# J - SELECTION AND PERFORMANCE OF STUDENTS

Access to education, selection procedures; choice and preference of subjects; performance; behaviour, wastage; operational factors (school environment, residence, staff-student relations); methods of assessment

# 1. Title of Project

THE ADAPTATION OF SOUTH EAST ASIAN STUDENTS AT THE UNIVERSITY OF NEW ENGLAND (NEW SOUTH WALES, AUSTRALIA)

Institution

University of Otago, New Zealand.

Name of Person and Designation P. Rich, Lecturer

Main Aims of Project

To ascertain the perspectives adopted by South East Asian students in adapting to the university environment, to investigate the dynamics of development and maintenance of such perspectives, and to present insight into the experience of students undergoing adaptation in an overseas university.

## Description

An exploratory field study using participant observation, interview and question-naire. By the application of these techniques during two and a half years of fieldwork, and through the utilization of a symbolic interactionist framework an attempt is being made to achieve the general aims set out above. Particular attention is paid to the delineation of perspectives in the academic and social areas of university life. Cross-cultural, social integration and overseas students' sub-culture are also analysed.

Date of Commencement - February, 1968

Date of Completion - December, 1973

Source of Finance - Self

Method and Date of Publication University of New England, 1974.

## 2. Title of Project

INTERESTS AND ATTITUDES OF SENIOR HIGH SCHOOL STUDENTS IN PAPUA NEW GUINEA

Institution

University of Papua New Guinea.

Name of Person and Designation

E.B. Thomas, Senior Lecturer

Main Aim of Project

To research interests of senior high school students; attitudes to school, social activities, sports; expectations; effects of certain variables on attitudes and values; commitment to traditional values.

## Description

A questionnaire has been administered to 330 students at Sogeri and Keravat High Schools, and interviews with 40 students were conducted and tape-recorded at each school.

Date of Commencement - June, 1972

Expected Date of Completion - August, 1975

Source of Finance

University of Papua New Guinea.

Method of Publication

Higher degree thesis and Journal articles.

# 3. Title of Project

WASTAGE IN INDIAN SCHOOL EDUCATION - A REVIEW OF METHODOLOGY

## Institution

Institute of Applied Manpower Research, New Dolhi, India.

Names of Persons and Designations

Q.U. Khan, Senior Research Officer Professor M. Debeauvais

K. Raghavan, Research Assistant

S. Prasad, Research Assistant

## Description

The paper provides a detailed review of wastage studies conducted in the country so far, and applies the UNESCO methodology to the new series of detailed data available with the Ministry of Education. The analysis is given both at the national and state levels, and also separately for varying duration of primary education. The salient features of the UNESCO method are that in the first instance it takes into account total effect of promotion, repetition and dropout rates on the problem of wastage in school education and secondly, it provides a number of

indicators for evaluation of the internal efficiency of the educational system. It also provides an idea as to how these factors could affect the cost of education.

By applying this methodology on Indian primary school education data for the year 1963-64, a wastage of the order of 78 per cent (94 per cent for girls and 71 per cent for boys) is noticed. The total output per 1000 cohort enrolment on the assumption of three years' repetition in each grade was only 453 (409 for girls and 473 for boys). This output varied from 680 to 224 in States following a 5-grade system and from 813 to 412 in States following a 4-grade system.

It reveals the weakness of the enrolment data as collected today and recommends that the freshers of grade II and onward may be split into (a) promotees from previous grade and (b) pupils directly enrolled in the grade.

Date of Completion - April, 1972

Source of Finance

Institute of Applied Manpower Research, New Delhi, India.

Method of Publication - Rotaprint.

## 4. Title of Project

TEACHING PATTERNS AND PUPILS' ATTAINMENT

#### Institution

Centre of Advanced Study in Education, Faculty of Education and Psychology, M.S. University of Baroda, India.

Names of Persons and Designations

Professor M.B. Buch, Head, Centre of Advanced Study in Education Miss M.S. Padma, Lecturer

#### Main Aim of Project

To find the comparative effectiveness of different teaching patterns in achieving the application objective.

