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Before it is possible to measure educational progress it is essential to have a definite idea of the educational goal



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towards which we wish to move. Statistics may be used and indeed will be necessary in order to compare present with past achievements but it is necessary, when interpreting these statistics, constantly to bear in mind what it is we desire to achieve. For example it is possible to increase expenditure upon education without achieving any corresponding improvement, just as easily as it is possible to multiply by ten the number of children attending primary schools without increasing materially the percentage of literacy. Many books have been written and many more will certainly be written defining and trying to establish the aims of education. Actually the aim of education is precisely

that which the controlling authorities determine and according to which they organise their system. It may be and is different in England, America, Germany and Russia. In India it is difficult to find any one philosophy of education inspiring or otherwise guiding the authorities. Nor is it my purpose in this article to establish definitely desirable educational aims for this country. All that I wish to do is to take for each branch of education some common standard which most educational ideals.

This standard will then be used as a basis for estimating progress. It is obvious, of course, that there are other purposes for which education has been designed. These will not be taken into consideration in this paper.

The assumptions that will be made are as follows;—

- (a) The main purpose of primary education is to produce literacy.
- (b) The main purpose of secondary education is to provide education beyond the primary stage for those mentally capable of benefiting by it. Such education should be designed to impart knowledge and to develop and train intelligence in such a manner as to make it probable that a youth's ability in particular directions are discovered.
- (c) The purpose of University education is the production of leaders trained to apply intelligently their powers to the

general problems of society and in certain cases trained specially in technical branches.

Primary Education

Our criterion of the value of primary education is to be its efficiency in producing literacy. Before we analyse the situation from this point of view it will be wise to consider the actual figures of schools and pupils. The date given are taken from the Government of India Quinquennial Reviews 1902-1907 and 1927-1932.

There were in 1907, 102,947 boys' primary schools in British India as compared with 168,166 twenty five years later, an approximate increase of 65%.

The corresponding figures for pupils are 3,603,668, 8,270,494 an approximate increase of 128%.

On the later date namely 1932, 42.2% of the pupils of school-going age were actually attending primary classes. There were still more than half of the male children of school-going age therefore who never attended school. This may not seem to be a particularly surprising state of affairs when we consider the scattered nature of the population in many areas, the backward tracts and lack of communications.

This comparatively large growth in numbers of schools and pupils may leave us complacent and satisfied but such growth does not of necessity indicate progress in educational attainment. Now let us turn to our criterion—namely "such education as will produce literacy." Primary systems in different parts of India vary in organisation but in general it may be assumed that there are three stages—Infants, Lower Primary and Upper Primary. In present day statistical tables these are covered by classes 1—V. It is

generally agreed that only education in classes IV and V in the Upper Primary stage is of any permanent value and indicative of literacy.

Education which stops short of this stage is almost entirely wasted. If therefore instead of complacently contemplating the large numbers of children attending primary schools we concentrate our attention upon the numbers who read in classes IV and V, we deduce the following facts.

In 1907 only 2½% of the children who should have been, in the Upper Primary stage were actually reading there while in 1932 the percentage had only risen to 20. In other words only one boy in five is at the present time receiving primary education that is likely to make him permanently literate. As this particular figure is not given in the quinquennial report and may be challenged it will be as well to give the method of calculation.

There are 20,000,000 boys of school going age who should be in classes I—V. Roughly with proper facilities of teaching and attendance these would distribute themselves with 4,000,000 in each class. Actually of course there will always be more in the lower classes owing to deaths etc.

Allowing for this we may assume that there should be in Classes IV and V over 7,000,000 pupils.

Statistics show that there are in round numbers 1,440,000.

It is this aspect namely that reasonably adequate primary education for only 20% of our boys is at present ensured that we need to consider. If we turn our attention to girls the situation is even more appalling. Less then 3% of

the girls of primary school going age are receiving primary education that will produce literacy. Those figures are a challenge to all educationists and lovers of their country and should serve effectively to banish the complacent satisfaction apt to be produced by a consideration of growth of numbers of schools and pupils attending them.

Moreover they indicate a line of action that can in many provinces be immediately undertaken even present economic conditions. The most important need in primary education organisation is effective compulsory attendance for at least four years together with the replacement of present inefficient teachers rather than a greater supply of the present type. In very few places has compulsory attendance been introduced —where it has been introduced it is not apparently effective. The Punjab has approximately 3,000 areas in which compulsory primary education nominally exists; yet in that Province less than 1 in 4 of the boys in Class I reach Class IV.

Greater resources are needed—more money, more schools—more and better teachers, but the provision of these, if and when such provision is possible, will be a multiplication of waste unless we can enforce the attendance of both boys and girls for at least four years and preferably five.

