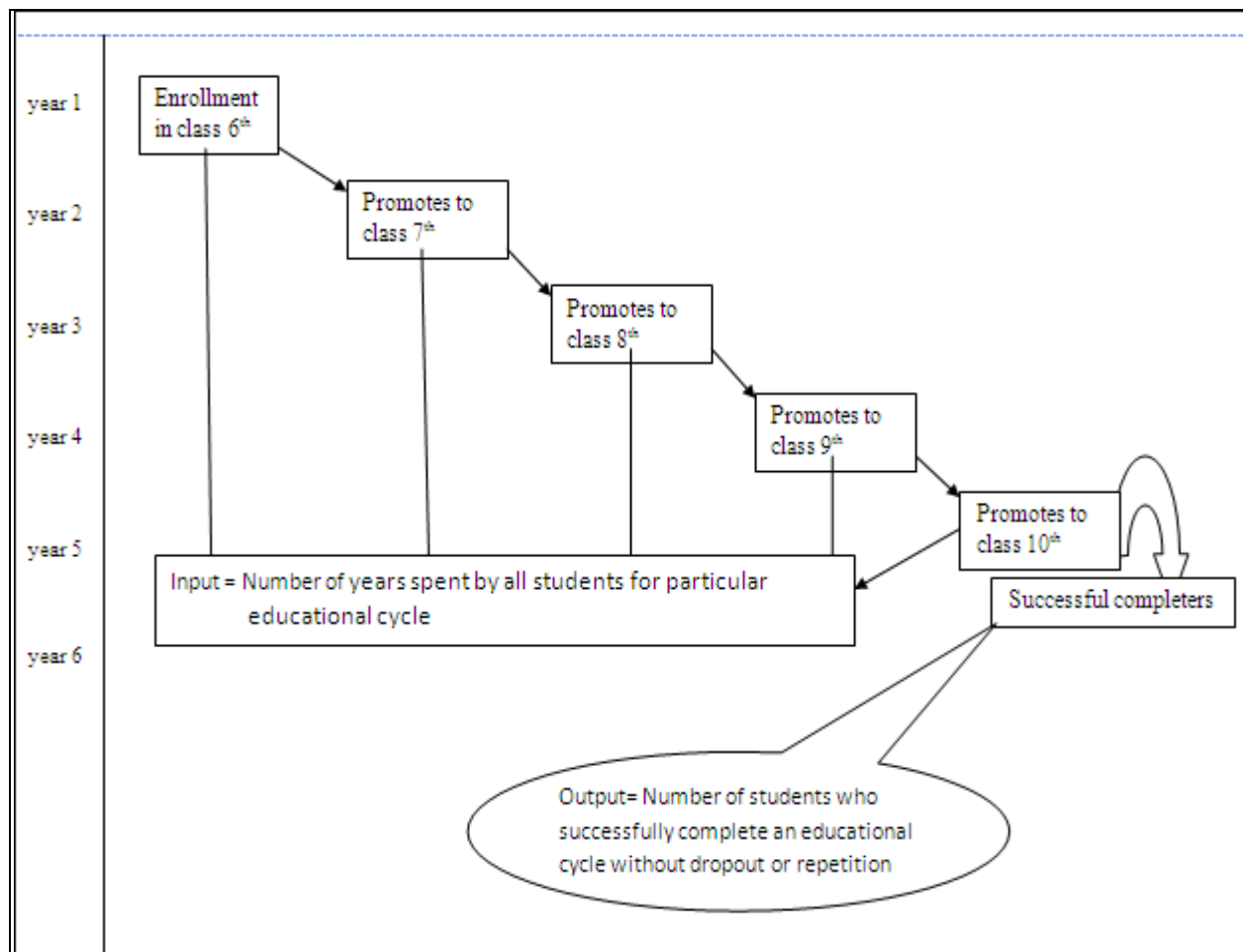


Figure I: Flow of students in educational cycle (2006-011)
 Source: (modified from Ijaz, S.M 1993)

