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ABSTRACT

Abstracts of articles appearing in periodicals and newspapers comprise this quarterly publication of annotated bibliographies on the subject of education in India. Some of the many topics, briefly described in ED 049 989, covered by the 182 documents include organization, curriculum and methods, educational psychology and sociology, teacher education, teaching methods, and vocational and technical education. Many of the studies covered are empirical. In addition, a special section is devoted to basic education. Author entries are arranged alphabetically under subject. Related documents are ED 041 683, ED 043 437, ED 049 989, and ED 067 334. (SJM)

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(Abstract Nos. 303 - 461)

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BASIC EDUCATION - I

(Abstract Nos. A77 - A101)

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INDIAN EDUCATIONAL MATERIAL

Vol 6 No 3 September 1971

ACADEMIC ACHIEVEMENT

303 CHATTERJI S, MUKERJEE M, MITRA S K: Correlates of the achievement in business management course. Manas 1971, 18(1), 1-10.

A study of the relationship of different background variables considered at the time of admission in a management course to the final results of the students at the end of the course for two successive sessions (there were 77 students during 67-69 and 97 during 68-70) showed that out of the six variables, viz., age, branches of education, division obtained in the Higher Secondary or equivalent examination, interview marks, aptitude scores and work experience, only the branches of education and the aptitude scores were positively (significantly) related to the performance. The performance of the engineering students was consistently better than the other groups of students and the aptitude score had a consistent positive relation with the final cumulative grade point average of the course.

304 GUPTA V P: Body build, personality, tension and academic achievement. Journal of Educational Research and Extension 1971, 8(1), 25-32. 9 ref.

One hundred and eighty male subjects of 16 years of age, studying in 9th class, belonging to different body build (ectomorphy-endomorphy), personality types (extraversion-introversion) and tension levels were selected for the study. The following tools were used: 1) Maudsley Personality Inventory to measure extraversion - introversion; 2) individual's height and weight measured and endomorphy - ectomorphy scores evaluated with the help of Willgoose tables; 3) tension scores measured by the amount of pencil pressure indicated by the penetration of a number of sets of carbon papers on ordinary white papers; 4) academic achievement as indicated by the marks obtained by the subjects in their 8th class public examination. The following results were obtained: 1) introverts showed better academic achievement as compared to extroverts; 2) ectomorphic (high on ponderal index) were found to be significantly better in achievement than the endomorphic (low on ponderal index); 3) subjects high on

tension level had better academic achievement than those low on tension, though the difference is insignificant; 4) thus, on the whole, the ectomorphic were found to have the best academic achievement, more tense and introvertive.

305 HIREGANGE T K: Prediction of academic achievement at the high school stage. Journal of the College of Education, Karnatak University 1971, 8(1), 34-43. 15 ref.

The purpose of the experiment was to predict academic achievement of students at the high school stage by incorporating intellectual (general mental ability or intelligence) and non-intellectual variables such as social and emotional adjustment (SEA), and socio economic status (SES). 150 High school students (82 boys and 68 girls) studying in IX standard were selected from 3 high schools of Dharwar. A group test of intelligence (verbal) for high school students prepared by Smt. Chinnamma Satyanand in Kannada, Social and Emotional Adjustment Inventory standardised by the author, and Socio Economic Status Scale constructed by Dr Aaron et al were administered to the pupils. The percentage of total marks in all academic subjects obtained in the annual examination of IX standard gave an index of academic achievement. The results demonstrated significant positive relationship between the criterion and predictors. However, intelligence was the best single predictor of academic success. Next best predictor was SEA. Still much variance of academic achievement was left unexplained. Hence still other significant factors including other types of non-intellectual personality variables should be explored in order to resolve the problem of prediction.

306 KAKKAR S B: Reading ability and scholastic achievement. Manas 1971, 18(1), 25-0. 1 ref.

Hundred and twenty eight children (boys and girls in equal number) studying in 3,4,5 grades of Junior Model School, Jullundur, were used for studying the relationship of reading ability, evaluated by teacher gradings, to the students' achievement in arithmetic, social studies, science, music, English composition, art, and Punjabi comprehension. It was found that achievement scores in all subjects except in art for grade 5 and music for all grades were significantly related to reading. Integrating art with reading in higher grades also, and incorporating music with reading, besides other measures, may develop reading ability.

307 PATHAK R D: Experimental study of effectiveness of ability grouping. Indian Journal of Applied Psychology 1971, 8(2), 64-6. 9 ref.

The purpose of the study was to explore the effectiveness of ability grouping in secondary schools. One hundred and eighteen students, both boys and girls, age range 12-15 years, studying VIII class in Rastriya Vidyalaya (Rourkela) constituted the sample. For grouping children on the basis of ability, a) Jalota's Group Mental Ability Test, b) Manzel's Achievement test with items of Hindi reading, Arithmetic computation and reasoning, English, Vocabulary, history, civics, geography, science and hygiene, and c) an Achievement Test in two parts, each part containing 20 items each of English, Hindi, social studies, mathematics and general science were administered to the sample. On the basis of the test scores, the stanine norm was constructed and the pupils were divided into high, middle and low ability groups. Same subject teachers were directed to teach with similar teaching methods and materials to high and low ability groups separately. At the end of one week and after 10 months of regular teaching, the two groups were given achievement tests and compared for achievements. The findings are: 1) the final achievement test measures the same ability as measured by the administration of initial achievement test; 2) the high ability group is superior to the low; 3) the high ability group achieved better scores in the final test than in the initial test indicating that it would benefit from the teaching in a homogenous group; 4) the low ability group could not be predicted to achieve better from the instruction in its own homogenous group as the difference of mean scores in initial and final tests were insignificant; 5) ability grouping is effective in connection with high ability group and not in case of low ability group.

308 SRINIVASA RAO R, ARUNAJATAI V: Comparative study of achievements of pupils of academic and diversified courses. Madras, SITU Council of Educational Research, 1971. vii, 93p.

About 800 students were selected from 20 schools, 10 urban and 10 rural. Equal number of students were considered both from the academic and diversified courses. According to the scheme of diversification, students after completing class IX are allowed to choose either an academic course or a diversified course for the rest of the two years (X, XI) before appearing in the SSLC public examination. The two diversified courses considered are: i) engineering and ii) secretarial practice. There are certain core subjects common to all the courses. The study is based on the marks obtained by students in the school and SSLC examinations and on the information collected from heads of high schools and polytechnics. An important finding of this study is that low achievers who opted for diversified courses made better progress in common core subjects

than those who took purely academic courses. Pupils seeking admission to polytechnics and commerce school after completing diversified courses form only one-seventh to one-fifth of the total admissions made in these institutions. Thus, one of the purposes of diversified courses, i.e. syphoning off students from storming higher academic institutions is not achieved.

309 VASANTHA RAMKUMAR: Urban - rural differences in self-concept and achievement. Quest in Education 1971, 8(3), 163-8. 10 ref.

The objectives of the study were 1) to test whether urban and rural students differ in their self-concept and achievement scores; 2) to study the relationship between self-concept and achievement for different levels of intelligence; 3) to test whether high and low achievers can be differentiated on their concept scores. A self-concept measure prepared by using the Q-sort method based on Q-technique was used to obtain the self-concept scores. Nafde's NVTI was administered to get intelligence scores. The averages of total marks obtained by the students in all subjects for two terms were calculated to arrive at the indices of achievement. Predegree students, 300 from urban areas and 362 from rural areas constituted the sample. The findings led to the following conclusions: 1) the urban and rural groups can be differentiated on their self-concept scores but not on their achievement scores; 2) the influence of intelligence on self-concept scores differs for the two groups studied, with the rural group showing no direction; 3) when intelligence is controlled, the urban and rural students exhibit significant differences in their self-concept and achievement scores; 4) self-concept is a factor that differentiated high achievers from low achievers irrespective of the area of residence; 5) however, urban high and low achievers have higher self-concept scores when compared with their rural counterparts; 6) since self-concept is a factor that can be changed in the desired direction through counselling, it provides a means for raising the level of achievement of rural students.

310 VIJAYA RAJU, RAMAMURTHI P V: Verbal ability and educational achievement. Indian Journal of Applied Psychology 1971, 8(2), 59, 60. 4 ref.

The purpose of the study was to investigate the relationship between verbal ability and achievement in college. It was hypothesised that high achievers would be higher in verbal ability than the low achievers. One hundred and twenty women students, 60 high and 60 low achievers drawn from the PUC and 1st year degree classes constituted the sample. The pupils were classified as high and low achievers on the basis of aggregate marks obtained

by the candidates at the last university/public examination. Verbal ability was measured by word fluency and verbal meaning tests, both subtests of Test of Primary Mental Abilities. The data were analysed and the findings confirmed the hypothesis.

ADMINISTRATION AND ORGANIZATION

311 BANSAL T S: Skulon mein jamhuri nizam ki tarbiyat (= training in democratic administration in schools). /Urdu/. Risala Rahnuma-i-Talim 1971, 66(7), 6-8.

The following suggestions have been made for imparting training in democratic administration in schools: 1) the students should be helped to elect class monitors, assistant monitors and office bearers of student committees; 2) the student committees should administer: a) students fund; b) games fund; c) red cross fund; d) freeship and book fund; e) famine or any other natural calamities relief measures; f) co-operative stores in schools; g) periodic school functions such as dramas, prize distribution, games etc. It has been added that 1) each committee should work under the guidance of well experienced school teacher. All decisions should be taken by majority vote; 2) office bearers of the committees should be made to hold different offices so as to give them allround experience; 3) teacher training institutions should have a separate department to give such training to student teachers; 4) headmasters or principals of the schools should ensure that all these student bodies are functioning in an impartial manner.

312 BAYATI J: Comparative study of recruitment policies of secondary teachers. Education and Psychology Review 1971, 11(1), 48-51.

Various recruiting policies adopted by the State Governments with regard to appointment of secondary teachers have been discussed. It is suggested that there should be a uniform policy with regard to recruitment of teachers, pay scales, qualifications for various posts, service conditions, tenure of service, retirement benefits, etc. Exchange of ideas and experiences between the States will provide meaningful solution to various problems.

313 JOHN V V: University Grants Commission. University News 1971, 9(9), 15, 16.

Though the University Grants Commission was primarily responsible for the coordination of higher education and maintenance of standards, grant distribution became its major function in view of the meagre support given to higher education before the UGC was set up. Even if grant distribution were its only function, the task would be difficult as all the three factors, namely a) need, b) quality of performance and c) enrolment should be taken into account in the allocation of grants to various institutions. The exclusion of the vice-chancellors on the Commission and the reasons given for it only show that the UGC is still viewed as a mere grant giving agency, because the presence of vice-chancellors is in no way detrimental to the Commission's responsibility in the coordination and maintenance of standards. The UGC could be a very effective agency for the development of quality in higher education only if the power given to it of withholding grants were properly exercised. The inclusion of the consent of the Central Government for the establishment of new universities as a condition of eligibility for grants has not been favoured. An independent body like the UGC could safely be given this power.

314 MAJAGI I M: Study of work-load of secondary school teachers. Journal of the College of Education Karnatak University 1971, 8(1), 20-7. 4 ref.

The aim of the study was to find out the work load of teachers working in secondary schools in Mysore State. A sample of 110 graduate teachers (79 trained and 31 untrained) working in 13 secondary schools in Dharwar, Belgaum and Bijapur Districts was administered, an information sheet consisting of 25 queries pertaining to general information about the teacher, regular work put in by the teacher, periodical and miscellaneous work done by the teacher and the teachers' comments regarding their work load. The data obtained were analysed and tabulated. The results reveal that 1) on an average a teacher teaches three subjects, handles three subjects and spends 20 hours per week in classroom teaching, 10 hours per week for the preparation of his school subjects, 5 hours per week for school activities such as physical education, games, clerical work, guidance services etc., 7 hours per week for assessing the home assignments done by pupils, 168 hours in an year for setting question papers for various tests and examination and for assessing the answer sheets of pupils, 41 hours in an year for miscellaneous school activities like preparation of manuscript magazines, annuals, etc.; 2) on an average a teacher works 8 hours a day; 3) out of 110 teachers 80 expressed that they were over-worked and the rest estimated their work-load reasonable; 4) the important measures suggested by teachers to reduce work load are - reducing the number of teaching periods to 4 per day,

reducing clerical work, limiting the class strength to 40, appointing experienced, intelligent and impartial headmasters and efficient laboratory assistants.

315 MATHUR H M: Modernizing educational management. NIE Journal 1971, 5(4), 1-4.

Criticism has been made that the traditional administrative structure has been unable to cope with the changes in the educational systems. The major drawbacks of the managerial aspects of educational systems are: 1) inadequate administrative arrangements to operate the educational systems; 2) absence of help to the administration from specialists on a regular basis; 3) poor evaluation techniques for measurement of results of educational projects; 4) slow development of planning techniques in educational fields; 5) improper operational conditions of machinery to supervise the implementation of administrative decisions; 6) inadequate measures to use the available resources; 7) in-apt methods of selection, training and placement of managers which do not promote efficiency and productivity; and 8) absence of an organisation to determine the need for innovations and to adopt them whenever necessary. To improve the situation, the educational management should be modernised 1) instil a new set of attitudes of confidence and boldness amongst educators; 2) provide the managerial apparatus with an information system and other analytical tools; 3) select well-trained administrators and other specialists capable of handling complex educational enterprise; and 4) strengthen the training programmes for educational administrators.

316 MATHUR V S: New challenges in educational administration. Teaching 1971, 43(3), 85-8.

The new tasks of the educational administrator have been pointed out as 1) reorienting and modernizing the curriculum after due planning; 2) revision of the whole system of textbook production; 3) provision of guidance and instructional material to the lay teacher; 4) promotion of instructional improvement; 5) giving a fair trial to individualized and socialized methods of inspection and supervision; 6) fixing the priorities of crash programmes, and evolving a perspective of the total school programme; 7) encouraging experimentation amongst school personnel, besides being himself experiment-minded; 8) developing certain techniques in education with a distinctive look; 9) promoting a high morale among teachers by himself maintaining high standards; 10) building up good leadership at the top levels.

317 MUKERJI S N: Administration of education, planning and finance. Baroda, Acharya Book Depot, 1970. x, 374p.

The book is divided into two parts, part 1 (first five chapters) dealing with theory and part 2 with practice. The following are the topics covered: 1) the background of the administration of education in India and abroad; 2) the nature of theory and an account of the recent attempts at theorising educational administration; 3) the importance of organization from two points of view - sociological and psychological; 4) the various problems of administration faced today; 5) researches on administrative leadership; 6) the setting of educational administration, planning and finance in India and some other countries; 7) suitable programmes for preparing administrators and for their continued professional growth; 8) principles of evaluation and appraisal techniques.

318 NATIONAL SEMINAR ON THE ROLE, FUNCTION, RECRUITMENT AND TRAINING OF DISTRICT EDUCATION OFFICERS, NEW DELHI, 11-13 FEBRUARY 1970: Report. New Delhi, Asian Institute of Educational Planning and Administration, 1970. 73p.

The main recommendations of the seminar are: 1) there is need to redefine the role and functions of the District Education Officer (DEO) in the light of the tasks and challenges of today and the long-range perspective of development tomorrow; 2) the new role of DEO requires him to be educator and supervisor, professional leader and innovator, developmental generalist and planner, and extension agent and bridge-builder between the school and the community; 3) to discharge his functions properly the DEO's work should be rationalised so that he devotes more time to developmental aspects; he should be assisted by subject specialists for supervision; he should have an appropriate status; 4) a judicious blend of promotion and direct recruitment of first rate young talent should be the basic policy for recruitment of DEOs; 5) qualified and experienced persons from universities/ colleges may be offered tenure appointments to senior administrative posts; 6) there is urgent need of developing a comprehensive programme of pre-service, pre-promotion and in-service training for DEOs; 7) a study group may be set up to suggest detailed specifications of the objectives, types, duration and content of foundation and sandwich courses for fresh recruits and promotees.

319 SHARMA S K: Śaiksik vikās mein prāthamikatā ke kāryakram - aur unki kāryānviti mein adhikāriyom kā yogadān (= Priority programmes in the educational development and role of administors in their implementation). / Hindi /. Naya Shikshak (Teacher Today) 1971, 13(4), 30-4.

The weariness of working on a dead routine and the lack of suitable environment and facilities discourage educational workers from taking up developmental work. Educational

administrators by their insight and hard work should try to compensate for the shortage of facilities. The head of administrative unit should shoulder the responsibility of priority programmes, but may delegate powers to his suitable colleagues. The persons so chosen should be inspired to accept and implement the programmes. They should be trained and suitable resources should be placed at their disposal. The zonal administrators by their personal interest and appreciation should provide encouragement and incentive to workers. The evaluative reports of the priority programmes should be prepared and discussed frequently and the inspecting officers should give importance to supervision and encouragement.

320 University reform [Editorial]: Times of India 8 July 1971, p. 10, cols. 1, 2. 600 words.

The changes suggested by the Gajendragadkar Committee on the governance of universities to decentralise authority and to let the policy making bodies reflect the interests of every section of academic life, including students have been appreciated. However, the suggestion for reserving 15% of the seats in the Senate for students and only an equal number for the teachers has not been favoured as the teachers have a strong case for better representation. Their demand can be easily met by cutting down the number of outside members who take little interest in university affairs. The committee's cautious approach in giving student representation only with regard to extracurricular activities, those having an indirect c[illegible]ular bearing, and not on either the Academic Council or the Executive Council has been commended. The suggestion that certain colleges or departments or centres of specialised study within a university should be converted into autonomous institutions with powers to modify the syllabus and even to hold examinations independently has been opposed on the ground that it will lead to a kind of educational caste system within the same university, that it will also prevent these institutions from exercising any beneficial influence on the university, and that it will lead to a bewildering variety of courses, standards and degrees. On the other hand, the recommendation would have been feasible if it covered only centres of advanced study and research which function within but are not quite part of a university.