Until such provision is possible the immediate and pressing reform is that of ensuring that our present resources are utilised in a more economical and efficient manner.

Secondary Education

The criterion taken in the case of primary education was such that it could be applied to known statistics with reasonable certainty in the accuracy of

the inferences drawn. The case of secondary education is more difficult.

It is easy to judge of the facilities provided by way of schools and teachers from the available statistics. Thus the first part of the criterion that is laid down in this paper can be accurately estimated. The second part namely how far the actual work done in the schools discovers and develops a boy's particular capacities so that there is a reasonable probability of his establishing himself in a career for which he is fitted must be largely a matter of opinion.

High School

The following table shows the comparative statistics in 1907 and 1932:—

| | | | 1907 | 1932 |
|---------------------------|---------|-----|---------|---------|
| High Schools | ••• | • | 1,156 | 2,801 |
| School pupils | | | 285,020 | 873,802 |
| Middle English | Schools | ••• | 2,129 | 3,875 |
| School pupils | ••• | | 188,110 | 413,770 |
| Middle Vernacular Schools | | | 2,039 | 5,894 |
| School pupils | | ••• | 184,132 | 805,918 |

This shows an increase of 235% in the total number of secondary schools with an increase of 320% in the number of pupils. That is an extremely satisfactory rate of increase and it can, I think, be truthfully stated that as far as total numbers are concerned the provision of high schools in certain areas progresses as rapidly as the demand. Unfortunately their distribution over the country is not so satisfactory. Nearly 40% of these schools are in Bengal where a somewhat smaller number better distributed better supported would more satisfactorily supply the needs of the province.

Great as has been the increase in the number of middle schools there is still room for considerable useful expansion. There is now fortunately a growing realisation that middle school education either English or Vernacular together with carefully devised practical training either directly or indirectly vocational is more desirable development than further multiplication of purely academic high school facilities. As in primary education the past 25 years has been dominated by the realisation of the necessity for providing all areas with schools to the subordination of the equally or even more imporant need for ensuring that the quality and nature of the education were such as to produce the desired results.

Taking the country as a whole it is doubtful whether there has been any material improvement in the quality of the work done in secondary schools. There has been a large increase in the number of matriculates from secondary schools, from approximately 26,000* to over 60,000.* But in general the school work is entirely dominated by the academic examination fetish and little attention is paid to the real development and widening of the powers of application of a child's mind.

This is partly due to the fact that there is in India little demand for the services of an intelligent adaptable youth of school leaving age. It is unfortunately more important to a school to cram students through a stereotyped Matriculation Examination which is a very doubtful test of real ability than it is to create in its students a living and abiding interest in the worlds of mind and matter. Even Governments have been known to use Matriculation results as their objective criterion of a school's work and value.

So far secondary schools have concentrated upon the giving of academic instruction. There has been little or no attempt to ensure the development of an indvidual's natural inclinations and gifts along lines which will lead to his making the most useful contribution to the economic and social system of the country.

Thus while increased facilities and a rapid expansion in numbers have characterised the last twenty five years in Secondary Education it is clear that during the coming years attention will have to be more wisely concentrated upon improving the quality of the work done and determining carefully the scope of that work.

Universities

During the last twenty five years there has been a rapid growth in the number of Universities and University Five Universities only were students. in existence in 1907. Twenty five years later the number had increased to eighteen. Moreover while in the earlier period all the Universities were of the non-residential affiliating type by the later date only one of the eighteen was a purely affiliating institution without teaching arrangements of its own. Many of the Universities are now essentially residential institutions and attempts are being made with varying success to extend the influence of the University to non-lecture room activities. The impetus to this growth and reform came chiefly from the Sadler Commission report. There the weaknesses of the Universities were revealed in no uncertain manner and although the reforms carried out have been neither as extensive nor as intensive as one could have wished there is a general recognition of the necessity for development in the directions indicated in that report.

As in Secondary education quantitative growth has been as vigorous as any one could wish. Indeed there are indi-

^{*}These figures include examinations equivalent to matriculation.

cations that the multiplication of Universities and the increase in the number of students have been so rapid that the controlling authorities have not been able satisfactorily to solve the problems of co-operation, specialisation and economic organisation necessary for efficient work, when financial stringency is so dominating.