#### Description

With the aim at the background, four different teaching patterns are framed. The patterns are developed with the combination of factors, viz., problem-solving approach, lecturing, question-answer, and feed-back. The teaching subject selected is science for primary seventh standard. Independent Units of the syllabus are selected. From among the schools of Baroda, India, 4 seventh standard classes are selected. The design of the experiment under study is the

Graeco Latin Square Design. Within the framework of this design, the combinations are made with patterns and units. Care is taken that no class is repeated with the same pattern or same unit. Each unit is planned to be taught in three successive lessons. Tests are constructed for each unit. The criterion against which the effectiveness of the four patterns of teaching are tested, is the ability of applying the knowledge learnt in the new situations. The application is restricted to convergent application only. The investigator herself is the teacher for all the lessons. This is to overcome inter-teacher variations in teaching. For each lesson plans are developed according to the different patterns. The teacher is programmed with respect to the lesson and teaching. Each unit is taught in three lessons and is followed by the respective unit test. Before starting the experimented design, a pretest in achievement in science and an intelligence test are administered.

Date of Commencement - September, 1972

Date of Completion - September, 1974

Source of Finance - Self

Method of Publication
In summary form by CASE.

## 5. Title of Project

AN INVESTIGATION INTO THE EFFECTS OF TEACHERS' CLASSROOM BEHAVIOUR ON PUPILS' ACHIEVEMENT

## Institution

Centre of Advanced Study in Education, Faculty of Education and Psychology, M.S. University of Baroda, India.

Names of Persons and Designations

Professor M.B. Buch, Head, Centre of Advanced Study in Education Miss  $T_{\bullet}P_{\bullet}$  Lulla, Senior Research Fellow

## Main Aim of Project

To find out the effect of teacher classroom influence on pupil achievement.

#### Description

It was a field experiment, wherein teachers were trained to acquire indirect influence patterns of classroom behaviour and pupil achievement under their charge was studied. The study employed pre-test post-test control group design. The teachers with high indirect influence formed the experiemntal groups and those with high direct influence constituted the control group. Forty eight teachers along with their usual

classes were involved. Teachers identified having indirect influence were further trained through Flanders' Interaction Analysis category system to produce indirect influence patterns. Pupils (N = 1800) were pre-tested on an achievement test in Geography. Both the groups were taught by their respective teachers a unit on Arab countries, specially selected for the purpose. The teaching and observation of the same was covered by eight periods of twenty-five minutes each. A post-test on this unit was given to both the groups. The two groups were also pre-tested on the Desai-Bhatt group test of intelligence. But did not show any difference in intelligence across the groups. Analysis of covariance was used for analysing the data. The results showed that indirect teacher influence in the classroom is conducive for better pupil achievement.

Date of Commencement - August, 1969

Date of Completion - September, 1973

Source of Finance

Centre of Advanced Study in Education, M.S. University of Baroda, India.

Method of Publication
In summary form by CASE

# 6. Title of Project

RELATIONSHIP BETWEEN PATTERNS OF TEACHER CLASSROOM BEHAVIOUR AND PUPILS' ATTAINMENT IN TERMS OF INSTRUCTIONAL OBJECTIVES

#### Institution

Centre of Advanced Study in Education, Faculty of Education and Psychology, M.S. University of Baroda, India.

Names of Persons and Designations

Professor M.B. Buch, Head, Centre of Advanced Study in Education Miss S. Sharma, Junior Research Fellow

## Main Aim of Project

To find out the relative effectiveness of the four patterns of teacher classroom behaviour, namely, (i) narration, (ii) open questions, (iii) narrow questions and (iv) narrow questions with feedback, upon pupils' attainment for instructional objectives of knowledge, comprehension and application.