321 BONANNI C: Adult literacy: a hypothesis for a new approach. Indian Journal of Adult Education 1971, 32(7), 2-4, 19, 20.

The approach leading the adults towards a natural and immediate comprehension of complete written structures would involve the following factors: i) the sentences/phrases/arithmetical expressions of literacy texts should communicate thoughtful messages; ii) such messages must answer to some of the urgent and cognitive needs of the learners and be fit for immediate practical adoption; and iii) the written message should be logically and thoroughly experienced by the learners before it is graphically presented to them. An innovative didactic approach to enable adults to have a logical understanding of a written line and the expertise for a mechanical analysis has been presented as follows: 1) introducing the curriculum suited to their vocational, social, economic needs through explanations, demonstrations, audio-visual support and group discussions; 2) presenting the phrases, sentences and the arithmetical expressions logically and orally; 3) transferring these verbal and numerical expressions to the adults in their full integrity; 4) enabling the learners to comprehend the written structure quickly with the help of drawings and photos and to associate it to the information already experienced. The analysis of the written structures could be developed during the w2nd half of each daily literacy session. The recognition of the articulations of the written structure, their association with sounds, their fixation and manipulation for new expressions should be taught by a series of progressive deductions. The learners would be distributed a set of didactic materials composed of sound symbol cards, experience cards for the acquisition of mechanical and comprehensive reading abilities, materials for the acquisition of mechanical and expressive writing, dictionary, handout sheets and work books for the implementation of mathematical skills and drawing worksheets for drawing skills. The adult learners should be prepared psychologically and logically to adopt these materials. When adults acquire the consciousness of the literacy task, they should be taught to manipulate and to use the didactic tools. Finally, the exercises, practices and experiences will enable them to acquire a habit towards reading and writing.

322 DAMAN PRAKASH: Handbook of techniques of teaching and teaching aids for cooperative educational instructors. New Delhi, International Cooperative Alliance, Regional Office and Education Centre for South-East Asia, 1970. / Various pagination /.

The handbook has been prepared keeping in view the role which an instructor is expected to play in the development of the

cooperative movement. The instructor is to create an awareness among the villagers, farmers and other community groups about the usefulness of a cooperative society. He has to inform the members about the principles and practices of cooperation, their rights and duties and the place of cooperative organizations in the economic structure of the country. In order to approach the members, an instructor besides being careful has to equip himself with various teaching methods and teaching aids. An attempt is made to compile various methods and aids which could be helpful to an instructor.

323 DHARM VIR: Methods of farm guidance. Indian Journal of Adult Education 1971, 32(9), 5-8.

Certain methods of farm guidance adopted in Canada, U.S.A., Poland, Tanzania, Australia and Japan have been indicated. Cooperative farm guidance has been underlined as most suitable for South-East Asian Region. It has been suggested that extension education for farmers in India should have the following characteristics: a) it must be largely informal and designed to bring understanding of problems to be solved; b) it must, in most situations, contribute to improvement in rural living with which majority of people are concerned; c) it must bring immediate satisfaction to individuals as well as contribute to long term goals; d) it must inspire and assist individuals and groups to develop and carry out programmes to achieve their goals. The methods of farm guidance work have been described, and classified as under - 1) mass educational methods; 2) group educational methods; 3) individual educational methods; 4) local leadership method. It has been [illegible]gued that no single method can fully serve the purpose, and a suitable combination of these methods should be employed taking into account the educational objectives and contents set for different groups as well as the resources locally available.

324 FARRAG O L: Philosophy of lifelong education and the new role of universities. ASPBAE Journal 1971, 5(3-4), 5-9.

The psychological, social and professional adjustments required due to the industrial and technological revolution can be achieved only through continuing education. Adult education should be integrated into the formal system so that every individual, whatever his formal education, can receive adult education commensurate with his particular interest and needs. Universities with all their facilities are already equipped with most of the resources needed for a continuing education programme. They should free themselves from their traditional elitism, and take up continuing education as a service to society. Continuing education benefits more people at a minimum cost as the student studies only the subjects necessary for his purpose.

325 MATHUR R S: Television and adult education. Indian Journal of Adult Education 1971, 32(9), 11-13, 20.

The role of television in agricultural production, literacy, adult education and social education, and family planning and health education has been described. Agricultural television programmes could be used for imparting knowledge of agricultural innovations, agricultural engineering and farm mechanics, and developing favourable attitudes towards improved farm practices. Since the society is still orthodox and conservative, family planning should form part of general health education programme.

326 NAGAPPA T R: Work-oriented literature for neo-literates - a team operation. Indian Journal of Adult Education 1971, 32(7), 15, 16, Cover III.

The two major processes in the preparation of literature for neo-literates are - a) analysis of readers' needs, interests and their language abilities, and b) preparation of word lists. The reading material produced in India so far has been subject-centred and pleasure-oriented whereas it is now required to be work-oriented and functional in character. It can no more be the effort of a single writer but a planned team operation of subject specialists, professional writers, and illustrators. An account of the 15 day Writers' Workshop conducted by the Mysore State Adult Education Council during March 1971 in Kengeri Vidyapeeth, Bangalore, for the preparation of reading materials both on functional and traditional literacy approaches has been given. Such workshops train the much needed writers in the field of literature for neo-literates, and the trained writers should be properly utilised and adequately remunerated. An association of trained writers should be formed under the aegis of the institutions interested in this task.

327 NAYAR D P: Mobilisation of governmental resources for adult education. Naya Shikshak (Teacher Today) 1971, 13(4), 9-15. 9 ref.

Adult education is vital to democracy and development. It is necessary to mobilise all possible resources. The public resources for adult education need to be increased. Even more important is to make a more effective use of available resources through educational orientation of their communication programmes and comprehending within them literacy programmes. The following suggestions are made: 1) the educational content of family planning programmes, agricultural programmes, etc. should be considerably increased and more effectively managed; 2) family planning for example, will be more acceptable when

presented as a part of a wider programme of family and community uplift by an agency which is continuously in touch with the community. The various programmes of health, social welfare, agriculture, education, cottage industries, etc. need to be brought together in an integrated programme; 3) the approach should be educational rather than propagandist. This implies avoidance of exaggeration, and putting a particular programme in the context of an individual's or community's over-all benefit; 4) the level for which literature is produced must be carefully determined and sufficient communication expertise injected to make the considerable amount of literature that is produced by various departments really intelligible and interesting to the people for whom it is meant; 5) imparting of literacy should be built into project costs, as an inevitable first step in establishing an effective communication link with the group of people concerned; this will also include the production of literature for neo-literates; 6) there is need for coordination of efforts by various departments to make possible a multipurpose use of facilities created; there can be a coordinating body at each level with the seniormost person in the political or administrative field heading it.

328 NIMMI J A, DAVISON C V: Adult literacy teacher - a model for the analysis of training. Indian Journal of Adult Education 1971, 32(7), 5-7. 4 ref.

A detailed description has been given of a model prepared by the authors as a guide for selecting and training adult basic education teachers on the basis of research done in the U.S. and Canada on the problems of under-educated adults. The model presents a wide range of knowledge, skills and attitudes to be possessed by the adult basic education teacher regarding three aspects: 1) subject matter; 2) the student, including the physiological psychological, and sociological characteristics of undereducated adults, who generally comprise the low income population; and 3) the learning process, which encompasses adult learning principles and the adult education process.

329 PAROLKAR J S: Relationship between level of education of farmers and their agricultural production. Indian Journal of Adult Education 1971, 32(8), 12, 13, 18.

The purpose of the study is to determine 1) the relationship of education to agricultural production and of educational level to agricultural production, and 2) the extent to which extension education activities influence agricultural production. The sample consisted of 114 illiterate and 92 literate (studied upto

various levels of education) farmers selected from the Community Development Blocks of Punjab and U.P. The participation of the farmers in the extension education activities was scored by administering a questionnaire containing a list of 12 activities and rated on a three point scale. The following are the major findings: 1) a significant correlation exists between crop yield and education; 2) in increasing productive capacity of land, functional literacy proves effective; 3) primary level of education has not helped the farmer much in improving upon the performance; 4) the farmers studied upto middle school have performed significantly better than illiterates. Based on these findings a few suggestions are offered to improve the adult/young farmers' education.

330 TALPALLIKAR M B: Leading group discussions - a handbook for adult education and extension workers. Bombay, Popular Prakashan 1971. 124p.

Group discussion as a teaching method is increasingly used in formal and informal education in India. An attempt is made to suggest a guideline for those educators or leaders of groups who want to acquire skills in leading group discussions so as to help the group members to work together in an atmosphere of mutual support and cooperation. This is intended to help personnel working in a variety of organisations for instance in schools - the teachers, principals; in industry - the managers, the personnel officers; in social agencies - the field consultants, administrative officers, volunteer leaders; in government - the staff officers, administrators, etc.

331 WARBURTON J W: Some thoughts about adult education in India. Indian Journal of Adult Education 1971, 32(7), 11, 12, 20.

Dr. V.K.R.V. Rao's proposal for encouraging tudents to undertake literacy work during vacations has been regarded as illconsidered, as the literacy problem is too complicated and difficult for illprepared students to tackle on a part time basis. The following suggestions have been made: 1) since most of the illiterates are rural, the workers in all the programmes which aim to help the Indian villager - literacy, family planning, agriculture, health and political education - should operate as a team, rather than as individual bureaucrats working within self contained and somewhat insulated hierarchies; 2) since resources are limited, adopting a policy of making five or six carefully selected men and women literate in each village or an administrative region so that they can act as a resource for the whole community; 3) eliciting the help of universities in experimenting with new extension methods, in developing pilot projects in training agricultural and other extension workers, and in conducting refresher courses for professional people.

332 KESAVAMURTHY R C: Need for dynamic agricultural university. Hindu, 13 July 1971, p. 8, cols. 4-8. 1000 words.

It has been cautioned that the new Tamil Nadu Agricultural University should be guarded against all the difficulties of an infant university. The suggestions are: 1) integrating all the three vital services, i.e., teaching, research and extension; 2) bringing all research stations in the state under the control of the university; 3) reorganising the government agriculture department on the basis of removing the present anomalies and of infusing some bold and progressive reforms; 4) developing an effective extension department attached to the university. It has been underlined that the human agent, who is the principal productive agent should not be overlooked as the agricultural progress cannot be achieved without the acquired capabilities of farmers. As witnessed in the agriculturally progressive countries like Japan, Israel, U.S.A. and Denmark, only a dynamic and well organized agricultural university can accomplish the task of educating farmers which is a necessary prerequisite for agricultural development.

333 SKILBECK M: Preparing curriculum objectives. Education and Psychology Review 1971, 11(i), 4-15. 20 ref.

The meaning of curriculum objective conceived as changes in student behaviour has been discussed. Several advantages of defining curriculum objectives as an integral part of the process of teaching are as follows: 1) the preparation of objectives is one way in which one can think clearly and critically about the educational process and one's own particular contribution to it; 2) the formulation of curriculum objectives and casting them into some order of importance are means of selecting a practical, defensible set of learning tasks and materials from the very wide range of content source material and forms of treatment available for use; 3) the formulation of objectives also help teachers to take decisions about the sequence in which material is presented; 4) without clearly formulated and precise objectives it is difficult to prepare valid tests and other forms of assessment; 5) having a clear idea of objectives enables the teacher in the classroom to pick out of the lightly structured teaching-learning situations, elements of potential significance. The following are the objectives of general studies; 1) development of self-awareness; 2) expression and communication; 3) reflectiveness or critical mindedness; 4) integrative thinking and behaviour; 5) personal balance and harmony; 6) disinterestedness and enjoyment of the fruits of study for their own sake; 7) social sensitivity and responsibility in community development projects.

334 KUPPUSWAMY B, SESHAGIRI RAO K, KRISHNA KANTH A: Population education - a panel discussion. Bombay, Asia Publishing House 1971, vii, 156p.

This volume, which has grown out of a panel discussion held at Bangalore in 1969 under the auspices of the Institute for Social and Psychological Research, explores the possibility of educating the students to an informed awareness of the far-reaching implications of an uncontrolled growth of population. It also makes an interesting analysis of the attempt to curb this growth. The findings of the seminar are summed up as follows: 1) the programme of population education depends upon sound teacher-training; 2) there is a need for the preparation of a guide-book to help the teachers; 3) population education should be introduced from the upper primary level to the secondary level, using the concentric method of curriculum-building; 4) population education should not be made a separate course but should be integrated with social studies, hygiene, home science, etc.; 5) lessons on population should also be introduced in language textbooks; 6) population education is necessary at all levels, in order to enable the students, who will be the parents of the future generation, to make a determined effort to prevent the likelyhood of population explosion; 7) present awareness may result in action in the future, though there may not be any perceptible difference immediately; 8) at the under-graduate level, a course in demography may be introduced in order to enable some students to develop research interest in the field at the post-graduate level; 9) sex education is a continuation of population education and should be introduced at the appropriate level after due preparation of lessons and the training of teachers; 10) it is also necessary to develop programmes of marriage counselling; 11) there is a special need to equip the rural teacher, to enable him to function as a source of information, with family planning programme in the village; 12) since the assimilation of the social norm is necessary to prevent population explosion, there must be a drive to increase the enrolment of girls at the elementary school level; 13) increase in employment opportunities, for women will also help to prevent population explosion; 14) there should be constant evaluation of the effectiveness of the population education programmes. It is also necessary to conduct cost-benefit studies in order to examine whether the results obtained are commensurate with the investment and the efforts.

335 MATHEW M: Work experience - how to make it operative. Educational India 1971, 38(2), 59-61.

The justifications for introducing work experience in schools and the suggestions for implementing the programme have been given. Introduction of work experience in schools would: 1) improve general education by reinforcing its link with life and helping pupils to attain intelligent, firmer and concrete grasp of knowledge; 2) help pupils to develop strength of character and personality; 3) create desirable and positive attitude towards work among pupils; 4) enable pupils to discover their aptitudes, interests, and the requirements and demands of various types of work; 5) provide understanding of adjustment value of work; and 6) prevent day dreaming during classroom teaching. The impediments to the implementation of the scheme have been briefly discussed. ~~The suggestions for implementation of the scheme have been briefly discussed.~~ The suggestions for implementation of the scheme include 1) preparing work experience syllabus by the Government; 2) attaching repair workshop to each school in the urban area; 3) seeking cooperation of factories and other establishments in each area with the work experience programmes of the schools; 4) providing training in practical and theoretical aspects of work experience in B.Ed., and T.T.C. course; 5) preparing a comprehensive plan to evaluate each school with regard to quality and quantity of work experience provided; and 6) conducting seminars and refresher courses on work experience for teachers and educational administrators.

336 RAWAT D S: Integrated approach to the primary curriculum. NIE Journal 1971, 5(4), 10-13.

In place of subject approach, introduction of an integrated approach through a phased programme has been recommended for primary curriculum. Such an approach, i) provides meaningful work for the children, ii) gives them first-hand experiences of the world, iii) enables them to acquire knowledge, skills, values and attitudes through perception, and iv) provides opportunities to learn for themselves. Primary education should thus be made realistic and meaningful by relating it to the environment of the child and by adopting a thematic approach instead of a topic approach. However, imaginative teachers capable of understanding the skills and attitudes to be developed in various age-group children, are required for the implementation of the approach. The teacher training institutions should also be modified and teachers trained to use the integrated approach to the curriculum effectively. The role of mass media in the integrated approach has been discussed and a suggestion made that in India the approach be started as pilot project.

337 SADASIVAN T S: New philosophy of biology teaching. School Science 1970, 8(4), 169-80.

The first task of the biology study groups formed under the leadership of university professors was to evolve a new curriculum and write experimental editions of students' texts and teachers' guides for try-out in schools. The six-year secondary school curriculum has been divided into two stages, the first stage (the first 3 years) presenting an overall picture of the essentials of modern biology at introductory level, and the second stage (the last 3 years) pushing it forward to a higher level by incorporating some of the latest advances in biology. The topics covered in the experimental editions of books I-III (for the first stage) and books IV-VI (for the second stage), and the information provided in the teachers' guides have been given. Some of the suggestions offered are: 1) organization of special short-term orientation courses by the study groups to orient sufficient number of teachers for a large scale try-out of the new texts; 2) preparation of model evaluation tests by the study groups; 3) providing supplementary reading material to the students; 4) setting up the study groups on a permanent basis; 5) establishing a healthy coordination between the study groups and the State machinery of education in the programme of try-out of new texts so that subsequent preparation of the final versions would be quicker.

338 SINHA D K: New mathematics in schools. Mathematics Education 1971, 5(2), 30-5.

Restructuring of mathematics education has been underlined as a social necessity. The discovery approach, and the activity-centred teaching are some of the innovations pointing to the urgency of recasting the curricula in mathematics, particularly at the school level. Development of new curricula is neither a mere substitution of subject matter nor a total rejection of the past. It demands both a new point of view and a new subject matter. It should be the aim to acquaint students with as many topics as possible so that they might be able to contribute fruitfully to the development of the society. It can be achieved by concentrating on those seminal ideas that would bring students to the frontiers of knowledge. Algebra and geometry should be taught with examples drawn from the familar surroundings of students. Instead of continuing the controversial Euclidean geometry, it would be preferable to make use of the rudiments of transformation geometry initiated by Felix Klein in 1872. This would prepare the ground for a subsequent axiomaticcum-postulational treatment of geometry, and would unify the teaching of algebra with that of geometry, thereby revealing the basic unity in mathematics. Children in rural schools and other underprivileged schools should also be exposed to new mathematics as it is only through mathematics that they can participate later in the mainstream of economic development of the country.

