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Study on Wastage and Retardation in Education

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Abstract – On making a survey of a period of five years in these schools, It was found that the percentages of children who left school in each class, as well as the percentage of children who were promoted fairly constant from year to year. On the basis of the actual collection of statistics for the period from 1941-42 to 1945-46 and smoothening them to some extent, average percentages were worked out both for wastage and stagnation A formula was then devised to ascertain the number of students that remain at the end of a given year in each class in a system which works under these average conditions. The mathematical basis of this formula is given below:

"Of those on roll of a class at the "beginning of a year, a certain proportion leaves the school during the year. Let this proportion be 'W', Of those who remain on roll to the end, a certain proportion passes and is promoted to the higher standard. Let this proportion be 'pf . Let the numbers of fresh entrants every year in this class be 'n' . If a class if supposed to be working under these conditions for a sufficiently long period, we Eire required to find the number that it will hold on its rolls at a year end. Let 'N' be the required number. Then a number 'Np' passes every year and are promoted to the higher standard leaving behind 'N (l-p)' to repeat in the same class. To this is added 'n' fresh entrants next year, so that the number on roll at the beginning of the year is N (l – p) + n

of these a proportion 'W' leaves the school during the year, leaving behind a proportion "(l-W)" to remain on roll to the end of the year. Hence (l - W) [N (l-p) + n] is the number on roll at the end of a year. But this is what we have taken to be 'N'.

Key words: promoted, sufficiently, higher standard, proportion.

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INTRODUCTION

In any system of education, some waste is bound to occur. In advanced countries, however, the extent of this waste is confined within very narrow limits. In developing countries, on the other hand, the extent of waste 16 generally large. This creates a rather curious situation because, in these countries, the funds available for educational development are limited and their effectiveness in use is considerably reduced by the existence of waste. One of the major problems in the educational planning of developing countries, therefore, is to ascertain the extent of waste, to diagnose Its causes, and to adopt suitable remedies so that the available funds can go the longest way in improving and expanding education.

Definition of terms

The two main forms of waste in education are desertions from schools and failures In examinations. In India, the terms commonly used to denote them are Wastage and Stagnation, respectively. By Wastage is meant the premature withdrawal of children from schools or colleges. It is, therefore, related to the objective of that stage of education in connection with which the problem is being studied. For instance, at the primary stage, the main objective is the attainment of literacy for which a five-year schooling is considered necessary. Consequently, a child who is withdrawn from school before reaching class V is considered a case of wastage . By Stagnation is meant the retention of a pupil in a grade for more than one year on account of unsatisfactory progress. This is equivalent to the term Retardation, which is commonly used in international parlance. The combined effect of wastage and stagnation at any level of education constitutes the total waste.

REVIEW OF LITERATURE:

The traditional methods of estimating wastage and stagnation

The subject of wastage attracted attention first at the primary stage because of its large magnitude and because its existence was highlighted by the Hartog Committee which reported in 1928. One of the earliest methods adopted for measuring wastage was to compare the total enrolment in class I in a given

year to that in class V, five years later. It is assumed that every pupil in class I should be in class V, five years later and. therefore the diminution in numbers between these classes is taken as “wastage”.

The statistics of enrolment in class I-V in India as a whole are available from 1949-50. Out of nearly 6.90 million children who were in class I in 1949-50, only 2.24 million children reached class V in 1953-54. This gives a wastage of 67.75 per cent On the same basis, the wastage percentages have been worked out separately for boys and girls every year till 1956-67 and are given in the following table 2.1:

Year	Boys	Girls	Total
(1)	(2)	(3)	(4)
1953-54	63-94	75.62	67.75
1954-55	63.26	74.87	66.91
1955-56	62.06	73.86	65.79
1956-57	61.77	72.00	64.37

From the above figures, two things can be noticed: (a) wastage amongst girls is greater than amongst boys, primarily because the girl is more useful at home and is, therefore, withdrawn from school earlier and more frequently; and (b) wastage is decreasing from year to year, although the rate of decrease is very small.

It is of course possible to use the above method if suitable corrections are applied. If the death rates at different ages are known, the number in the last class can be corrected for deaths. Similarly, if the extent of retardation from class to class is known, correction for retardation also can be easily applied. This would only leave out the factor of migration; but if the area under consideration is large enough, the extent of this factor would be obviously small and can be ignored. It is, however, not often possible in practice to get the data necessary for applying these corrections.

Objective of Paper

The object of this paper is to indicate broadly the work that has been done in this respect in India. The emphasis is laid on the explanation of the concepts evolved and the statistical methods used in determining the extent of existing waste because it is these two aspects of the problem that would primarily interest a Seminar of this type. To complete the picture, however, a brief indication is also given of the causes of this waste, as diagnosed in India.

MATERIAL AND METHOD:

Stagnation In a class has generally been measured by the percentage of failures in a given year. It is, however, possible to measure the extent of stagnation by the compilation of a Stagnation Index. The formula suggested for this purpose is as follows:

$$\text{Stagnation Index} - 100\ \left(\frac{A+2B+3C+4D}{A+B+C+D}\right) - 1\ ,\ \text{where}$$

A. is the number of students who are reading in that class for the first year only;

B. is the number of students who are reading in that class for the second year;

C. is the number of students who are reading In that class for the third year; and

D. is the number of students who are reading In that class for four years and more.

Attempts have been made in India to devise alternative methods for the separate estimation of wastage and stagnation, as well as, for a determination of their causes and mutual relationships. One of the most interesting studies In this sector was carried out “by the Gokhale Institute of Politics and Economics, Poona, in the Satara District of the Maharashtra State. It was based on the study of actual conditions made on the spot In a group of 72 primary schools for boys. In all, 1,778 cases of wastage and 1,260 cases of stagnation were studied.