# Description

A pre-test, post-test design with four replications was used to see the effect of

four treatments applied by three teachers. The experiment has been limited to a specifically selected unit in History and was conducted in fortyeight classes of VII grade. The attainment on post-treatment test (after teaching through four patterns) represented four different attainment criteria according to the objectives of knowledge, comprehension, application and total attainment. The study involved the use of the Flanders' Interaction Analysis Category System for the purpose of training the three teachers to produce desired patterns. An intelligence test (the Desai and Bhatt Verbal Group Test of Intelligence) and an achievement test in History for VII grade (Kokila Jhaveri, 1970) were used to adjust the post-treatment scores for initial ability and achievement. Analysis of covariance was used for adjusting the posttreatment scores for initial ability and achievement. The investigation revealed feedback was relatively effective in the realization of instructional objectives of knowledge and comprehension. But none of the four patterns involved in this study showed any differential effect as far as the objective of application was concerned. The findings help to infer that some participation of pupils is necessary in the classroom discourse as against either no participation (Pattern I) or comparatively more participation (Pattern II). The second conclusion is that narrow questions are comparatively more effective than open questions in the realization of knowledge and comprehension objectives. The nature and amount of feedback requires further investigation.

Date of Commencement - August, 1970

Date of Completion - January, 1973

Source of Finance

Centre of Advanced Study in Education, Faculty of Education and Psychology, M.S. University of Baroda, India.

Method of Publication
In summary form by CASE

# 7. Title of Project

BARRIERS TO CHANGE IN SECONDARY EDUCATION

## Institution

Centre of Advanced Study in Education, Faculty of Education and Psychology, M.S. University of Baroda, India.

Names of Persons and Designations Professor M.B. Buch, Head, Centre of Advanced Study in Education M. Mukhopadhyay, Research Fellow

## J - Selection and Performance of Students

#### Main Aim of Project

The major aim of the project is to study the system variable and socio-personal behaviours of the Educational Administrators, Principals, Teachers, Students, and Parents that resist the change process in education.

#### Description

In continuation with the previous projects completed in the Centre on factors affecting 'diffusion of innovation this study endeavours to go deep into the problem from the other side namely, the factors hindering the change process. With the assumption that a non-flexible, static system having no or inadequate feedback system has built in resistance which creates barrier to change. Here complete district educational systems are being studied in order to find out the various stages and various forms in which an innovation is resisted. Besides, the socio-personal behaviour including attitudinal disposition towards innovations, the educational administrators, (the district level Inspectorate staff, school management), principals and headmasters, teachers, students and parents and guardians are also being studied with a view to locating specific behaviour patterns that is dys-functional to the diffusion of an innovation. The study is being conducted in two provinces of India, viz., Gujarat and West Bengal. The sample units are schools on one hand and the district educational administration on the other hand.

In the case study approach quite a few standardised tools to measure the various personality dimensions, separate interview schedules, observation, study of records are being used.

Date of Commencement - March, 1972

Date of Completion - July, 1974

Source of Finance

Centre of Advanced Study in Education, Faculty of Education and Psychology, M.S. University of Baroda, India.

Method of Publication
In summary form by CASE

## 8. Title of Project

MOTHER TONGUE AND EQUALITY OF OPPORTUNITY IN EDUCATION

#### Institution

National Council of Educational Research and Training, India.

Names of Persons and Designations

Dr. B.S. Goel, Lecturer S.K. Saini, Senior Research Assistant

#### Main Aims of Project

- (1) To understand the relationship between mother tongue and equality of opportunity in education
- (2) To examine the relationship between the provision of a foreign medium of instruction and practice of equality of opportunity in education in the historical perspective in India
- (3) To study from scientific and practical points of view the case of a medium of instruction which can be best suited to the Indian situation vis-a-vis equality of opportunity in education.

#### Description

The practice of the ideal of equality of opportunity in education is influenced by a number of factors. Mother tongue is one such factor which influences it in a very subtle way. Not only does it influence the educational achievements of the student both in terms of psychology and sound pedagogy, it also effects vital changes in such broad process of provision of "equality of opportunity" as increasing enrolement and reduction of wastage and stagnation.