339 CHAITANYA: Education for all. Publishers' Monthly 1971, 13(9), 9, 11.

Three methods suggested by the Education Minister, Mr Siddhartha Shankar Ray for removing all class distinctions in education are: a) admission to public schools should be on merit, irrespective of the status of the students' parents; b) reservation of certain seats for scheduled caste and scheduled tribe pupils in public schools; c) reserving 25% of the seats in public schools under a scholarship scheme. The first principle is theoretically sound, but in practice many difficulties arise because the village student has many handicaps due to the social environment. Hence conditions should be created in schools for encouraging free learning among students as in the open classroom system. Mere reservation of seats would not serve the purpose unless the children admitted against reserved seats are given personal and individual guidance. The Chinese way of uniting education with work has been described as a good example in the context of the other two proposals, viz., vocationalizing secondary education, and involving university students in national service. These five priority programmes make a good beginning, but cannot be a substitute for a national educational policy consistent with the national ideal, and interests.

340 DAYA KRISHNA, JOHN V V, SUNDARAM P S: Indian education today, prospects and perspectives. Jaipur, Rajasthan University, 1970. 238p.

The book is a collection of essays on education. The publication has been brought out in honour of Mohan Sinha Mehta, Vice-chancellor of the university of Rajasthan on the occasion of his retirement. The essays deal with various aspects of education.

341 D'SOUZA A A: Thomas Arnold and the public school tradition. Teaching 1971, 43(3), 88-93.

The Arnoldian system of education has been described, and its deficiencies in the light of modern research pointed out. It was quite adequate for promoting moral and spiritual growth, and, to a lesser extent, intellectual development. It ignored the vital emotional factor completely, and, while it paid some attention to physical development, it failed to provide for training in the manual skills which are necessary for a balanced education. While the modern educator tends to stress the individual and to

emphasize that all children have a right to develop their individual abilities and aptitudes, Arnold emphasised the 'type', and advocated expulsion of those who failed to conform to the type. Arnold had no real conception of teaching methods which would suit a school rather than a college. His methods would have failed with any but the sixth form. His choice of the classics, as practically the only mental pabulum, was based on the now largely discredited theory of formal discipline of the mind. His omission of science from the curriculum made it unbalanced. Finally, his justification of corporal punishment would find little favour with modern psychologists who have vividly pointed out the danger to both teacher and victim of this type of punishment. The right to chastise which Arnold gave to the sixth form was also much abused. However, he reshaped the traditional set up, and injected new spirit into the decaying public school system. Though the public schools of England have changed much, they are in the main still based on the Rugbeian pattern of Dr Arnold. The best features of the English public school - the emphasis on character training rather than on instruction, the prefect system, organized games, stress on the independence of the headmaster and the personality of the teacher, the realization of the importance of a healthy school atmosphere, the concept of the school as a community of individuals have become a vital and enduring part of good schools all over the world.

342 HEDGE K S: Innovation in Tamil Nadu education. Monthly Bulletin, Madras Institute of Development Studies / Madras Development Seminar Series / 1971, 1(3), 11-37.

The innovations in Tamil Nadu education are as follows: 1) introduction of bifurcated courses in high schools offering a technical bias in education to those who chose it; 2) improvement of the quality of education in secondary schools with 'God-father' scheme whereby a strong and well-established educational institution would adopt a weaker secondary school, support it and help it to build better curricula, teaching methods, laboratory equipment and teaching aids; 3) organisation of the school improvement conferences periodically in which educational authorities would meet the leaders of the community and discuss school problems; 4) organisation of extensive programmes of inservice training, workshop for science teaching, refresher courses etc. for improving the quality and competence of teachers; 5) provision of mid-day meals to the school children; 6) grant of scholarships and loans to students, particularly at the post matric stage by the government; 7) establishment of evening colleges for working people who seek higher education; 8) provision of sandwich, technical and part-time diploma courses for working people; 9) provision of technical professional courses for women in women's polytechnics. However, outdated syllabus, recruitment of unimaginative teachers, defective examination system, structural rigidity and monotonous uniformity in structure, content and achievement, meagre financial and human resources made available for the scheme of

compulsory education, neglect of adult education and reeducation etc., have been some of the drawbacks of the educational system. The suggested remedies are: 1) secondary education should be the responsibility of a number of local school boards or districts with freedom to frame curriculum, to plan and to conduct examinations; this would ensure structural flexibility and avoidance of dull uniformity; at the post secondary level, small and autonomous units should be evolved for the same purpose as above, thus entrusting post-graduate research work and advanced teaching to the universities; 2)the management of all institutions of the university level should be independent and autonomous, by constituting boards of managements represented by teachers, students, local public and the government; 3) the morning and evening colleges should be organised more extensively and correspondence courses should be started by universities for the benefit of working people; 4) dedicated and well-qualified staff should be recruited to teach in primary schools; 5) massive investment should be made for offering proper facilities to primary and secondary schools; 6) to solve the problem of dropouts, special provision of school hours should be made for children who would work at home or in the field and for those who are unable to cope with the academic programme; 7) craft instruction schools should be organised for the benefit of working persons and housewives.

343 KHUSAT: Hamārī tālim (= our education). /Urdu/: Risala Rahnuma-i-Talim 1971, 66(8), 6-10.

It has been stated that educational system should enable students to a) become good citizens, b) live long and healthy life; c) earn through fair means and live a carefree life; d) have sympathy towards all human beings. The following suggestions have been made for the purpose: 1) primary education should be taken over by the Government and strengthened; better qualified teachers should be employed; besides teaching the 3 Rs, students should also be taught elementary geography and moral education; 2) secondary education should be less bookish and more practical, job-oriented and alive to the actual needs; agricultural farms should be attached to schools in rural areas for practical work; 3) each college should specialise in a particular subject of teaching. Admission in all colleges should be done through university office in order to avoid bitterness among students and to maintain proper planning.

344 Role of education in developing scientific outlook /Editorial/. Educational India 1971, 38(2), 54-8.

The advantages of inculcating scientific outlook in children has been stressed and the role of teachers and education in this context discussed. The natural impulses and tendencies of young children should be nourished by reorienting the curriculum,

the methods of teaching and the system of evaluation. Opportunities should therefore be created for self-activity on the part of the students. The teachers should strengthen the link between life and knowledge and offer ample opportunities for promoting among pupils, self-expression in speech, writing, reading, constructive activities and project work. The task of education should be to train the child with the method of acquiring knowledge and skills. For this purpose, teachers should focus on quickening of interest and training in efficient techniques of learning and study, and thus develop the spirit of discovery and experimentation among pupils.

345 THIAGARAJAN K: Education must be made a potent influence for good. Swarajya 1971, 16(7), 13, 14.

Only teachers of the right temper and calibre can vitalize education into a potential influence for good. The factors contributing to the overall deterioration of educational standards in the country have been discussed. The following remedial measures have been suggested: 1) changing the mode of evaluation; 2) providing higher education only to the deserving; 3) changing the curriculum and the content of the syllabi; 4) expansion of primary education, diversification and vocationalization of secondary education; 5) inculcation of ethical, spiritual and moral values to foster national integration; 6) laying emphasis on qualitative improvement of education; 7) depoliticization of education; 8) formulating a pragmatic national educational policy.

346 Thought on education [Editorial]. Assam Tribune 17 July 1971, p. 4, cols. 1, 2. 600 word.

It has been regretted that due progress has so far not been achieved either in providing universal, free and compulsory primary education, or in vocationalizing secondary education. Though the target year for achieving the former goal was originally-fixed as 1971, it is likely to be achieved only in 2000 A.D. The polytechnics should discontinue training in already overcrowded fields like overseers and mechanics, and switch over to fields currently in demand - agricultural services, dairying, fruit cultivation and fruit preservation, and processing of primary produce, etc. Secondary education should be given a distinctive vocational bias as it would not only help most of the students who stop studies at this stage to fit into various jobs, but would also reduce unemployment among the youth. Though university education is also important the money presently spent on it is so disproportionately large that the resultant 'degree explosion' adversely affects the quality of higher education as well as the employment situation.

347 AARON P G: Model for a perceptual coding test. Journal of the College of Education, Karnatak University 1971, 8(1), 6, 7. 2 ref.

The presented model for the perceptual coding test is meant to measure the coding ability of a subject. It requires the subject to rearrange poker chips numbered 1 through 12, in the same order it had been presented by the examiner. The pattern or order becomes increasingly complex so that coding the order of arrangement of chips becomes correspondingly difficult. Finally, the number of orders correctly reproduced by the subject provides an index of his perceptual coding ability.

348 ACHAMAMBA B, RAMA RAO P: Study of introversion-extraversion as related to perceptual closure of Tachistoscopically presented gapped triangles. Indian Journal of Experimental Psychology 1971, 5(2), 91-7. 7 ref.

The study was made to find out whether introverts and extraverts differed significantly in perceptual closure of tachistoscopically presented gapped triangles, five with one gap and five with two gaps. One hundred and ninety two college girls were administered Guilford Martin Inventory of STDC and R. Twenty one subjects from the highest extreme and twenty one from the lowest extreme were then given the closure test by the method of limits. t-test was applied to know the significance of difference between the introverts and extraverts. It was found that introversion-extraversion as personality variables had no relationship with the perceptual closure phenomena.

349 AGYAJIT SINGH: Study of effect of excursion on sociometric choices. Manas 1971, 18(1), 45-50. 10 ref.

The study was made on 15 students of M.A. (Part I) of the Department of Education and Community Services of the Punjabi University, Patiala, who made an excursion to Jammu and Kashmir. Most of them were classmates in their previous classes also. After the excursion there was a change in the interpersonal relationship in most of the cases. Nine students changed their preferences with regard to playing, and ten with regard to sharing meals. It was also observed that sex, age or residence had no influence on their interpersonal relationship neither before the excursion nor afterwards. However, religion had some influence in certain cases.

350 AHLUWALIA S P, PAL B D: Study of career aspirations of undergraduate and postgraduate students of Kurukshetra University. Education and Psychology Review 1971, 11(1), 57-62.

A questionnaire consisting of open-end questions on career aspirations and vocational preferences was prepared and used. The data collected from 288 postgraduate and 235 undergraduate students of Kurukshetra University were analysed and the following conclusions drawn: 1) college or school teaching as a career was declared as the most popular career by the postgraduates; 2) about one-fifth of the male undergraduates wanted to become school teachers; one-fifth of the girl undergraduates wanted to become physical education teachers; 3) a career in 'defence services' was also popular among male students; 4) among the undergraduates, 4.6% of boys and 29.9% of girls aspired to become lawyers; 12.2% of boys and 6.7% of girls wanted to become doctors, and 5.3% of boys preferred to be engineers. It was found that a) vocational aspirations of the boys cover a wider range than those of girls; b) parents play a decisive role in the choice of a career for their wards; boys, however, wish to exercise their independent judgement in choosing a career; c) students who have had any experience of work largely base their choice of a career on previous work; d) clerical job is the most disliked job; e) very few students are conscious of the role of guidance in the occupational and vocational field.

351 AKHTAR S N, KAFILUDDIN S A: Relationship among neuroticism, extraversion and manifest hostility. Manas 1971, 18(1), 37-44. 17 ref.

It was hypothesized that a) persons showing more neurotic trends are more hostile than persons showing less neurotic trends, and b) extraverts are significantly more hostile than introverts. Hindi versions of Eysenck Personality Inventory and Siegel's Manifest Hostility Scale (MHS) were administered to a sample of 160 male undergraduate students of Bhagalpur University. Significant positive correlation was found between N-scale scores and MHS scores. Analysis of variance of this relationship further showed that N-groups significantly differed among themselves with respect to manifest hostility. The high and middle N-groups were more hostile than the low N-groups. The correlation between E-scale scores and MHS scores was not significant. Thus, only the first hypothesis was proved correct.

352 AMRIT KAUR: Delay of reward in human verbal learning. Indian Journal of Experimental Psychology 1971, 5(2), 61-4. 22 ref.

It was hypothesised that delay of reward will not be detrimental to the learning of pairs of words of low association value. Eight of the 23 twelfth grade students were assigned to no delay

group and the rest to the 3 seconds delay group. The 15 paired words were presented according to Salt and Myers' (1965) group presentation procedure with some modification. There were ten trials and the first trial consisted in learning the pairs. In the subsequent trials, the correct response was given soon after the student's response in the case of no delay group, and after a 3 second delay in the case of the other group. Results indicated that a 3-second delay of reward does not affect the learning of paired associates of low association value. Thus, the hypothesis was confirmed.

353 BHUSHAN L I: Study of leadership preference in relation to authoritarianism and intolerance of ambiguity. Journal of the Indian Academy of Applied Psychology 1971, 8(1-2), 34-8. 36 ref.

The hypothesis that preference for democratic form of leadership will have substantive negative relationship with authoritarianism and intolerance of ambiguity was sought to be verified. A sample of 400 undergraduate male students of TNB college of Bhagalpur University was administered 1) a 30 item Likert type Leadership Preference Scale (LPS) developed by the author; 2) a Hindi version of California F. Scale to measure authoritarianism; and 3) a Hindi version of 16 item Budner's Scale to measure intolerance of ambiguity. The results confirmed the hypothesis.

354 BORUDE R R, JANBANDHU D S: Paired serial learning. Indian Journal of Experimental Psychology 1971, 5(2), 56-60. 7 ref.

Five groups of subjects, namely, control (c), Gr. I, Gr. II, Gr. III and Gr. IV, each consisting of 5 students of an introductory psychology class were assigned the combined paired serial task. Five eight-word lists (nonsense syllables) differing in the number of response members were learned by the serial anticipation method, by these groups, one group learning one list only. For C each pair consisted of one response member, for Grs. I, II, III and IV two, three, four and five response members respectively. It was hypothesized that more the number of response members in the paired serial task, more would be the interference effect which would be reflected in the number of trials to criterion and the number of errors. The results confirmed the hypothesis. Except in conditions C and Gr. I, in all other conditions bow shape curves were obtained. Possible reasons have been discussed.

355 DESAI A N: Institutional impact on juvenile delinquents. Teaching 1971, 43(3), 76-81.

Describes a study made by the author of 75 delinquents in reform institutions who came from various working class districts in Gujarat. The findings are: 1) many of the delinquents were literate, but had an aversion to school; 21.82% of the delinquents loved their teachers while 9.09% did not express any opinion, and the rest were dissatisfied with their teachers in some way or the other; 2) they confessed their inability to cope up with one or more of the school subjects, and this backwardness was attributed to their lack of interest in school work by the teachers; 3) most of them were cinegoers, but no evidence obtained of the influence of films. The suggestions offered include: 1) establishing close coordination between schools, and the health, welfare and recreation agencies; 2) making careful case analyses and diagnoses of delinquents, and undertaking research on methods of investigation and protection; 3) treating delinquents sympathetically, and detecting delinquent tendencies as early as possible; 4) maintaining a high degree of coordination among the services offered by a community, and close cooperation between private and government agencies; 5) providing delinquents with the services of guidance personnel, psychologists, psychiatrists, and psychiatric social workers; 6) conducting extensive research, statistical, social and psychological, on the problem of criminal behaviour, and delinquency control.

356 GEORGE E I, RAJALAKSHMI DEVADAS: Manifest anxiety as a function of birth order. Journal of the Indian Academy of Applied Psychology 1971, 8(1-2), 39, 40. 12 ref.

The object of the study was to test the hypothesis that the first born children would have higher anxiety than children of other ordinal positions. The sample consisted of 40 first born children both boys and girls, and 40 later born children studying in secondary schools in the Trivandrum Educational District of Kerala. Anxiety was measured through Manifest Anxiety Scale. A schedule consisting of questions to determine the pupil's birth order, sex, age and family size was also administered. The results supported the hypothesis.

357 GUPTA B S, SINGAL W R: Sex and intelligence on personality adjustment. Psychological Studies 1971, 16(2), 39-44. 6 ref.

The impact of sex and intelligence on personality adjustment in various fields, viz., home, college, social, health and emotional was studied. A group of 105 male and 105 female student teachers served as subjects. Jalota's Group Test of General Mental Ability was used for measuring intelligence. The personality adjustment scores were obtained by administering Saxena's Personality Adjustment Inventory. The following conclusions have been drawn: 1) sex and

intelligence have no effect on personality adjustment;

2) variability (SD) differs on the basis of both sex and intelligence; female teachers are more variable in home, social and emotional fields whereas male teachers are more variable in the field of health; intelligence too seems to be a factor in making people more variable in adjustment, particularly in the field of social adjustment; the below average intelligence group is more variable than the above average and the average groups; female teachers of below average intelligence in social adjustment field and those of above average intelligence in emotional adjustment field are more variable than male teachers; male teachers of above average or average intelligence are more variable than female teachers in the field of health adjustment.

358 GUPTA V, SANGHA M S, TYAGI M G: Anxiety, tension and persistence indices as related to neuroticism and extraversion-introversion. Indian Journal of Experimental Psychology 1971, 5(2), 68-72. 11 ref.

The study was conducted on a group of 100 individuals, 50 males and 50 females (age group 20-25 years) selected from teachers' training institutions - Punjab Government College of Physical Education and State College of Education, Patiala. Extraversion-introversion and neuroticism scores were found on the basis of the students' responses on Eysenck's Maudsley Personality Inventory. Anxiety was measured by their scores on Personality Inventory of Dutt. Tension scores were calculated on the basis of carbon impressions they made of a simple typed matter in English. A hand dynamometer was used to measure persistence. The analysed data revealed the following points: 1) physical persistence decreased with increase in anxiety and tension indices, and increased with decrease in anxiety and tension levels; 2) anxiety and tension indices were positively related; 3) physical persistence increased, tension and anxiety decreased with increase in E scores while physical persistence decreased, tension and anxiety increased with increase in N scores; 4) subjects with high E scores persisted most and had least anxiety and tension indices as compared to those with high N scores; 5) subjects with low scores on ~~E persis~~ E persisted lesser and had higher anxiety and tension levels than subjects low on N scale; 6) boys had significantly higher persistent scores and had lesser anxiety and tension scores than girls.