Not only have the Universities increased in number as indicated but the number of students actually obtaining the degrees of B.A., B.Sc., M.A., and M.Sc., have risen from 1879 to no less than 10,501 a nearly sixfold increase. This sixfold increase is not a true reflex of the number of students studying for Arts and Science degrees for the percentage of candidates who pass in their final examination has risen from 39.6% to 54%. It is a matter of opinion whether this increased percentage of passes is due to a real improvement in the quality of the candidates or whether it is due to a lower standard of Examination. Many people whose opinion cannot be lightly dismissed consider that there has been a definite lowering of standards. most remarkable transformation has been in the interest and attention shown to Science. In 1907 there were only 68 B.Sc. degrees awarded and no M.Sc. ones. The corresponding numbers in 1932 were 2,374 and 510.

Now comes the real question. Are our Universities fulfilling more satisfactorily than hitherto their function of providing leaders trained to think logically, to judge correctly and to lead wisely? The answer to this question must of necessity be a matter of opinion for there are no satistics which are available upon this point. Those of us who from time to time come into contact with large numbers of University graduates in personal interviews realise how infrequent it is to find graduates

whose comprehension of any problem save the immediate technical aspects of of their academic subjects shows real capacity. The employer still complains that he can place no reliance upon the holding of a degree as a criterion of intelligence and ability. On the other hand there is no evidence to show that the position is in this respect worse than it was in the early years of the twentieth century. There are reasons as to why it should be better. The Indian student is capable of the very highest class of work in many directions and given satisfactory training and facilities will fully justify himself.

In certain Universities considerable attention is now devoted to developing a student's interests in life and life's problems. In the residential Universities particular there are facilities and opportunities non-existent in the older Indian Universities. Even in the nonresidential affiliating Universities much work is being done to create an educational environment favourable to an all round development physically, mentally, and morally. The inference from this is that in most cases the student product of our Universities should to-day justify more fully than previously the existence of the Universities from the point of view which we have taken. If from our personal experience we are apt to infer otherwise the reason is probably to be found in the fact that the material upon which the University is called upon to work is often unsatisfactory. Many students enter upon their University careers illfitted to benefit by a University training. Secondary schools are partially responsible for this, in that the training there given is in no sense of the word adequate. Universities also have certainly adopted a too high standard of admission. It is extremely unfortunate that in many cases the financial prosperity of a University should be dependent upon its obtaining large numbers of students in its Colleges and large numbers of candidates in its Examinations. Until the Universities receive such support from Government, local bodies and the public as will make them reasonably independent of their examination and tuition fee income it is not likely that they will make their admission tests so difficult as to prohibit the entry of the numbers of students who are questionably fit for a University career.

There is one other aspect of a University's work included in the criterion adopted and so far not discussed. It is a University's function to provide specialist and technically trained people in various directions. From this point of view there has been considerable progress. In engineering, applied Science and postgraduate work, in Arts and pure Science the facilities now provided are much greater than formerly. It is now no longer essential, although it is still an advantage, that a student desiring the highest training should be sent to the West.

Well equipped laboratories and reasonably well staffed departments in almost every branch of study can be found in one or other of the Universities in 1ndia. The one branch in which progress has been far from commensurate with the growing need is that of the training of teachers. Taking every thing into consideration the greatest educational need of India to-day is a supply of well trained teachers for primary and secondary education. Training facilities have of course been increased and are increasing but there is a long way still to go. The problems of primary and secondary education are insoluble apart from a supply of trained and reasonably well-paid teachers. The problem of University education is insoluble while the Secondary education provided remains unimproved.

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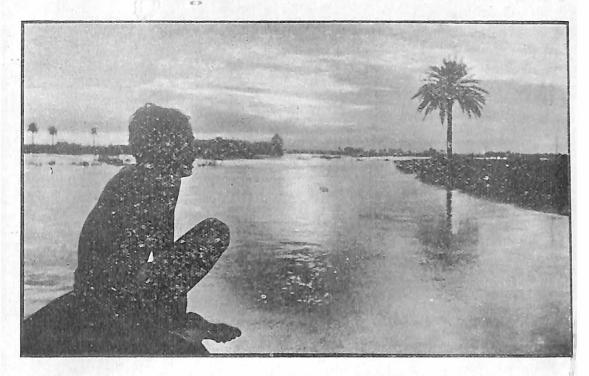
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Dawn

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break apart your ruddy fold;
Come, chase the night—it's sable light,
and light the World with flaming gold!

Come, lash away the dead-night's chill.
With warmest rays our hearts come fill.
Come, wake the feathers to chirp and sing,
And set them on their daily wing.
Come, strike the Earth with a maroon blaze,
And blast away the distant haze.
Come, slant across a burning beam,
And stir the yonder sleeping stream.
Come, flare above that lonesome tree,
And gild it's top with mirth and glee.
Then strew yourself in the azure blue,
And declare the morning's hue.

Oh Dawn! come break, linger not,
break apart your ruddy fold!
Come, tinge my soul with a ray of hope,
I am down and out—I fall and grope!



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