On making a survey of a period of five years in these schools, It was found that the percentages of children who left school in each class, as well as the percentage of children who were promoted fairly constant from year to year. On the basis of the actual collection of statistics for the period from 1941-42 to 1945-46 and smoothening them to some extent, the following average percentages were worked out both for wastage and stagnation: **(Table 2.3)**

Standard	Average percentage of students remaining on the roll at the year end to the total number enrolled	Average pass percentage
(1)	(2)	(3)
I	89.5	49.0
II	93.6	71.3
III	95.0	71.5
IV	95.0	71-5

A formula was then devised to ascertain the number of students that remain at the end of a given year in each class in a system which works under these average conditions. The mathematical basis of this formula is given below:

“Of those on roll of a class at the “beginning of a year, a certain proportion leaves the school during the year. Let this proportion be ‘W’, Of those who remain on roll to the end, a certain proportion passes and is promoted to the higher standard. Let this proportion be ‘pf . Let the numbers of fresh entrants every year in

this class be 'n' . If a class if supposed to be working under these conditions for a sufficiently long period, we Eire required to find the number that it will hold on its rolls at a year end. Let 'N' be the required number. Then a number 'Np' passes every year and are promoted to the higher standard leaving behind 'N (l-p)' to repeat in the same class. To this is added 'n' fresh entrants next year, so that the number on roll at the beginning of the year is

$$N\ (\ l - p) + n$$

of these a proportion 'W' leaves the school during the year, leaving behind a proportion "(l-W)" to remain on roll to the end of the year. Hence

$$(1 - W)\ [\ N\ (1-p) + n]$$

is the number on roll at the end of a year. But this is what we have taken to be 'N' . Hence we have that:

$$(1 - W)\ [\ N\ (1-p) + n] = N$$

Hence

$$N = \frac{(1-W)n(1)}{1-(1-W)(1-p)} = N."$$

With the help of the above formula and the percentages mentioned earlier, the theoretical composition for a school system in which 10,000 fresh students enter every year, as well as the number out of them leaving the school was worked out. These figures axe given below: **(Table 2.4)**

Class	Expected enrolment at the end of the year	Number leaving school out of 10,000
(1)	(2)	(3)
I	16,466	1,932
II	10,325	706
III	9,591	504
IV	8,934	470
TOTAL	**45,316**	**3,612**

CONCLUSION:

It was found that there was remarkable agreement between the actual and expected total number and their distribution among the different classes which was a confirmation of the accuracy of the technique used. The figures in Col. (3) of the above table show that out of every 10,000 students entering the school system, 3,612 leave the school without completing class IV, giving a wastage of 36.12 per cent. It is interesting to note that the traditional method of calculating wastage (para. 4) when applied to figures in Col.(2) would place the wastage at 45.7 per cent.

The study further pointed out that the evil of stagnation was even greater than that of wastage and that a large number of students repeated the same class year after year, thereby causing a waste of time and money.

REFERENCES:

- BHATIA, R. L. & AHIYA, B. N. (2007) " Modern Indian Education and its Problems"
- DASH, NARAYAN BRANCHI (2004) "Teacher and Education in the Emerging Indian society". Volume I. Published by Neelkamal publications Pvt. Ltd. Sultan Bazar, Hyderabad.
- FIFTH SURVEY OF EDUCATIONAL RESEARCH (1988-92) Volume I. NCERT.
- FIFTH SURVEY OF EDUCATIONAL RESEARCH. 1988-92. Volume 11, NCERT.
- FOURTH SURVEY OF RESEARCH IN EDUCATION, 1983-88. Volume II. NCERT. P-1262-1264 & P-1267, 1269, 1270, 1272, 1280 & 1281.
- http: //www.google.co.in
- INDIAN EDUCATIONAL ABSTRACT. Jan 1997. P-19.
- INDIAN EDUCATIONAL ABSTRACT. Jan 1999. Issue 6, P-l 1, 12.
- INDIAN EDUCATIONAL ABSTRACT. Volume 5. Jan & July (2005) Number 1 & 2.
- JOURNAL OF INDIAN EDUCATION. (Feb 2008) Volume XXXIII, Number 4. P- 38.
- JULKA, ANITA (2007) " Meeting special needs in schools: A Manual, NCERT.
- KOUL, LOKESH. (1984) "Methodology of Educational Research" Vikas publishers, New Delhi. P-l02-119, 141-149.
- KRISHNA MACHARYULU, V. (2007) "Elementary Education"
P-1 -4.

- KUMAR, ASHOK. (2004), " Current Trends in Indian Education"
P- 265.

- Learning Achivement of Class V students- A Baseline study (Oct. 2006) NCERT.

- MARMAR, MUKHOPADHYAY, (2002) " Educating the Nation: Need for a Dedicated Satellite" P-I.