359 GUPTA V P: Personality, motivation and persistence on a physical task. Psychological Studies 1971, 16(2), 49-54. 12 ref.

The effects of personality and motivation were observed on persistence on a physical task of the four personality groups

(i) N + E - , ii) N - E - , iii) N + E + , iv) N - E +)
at the age level when the subjects would seek admission to various professional institutions such as engineering, medical, commerce and teacher's training course. A sample of 80 students, 40 high and 40 low in motivation level was used as subjects in this study. Forty subjects who were already admitted to various professional courses were considered as the nonmotivated group (i.e. low in motivation) and another forty who were anxious to get admission were considered as the highly motivated group. The subjects were distinguished in four personality groups on the basis of their scores in E (extraversion) and N (neuroticism) scales of Hindi version of Maudsley Personality Inventory, and to measure physical persistence, hand dynamometer was used. The analysis of the data disclosed that motivation has a great influence on persistence on a physical task. It was also found that the subjects high on extraversion scale showed increase in persistence on a physical task. However, motivation and personality interaction revealed insignificant relationship.

360 HERRERO J M: Motivation courses and college students. Education and Psychology Review 1971, 11(1), 16-32. 8 ref.

This is a study of the data collected while giving achievement motivation courses to 135 students during 1968 and 1969. The main tools used for this research were: 1) scores of TAT stories written at the beginning and at the end of the courses; 2) Allport Vernon and Lindzey's study of values; 3) a daily evaluation of the day's work during the course period. The following are some of the findings from an analysis of the values and motives of the participants and the changes effected in them after a four-day course: 1) participants of the 1969 training camps showed a marked preference for economic values; participants of 1968 camps showed first preference to social values; the participants scored higher than the American counterparts in social and aesthetic values and scored less in theoretical, economic and political values; 2) the participants were low in achievement motivation and the gain in motivation as a result of the courses was also not very great; it indicates that it is easier to increase the need for achievement of those with an initial high N-Ach score; 3) the highest average score goes to affiliation, although the difference between affiliation and power is not great and that affiliation has a tendency to decrease noticeably while the difference in power is very small; 4) the daily evaluation indicated that the majority of the participants rated high the usefulness of the course; prayer meetings were appreciated.

361 JAMUAR K K: Study habits and some background factors. Psychological studies 1971, 16(2), 14-18. 4 ref.

Jamuar's study habits inventory was administered to a sample of college students. In addition, a personal data sheet and a study environment check list were also used. Salient findings are: 1) study habit has positive relationship with such background factors as position in the family, hobbies, future educational and vocational plans of the students; 2) study habit has inverse relationship with such factors as age, membership of organization outside college and sharing household duties; 3) study habit is not related to father's occupation, the student's interest in games and sports, interest in reading books, membership in college societies, interest in music, doing of some job along with their studies, hours of study at home, liking for the college, etc. 4) factors in the physical environment have not much to do with the study habits of the students.

362 JOY GNANAMMAL, KULANDAIVEL K: Attitude of high school girl students towards coeducation. Journal of Educational Research and Extension 1971, 8(1), 45-9.

An attitude scale was specially constructed for the purpose. The reliability of the scale was estimated as +0.91. The scale was administered to a sample of 400 girls, 200 from girls' high school and 200 from mixed schools. In addition, a questionnaire also was administered to elicit information on correlated facts. The following results were obtained: 1) there is general favourable attitude towards co-education; 2) girls from urban areas, studying in mixed schools, and those who prefer mixed company for outing are favourable towards co-education; 3) the religion of the student does not make any difference; 4) favourable attitude towards co-education has no relationship with academic achievement, liking for reading and games, parent's education, profession or income, etc; 5) those who have a liking for cinema and for reading novels are favourable towards co-education; 6) the reasons for disliking co-education are fear for boys and boys' teasing nature. Since co-education is desirable for healthy personality development, it is suggested that co-education should be promoted by providing adequate facilities for girls and encouraging healthy mixed group activities.

363 KAKKAR S B: Value scores of teacher trainees and college teachers. Indian Journal of Applied Psychology 1971, 8(2), 77-80. 11 ref.

The value scores of 25 teacher trainees studying in State College of Education, Patiala and of 25 teachers of liberal Arts colleges, Patiala were obtained by administering the 'Study of Values' of Allport, Vernon and Lindzey. The two groups were matched for sex

(males), subject (Master's degree in political science), age (24-29 years), academic ability (second division in M.A.) and socio-economic status. The findings reveal no significant difference between the groups on theoretical, political and religious scales while significant differences exist on economic, aesthetic and social values. A comparative study of this sample with that of a sample of American subjects (young high school teachers and young college teachers) show significant differences in favour of American group in all scales except economic and social.

364 KOOL V K: Authoritarianism and Kinesthetic figurall aftereffect phenomenon. Indian Journal of Experimental Psychology 1971, 5(2), 50-5. 12 ref.

The study aims at delineating the difference in Kinesthetic FAE phenomenon of authoritarians and nonauthoritarians in the light of satiation theory of Kohler. A measure of authoritarianism prepared by the author (1965) was administered to 400 postgraduate students of Banaras Hindu University, out of which 50 (28 males and 22 females) high scores viz., authoritarians and 48 (24 males and 24 females) low scores, viz., nonauthoritarians served as the sample. The procedure of the experiment was exactly the same as described by Klein and Krech (1952) and later adopted by Eysenck (1951), but the testing sequence was different. The results revealed that the authoritarians developed weaker after-effect and recovered faster than the nonauthoritarians, thus suggesting the tenability of Kohler's satiation theory.

365 KUMAR K: Influence of intelligence on the vocational interests of school children. Journal of Educational Research and Extension 1971, 8(1), 1-3, 9 ref.

The study was undertaken to find out whether 1) vocational interests of school children is influenced by their level of intelligence; 2) supernormals and subnormals differ in their vocational interests; 3) boys and girls differ in their vocational interests. One hundred boys and one hundred girls (VIII class) were selected to study the relationship between intelligence and vocational interests. The second sample included 50 boys and 50 girls for supernormal group (IQ above 110), and 50 boys and 50 girls for subnormal group (IQ below 90). Intelligence tests constructed by Jalota, Mehta, and Bhatia were used. Thurstone's Vocational Interest Schedule was employed to study vocational interests. The conclusions drawn from the results are: 1) on the whole, the intelligence of the boys and girls is not a significant determining factor in the choice of vocational interests; 2) two groups of intelligence differ from each other in the choice of vocations; the difference is significant but not great; 3) two sex groups do differ significantly in some areas of vocational choices.

366 MAJUMDAR P K, NUNDI P C: Raven's standard progressive matrices in two different populations. Journal of the Indian Academy of Applied Psychology 1971, 8(1-2), 30-3. 5 ref.

The purpose of the investigation was to compare the score distributions of Raven's Standard Progressive Matrices (SPM) on two geographically apart Bengali-speaking population. The SPM was administered to pupils of IX to XI classes of Calcutta, (2, 836 pupils) and Agartala (2,100 pupils). Comparison of percentile scores of different sub-groups of the two populations show that: 1) the Calcutta students are superior to Agartala students; 2) Agartala students are on an average 7 points below the Calcutta students in the matrices test; 3) the difference is maximum with science groups. These results are compared with those cited by Raven. It has been concluded that the socio-cultural factors would however, influence the assessments involving psychological tests.

367 MARY JOSEPHINE, VENKATASUBRAMANIAM R: Concept of discipline as held by teachers of secondary schools in Coimbatore. Journal of Educational Research and Extension 1971, 8(1), 50-7.

A check list of 50 probable acts of indiscipline has been prepared for teachers to respond on a three point scale, i.e., whether the acts are regarded as acts of indiscipline, or as acts of discipline, or as acts of doubtful nature. A few open-ended questions were also used in the final tool to supplement the check list. The check list and the questionnaire were administered to 200 teachers. Majority of teachers consider humility as the main characteristic of disciplined student. Other characteristics of disciplined students are regular attendance, neatness, doing home work regularly, attentiveness, etc. A great majority of teachers think disobedience, insolence and defiant attitude are the essential characteristics of an indisciplined student. More than 97.5% of teachers have condemned disobedience, using vulgar language, stealing, rude behaviour, cheating, quarreling, etc. as grave acts of indiscipline. Comparison of concepts of i) urban - rural teachers, ii) men - women teachers, iii) public - private school teachers, v) old - young teachers, etc. has been made.

368 MEHROTRA L P: Stuttering - clinical, psychological, sociological and educational study. Allahabad, United Publishers, 1971. 215p.

The study attempts to measure the cognitive, affective and conative aspects of personality of stutterers in comparison with non-stutterers. The sample consisted of 75 male stutterers (experimental group) and 50 male non-stutterers (control group) selected from the higher secondary schools of U.P. The two

groups were matched for age, intelligence, schooling and socio-economic status. The tools used are: 1) Thematic Apperception Test (TAT), 2) Rorschach Inkblot Test, 3) Bell's students' Adjustment Inventory, 4) case-history questionnaire. The study has revealed that the stutterers as a group are different, usually somewhat anxious, tense and socially withdrawn as compared to non-stutterers. But, stutterers do not seem to have a particular personality pattern of their own. Rating norms for a number of form and need variables in TAT has been prepared. Possible causes of stuttering have been explored through case-histories. Remedial measures have been suggested for the prevention and treatment of stuttering and the consequent mal-adjustment.

369 MOHAN J: Effect of rest on reminiscence in pursuit rotor task. Indian Journal of Experimental Psychology 1971, 5(2), 80, 81. 9 ref.

A Lafayette pursuit rotor (Mohan, 1966a, Mohan 1968a), was used in this experiment. Eighty students of M.A. classes were randomly assigned to one of the four rest periods - 10 secs., 20 secs., 40 secs., and 80 secs. The reminiscence scores for each subject were calculated, and analysis of variable was performed. The F-ratio of 5.27 was found to be significant at .01 level, implying the importance of difference in the rest periods on the reminiscence in pursuit rotor task. The means of reminiscence scores for the subjects in each group revealed reminiscence as a positive function of the length of rest period.

370 NIJHAWAN H K, CHEEMA P: Maze learning under stress in normal and high test anxious children. Journal of the Indian Academy of Applied Psychology 1971, 8(1-2), 23-9. 18 ref.

The study aimed at finding out the effect of stress on the performance of normal and high test anxious children. The Hindi version of Sarason's Test Anxiety Scale was administered to 700 boys (age range, 11-13) and 40 high test anxious and 40 low test anxious (controlled for intelligence through Raven's Progressive Matrices Test) were selected. They were divided into 4 groups of 20 children each in order to make up 3 stress groups and a control group. The learning task chosen was maze learning. The three stress conditions were created through verbal comments relating to i) failure, ii) competition, iii) time. A two-way analysis of variance taking into account anxiety and stress revealed that stress proved to be highly significant. The high anxious children performed better than the low anxious though the results were not significant. None of the anxiety stress interactions proved significant.

371 OJHA H: Experimental study of the operation of prestige suggestion in ascendant and submissive female subjects. Indian Journal of Experimental Psychology 1971, 5(2), 47-9. 10 ref.

Female form of the A-S Reaction Test by Allport was administered to 130 Female undergraduate arts students. Two extreme groups, each consisting of 25 subjects were then formed. Each subject of the two groups ranked twelve slogans with and without prestige labelled to them. Little or no change occurred in the judgements of ascendant subjects under the influence of prestige, but significant change occurred in the judgement of subjects of submissive group, who almost reversed their judgements when prestige was labelled with slogans. Thus, the submissive females were significantly more suggestible than the ascendant ones.

372 PANDA K C: Social reinforcement, theoretical issues and research implications. Psychological Studies 1971, 16(2), 55-67. 37 ref.

Discusses the various theoretical issues concerning efficacy of social reinforcement. Presents experimental evidences in support of these stances, and derives further research implications. Recent experimentations suggest the appropriateness of an information theory framework as opposed to social drive interpretation of social reinforcement effects. The fields of mental retardation, cultural deprivation and other forms of exceptional children offer the most promising and virgin territory to test the predictions emerging from an informational theory of reinforcement with a view to using them for reducing performance deficits in children.

373 PARAMESH C R: Value orientation of creative high school students. Journal of the Indian Academy of Applied Psychology 1971, 8(1-2), 46-9. 18 ref.

The purpose of the study was to explore the relationship of creativity among high school pupils to theoretical and aesthetic values. A hypothesis was made that the high creative individuals would have higher degree of theoretical and aesthetic values than the low creative individuals. A sample of 216 boys studying in 10th grade in Madras and belonging to middle class socio-economic status was administered Wallach and Kogan battery of tests to measure creativity, and a new scale of values derived from the study of Alport, Vernon and Lindzey to assess aesthetic and theoretical values. On the basis of creativity index, the group was classified into high, low, and moderate creative groups. On further analysing the results the following conclusions were drawn: 1) the high creative group exceeded significantly the other groups in theoretical and aesthetic values; 2) the moderate and the low group did not differ significantly from each other on theoretical or aesthetic values.

374 PATTED G M: Some perceptual factors associated with teaching effectiveness. Journal of the College of Education, Karnatak University 1971, 8(1), 44-7. 6 ref.

The aim of the study was to examine the self-perception and student perceptions of effective and poor teachers. Null hypotheses i.e. effective and poor teachers do not differ significantly in their favourableness of i) self perception and ii) perception of students, were set up. Keeping in view the marks secured by student teachers undergoing practice teaching, a group of 20 subjects and a group of 18 subjects were chosen as effective and poor in teaching respectively. The subjects were selected from the B. Ed. course at the Karnatak University college of education of 1970-71 batch. Each student teacher was asked to complete a seven point, twenty-five item bipolar adjective rating scale, rating self and his students. Favourableness of self perception and of student perception scores of the two groups of student-teachers and their corresponding ranks were calculated. The scores of the two groups on the perceptual dimensions were compared by using the Mann-Whitney U test. The two groups differed significantly on both the perceptual dimensions, the group of effective teachers holding more favourable self perception and student perception. Thus the hypotheses were rejected. It has been suggested that the teacher education programmes should be so designed as to assist the student teacher perceive himself and his students favourably.

375 PUROHIT A K, HARDIKAR S: Manifest anxiety and visual signal detection. Indian Journal of Experimental Psychology 1971, 5(2), 98, 99. 9 ref.

It was hypothesized that subjects with high anxiety will detect more signals than those with low anxiety because the highly anxious are generally apprehensive and tend to predict some events to happen. A manifest anxiety scale, Sinha M.A. Self-Analysis Form was administered to 110 students of Faculty of Arts, University of Saugar. On the basis of anxiety scores, 10 students with high and 10 students with low anxiety were selected for the signal detection task. The signal detection experiment resembled simulating radar screen in which a lighted beam rotated circularly on a screen. The signal was a flash in the beam which occurred randomly. Sixteen signals in a predetermined but random order were presented in a period of 30 minutes. The subject had to press a key placed before him as a response of having detected the signal. The high anxious group detected 15.4 signals on the average while the low anxious group detected only 13.5 signals on the average. Also the high anxious subjects made more false signals than the low anxious. Thus, the hypothesis was totally proved correct.

376 RAI S N: Sex differences in time estimation. Indian Journal of Experimental Psychology 1971, 5(2), 65-7. 10 ref.

Thirty postgraduate psychology students (15 male and 15 female) of Gorakhpur University were taken for the study. Three different methods, i.e., verbal estimation, production, and reproduction were employed, and ten subjects (5 male and 5 female) were tested individually for each method. Two stimulus intervals of 15 and 60 seconds were presented 5 times each in random order. t values of time estimation of male and female subjects and level of significance of the three methods showed that only one t of 60 seconds stimulus interval of verbal estimation method was significant while the other ts were not significant. It has therefore been concluded that sex had no effect on time estimation.

377 SAHA S: Transfer effect as a function of drive and method of learning. Indian Journal of experimental Psychology 1971, 5(2), 82-7. 13 ref.

The main hypothesis, formulated in the present study, was that Drive (D) and method of learning will jointly influence transfer in Paired Associate (PA) task. The other specific hypotheses were that 1) in Paired Associate Learning (PAL) Ss with high D or high anxiety will show a disruptive effect both on acquisition and transfer situation; 2) anticipation method as compared to recall method will have a facilitative effect on PA as well as on transfer; 3) difference of paradigms will influence verbal PAL and transfer effect, in which A-B, A-C paradigm will show negative or zero transfer effect, and A-B, C-B will show positive transfer effect. Out of 100 students of Patna University who were administered Sinha's (1963) M.A. Self Analysis Form to measure anxiety, 32 high anxiety and 32 low anxiety subjects were selected for the study. They were further subdivided into 2x2 (Paradigm x method) i.e., 4 cells of the experiment. Three 6-item PA tasks were prepared, and a 2x2x2 factorial design which involved high and low levels of anxiety, positive and negative transfer effect, recall and anticipation methods was employed to test the hypotheses. The main hypothesis was not confirmed. However, the result showed a significant interaction of D and method of learning on transfer, showing that there was cumulative effect of D and method of learning, but no independent influence of both the variables. The first and second specific hypotheses were not confirmed. The third specific hypothesis regarding the difference paradigms in PAL was strongly confirmed.

378 SRI CHANDRA: Psychosocial study of tension in college going youth. (In ICSSR Research Abstracts No. 3. New Delhi, Indian Council of Social Science Research, 1971. 64p.).