The present Report incorporates an attempt to examine how far the teaching of mothertongue both as a subject of study and also as a medium of instruction affects the equality of opportunity in education in a multi-lingual country like India. It further discusses the fact that partly because of historical factors and partly because of the differences in the cultural patterns of Indians living in different parts of the country, the different languages could not evolve uniformly. Some languages are highly cultivated while others are not. This has affected the practice of equality of opportunity adversely. The Report highlights in detail the present situation of teaching of various languages at various levels of education and the position of the media of education. The Report also discusses the wider issues of attitudes of people, enrolment at various levels of education and the problem of wastage and stagnation vis-a-vis the introduction of the mother-tongue as a subject of study and the medium of instruction. Lastly, some problems which come in the way of realisation of 'equality of opportunity' and some tentative suggestions have also been given. A wealth of data concerning the existing position of languages taught in various states and book production in different languages have been given in appendices.

Date of Commencement - April, 1971

Date of Completion - December, 1971

Source of Finance

First it was UNESCO Project. Afterwards it was converted into NCERT Project.

Method and Date of Publication It was published in 1972 by the NCERT.

# 9. Title of Project EDUCATION FOR SELF-RELIANCE

#### Institution

Institute of Education, University of Dar es Salaam, Tanzania.

Name of Person

Dr. A.A. Lema

## Main Aim of Project

To assess the extent and scope of change of attitudes of young Tanzanians in schools towards the policy of "Education for Self-Reliance".

#### Description

A brief survey of self-reliance activities in some Tanzanian schools and colleges.

Date of Commencement - 1970

Date of Completion - 1972

Source of Finance

Institute of Education, University of Dar es Salaam, Tanzania.

Date of Publication - 1973

# 10. Title of Project

A STUDY OF THE DEVELOPMENT OF HISTORICAL THINKING IN SECONDARY SCHOOL CHILDREN IN ZAMBIA

#### Institution

School of Education, University of Zambia.

Name of Person and Designation

B. Garvey, Lecturer

#### Main Aim of Project

To examine the processes of historical thinking among secondary pupils and to determine the average ages at which various stages in that development are reached.

# Description

Work has been done in the United Kingdom (Hallam, 1966, 1967) on the ages at which British secondary pupils reach the stages of logical thinking devised by Piaget in respect to the study of history. A similar study would be useful in Zambia but it has been decided that two other aspects of historical thinking ought to be examined as well. Following the difficulty experienced by University students with the imaginative side of their history assignments it will be necessary to look especially at the ikonic stages of logical development (following Bruner). The problems of secondary schooling in a second language will also affect thinking and test items to examine the amount of first language interference etc. will be devised and used. For this reason. after an initial pilot project in Lusaka schools, the main research will be done in schools in the Copperbelt and Northern Province, where the first language is Bemba with which the researcher is already familiar.

Date of Commencement - Pilot Project: November, 1973, Main Project: 1974

Source of Finance University of Zambia.

# 11. Title of Project

PRIMARY SCHOOL DROP-OUT STUDY

#### Institution

Department of Education, University of Ibadan, Nigeria

Name of Person and Designation

Dr. E.A. Yoloye, Reader in Education

## Main Aim of Project

To identify the major causes of drop-out in the Primary Schools, following the findings of a previous  $I_{\bullet}L_{\bullet}O_{\bullet}$  study that drop-out rate can be as high as 80% in some parts of the Western State.

## Description

A longitudinal study of pupils in selected schools in urban and rural areas. Pupils in Primary 1 and Primary 4 fill supply questionnaire information on their socioeconomic background. They are then followed up annually to identify drop-out cases and reasons for the drop-out.

Date of Commencement - January, 1971

Expected Date of Completion - December, 1976

Source of Finance - Personal

## 12. Title of Project

THE CORRELATION BETWEEN STUDENTS' ENTRY QUALIFICATIONS AND THEIR PERFORMANCE IN DEGREE EXAMINATIONS AT THE UNIVERSITY OF IBADAN

#### Institution

Department and Institute of Education, University of Ibadan, Nigeria.