The basic unit of educational inputs is “student–years”. Educational output is the production of students who successfully complete given educational cycle. Educational cycle is five-years for government high schools i.e. from class 6th to class 10th. So in such a cycle, a successful student would require at least five student–years to complete the cycle. In other words, one unit of output can be produced with at least five units of input. The higher the calculated IOR than 5, the lower will be the internal efficiency. (Ijaz, S. M 1993)

2.4. Efficiency Scale Based on Input–Output Ratio:

To measure the internal efficiency through input–output Ratio, it was necessary to establish a scale. The classification of values of input–output ratio and extent of internal efficiency are shown in table 2 given below.

Input–Output Ratio	Category	Internal Efficiency
Exactly 5	A	Perfect efficiency
5.1–7	B	High efficiency
7.1 –9	C	Average efficiency
9.1–11	D	Low efficiency
11.1 –13	E	Very low efficiency

Table 2: Efficiency scale based on Input–Output Ratio
Source: Y. Aggarwal (2002)

3. Results and Discussion

The distribution of sample respondents regarding education and sex is given in Table 3. It shows that majority of the respondents were overall successful.

Status of Education	Frequency	Percentage
Overall Successful	54	62.8
Overall Unsuccessful	32	37.2
Total	998	908

Table 3: Distribution of students according to status of educational successfulness
Source: Field Survey, 2011

The result about internal efficiency of schools is given in table 4. The internal efficiency of the sampled schools was calculated by input–output ratio. The internal efficiency is perfect when the value of input–output ratio is equal to 5 which indicate that 5 student-years are required for 1 student to complete educational cycle (2006-011). The higher the input–output ratio than 5, the lower will the level of internal efficiency. The value of the input–output ratio indicates that number of student-years which is required on average for 1 student to complete educational cycle (2006-011). Results showed the highest input–output ratio (11.1) for GHS Naseer kali, (10.8) for GHS Toru Maira and the lowest input–output ratio (8.2) for GHS Sowaryan. On the basis of efficiency scale based on input–output ratio, three of the schools (GHS Saribahlol, GHS Fathma and GHS Toru Maira) fell under the category of D i.e. “low efficiency”; one school (GHS Naseer Kali) fell under the category of E i.e. “Very low efficiency” and one school (GHS Sowaryan) fell under the category of C i.e. “average efficiency”. The hypothesis assumed was rejected as all the schools were not internally efficient.

Name of school	Input	Output	Input–output ratio
GHS Fathma	468	47	9.9
GHS Saribahlol	346	35	9.8
GHS Sowaryan	289	35	8.2
GHS Toru Maira	390	36	10.8
GHS Naseer kali	839	75	11.1

Table 4: Distribution of schools according to level of internal efficiency
Source: Field Survey, 2011

The result about determination of factors affecting internal efficiency is given in table 5. Different factors were examined for the study. About those factors, nearly same (58.1%), (57%) and (53.4%) of the respondents considered that custom of early marriages, inadaptability of students with school environment and poverty were the reasons of dropout and repetition of students respectively. A big majority (89.5%), (81.4%), (80.2%) and (72.1%) of the respondents were of the view that the low quality of education, lack of students’ interest in education, continuous repetition of students and poorly preparedness of students by earlier schooling were the main factors which caused students’ dropout and repetition respectively. Exactly same (66.3%) and (66.2%) of the respondents considered that withdrawal of students from schools and ignorance of parents were reasons of dropout and repetition of students. (65.1%) of the respondents did not consider the lack of extracurricular activities and long distances of students’ homes from schools as reasons; and (55.8%) percent of the respondents believed that the punitive manner of teachers was not the reason of students’ wastage.