The study undertakes an empirical examination of the psychological factors that underlie tension in college students. A questionnaire study was conducted among 803 college students (male and female). The following are the findings: 1) tension is higher among students from low and middle income groups than those from higher income groups; 2) tension is higher among the students with urban background than those from rural background; 3) lack of clear-cut idea as to the choice of a vocation is greater among the high than among the low tension group; 4) tension in youth may be due to lack of communication between students and teachers; 5) tension in youth may be due to unfavourable attitude towards: a) university authorities; b) police authorities; c) student union leaders; d) political parties or e) government; 6) lack of crystalization of either the traditional or modern values is greater among the high tension than among the low tension group; 7) discrepancy between achievement and aspiration level is higher among the group with high tension than among the group with low tension; 8) economic difficulties, exploitation of students by political parties; lack of opportunities for proper utilisation of leisure, lack of leadership on the part of teachers, lack of proper advice and guidance, lack of facilities for learning, inadequate contact between students and teachers; lack of employment opportunities at the end of one's career are the reasons for student unrest.

379 TEJA J S, VERMA S K, SHAH D K: Comparative study of the background factors in mentally retarded and emotionally disturbed children. Indian Journal of Mental Retardation 1971, 4(1-2), 4-9. 10 ref.

Two hundred cases of mentally retarded and an equal number of emotionally disturbed children who attended the child guidance clinic of Postgraduate Institute of Medical Education and Research, Chandigarh were taken up for the study. The observations are: 1) the mentally retarded group had significantly higher number of children in the lower age range, and in both the groups, the incidence increased with age; 2) there was preponderance of males in both the groups and almost in the same proportion; 3) most of the mentally retarded belonged to rural areas, while the other group was predominantly from urban and local population; 4) significantly higher number of mentally retarded children were from lower income group as compared to the emotionally disturbed children; 5) family history of mental retardation and of organic psychosis was greater in the mentally retarded group while family history of neurosis was much more frequent in the emotionally disturbed group, with functional psychosis occurring equally in the two groups; 6) the two groups did not differ much with regard to

family size; 7) significantly more children in the emotionally disturbed group experienced sibling rivalry as compared to the mentally retarded; 8) neurotic traits were greater in the emotionally disturbed group, and Pica and delinquency were equally frequent in the two groups.

380 UDAI PRATAP SINGH, SYED NEHAL AKHTAR: Comparative study of the self-concepts of the visually handicapped and non-handicapped children. Indian Journal of Applied Psychology 1971, 8(2), 53-5. 5 ref.

A sample of twenty visually handicapped and 20 non-handicapped children was selected from schools of Bhagalpur and the two groups were matched with respect to age, sex, and education. An inventory developed by Singh (1965) consisting of items on: 1) five desirable personality traits - intelligence, honesty, emotional control, physically attractive and kind hearted; 2) five undesirable traits - inferiority, destructiveness, self-assertive and impulsive; and 3) five social traits - prestige, cooperation, obedience, social and popularity, was administered to the sample to measure self concept. However, the items were read to the handicapped one by one and their answers were recorded. On the basis of self-rating, two measures - self-esteem and social esteem were derived. The means and standard deviations of self-concept scores of both the groups in personal and social frames of reference were calculated. An index of social conflict was also found out by determining the discrepancy between self concept and social concept. Analysis of the data lead to the following findings: 1) the handicapped children have lower self-esteem and social esteem than the non-handicapped; 2) social conflict is non-existent in the handicapped; 3) the handicapped children appeared to be more objective and realistic in their judgement in social frame; 4) the two groups differed significantly in their self-concept.

381 VERMA S K: Intelligence assessment in the mentally retardates - some experiences. Indian Journal of Mental Retardation 1971, 4(1-2), 10-14. 10 ref.

Intelligence assessment is beset with many problems even in the case of a normal person, and more so in the case of mentally retarded. The following factors need careful consideration in the interpretation of test results: 1) type of test - the loading of the items in a test is of much significance (performance tests for primary mental retardates, verbal tests for secondary mental retardates) and more than one test may also be required; 2) age - mental growth in the mentally retarded stops very early and also diminishes with increasing age; 3) time factor - most of the tests being timed ones, a retarded child may obtain lower score partly

because he does not attach importance to time factor; 4) motivation and attitude - the problem of motivating and arousing interest in the test situation is greater in the case of mentally retarded; 5) development quotients; 6) cultural factors. However, if viewed properly, the same factors may help in better understanding of the mental processes.

382 VERMA S K, SHAH D K, VERMA H C: Body image concept of school going children in India - a study of 294 children. Manas 1971, 18(1), 59-64. 14 ref.

The human figure drawings of 294 low and middle class students of classes II-VI in a school situated in an industrial area were analysed. The following observations were made: 1) with advancing age, education and experience there was a decline in the omission of body parts; 2) while neck and ear were frequently omitted, eyes were rarely omitted; 3) omission of hands and feet, and display of teeth were common in all children, more so in the children of higher age group, which could be due to the frustration, unrest, hostility and negativistic tendencies in this age group; 4) the younger children gave more emphasis on head (drew it larger), associated hands with head, and showed more interest in the external objects (sword, stick, flag, bird, etc.) than in the body parts; 5) the older children, on the other hand, showed greater interest in the details of the body parts, had a better body image (well proportionate body) and also showed interest in the clothes, buttons, etc. (objects which have a definite relationship with the body).

EDUCATIONAL SOCIOLOGY

383 CHHIBBAR Y: Study of students coming from disadvantaged sections of society. Manpower Journal 1970-71, 6(3-4), 62-94.

The socio-economic background, the attitudes and habits with regard to certain academic matters, and the pattern of socio-academic participation of 238 students (186 male and 52 female) of a Delhi College who were receiving fee concessions, stipends, etc. were studied. The aspects studied are i) modium of education, ii) caste, occupation and family living conditions, iii) choice of academic subjects, iv) the number of books owned, v) reading habits and use of libraries, vi) participation in extra-curricular activities and leadership qualities, vii) expenditure and social habits. The survey reveals the economic hardships which the students covered in this study have to undergo.

EXAMINATION AND EVALUATION

384 BENNUR C S: Internal vs external assessment. Journal of the College of Education, Karnatak University 1971, 8(1), 1-6. 3 ref.

The aim of the study was to mark the conditions to be fulfilled to replace external examinations by internal assessments in universities. The coefficient of correlation between internal and external marks of i) B.Ed., students in practicals and theory; ii) second year Engineering students in mathematics; iii) M.Sc. (Botany) students; iv) M.A./M.Sc. Mathematics students; and v) M.A. students in English were calculated separately and results tabulated. The findings are: 1) in B.Ed., M.Sc. (Botany) and M.A. (English) courses there is high correlation between external and internal assessments; 2) no correlation is found in case of M.A./M.Sc., mathematics students; 3) in the case of engineering students there is no uniformity in assessment. The conditions necessary to replace external examinations have been stated as follows: 1) internal assessment should be developed as an integral part of teaching learning process; 2) each university should observe the progress of correlation between internal and external marks for 3-4 years and then replace external examinations when a high correlation is found; 3) internal assessment should be made compulsory in all subjects in affiliated colleges and the correlation be watched for 3-4 years; 4) the U.G.C. should set up examination research wing to watch and guide the activities of all universities in the examination reform; 5) facilities such as liberal staffing, orientation courses, seminars for teachers on improvement of examinations etc. should be offered; and 6) a sense of professional honour should be developed among all concerned with higher education.

385 DESAI D M: Optional questions in the secondary school Board's examinations. Naya Shikshak (Teacher Today) 1971, 13(4), 25-9.

Provision of optional questions in examinations is popular with the paper-setters because thereby wider coverage of the syllabus is ensured; further, it is easier to prepare a question paper with options. The examinees like options because they permit selective reading. But, the examiners do not like options because the work load increases. Some reasons revealed by researches with regard to the popularity of options in examinations have been mentioned. However, the practice of providing options should be abolished. An examination with optional questions is not a reliable and valid tool of measurement. The reasons why examination experts regard the practice of providing options in examinations as unscientific have been mentioned. It is suggested that as a first step the

provision of over-all options (such as 'answer any 6 questions') should be given up. Then gradually the internal option (such as 'answer a or b') should also be given up. An examination with good coverage of the syllabus, with questions of graded difficulty and of satisfactory discriminatory value, but with no options should be the ultimate aim.

386 KABRA R M: Doing away with the examinations. Educational India 1971, 38(3), 82-5.

The undue importance ascribed to external examinations in the present educational set-up has been deplored. The following scheme of education without examinations has been presented: Teaching is based on unit plans and on the completion of the prescribed units, the student proceeds to the next. Assessment is made keeping in view the comprehension and grasp of the units rather than the memory. At the end of each unit lesson, a unit-test relevant to unit material is conducted which would be in the form of a teaching-learning process. When all the units have been tested separately, the students are declared successful on the basis of cumulative marks. Thus individual institutions would maintain standards and earn a good reputation in the society only when their assessment is correct and honest. The teaching would be programmed learning and tutorial classes would also be conducted in the institutions. The advantages of the scheme have been pointed out.

387 MUKHERJEE L: New solution to examination problems. Educational India 1971, 38(3), 75-8.

The reasons for malpractices at the examination halls, mainly threats to invigilators and copying have been examined. The practice adopted by the Agra University of doing away with invigilators by setting papers in such a way that pupils in spite of consulting books would find difficulty in answering the questions, has been discussed. In the modern age much importance is ascribed to the organisation and arrangement of facts than the power to store and recall information. A new orientation of the questions from memory to judgement/organisation etc. would prepare pupils in a better manner. However, this orientation of questions would require preliminary training to the paper setters who should set papers for evaluating judgement, organisation and logical capacities of pupils. The drawbacks of such a question paper are: i) the assessment of judgment or organisation of the facts etc. would involve subjective element, and ii) invigilation cannot be discontinued for pupils may still copy answers unless they are seated far apart. Thus, essay type questions should find a place and efforts be made to reduce subjectivity by (i) supplementing with objective type questions and (ii) evaluation of the same answer sheets by two or more examiners. The cheap help books should be banned and keeping in view all the precautions, the experiment conducted in Agra University be tried elsewhere.

388 SINGH M R: Examination reform - internal assessment. Educational India 1971, 38(3), 79-81. 8 ref.

The drawbacks of traditional examination system have been briefly reviewed. The internal assessment as an aspect of examination reform, provides an overall appraisal of educational development of the pupils, informs students' progress periodically, promotes regularity and punctuality in pupils' attendance, enables teachers to improve their teaching wherever necessary, enables teachers to give periodic educational and vocational guidance, reduces chance elements associated with examination as the assessment is done over the full length of the course, develops valuable records or files of student work, and gives teachers the satisfaction of decision making on pupil-progress. However, the following are the problems of internal assessment: 1) it demands the development of several professional skills and abilities on the part of teachers; 2) teaching techniques should be modified to involve pupil participation in learning; 3) teachers should be trained through in-seriyce refresher courses to maintain the records of pupil progress; 4) teachers may not be impartial in awarding marks in the tests and favour a few students; 5) internal assessment may involve the problem of private appearance for examinations; 6) teachers and others who set the papers and examine them may be deprived of these privileges if internal assessment is introduced; 7) public may not favour the values of internal assessment for the time being. It has been suggested that professional educators, educationists, etc., should discuss this aspect of education reform and provide a workable solution.

EXTRA-CURRICULAR ACTIVITIES

389 INDIA. MINISTRY OF EDUCATION AND YOUTH SERVICES: National Service Scheme - spotlight on its objectives and work. New Delhi, the Ministry, 1971. 48 p.

One of the recommendations of Education Commission (1964-66) was that students at all stages of education should be associated with some form of social service. This was taken into account by the State Education Ministers during their conference in April 1967. They recommended that students should be offered a new programme called National Service Scheme (NSS) as an alternative to National Cadet Corps and that promising sportsmen should be exempted from both and allowed to join another scheme called National Sports Organisation. The programme of NSS was first launched in 37 universities in 1969. The keynote of the programme is that it is organised by the students themselves and both students and teachers through their combined participation in social service get a sense of involvement in the task of national development. The scope, organisation, financial arrangement and progress of this NSS programme at school and college level have been discussed. Appendices A to G contain supplementary information.

HEALTH CARE

390 VACHHRAJANI B.R., VACHHRAJANI R B: Comparison of health status of Marathi and Sindhi students. Journal of the Gujarat Research Society 1971, 33(2/130), 109-20.

There were 340 Marathi speaking (195 boys, 146 girls) and 278 Sindhi speaking (125 boys, 153 girls) children whose weight, height and chest measurements were made. The age range was between 9 to 13. Detailed clinical examination was carried out and blood pressure, nutritional status and teeth checks were done. The results showed that Sindhi children were heavier and taller. They had a greater rate of dental morbidity. As against this, Marathi children had lesser rate of dental morbidity and were smaller in stature. Higher incidence of refractive errors was observed in the Marathi speaking children. Deficient colour vision was found to a greater extent in Sindhi students. This study enabled to detect several diseases of children which otherwise would have been ignored.

HIGHER EDUCATION

391 FILELLA J: College professor as an object of change. Quest 1971, No. 71, 63-6.

Education can be defined as a process of guided change. Yet, educational institutions, particularly the professor, seems to be impervious to change. It is suggested that the college professor while enjoying economic security, should be constantly under pressure to change. The two aspects considered in this regard are: 1) the concept of student discipline; 2) the idea of teaching as a transmission of knowledge. It is important that educational institutions should create a sense of community within their precincts, in which orderliness and ethically good behaviour are ensured not by external conformity to rules but by deepening the students' personal responsibility. Here the professor has to undergo a change, he is no longer the custodian of discipline with little regard for personal needs and problems of students. He becomes the friendly counsellor to the student to enable achieve a set goal and develop a sense of responsibility. Educational systems slowly became channels for transmitting knowledge rather than a process for human development. However, two important changes are taking place and the professor should be alive to these: 1) knowledge is no longer looked upon as something to be passed on or handed over, but as a result of human experience and as a stimulant of human experience; 2) knowledge should be considered as an instrument of change. The professor should understand truth as

something dynamic. Knowledge becomes truly educative only to the extent that it is imparted and received in an atmosphere of truth and openness. The professor's success depends on how he creates among his students the receptivity or willingness to welcome knowledge as a source of a humanising experience.

392 MATHUR V S: Bridges of cooperation. Educational India 1971, 38(1), 3-5.

The three main areas in which universities and other institutions of higher learning can play a vital role are - quality education in schools, teacher education, and adult education. The suggestions are: 1) starting a model school within the premises of every university, the university involving itself in the teaching work of the school; the finances could be had by avoiding some frill schemes in the university organization; 2) adoption by colleges of neighbouring schools for providing guidance and other facilities; 3) permitting the gifted school children to use the science laboratories and libraries of colleges and universities and also enabling them to have discussions with college and university teachers; 4) entrusting universities with the task of training primary school teachers, language, physical education, and arts and craft teachers; 5) participation of universities and colleges in adult education projects; 6) including adult education in the teacher training programme at all levels.

393 South Indian University VC's Conference recommendations. University News 1971, 9(7), 5, 6.

The following are the main recommendations of the conference held at Karnatak University, Dharwar: 1) a training course be provided for junior and senior college teachers; proper guidance facilities in every college be offered to students to overcome the problems of educated unemployment and heavy rush to colleges; 2) more postgraduate centres be opened in the South to cater to increasing rush for admission to such courses; more grants be provided by U.G.C. for the purpose; 3) fundamental sciences be provided in all postgraduate centres supplemented with well equipped libraries; 4) one seat in every course be reserved for students coming from another State; 5) the syllabus for the courses - B.A., B. Com. and B.Sc. should be made uniform to enable pupils to move from one university to another without causing inconvenience; 6) English should continue to be the medium of instruction besides the regional language; 7) facilities be provided for exchange of students between the universities for short period to acquaint students with various patterns of culture of different States; 8) youth welfare programmes, sports and other activities be encouraged in colleges; 9) history of medicine

be taught in medical courses; 10) no academic concessions be offered to pupils enrolled in NCC; however concessions like scholarships, freeships etc. be granted as incentives to such pupils.

394 Student and universities [Editorial]: Education and Psychology Review 1971, 11(1), 1-3.

The over-expansion of higher education in the country deserves immediate attention. It is not a question of denying opportunity to the underprivileged. It is a question of capacity of the universities to impart worth-while education to all admitted, and it is a que ion of how many of those who seek entrance have the capacity, aptitude and intrinsic motivation to benefit from higher education. In an overcrowded atmosphere, educational innovations break down and standards suffer. Suggesting selective admission policy, it is pointed out that it is the duty of the university to provide for the educational and other needs of the students. Congenial environment and healthy corporate life are essential for serious intellectual pursuits and proper development of students' personality. Universities should provide for student participation; but it should be achieved in gradual steps. Improving students' living condition, giving effective guidance and counselling, democratising the set up of student unions, and constituting student advisory committees have to be fulfilled before providing for varying degree of participation in decision-making process. However, in matters relating to curriculum, teaching, examinations, etc. the final decision must rest with the university authorities.

395 VASANTHA RAMKUMAR: Maximising achievement in higher education. Educational India 1971, 38(1), 9-12. 4 ref.

Alongwith the process of expansion in education, there are certain disturbing trends like disproportionate increase in expenditure on education, rapid increase in the number of students eligible for higher education, lack of adequate facilities for higher education, and failure and underachievement in college education which necessitate a reevaluation of the whole situation. The need for creating conditions necessary for maximum achievement of all students has been underlined. A comprehensive selection process accompanied by an effective follow-up programme helped by the right type of remedial measures can help promote achievement. Although a number of factors that contribute to failure and achievement have already been isolated, their incorporation in a selection programme has become difficult. Hence the twofold aim of research should be to identify and ascertain the relationship of as many factors as possible, and to attempt to locate concise measures covering a number of factors so that the number of measures will be limited while the area covered could include a large number of variables.