Name of Person and Designation

Professor J.A. Majasan, Head of Department and Director of the Institute

## Main Aim of Project

To discover the correlation between performance at the Advanced Level Examination or the Higher School Certificate and the subsequent performance in University examinations and to determine how far such examinations can be relied upon for University selection.

## Description

The subjects for study will be the graduates of the University of Ibadan over the years, particularly those who passed "A" Level or the High School Certificate examination as their entry qualification. Actual scores on each academic subject taken will be obtained from the West African Examinations Council and/or the other examining bodies. Scores from University examinations will also be obtained for comparison and analysis by regression and multiple correlation.

Date of Commencement - 1970

Date of Completion - 1972

Source of Finance

Senate Research Grant, University of Ibadan, Nigeria.

## 13. Title of Project

A COMPARATIVE STUDY OF EDUCA-TIONAL ATTAINMENT OF STUDENTS IN "PRIVATELY-MANAGED" SECONDARY GRAMMAR SCHOOLS AND THOSE IN "PUBLICLY-MANAGED" SECONDARY GRAMMAR SCHOOLS IN WESTERN STATE OF NIGERIA

#### Institution

Department of Education, University of Ife, Nigeria.

Name of Person and Designation A.A. Taiwo, Maintenance Officer

## Description

This study looked into one of the possible reasons of accounting for the academic disparity between the performances of students in "publicly-managed" secondary grammar schools and those of their counterparts in "privately-managed" secondary grammar schools in Western State of Nigeria. The study focussed attention on the quality of "entering" students in the two types of schools by testing the hypothesis that:

The cream of "entering" students are to be found in the first-year classes of "publicly-managed" secondary grammar schools in the State.

Amongst other things, the study involved the administration of a battery of tests. Two t-tests were carried out on the data obtained for the study. The tested hypothesis was upheld.

Date of Commencement - January, 1970

Date of Completion - June, 1970

## 14. Title of Project

A STUDY OF THE RELATIONSHIP BETWEEN COGNITIVE STYLES, AFFECTIVE PREFERENCES AND STUDENT SCIENCE ACHIEVEMENT IN NIGERIA

## Institution

Department and Institute of Education, University of Ibadan, Nigeria.

Name of Person and Designation
The late Dr. E. 'Lanre Ogunyemi, Lecturer

# Main Aims of Project

- (1) To investigate the relationship between cognitive styles, affective preferences and student science achievement.
- (2) To utilise this information to suggest an exploration of strategies and techniques that could improve science teaching/learning and science evaluation in Nigeria.

## Description

Low and High science achievers (defined as students scoring in the 1st and 4th quartiles of a science examination respectively) are selected by stratified random sampling from Forms II, V and Upper VI of various categories of secondary schools in Nigeria and the faculties of science in the Nigerian universities. Three different instruments are administered to

# J - Selecyion and Performance of Students

the students and the results are analysed to see if there are relationships between science achievement levels and cognitive and affective styles as measured by the three instruments. Implications for science teaching and evaluation are then explored. The study is to be carried out in phases to cover secondary schools and the universities in the 12 States of Nigeria.

Date of Commencement - July, 1971

Date of Completion - 1st Phase in 1973

Source of Finance

Senate Research Fund, University of Ibadan, Nigeria.

## 15. Title of Project

TRADITIONAL AFRICAN TECHNOLOGY AND ITS IMPLICATIONS FOR SCIENCE TEACHING

#### Institution

Science Curriculum Development Centre, Njala University College, University of Sierra Leone.

Name of Person and Designation Dr. M.J.A. Cole, Director

## Main Aims of Project

- (a) to identify common scientific principles applied in traditional African technology and to describe certain of the scientific processes in the traditional African setting
- (b) to relate scientific processes in the traditional African setting to science curriculum development
- (c) to study ways in which some of the scientific processes could be improved to a more economic level.

#### Description

Various materials from the African environment are being used in different ways. Some of the methods used in transforming these materials may involve scientific principles which could best be illustrated to the African child by reference to items in their immediate environment. The investigation would involve extensive travel to meet indigenous people involved in these local industries.