Statements	Frequency of respondents in agreement to factors	Percentage
Continuous repetition of students	69	80.2
Punitive manners of teachers	38	44.1
Long distances of schools from students' homes	30	34.8
Poorly preparedness by earlier schooling	62	72.1
Ignorance of students' parents	57	66.2
Custom of early marriages	50	58.1
lack of students' interest in education	70	81.4
withdrawal of students from schools	57	66.3
inadaptability of students with school environment	49	57
lack of extracurricular activities	30	34.8
Poverty	46	53.4
Low quality of education	77	89.5

*Table 5: Factors affecting internal efficiency in the sampled schools
Source: Field Survey, 2011*

4. Conclusions and Recommendations

It is evident from main findings of the study that the internal efficiency of government high schools located in rural areas of district mardan was low as the input-output ratio for sampled schools. Among the twelve factors affecting internal efficiency examined, nine factors were identified such as low quality of education, lack of students' interest in education, continuous repetition of students, poorly preparedness of students by earlier schooling, withdrawal of students from schools, ignorance of students' parents, custom of early marriages, inadaptability of students with school environment and poverty.

It is recommended that the internal efficiency of government high schools can be improved through involvement of district elementary and secondary education department for increasing number of teachers in schools along with effective training and should improve academic monitoring system. Government should improve the infrastructure in schools with special focus to increase number of classrooms, should launch public awareness campaigns regarding the solution of problem of dropout and repetition phenomenon and should provide financial assistance like scholarships and stipends for poor students.

5. Acknowledgements

I, Syed Muhammad Amir express gratitude to Dr. Syed Wajid Ali Shah, Principal in government higher secondary school no.1 Mardan, Khyber Pakhtunkhwa, Pakistan regarding his continuous help and support in the completion of this research endeavor. I am also thankful to the Prof. Dr. Humayun Khan, director Institute of Development Studies, Khyber Pakhtunkhwa Agricultural University Peshawar whose consistent encouragement and support led to the completion of research work.

I appreciate cooperation of my worthy supervisor Prof. Dr. Shaheen Nigar, Institute of Development Studies, Khyber Pakhtunkhwa Agricultural University Peshawar for her keen and untiring interest, dynamic supervision and valuable suggestions during the entire research work for partial fulfillment of my master degree.

My special thanks are for my friends and classmates for their help, suggestions and all sort of support.

Last but not the least, I record special gratitude to my Parents, brothers, sisters and relatives, whose hands always rose in prayers for me.

6. References

1. Abagi, O. and O. George., 1997. Efficiency of Primary Education In Kenya: Situational Analysis And Implications For Educational Reform. IPAR: The Institute of Policy Analysis and Research, Discussion Paper No. DP 004/97.
2. Brimer, M.A and L. Pauli., 1971. Wastage in Education, A World Problem. UNESCO: IBE. Paris, Geneva.
3. Brubacher, John. S., 1962. Modern Philosophies of Education (3rd Ed.), McGraw-Hill, NewYork. 373p.
4. Ijaz, S.M., 1993. Processes of Educational Planning., Diagnostic techniques. Department of EPM, Allama Iqbal Open University, Islamabad. 408-410p.
5. Jansen K. and H. Reiff., 1984. Education and Economic Development, Development Education EPM-506., 17-28p.
6. Mei-Jiun, W U., 2007. Assessment of the Internal Efficiency of Macau's Basic Education: An Alternative Application of the Reconstructed Cohort Method. Education Journal. 35 (1): 63-91.
7. Shah, S. W. A., 2002, evaluating the internal efficiency of Allama Iqbal Open University Islamabad., an unpublished PhD thesis: department of education Allama Iqbal Open University Islamabad.
8. UNESCO, 2002, Education for Rural Development in Asia: Experiences and Policy Lessons, FAO/UNESCO Seminar, Bangkok, Thailand, 5-7. [http://www.unesco.org/iiep,\(01-7-2011\)](http://www.unesco.org/iiep,(01-7-2011)).
9. Yash Aggarwal., 2002, Regaining Lost Opportunity: The Malaise of School Inefficiency, National Institute of Educational Planning and Administration, New Delhi (India).
10. Zia, A.M., 1984, EPM-506 Development Education Unit 10 Education and Rural Development, M. Masood Selman., Islamabad. 49p.