INSPECTION

396 SHIVARUDRAPPA G: Developing an instrument for the evaluation of secondary school social studies programme. Journal of the College of Education, Karnatak University 1971, 8(1), 48-52, 1-5.

The major defects of the present system of inspections have been pointed out. An evaluation instrument for social studies programme has been prepared keeping in view the following criteria: 1) the school should provide physical facilities, staff etc., for the teaching of subjects; 2) the methods and techniques used for teaching various subjects should be based on the objectives of teaching of those particular subjects; 3) proper procedures should be used for the evaluation of pupils' progress in acquiring new knowledge and developing abilities, skills, habits, attitudes and values. The guiding principles involved in the preparation of the instrument are: 1) the instrument should be helpful to evaluate the teaching of an individual teacher as well as teaching of the subject as a whole in a school, be comprehensive to include the sub-heads viz. organisation, instruction, and evaluation procedure and be in the form of a check-list statements based on the evaluative criteria and the objectives of teaching the subject; 2) the instrument should possess some blank space at the end for recording impressions and 3) the directions for using the instrument should be provided. An experimental try-out of the instrument was made in 30 schools of Dharwar District. The reliability, validity and practicability of the instrument have been ascertained. The check-list form of the evaluation instrument, instruction sheet and the directions for rating have been appended.

INSTRUCTIONAL MATERIAL AND AIDS

397 SHAW G B: Mass media for education. Rajasthan Board Journal of Education, 7(1), 7-13.

The growth of communication media and its implication to the process of learning has been discussed. In order to fulfil the needs of the modern pupil, the teacher has to adopt new methods and media and thus make learning effective. The reasons for adopting new approaches to learning and teaching are: 1) the pupil of today comes to the class-room with much more general information; 2) lack of first hand experience may affect learning of the pupil; 3) the teacher gets relieved of teaching the expository material; 4) the teacher can utilise his extra time in guiding the underachievers, arranging discussions and providing enrichment exercises to the gifted, organizing the use of mass media, etc.; 5) a variety of methods employed may prove to be effective than a single method; 6) mass media increase the commonness of experiences among pupils;

7) the knowledge obtained outside the classroom by pupils would require of the teacher better preparation. The role of open universities in providing better and effective learning has been discussed.

398 SINGH V: Science through films. Teaching 1971, 43(3), 81-5. 3 ref.

The following aspects have been discussed: 1) obtaining appropriate films; 2) previewing the film; 3) the projector and the screen; 4) presenting the film; 5) follow-up activities; 6) stages at which films should be used. The advantages and limitations of films have also been pointed out.

LITERACY

399 Slow growth of literacy [Editorial]: Educational India 1971, 38(1), 21-3.

The slow growth of literacy has been attributed mainly to the inefficiency of the machinery created to implement Education Acts. The attendance committees responsible for persuading parents to send their children to schools consist mostly of rich people who do not like the low caste children to attend schools, and hence, it is necessary that the elected representatives of Harijans take interest in the matter and ensure the implementation of various Acts by these committees. However, it is found that even these representatives do not care for the welfare of their own community, but only indulge in promoting their selfish interests in collusion with their high caste friends. Adult education also faces a similar situation. Universal literacy cannot be achieved speedily unless government becomes alert, creates a special machinery, and sets up a missionary band of workers interested in public welfare.

POLICY AND PLANNING

400 BHATAWDEKAR M V: Integration of educational and economic plans. Economic and Political Weekly 1971, 6(30-2), 1641-8. 9 ref.

In order to integrate education into the economic plan of a country, it has to be decided what numbers and what kinds of education are required to attain the socio-economic goals of the plan. In defining these requirements, two different approaches are

possible. The first view considers education as one of the inputs in the production system, the supply of which has therefore to be equated to the demand derived from the size of production and the technology adopted for it. Integration of educational and economic plans thus involves working out the probable manpower requirements of the planned production system and structuring the educational system to meet these requirements. This may be called the 'manpower requirements approach. The second view regards the first as a fallacious reversal of the relationship. Since a given level of output presupposes the existence of a certain amount of education and since economic development follows educational development, economic development cannot be a limiting factor in deciding educational expansion. In fact, education contributes to a dynamic economy in ways that have nothing directly to do with vocational preparation. Hence education should not be planned merely by the manpower requirements of planned production but on the basis of the educational needs of the population as a whole. Seeking to take into consideration the economic, social and cultural needs of the society, this may be described as the 'cultural approach'. The implications of these two approaches for planning education and the problems they pose for achieving integration, are considered. The discussion is mainly concerned with the question of numbers and it is confined to the formal system of education.

401 CHELLAPPAN K: Tackling unemployment amongst the educated. Khadi Gramodyog 1971, 17(12), 748-50.

Educated unemployment has been attributed to the absence of job-orientation in education, the clamour for white-collared jobs, and technological changes overthrowing skills. The suggested remedies are: 1) creating some organizations akin to the vocational guidance bureaus in the West; 2) making education employment-oriented; 3) providing facilities for practical experience to all students in their respective fields; 4) imparting uniform education to all students upto matriculation level; 5) laying down 50% of marks as the minimum pass percentage for any examination.

402 PANDIT H N: Education for employment [Editorial]. NIE Journal 1971, 5(4), 46, 47.

The social demand for education has grown tremendously. This has led to a glut of educated persons in the employment market. Further, the growth in the education system has been faster at the higher levels as compared to the lower levels. To make education more relevant to the employment needs of the students and to the developmental requirements of the country, certain strategies are suggested in three areas - literacy, vocationalization of education, recurrent education: 1) improving school facilities particularly in rural areas and developing adult

literacy programmes; 2) improving teaching-learning situation in the classroom and developing preschool education in rural areas and integrating it with primary education; 3) making the entire school education curriculum self-employment-oriented by developing programmes to provide work-experience; vocationalisation should be made an integral part of the curriculum; 4) making school education programmes more flexible in terms of time, content and evaluation so as to provide general education to employed adults who are the 'dropouts' from the formal education system; 5) providing adequate facilities for recurrent (continuing) education; 6) making the education system responsive to changes in the labour market.

403 RAY K, NAYAR B K, NAIR P S, RAO C R S, NANDY R K: Postgraduate scientists, availability and utilisation in India. New Delhi, Division for Scientific and Technical Personnel, CSIR, 1970. 73p.

Higher education in India in science and technology has witnessed an unprecedented growth. The total enrolment for the postgraduate degree in 1967-68 numbering 26,892 was over 3½ times the number (7545) enrolled ten years earlier in 1957-58. The volume presents various studies on the utilisation of postgraduate scientists including doctorate degree holders in India. Data regarding the following aspects have been presented: 1) All-India outturn of Master's degree holders in science subjects (1930-1968); 2) national stock of scientists; 3) age distribution of scientists; 4) number of scientists included in study; 5) employment of scientists by type of organization; 6) activities of scientists; 7) activity preferred by scientists; 8) tenure of service of scientists; 9) average pay of scientists; 10) average pay of scientists by type of organization; 11) scientists trained abroad; 12) duration of stay abroad of scientists; 13) scientific and technical publications of scientists; 14) knowledge of foreign language of scientists; 15) geographical mobility of scientists - inflow and outflow; 16) inter-State mobility of scientists;

404 SARAF S N: Bellary intensive educational district development project, preliminary report. Delhi, Ministry of Education and Youth Services, 1970. vii, 103p.

The objectives of the intensive educational district development project (IEDDP) are: 1) to identify and try out concrete programmes for linking up educational structure in the district with its overall economic and social development; 2) to start an experiment in the vocationalisation of school education; 3) to experiment with ways and means of attaining these objectives with minimum additional financial inputs. A review is made of the projects and programmes of educational development in Bellary district during the period

1960-61 to 1969-70. The following programmes for three categories of persons are suggested to be taken up in a phased manner, in a few institutions as a part of IEDDP of Bellary: 1) programmes for students enrolled in educational institutions; 2) programmes of continuation education and vocational training for 'drop-outs'; 3) programmes for youth and adults. Annexure 1 in part II of the report gives the current position about demographic, socio-economic, physico-geographic data and the trends of development in Bellary district during the Fourth Plan period. Tables 1-28 contain important data about demography and socio-economic position in Bellary district. Tables 29-55 contain data about educational development in Bellary.

405 SAXENA K N: National talent search projects - some fundamental postulates. Rajasthan Board Journal of Education 1971, 7(1), 39-42.

The need for the education of the academically talented has been emphasised and the following 4 issues of the National Science Talent Search Scheme with regard to the education of the academically bright and talented have been discussed: 1) the meaning of the word 'talent' and its difference from the concept of intelligence or merit; 2) the scope and the definition of talent in science; 3) the measurement of scientific talent; and 4) the sources of error in the measurement of talent and the ways of minimising the error.

406 SHUKLA S: Priorities in educational policy. Economic and Political Weekly 1971, 6(30-2), 1649-54.

The educational system, like most others, essentially dependent as it is on other economic and political developments, has nevertheless, a certain autonomy or at least persistence of structural and behavioural characteristics which in their turn, tend to have an important bearing on educational as well as other developments. There are some policy implications in respect of these structural characteristics. Some of the major directions educational policy has to take, such as a) work-orienting school and first degree education, b) adopting Indian languages as the media of higher education, c) reforming the examination system, etc., have been discussed. Many of the proposals are unconventional. It is observed that conventional pedagogical assumptions and academic stereotypes prevalent even among some of the most creative and knowledgeable academics require to be controverted. What is also needed is the much greater involvement of creative academic workers with the problems of the educational system.

READING

407 RAGHURAM SINGH M: Study habits and study skills of polytechnic students. Journal of English Language Teaching 1971, 6(3), 73-81.

A study habits inventory of 45 items was administered to 100 students of the Women's Polytechnic, Madras. The observations are: 1) all of them study more on the eve of their examinations; 2) the use of textbooks is not popular whereas teacher-given technical notes are very popular; 3) most of them borrow library books; 4) most of them read regional language popular magazines, and daily newspapers; 5) nonexamination subjects are studied by a lesser percentage of students. The suggestions are: 1) conducting a study skill course for all students in the beginning of the academic year; 2) arranging monthly tests and quizzes so that students learn to phase their work and avoid hard reading during examinations; 3) providing open access to library books for all students; 4) obtaining technician level books for student use.

SCHOOL FORMS

408 CHICKERMANE D V: Problems of single-teacher schools. Rural Education Review 1971, 1(1), 3-9.

It has been contended that single-teacher schools will continue for a long time to come even if the villages improve. In addition to the problems like inadequate buildings, lack of equipment, lack of grounds, etc., the teachers in single-teacher schools are faced with the following problems: 1) difficulty of teaching four classes at a time; 2) the problem of providing faster methods of learning in view of the short duration available for each class; 3) irregular attendance of children in small rural schools which results in wastage and dropouts; 4) lack of textbooks and reading materials for children in rural schools mainly due to the inability of parents to provide the same. However, due to their peculiar nature, single-teacher schools provide opportunities for closer teacher-pupil relationship, development of team-work and leadership qualities as well as the habit of independent study among children. Thus, a quicker progress and personality development among children can be better ensured in single-teacher schools than in other schools, if the advantages of single-teacher schools are fully exploited.

409 CHICKERMANE D V: Ungraded school. Rural Education Review 1971, 1(1), 10-17.

The concept of ungraded school has been discussed in detail. The ungraded school is mainly characterized by the absence of annual promotional examinations and a change in the organization of the curriculum as well as in the method of working, greater emphasis being laid on individual work as against class teaching. The following essential requirements of an ungraded school have been described: 1) self-study assignment scales which need a) a scale of assignments, b) study matter for these assignments for self-study, and c) a scheme of evaluation to test whether the boy has completed the given assignment and should be allowed to proceed to the next assignment in the scale; 2) cooperative learning by pupils through grouping which is of three types - a) treating the whole school of forty children as one group for teaching subjects like general information, social studies, etc., b) forming small groups of children doing the same or similar assignments for teaching arithmetic and c) pairing an older child with a younger one for the study of the mother-tongue readers and general reading based on these; 3) maintenance of accurate and careful records - a) the individual record to show the progress of each child on separate cards on which the entire assignment scale is printed, b) a monthly record, and c) an annual report. The impact of the ungraded school on the child, the curriculum and the teacher has been indicated.

SPECIAL EDUCATION

410 DAS A K: Occupations and literacy among scheduled castes in West Bengal. Mainstream 1971, 10(1-4), 37-40.

There are 63 scheduled caste communities in West Bengal constituting 19.73% of the State's population. The study deals with 15 of these communities who constitute 84.85% of the scheduled caste population of the State. It is found that there exists a positive correlation between the literacy status and the economic level. The economic level itself depends on the nature and types of occupations professed by the different scheduled caste communities in West Bengal. The economy which is playing a vital role in regulating the degree of literacy attainment among the socially disadvantageous, should be geared up first to a sound footing for these people to benefit from the educational efforts of the State.

411 DESAI H G: Preparation of teachers for the mentally retarded. Naya Shikshak (Teacher Today) 1971, 13(4), 42-6.

Drawing attention to the fact that about 20% of the general population has some degree of mental retardation, the importance of teaching the mentally retarded has been stressed. Whether mentally retarded should be educated along with normal children, whether teachers should have prior training with normal children in order to understand better the goals of mentally retarded, etc., are some of the questions with regard to education of the retarded. Generally accepted sequence of specialised preparation of teachers in the USA has been mentioned. It is pointed out that ideally, teacher preparation for the mentally retarded would require a period of 4 to 5 years after high school graduation. Since this can only be a long-term plan, the following suggestions are given for the teacher for immediate implementation: 1) seeking to discover the areas of interests and competence of each mentally retarded; 2) working to establish a rapport with the retarded and creating a suitable classroom climate; 3) breaking the lock step of uniform requirements and assignments; 4) giving instruction and drill to improve reading skills; 5) using many sensory materials and concrete experiences; 6) including many visual aids while teaching; 7) not varying routines too much; 8) encouraging pupils to do work with their hands; 9) repeating often that which is taught; 10) asking specific questions and waiting for the answers; 11) encouraging and praising them.

412 UPADHYAY R K: Counselling to the parents of mentally handicapped children. Social Welfare 1971, 18(4), 7, 8.

Counselling is provided to parents keeping in view the following factors: 1) patient's background history, capacities to adjust to variable settings and degree of subnormality; 2) socio-cultural and economic factors of the family; 3) parents' personality, temperament and sense of responsibility. Psychological and personal data are interpreted by recognising parents' anxiety regarding the child, explaining to them with the aid of IQ tests the child's mental deficiency and describing the adjustment problems of the child. The other suggestions are: 1) the mentally deficient child should be provided with opportunities to enhance his capacity for adjusting to the changing demands of the society; 2) expectations of the parents from the child should be limited to the mental age of the child; 3) the queries relating to etiology, treatment and management should be answered properly; 4) the parents should understand the mental subnormality and act with sympathy and patience; 5) keeping in view the financial resources, the degree of subnormality etc., parents should contact Home for Mentally Deficient Children where vocational training is imparted besides elementary education. The general limitations for counselling services have been pointed out.

413 RUDOLPH L T, RUDOLPH S H, AHMED K: Student politics and national politics in India. Economic and Political Weekly 1971, 6(30-2), 1655-68.

The emergence of youth as a new political class is a consequence of the creation and prolongation of youth as a distinctive life-stage with its attendant cultures and social arrangements. This has been made possible by the relatively rapid build-up of the educational system. And it has all been supported mainly by the requirements and rewards of industrial economies for literate, knowledgeable, and skilled labour forces working away from home and family, and also the aspiration that democratic citizens should be informed and responsible. One result, in India, of political capacity (in the sense of the ability to make demands effectively within the political system) outstripping economic capacity (in the sense of the economy's ability to supply resources) has been the creation of a relatively large educational sector. In India, and in some other new and industrialising nations, modern educational institutions have created the new political class of youth prior to, or parallel with, the emergence of other modern political classes such as the middle and working classes. In consequence, this political class and particularly its vanguard, the students, has a significance in the politics of these countries uncharacteristic of the political change process in Europe and America during comparable periods of their democratisation and industrialisation. Given the special significance of students in the politics of many new nations, certain questions assume importance and interest. These are: whether or not their politics are like national politics and integrated with them; whether student politics are separate from, opposed to, or ahead of, national politics; and what conditions promote one or another of these tendencies. The relationship of student politics to national politics can range between the poles of congruence and incongruence, and student politics can be assessed within this range by reference to goals and methods in the categories: Ideological; Regime; Programmatic/Party; Interest; and Issue. Such an analysis of student politics in India is carried out. While the findings do not tell at what point, historically, students may become a political class, they do illuminate those factors in the college environment that are likely to incline students towards adhering or not adhering to their role as students, and throw light on those conditions that, in India, have been associated with student unrest and a readiness for activity as a political class.

STUDENT SELECTION

414 VISWESWARAN L, FEROZE M: Construction of an entrance test for selecting students for the biology (elective) course. Journal of Educational Research and Extension 1971, 8(1), 33-7.