Date of Commencement - October, 1973

Expected Date of Completion - August, 1975

Source of Finance

Njala University College, University of Sierra Leone.

Method of Publication

Journal articles and departmental monographs.

Title of Project

ATTITUDES TOWARDS EDUCATION IN LAGOS

Institution

Centre of West African Studies, University of Birmingham, United Kingdom.

See E 16

Title of Project

AN INVESTIGATION INTO THE PROBLEMS OF LEARNING AND TEACHING ENGLISH IN TRINIDAD AND TOBAGO

Institution

School of Education, University of the West Indies, St. Augustine, Trinidad.

See F 13

16. Title of Project READ WITH ANANCY

Institution

School of Education, University of the West Indies, Jamaica.

Name of Person and Designation

D. Wilson, Lecturer

Main Aim of Project

To develop reading habit and skills in reluctant readers of post primary schools.

Description

10 lessons: each lesson has a set of slides depicting Anancy story (or other folk tale), a tape-recording of the story, questions for discussion, and a companion story written in standard English to be read by the pupils.

Date of Commencement - 1971

Date of Completion

Experimental version completed in Summer 1973

Source of Finance

Institute of Education, University of the West Indies and Language Materials Workshop, University of the West Indies.

Date of Publication - 1974

Title of Project

A STUDY OF FACTORS RELATED TO THE PERFORMANCE OF THIRD YEAR STUDENTS IN MATHEMATICS IN JAMAICAN POST PRIMARY SCHOOLS

Institution

School of Education, University of the West Indies, Jamaica.

See E 20

17. Title of Project

OCCUPATIONAL AND ETHNIC STRATIFICATION AND SELECTION, TRAINING AND RECRUITMENT IN SECONDARY EDUCATION IN BARBADOS AND TRINIDAD AND TOBAGO

Institution

Faculty of Education, University of Calgary, Canada.

Name of Person

A. Layne

Main Aims of Project

- (1) Generally to investigate the relationship between educational and social change.
- (2) Specifically to examine the extent to which the Development Plans are functional for the development of the two countries.

## Description

Sociological analysis of the relationship between occupation, ethnicity and equality of opportunity in secondary schooling. Application of the perspective of dialectical functionalism based on theoretical frameworks of Szymanski and Hopper. Occupational and ethnic stratification will be treated as part of a general problem of stratification, while selection, training and recruitment will be dealt with as sub problems of the "total selection process". The following analytical steps are proposed:

- (a) The structure and process of social stratification and the relationship of secondary education to the changing social order;
- (b) Analysis of the Development Plans in relation to the "warming up cooling-out dilemma".

Date of Commencement - April, 1973

Date of Completion - June, 1974

Source of Finance

Graduate Teaching Assistantship, University of Calgary, Canada.

Date of Publication - 1974

18. Title of Project

FOREIGN STUDENT EXPERIENCE IN THE UNITED STATES

Institution

School of Education, University of Pittsburgh, United States of America.

Names of Persons and Designations

Professor S. Spaulding, Director M. Flack, Co-Director S. Tate, Research Assistant

Main Aim of Project

To prepare a comprehensive analytical and evaluative bibliography of the research since 1947 on the foreign-student experience in the United States.

## Description

Evaluative criteria for each type of study reviewed will be formulated and the various types of study will be compared in developing conclusions. Differences will be examined which appear to stem from social backgrounds, countries, regions and cultures of the foreign students involved in exchange programmes in cases where such variables are relevant to the problem being studied. Based on the studies reviewed, a summary will be made on what is known of the problems surrounding foreign-student experience in the United States and the programmes established to assist this experience. The study has been requested by the Department of State to assist them in formulating future policy concerning the role of the Federal Government in stimulating and aiding foreignstudent activities in the United States.

Date of Commencement - July, 1973

Date of Completion - August, 1974

Source of Finance

Office of External Research, U.S. Department of State.

Method and Expected Date of Publication Duplication of Final Report, August, 1974. Possible publication in book form, 1975.