ABSTRACT

1. Since the publication of Professor P.E. Vernon's (1957) article on "Intelligence and Intellectual Stimulation During Adolescence" in Indian Psychological Bulletin, sensation has been created among the psychologists of India to attack today's burning problems connected with the suggestions tendered in the above article. Professor P.E. Vernon (1957, 1960) claims that the quality of schooling makes a difference in intelligence test scores between 'best' and 'worst' schools.

Further, Lovell (1955) a worthy disciple of the above Professor, claims that it is mental flexibility in particular, and the capacity for forming new concepts, which are affected by the adolescent's intellectual and emotional circumstances, that is those very capacities which are most subject to deterioration in adulthood.

Whereas, Ray-Chowdhury (1960, 1962 b), another Indian disciple of the above Professor conducted a series of research projects (cf. Mathur, 1959; Gupta, 1954; Ojha, 1960; Misra, 1963) for verifications of the above claims under Indian conditions. The above author especially aimed at pointing out the non-stimulating quality of schooling in particular, and the poor home upbringing in general, that failed to produce sufficient intellectual and emotional stimulation for the growth of an Indian adolescent's abilities.

2. However, the present investigation carried out in 1959-62 was picked up to re-verify the above claims in relation to the various secondary educational systems prevalent in India today.
Three systems, namely U.P. Board High School keeping Hindi as the medium of education, M.U. High School practising Urdu as the medium with stress on English in English as a compulsory subject, and Public School retaining English as the medium of instructions, were selected for the study. 60 boys, aged around thirteen to fifteen, of pre-school leaving classes (i.e. IXth. and Xth. classes) were selected from each of the three schools coming under the three systems of Secondary Education described above.

3. A suitable battery of 17 tests, already standardized in Indian situation by Ray-Chowdhury (1962, a, b, c, d, e, f, g, h) including especially two high powered tests of concept-formation, was selected.

4. The reliability co-efficients of all the tests for the present sample were found to be above .80, fully verifying the claims of Ray-Chowdhury (1958 a; 1958 b; 1962 b; 1962 c) that instead of wasting time behind the construction of too many tests through Hindi instructions we could satisfactorily use personality and ability tests which have their origin in Britain, and could find them highly reliable.

5. When the battery of above 17 tests were factorised and the factor-loadings were orthogonally rotated, it was observed that two group factors, namely k₂ or concept-formation and verbal-numerical, i.e. educational group factor and k₃ or Spatial-induction group factor were obtained in addition to 'g' factor.
6. Student's 't' (or critical ratio) and Fisher's 't' analyses were carried out to study the difference in test scores of boys under three different systems of education, and the interpretations of results were drawn under the above mentioned factor structure of the tests selected in the battery. A significant critical ratio figure was interpreted as due to the quality of schooling and any significant 't' figure, due to external factors, such as home upbringing, heredity, etc.

7. The overall results showed:

(i) that out of 51 critical ratio treatments 32 were significant.

(ii) that out of 102 Fisher's 't' analyses 53 were significant.

(iii) that the Public School system offers the best quality of schooling for stimulating the growth of intellectual factors, though we must not ignore the fact that the boys reading in these schools generally come from brighter home with better socio-economic background.

(iv) that the Muslim University System offers better stimulation than the U.P. Board System although the boys reading in the schools of both the systems come from mediocre families with average or near-to-average socio-economic background.

Further, (v) that English medium of instruction, as practised by Public School System, and stress on English besides the chosen regional language for instruction, as done by the M.U. High School System, are found useful for the
boys to do better at the tests originated in Britain; also that in certain Aligarh V.I.T. sub-tests given in Hindi Public School boys have done better than those of the U.P. Board System, probably because of the already stated reasons of better intellectual stimulation through the medium of English.