The objectives of learning biology - objectives on knowledge, skill, and attitudes and interests - were kept in mind while constructing the test. The test consisting of 120 items was constructed and a pilot study was conducted on a sample of 130 students. After item-analysis, 50 items having discriminative index of .2 and above and difficulty index ranging between 85% to 40% were chosen for the final test. Of the 50 items, 16 tested knowledge, 30 tested different skills and 4 tested the attitude towards the subject. The reliability of the test was estimated at + 0.73 using split-half method. The final test was administered to sample of 190 boys and 110 girls (in X class) belonging to 5 urban and 5 rural schools, who had opted for the biology course. The results of the test are: 1) there was high correlation between the entrance test scores and the quarterly examination marks of the subjects; 2) the difference between boys and girls was not significant; 3) the difference between rural and urban students was significant; 4) there was significant correlation between the professional status of the head of the family and the pupil's score on the entrance test; 5) the economic status of the family was also found to be significantly correlated with the pupil's test scores.

STUDENTS

415 BRIGHT SINGH D: Pilot study of scholarships awarded at university stage (In ICSSR Research Abstracts No. 5. New Delhi, Indian Council of Social Science Research, 1971. 46-64).

The pilot study was conducted at the Thiagaraja Arts College, Madurai. Three schedules were prepared for the study. The first schedule was for the interview of 100 scholarship holders (current) and for 50 scholarship holders who had completed their education. The second schedule was for studying the family budgets of 40 scholarship holders and the third was for the study of records relating to scholarships in the college and for eliciting information by means of interviews with the principal and professors. Out of a total of 1115 scholarship holders in 1969-70, 103 were covered. The following are the salient findings: 1) the scholarships had been given on the whole to deserving candidates; 2) there were some cases of overlapping especially as between scholarships and fee concessions; 3) the payments had been made promptly and regularly; 4) excepting a few cases, the amounts

paid to the scholarship holders have been utilized properly; 5) the academic record of the beneficiaries was satisfactory which meant that there was not any great wastage of the money received.

TEACHER EDUCATION

416 DESAI D M: Semester system. Education and Psychology Review 1971, 11(1), 52-6.

The semester system has been described and its major advantages enumerated. Certain features of semester system such as credit system, grading, and internal assessment have also been discussed. It is suggested that semester system should be introduced for B.Ed. courses in the following manner: 1) the present one year papers and half-yearly sections in the B.Ed. syllabus can be organized under semester courses; 2) course in current 'problems' can be arranged as a single credit course and course in educational psychology as 2 hour credit course; 3) courses such as 'special method' can be two semester courses; 4) practice teaching, practical work, teaching aid, audio-visual work, off-campus programme may be given 8 to 10 credits; 5) cumulative grade point required for passing may be raised to B; a minimum grade of B should be made compulsory for passing in practice teaching, practical work etc.; 6) flexibility in taking courses should be permitted; 7) passing gradually by clearing one after another semester courses should be permitted to working teachers; some essential course group, however, will have to be prescribed; 8) first and second classes should be awarded to those who clear the examination at one trial; 9) the mark sheet should specify course-wise grade and overall grade point; 10) minimum attendance requirement should be fixed at 80%; 11) a viva-voce test at the end of two semesters may be prescribed and it may carry one credit.

417 GHOSH R N: Organization of short courses for high school teachers of English. NIE Journal 1971, 5(4), 29-35.

The need for the short-term courses has been emphasised and the following suggestions have been offered for the organization of short courses for high school teachers of English; 1) the Extension Department of a training college/the Inspectorate/the teachers' association organising the courses should enlist the help of persons who have taken advanced training in the modern methods of teaching English and of the experts from the English Language Teaching Institutes; participants having identical interests and needs should be selected for the course; 2) the objective of the course should be to enable the participants to

cultivate and reinforce the skills needed for successful language teaching; 3) a working paper indicating the purpose and activities of the course should be prepared and circulated among the participants before the commencement of the course; 4) reference books and other equipment such as prepared . cyclostyled materials for distribution, blackboards, tape recorders, films on teaching English should be made available to the participants. The suggested plan for the course consisting of demonstration and practical lessons, talks, tutorials, and group work, evaluation and follow-up procedures has been described.

418 INDIAN ASSOCIATION OF TEACHER EDUCATORS: New horizon in teacher education. Jodhpur, Principal, Sri Mahesh Teachers College, 1970. 240p.

The book contains selected papers which were presented by experts in the 12th Conference of Indian Association of Teacher Education at Jodhpur in November 1969. Topics such as teacher education and national development, in-service education, need for strong professional organization, population education, primary teacher training, integrated course for B.A., B.Ed., training in audio-visual education, etc. have been covered.

419 MAJUMDER H B: Educational extension for seventies. NIE Journal 1971, 5(4), 19-23.

The general achievements and shortcomings of extension programmes have been reviewed. The following new dimensions are proposed for the seventies: 1) the school complex concept should be developed on a wide scale and the extension activities decentralized by setting up a number of contact points for each extension department in order to introduce a massive programme of improvement of quality of primary and secondary school education. A teacher education centre concept as a unifying and integrative approach to pre-service and in-service education as introduced in the U.S.A. may be tried on an experimental basis; 2) it will be necessary to pay more attention to innovations and experimental projects on adoption itself. This means, individualising in-service education and also working intensively with a small number of individuals or groups of creative teachers; 3) a workable model of extension should be established and pilot studies on the change process undertaken; 4) inservice programmes should be made field-centred, need-based and task-oriented, and related to the objectives and criterion measures used for the evaluation of extension model as a whole; 5) to ensure better motivation on the part of teachers, performance-based programmes should be provided; 6) extension and teacher education should find ways of anticipating and facilitating orderly change for the years ahead.

420 PANDEY B N: Recent trends in secondary teacher education. NIE Journal 1971, 5(4), 36-41.

The recent trends in teacher education are: 1) the change of the term 'teacher training' to 'teacher education' thereby implying, besides the skill part of the job of a teacher, the attitudes and philosophy in the teaching programme; 2) introduction of a more comprehensive teacher preparation programmes than before; 3) expansion of secondary teacher education; 4) provision of extension work to schools in the programmes of teachers' colleges; 5) the research and experimentation carried on in the field of teacher education by the Department of Teacher Education of NIE; and 6) the active role of the U.G.C. in teacher education programmes;

421 RAINA G N: Training of teachers - a point of view. NIE Journal 1971, 5(4), 14-18.

It has been criticised that i) training colleges do not attract talented entrants, ii) the training programmes are dull, iii) the courses of study are neither related to the challenges of modern times nor geared to the needs of the schools of the future, and iv) the methods of teaching advocated are unrealistic and cannot be implemented in schools. The training colleges should therefore raise the level of thinking of teachers and encourage the trainees to widen their interests and refine their tastes. The teachers should help to mould the personality of students and instil in them the ideals of democracy, socialism and secularism. The scope and content of the teacher training programme should be modified to highlight the role of the teacher and his understanding of the socio-economic factors influencing the growth of the society. Two experiments aimed at widening the ideas and updating the knowledge of the trainees, conducted as a teachers' college in North India have been mentioned. A plea has been made that the training colleges should take measures for improving the quality of teachers.

422 SHARMA V P: Reorientation for college teachers. Educational India 1971, 38(1), 6-8, 27.

The need for professional training of college teachers has been discussed in the context of student indiscipline and frustration arising due to various psychological and pedagogical problems. Training in the following fields has been recommended for college teachers: a) linguistics (elements of language with special reference to English or the regional language as the medium of instruction), b) pedagogy, c) adolescent psychology, d) evaluation technique.

423 SINGH L P: Evaluation of practice teaching. Educational India 1971, 38(2), 51, 52, 58.

For an effective, reliable assessment of practice teaching of teacher-trainees, it is contended that the supervisors should observe the lessons throughout the entire period, note the strong and weak points of the trainees and point out their mistakes on the spot. This assessment would provide a basis for instructing and guiding teacher trainees. The following methodology is suggested to make the assessment of two or more supervisors observing the same lesson, objective and reliable; i) specifying the area of evaluation; ii) detailing the various aspects of each area; iii) developing evaluative criteria for each aspect to make the assessment specific and iv) collecting evidence on the basis of the criteria. The criteria for evaluation could be - 1) clarity in the objective of the lesson; 2) command over the content of the lesson; 3) presentation of the lesson; 4) activities provided; 5) pupil participation; 6) class management; 7) teachers' attitude towards pupils; 8) interest created in the lesson; 9) teaching aids; 10) language adequacy; 11) blackboard work; 12) relating the lesson with life experiences; 13) techniques adopted to teach and 14) preparation of the lesson. On the basis of these criteria a rating scale could be prepared. However, for assigning the grade to the trainees, it is suggested that the internal and external assessment be declared separately. The need for developing tools and techniques for the internal assessment of a few skills like keeping school records and accounts, preparing cumulative records, organising co-curricular activities etc. has been stressed.

424 SIVADASAN PILLAI K: Teacher education in the seventies. Journal of Educational Research and Extension 1971, 8(1), 20-4.

Attempts may be made to develop a common teacher education programme both for primary and secondary teachers, as suggested by the 'Regional meeting on curriculum development in teacher education in Asia' in October 1969. If it is achieved, it will unify the teaching profession, provide for the mobility of teachers from one sector to another, encourage establish a common pay scale, etc. The other suggestions made for adoption in the seventies are: 1) raising the minimum qualification of primary teachers from secondary school leaving certificate level to pre-university/pre-degree class level; 2) having a two-year training course for both primary and secondary teachers; 3) exploring the possibility of having comprehensive training colleges for primary and secondary teachers; 4) having a teacher - student ratio at 1 : 10 in the training institutions; 5) training colleges adopting methods and techniques primarily towards promoting a spirit of enquiry, self study and group work in students; 6) adopting qualification-based pay scales for teachers irrespective of the

classes they teach; 7) making master's degree in a discipline and in education as the minimum requirement for a teacher educator, and making it compulsory for every teacher educator to take up a research project each year.

425 VAJPEYEE V V: Case for popularizing post-B.Ed. courses. Naya Shikshak (Teacher Today) 1971, 13(4), 47-55.

In order to strengthen teachers in their professional competence and and attitude, an M.Ed. course as a post-B.Ed. course has been suggested. The envisaged course is not of a narrowly conceived or of a very specialised nature. The M.Ed. course is a broad-based course intended to broaden and strengthen the areas covered in the B.Ed. course plus some additional special study. The content of such an M.Ed. course has been outlined. In the suggested course, dissertation has not been prescribed as an independent task by itself. It forms part of the sessional work to be completed under the paper of 'research methodology of education'. It is suggested that the M.Ed. course can be conducted in three patterns: 1) one-year whole-time course; 2) two-year evening course; 3) vocation-cum-under-guidance course. The need to maintain standard has been stressed. The other post-B.Ed. courses suggested are: a) diploma or further post-graduate courses for specialisations in different areas; b) post-M.Ed. dissertation work leading to M.Lit. in education; c) post M.Lit. research work leading to Ph.D. in education.

TEACHERS

426 AIRAN J W: Role of a teacher. Quest in Education 1971, 8(3), 130-6.

Teachers have a role in the reconstruction and renewal of society. It should be understood that teacher today is not the sole source of knowledge and inspiration. There are other powerful mass media. Further, the academic community is no longer an isolated community motivated by the sole consideration of search for truth. It can no longer function ignoring the expectations of society. Observing that college teachers should keep the above aspects in view, the following suggestions are made: 1) in spite of the fact that there is a great demand for teachers, it should be the endeavour of colleges to be on the look out for brilliant young people to be on their staff; 2) facilities and incentives should be provided to teachers to improve their academic qualifications; 3) the teachers should take all measures so that they remain up to date in their own fields of specialities, assimilate new aspects of knowledge, and develop

research mindedness; 4) inter-disciplinary approach to learning should be encouraged by exposing teachers to the thought processes of internationally recognised persons.

427 CHANANA P S: Autonomy for education. Quest in Education 1971, 8(3), 137-40.

Education will become a positive force for social reconstruction and social leadership only if it is free from political control. This is a challenge to teachers. They can meet the challenge successfully and assume social leadership only if they possess professional competence and moral integrity and are united as a teaching fraternity. Besides professional competence they should possess a fuller understanding of the problems of the country and the world so that they can make authoritative pronouncements. Apart from theoretical knowledge, the teacher should acquire awareness of real life situations. This will be possible only if teachers are permitted to work in other professions for short durations. Teachers should be very competent in the art of teaching. Teacher education should be geared up for the purpose. It should be based on the new knowledge available about human nature and social environment. There is need for a strong teachers' organization which should devote itself not only to safeguarding teachers' interests but also to improving teachers' competence as classroom teachers, improving their intellectual stature, their social usefulness and their moral integrity.

TEACHING METHODS

428 BUCH M B, SANTHANAM M R: Classroom verbal behaviour of selected teachers in Baroda secondary schools. (In Buch M B, Santhanam M R Eds. Communications in classroom. Baroda, M.S. University of Baroda, 1970. 21-50).

Besides studying the classroom behaviour of teachers, the aim of the study was to explore the possibility of using Flanders' ten category system of classroom interaction analysis in the Indian conditions. Eleven English teachers of Baroda (5 male and 6 female) having varied experience were observed using Flanders' tool. Some of the findings are: 1) teacher talk 69%; 2) student talk 21%; 3) one-seventh of student talk is student-initiated; 4) one-fifth of teacher talk is indirect; 5) the teacher verbal behaviour i.e. i/d ratio is 0.502; 6) one-tenth of the time is spent on 'silence, pauses or confusion.' 7) seventy two per cent of all teacher talk is accounted for by the seven steady state cells which indicates poor flexibility on the part of teachers; 8) four per cent of teacher talk has been in the form of praise/encouragement; 9) ten per cent of all teacher talk has been in direct reaction to student talk. From the several findings it is observed that Flander's ten point scale is a useful tool.

429 CHANDRAMOWLISWARAN V: Learning language at home and learning language at school. Journal of English Language Teaching 1971, 6(1), 3, 4.

A comparison of learning language at home and at school has been made. The conducive atmosphere at home, the constant association with mother-tongue enables a child the speedy learning of speech. However, reading, writing, and proper expression in a language, the grammatical patterns etc., which tend to improve the knowledge academically are taught to children only at schools. At home, the child through observation, imitates the others around and thus may acquire wrong ideas, notions etc. Particularly, if he acquires the habit of committing errors, he continues to do so later on. At schools, apart from mother-tongue, a foreign language is also taught; here the mistakes committed by the child due to his erroneous colloquial learning ca. ot be weeded out completely as no individual attention is paid to pupils at schools. However, as far as teaching of a foreign language is concerned, it would be easier to impress upon the child's clear mind a correct knowledge of the subject. Gradually, the child supplements his knowledge of the mother-tongue acquired at home to that acquired at school and gets a good knowledge of the foreign tongue.

430 JARVIS R A: Boredom and failure in the English class. Teaching 1971, 43(3), 65-71.

The following suggestions have been given to help teachers avoid the boredom and failure in the English class: 1) introducing some variety in the exercises or drills used, at the same time, taking care that students become familiar with a hard core of regularly-used drills; 2) instead of devoting the whole period to a single activity, covering different activities like pronunciation practice, presentation of a structure, etc. in a single period; 3) presenting the drills intended for developing automaticity in the use of grammatical systems, in the form of competitions or games; 4) utilizing situations outside the classroom to contextualize drills; 5) encouraging pupil-participation in organizing their own learning; 6) making use of programmes and open-ended problems.

431 KRISHNASWAMY N: Introduction to linguistics for language teachers. Bombay, Somaiya Publications, 1971. x, 232p. 66 ref.

The book attempts to stimulate an awareness of language and offers an approach to the study of language. The following are the contents: 1) preliminaries - a) language and the learner, b) psychology of grammar, c) on language and languages; 2) evolution - a) pangs of birth: beginnings of linguistics, b) sea of trouble: bloomfieldian structuralism, c) old paths: the traditional approach;

3) current scene - a) dawn: transformational approach, b) iceberg: residual problems; 4) applications - a) language of the muse: stylistics, b) where the shoe pinches: contrastive lingustics, c) teaching a second language: methodology.

432 McArthur T Z: Teaching English phrasal verbs. Teaching 1971, 43(3), 71-5. 2 ref.

The need for teaching phrasal verbs as units, as the equivalent of single verbs has been pointed out. The main characteristics of phrasal verbs have been enumerated. Specimen exercises showing a) how to approach freely varying phrasal verbs, b) how problems arise with this type of verb when the object of the verb is a pronoun, c) how phrasal verbs may be exchanged for single verbs, d) how single verbs may be exchanged for phrasal verbs, have been given.

433 MATHUR V S: Creative teaching of social studies. Rajasthan Board Journal of Education 1971, 7(1), 35-8.

The major purpose of the study of social studies is to encourage among pupils an understanding through their own efforts, needs, interests and cooperation. The organisation of social studies courses requires a great amount of enthusiasm and initiative on the part of the teachers. Apart from the subject knowledge, the teachers should also possess the art of presentation. The knowledge and information should be presented as integral parts of life in a lively and interesting manner so that pupils also take part in the instruction. An educational situation should be created in the classroom where healthy attitude towards the studies and the attitude towards the country, the nation and the world are built up. The various methods employed to teach social studies namely the problem method, the project method and the unit plan have been discussed. Emphasis has been laid that teachers should provide a dynamic type of experience to pupils and foster in them the qualities of team spirit and cooperation to make them good citizens.

434 MEHTA Y: Class-room influence of teachers' teaching history - a research report. Quest in Education 1971, 8(3), 141-51. 4 ref.

The objective of the investigation was to study the classroom behaviour of teachers teaching history in the IX grade. Flander's Interaction Analysis Technique was used. Fifteen teachers from Gujarati medium schools were observed. The following conclusions have been drawn: 1) the nature of influence pattern of teachers is very much direct; 2) most of the indirect talk is in the form of

asking questions; 3) there is very little scope for praising and no scope for developing students' ideas; 4) there is a long question-answer pattern; 5) criticising and justifying authority is not very significant; 6) teacher talk is nearly 7 times greater than student talk; 7) teachers made 14 indirect statements for every 100 direct statements, the proportion being about one-seventh; 8) Negligible amount of time is spent in praising and no time is spent in developing students' ideas; 9) students got no opportunity to add their own ideas to their teacher-controlled talk; 10) use of directions is very little.

435 PADMANABHAN K: On teaching mathematics. NIE Journal 1971, 5(4), 42-5.

Poor understanding in mathematics by students has been attributed to the defective teaching methods employed in the classroom, lack of motivation and correlation, dullness of presentation and absence of proper study of the subject matter in relation to the ability of the children. Teaching of mathematics through stories, dramatization and by using proper teaching aids has been illustrated.

436 SANTHANAM M R, QURAISHI Z M, LULLA T P: Pattern of influence of social studies teachers. (In Buch M B, Santhanam M R Eds. Communication in classroom. Baroda, M.S. University of Baroda, 1970. 69-118).

The aim of the study was to find out the influence of sex on the pattern of teachers' behaviour exhibited through verbal interaction in social studies classrooms. The sample consisted of 17 men teachers and 19 women teachers. Flanders ten-category system of classroom verbal interaction analysis was used for observation. Each teacher was observed for two periods while teaching. Some of the salient findings are: 1) communication is relatively faster in classes conducted by women teachers; 2) men teachers talk more than their women counterparts; 3) student talk is less in classes under men teachers; 4) women teachers are more indirect than men; 5) men teachers are better than the women in the manipulation of emotional climate favourably; 6) emphasis on content is much higher with men teachers than with women teachers; 7) women teachers use vehement words of strictures against students; 8) the capacity for shift between categories is more in the case of women teachers; 9) women teachers are more stringent in the use of praise/encouragement; 10) women teachers on the whole respond more to students than men teachers.

437 SHAKUNTALA SHASTRI: Structural approach versus translation - grammar method of teaching English. Rajasthan Board Journal of Education 1971, 7(1), 29-34.

The study aims at comparing the two procedures of English teaching - the translation-grammar method and the structural method. A sample of 66 students of class VI were divided into two equal groups on the basis of their IQ as measured by Jalota's test of general mental ability and a teacher-made Test of Basic Skills in Hindi. Two teachers of similar qualifications and experience, one following structural approach and the other translation-grammar method were appointed to teach a structure biased textbook to each of the groups respectively. The achievements of the two groups were compared successively for three years by means of achievement in oral and written objective type tests constructed by a third teacher. The findings reveal that the performance of structural, translation-grammar groups remain the same throughout the total of three years though in oral work structural group proved slightly superior. In the first two years structural group was found to be superior; but in the 3rd year translation-grammar group was superior to the other group. The structural group remained heterogeneous throughout than the translation-grammar group, showing that by the structural group all the pupils have not been benefited to the same extent while by the translation-grammar method all the pupils seem to have gained almost equally.

438 SINGHA H S: Creativity and mathematics teaching. Mathematics Education 1971, 5(2), 25-0. 6 ref.

The cognitive and affective specifications of creativity in mathematics students at school stage have been pointed out. The following suggestions have been made for mathematics teachers to inculcate creativity in students: 1) creating an appropriate environment by adopting an attitude of encouraging and rewarding creative thinking; 2) following the discovery method in teaching so that students are left free to discover and create for themselves; 3) bringing out the basic pattern of mathematical concepts in a connected manner; 4) gearing the whole teaching of mathematics in a way as to focus on its correlation with other areas of curriculum; 5) emphasizing through home assignments, as through teaching also, not the solution of problems but their creation, not the working out of mathematical puzzles and riddles but their construction; 6) deciding as to the instruments helpful in assessment of creativity and also suitably modifying the existing ones like the written test for creativity appraisal.

439 VAIDYA N: Some aspects of Piaget's work and science teaching. Delhi, S. Chand, 1970. xix, 310p.

The first chapter introduces the reader to Jean Piaget. A brief biographical account is given. The second chapter discusses the nature, philosophy and outcome of science education. Reference is made to the several works on the taxonomy of educational objectives. The third chapter describes a psychological frame of reference relevant to science teaching with special reference to the basic ideas of Jean Piaget. The functions of learning theories, thinking, problems posed in the field, significant researches on science teaching, SR theories, phenomenological theory, factor analytic view, information processing, Gestalt theory, basic ideas of Jean Piaget and Barbel Inhelder, acceleration of mental development and revolution in science teaching are discussed. The fourth chapter contains case studies in adolescent thinking conducted on some English and Indian children. The last chapter shows various ways of generating and maintaining reflective atmosphere under the worst possible conditions. Thus, it is generally suggestive rather than prescriptive of instructional and educational strategies which may be developed by the practising science teachers to build quality into their teaching.

440 WADHERA R C: Norms of English teaching and testing. Rajasthan Board Journal of Education 1971, 7(1), 14-21.

Three hundred and thirty four examination answer sheets of the higher secondary compulsory English paper 1970, set by the secondary Board of Rajasthan were analysed and the shortcomings of the question paper pointed out. Based on these findings the following remedial measures have been suggested for improving English teaching and testing: 1) recognising the chief aims of writing English for pupils at the secondary level; 2) enabling teachers to realise the stages of learning activity, namely, planning and arrangement, concentration of paragraphs, ordering and variation of sentence patterns and the application of exact and alive phrases; 3) introducing translation-transcreation items in the English question paper; 4) improving the skill of the composition by i) building composition lesson through group discussions; ii) outlining and developing the essence of the topic through planned and phased series of significant questions; iii) encouraging pupils to individualise their writing; iv) providing composition writing in the class under the stress of stimulated examination atmosphere; v) using a uniform, simple and mutually understood symbols of correction; vi) making spot corrections meticulously in a detailed manner in small groups; vii) discussing common errors and demonstrating improvements; viii) maintaining a separate notebook for jotting down recurrent errors for future reference; ix) employing a reconditioning devise to correct spellings; x) reading out high-score compositions in the class to generate enthusiasm and healthy rivalry in class; xi) aiding underachievers with individual attention.

441 WAZID R A: Hindi kavitā śikṣaṇ ādhunikaran ki samasyā. (= teaching of Hindi poetry, the problem of modernisation) [Hindi] Naya Shikshak (Teacher Today) 1971, 13(4), 38-41.

The teachers of Hindi should popularise its correct usage. Since poetry plays an important role in promoting correct usage, the need to modernise its teaching in secondary schools cannot be overemphasised. Defects in the teaching of poetry are not only evident in classroom teaching, but also in the books written for teacher trainees. Poetry no doubt creates love for national culture and heroes, but these are indirect outcomes. The teacher cannot make the students appreciate the art and beauty of poetry - it comes naturally to them. Again, he cannot force his own likes and dislikes on students. He has to give direction, solve difficulties, create atmosphere and above all respect the tastes of the pupils. As a result of defective teaching even at postgraduate level scholars do not have the capacity and skill (much less critical judgement) to appreciate and understand pieces of poetry taken from lessknown masters. The tendency to confine anthologies to great masters interferes with the development of skills, abilities and critical judgement in students. This can be corrected by giving more room to modern but lessknown poets and postpone the classics to later-day teaching. Adoption of modern methods of teaching poetry is difficult. But teachers must be aware of the need for reform.

TESTS AND MEASUREMENTS

442 GOVINDASAMY R, PAVANASAM R: Development of a language test in Tamil for students entering standard IX. Journal of Educational Research and Extension 1971, 8(1), 38-44.

An attempt is made to construct a language test in Tamil with a view to help teachers in understanding the language ability of pupils entering standard IX. A list of objectives of teaching Tamil has been formulated and based on these objectives, a test consisting of 75 items was prepared. The test was administered to 100 children and item analysis was performed. The final test consisted of 40 items in part A and 4 items in part B. Part A is directed towards testing language skills such as vocabulary, correct usage, word meaning, etc. Part B tests skills in composition, comprehension and appreciation. The reliability of the final test was +0.77. The final test was administered to 200 boys and 200 girls in class IX. The following results were obtained: 1) boys fared significantly better than girls; 2) urban children fared better than rural children; 3) there was significant relationship between the test scores and teacher's rating of pupil's intelligence, interest in studies, sports and literary activities, regularity in attendance, completion of home assignments, reading library books, and socio-economic status; 4) students were generally found to be weak in

grammar. It is suggested that teachers should create interest in studies, encourage pupils to read library books, and give greater attention to teaching grammar.

443 PANDEY U D: Reading speed test - some psychometric properties and norm. Indian Journal of Applied Psychology 1971, 8(2), 75, 76. 6 ref.

The reliability and validity of the Reading Speed Test constructed in Hindi on the model of Green's Michigan Reading Speed Test has been discussed. Administering the test items to 400 science and arts students of 3 colleges of Patiala, a norm has been constructed for science and arts college students.

444 PATEL K: Item weighting and instructions to item writers. Journal of the Indian Academy of Applied Psychology 1971, 8(1-2), 14-16. 3 ref.

The purpose of the study was to find out how good item writers are at predicting the difficulty of the items they prepare, and to what extent predictions can be improved with clear instructions. Twenty item writers from different fields of science were required to prepare test items for students in I year of college to measure comprehension and reasoning (15 items), knowledge (20 items) and the students' ability to understand and use the process of science (20 items). The prepared items were judged by subject-experts and psychologists and the final form was designed. Weightage was given to each item on the basis of predicted difficult value of the item. The item writers were divided into two groups - group V.I, which received verbal instructions regarding the requirements of the test item and group W.I, detailed written instructions about the same. Inter correlations were computed between the weightage assigned by the item writer and the difficulty value of each item computed after trying the test on 400 students. The difficulty value of the tried test was calculated in terms of the percentage of students who failed to answer the item. The weightage of the test writers was assigned on a ten point scale. The conclusions are: 1) Group V.I assigned scores to items within a narrower range than group W.I; 2) the item writers were generally poor predictors of the difficulty value of the items they produced; 3) the correlations for all types of questions are higher among the group that received clear, written instructions than the one which received only verbal instructions.

445 CHANDRAKANT L S: Polytechnic education in India. Bombay, D B Taraporevala, 1971. 124p.

In developing countries like India, Polytechnic education plays a very important part in the training of the much needed technicians who play a special role in industry between the university trained engineers and scientists, and skilled workmen. The need for a large number of polytechnics in India, therefore, is stressed. The types of technical courses suitable for polytechnics are detailed. The reorganization of polytechnic courses and the development of a suitable curriculum have been emphasised. The polytechnic student in India and the polytechnic faculty have been discussed. The last chapter deals with engineer-technician ratio. The part that the industrialist plays or should play in the encouragement of technical education has been highlighted. Methods of industry-polytechnic cooperation existing in advanced countries have been explained. The two appendices contain national classification of occupations and activity analysis of technicians in machine tool industry.

446 INDIA. MINISTRY OF EDUCATION AND SOCIAL WELFARE. SPECIAL COMMITTEE ON REORGANISATION AND DEVELOPMENT OF POLYTECHNIC EDUCATION IN INDIA 1970-71: Report. New Delhi, the Ministry, 1971. 245p.

The Education Minister suggested that a high power committee consisting of experts in technical education and industry should examine the entire system of polytechnic education. Such a high power committee was set up and it submitted its report. The report comprises the following chapters: 1) introduction; 2) review of the development of polytechnic education; 3) concept of technician and his education; 4) survey of industry; 5) reorganisation of polytechnic education; 6) faculty; 7) students; 8) assessment and education; 9) training and employment; 10) partnership with industry and commerce; 11) status and pro essential development of technician; 12) administration, finance, control and inspection; 13) plan of action; 14) summary of recommendations.

447 JAIN A P, GUPTA S K: Teaching of pharmacology to pharmacy students in India. Indian Journal of Pharmaceutical Education 1971, 5(1), 15-17.

A broader and more comprehensive training in pharmacology has been suggested to meet the demands of the industry and research. Emphasis has been laid on quantitative aspects of drug action. The topics to be included in theory as well as practice have been given.

448 KITCHLU J M: Training and economic development. ISTD Review 1971, 1(3), 19-24.

Training lies at the core of economic development. There is need to intensify efforts regarding training designed to increase skills and awareness of the already working personnel. Many training programmes are aimed at middle management and supervisory levels. There should also be training programmes for top level executives and for workers' leaders. The training institution, the trainee and the employing organization have to play their respective roles conscientiously if training is to yield positive results. After the completion of the training the trainee should be in a position to apply the new tools, techniques and skills learnt. To ensure maximum benefit from the training effort, it is necessary to develop an overall strategy and a long-term plan. For this purpose, it may be useful to take a 'system view' of training and consider the tasks involved in the form of a continuous cycle consisting of five interrelated, identifiable elements, namely, planning, organization, implementation, review and feedback.

449 LODHA M C: Training of rural youth. Yojana 1971, 15(8-9), 34, 35.

A comprehensive and high quality programme of training in agriculture for the youth has been suggested. The school level educated youth should be retained on the farm and trained in scientific and progressive methods of agriculture so that they can assume leadership in adopting agricultural innovations or act as contact men for the extension worker and farming community. The youth between 12-19 years should be trained within the village itself. Those in the age group 18-20 years should first be trained at the Farmers' Training and Education Centre for one to three months. On their return to the village they should be given projects for improved farming with strict supervision and guidance. Financial help should be given to attract the youth for such training.

450 MEHER M R: What is wrong with our technical education? Economic Times 12 July 1971, p. 5, cols. 5-8. 1170 words.

The main deficiencies are - 1) there is undue emphasis on theory 2) the diploma courses do not serve the purpose of training middle level technical personnel, and 3) often the teachers are not in touch with the latest developments in the subject, while the students do not have adequate facilities for practical work. A close liaison between industry and educational institutions is necessary in training teachers and students, in identifying the main categories of engineering and

technical positions in design, production testing, construction etc., in studying the duties and responsibilities of technical personnel at various levels, and in determining the type and content of practical skills required. The curricula should be oriented to include these subjects. The following recommendations of the committee on the reorganisation of polytechnic education in India, if carried out, would go a long way to reorient the system of technical education to the needs of industry: 1) changing the course planning and organisation to allow flexibility; 2) introducing complete internal assessment and evaluation by the institutions themselves; 3) granting autonomy to polytechnics with due administrative and financial authority; 4) providing well-organised and supervised practical training in industry for all diploma students; 5) enlisting the cooperation of industries for providing the needed industrial experience to teachers, and for conducting research and development projects.

451 PHILIP J: Development of management education in India and its impact on training in organization. ISTD Review 1971, 1(3), 25-31.

Over the past 20 years management education has made rapid progress in India. Some of the significant developments during this period have been listed. Several questions raised with regard to the following aspects of management education have been discussed: 1) the objectives; 2) curriculum; 3) faculty; 4) students' admission; 5) impact of management education on training in organizations. The following are some of the salient observations made: 1) the training should stress neither top managerial functions nor narrow specializations only which will not provide for long term effectiveness and success; there should be judicious combination of both; 2) the curriculum should be suitable to Indian conditions, flexible and business-oriented; the curricula needs strengthening in four areas - i) communication skill, ii) behaviour skill, iii) quantitative techniques and information technology, iiv) environmental subjects; 3) it is necessary that teachers engaged in management education should have industrial training; 4) there should be a uniform policy regarding student admissions in all management institutions; 5) the impact of management education on in-company training is felt in the following way: a) the need for training in company is appreciated; b) the entry of trained executive into business enterprises has revealed the gap in performance and outlook between himself and the older executives; c) senior managers are enthusiastic about training themselves; d) organizations hire trained business graduates to head their training departments; e) business school faculty collaborates in in-company training; etc.

452 Practical education / Editorial /. Hindu 20 July 1971, p. 8, cols. 1-3. 520 words.

The Education Minister, Mr. Siddartha Shankar Ray's proposal for vocationalising education is not a new idea, but had already been recommended by the Education Commission (1966). The programme started as work experience in primary and secondary schools, in only one district in each State as the cost involved is high. The main problem is the integration of work experience into the existing secondary education which is geared to university entrance. However, due to the present mass school education, it should be possible to divert the majority to practical education at a fairly early stage. Completion of the primary stage is enough for entry into ITIs and technical schools, while matriculation is enough for admission to polytechnics. The training should be attractive, and hence the diplomas awarded at the ITIs technical schools and polytechnics should be made terminal, and the polytechnics should also offer a much wider variety of courses. Work experience could be made palatable to those who favour academic education by a) giving priority in the engineering, medical and agricultural colleges to those who have a good craft record in schools, and b) providing career counselling in schools.

453 PRUTHI S P S: Career planning, what can business schools, trainees and business houses do? ISTD Review 1971, 1(4), 15-23.

Collaboration between business schools, trainees and the business world is essential for providing an answer to the problem of a) how to absorb an evergrowing crop of business graduates; b) how to make full use of them; and c) how to orient business education so as to subserve the prevailing and emerging needs. 'Doing-orientation' is as important as decision-making. The business education institutions should impart 'doing-orientation' by i) balance in curricula planning between analysis and action orientation, ii) work-experience for faculty positions, iii) on-the-job training to students and iv) 'summer jobs' scheme. The management trainees need the following for a successful career: i) substantive knowledge, ii) conceptual skill, iii) inter-disciplinary awareness, iv) ability to absorb and adapt. Growth and development require apart from humility, willingness to learn, capacity for hand work and sustained application. The business world should have a change of attitude and they should make use of business experts. The top and senior executives in the company should be exposed to development programmes. The organizational development and manpower planning should be located at the highest level. The young recruits to executive jobs should also be periodically exposed to training.

454 RANGNEKAR S S: From 'Guru' to change agent. ISTD Review 1971, 1(4), 1, 2.

The traditional 'Guru' system i.e. the trainer imparting instruction to the trainees is, it is observed, not suitable for the modern times. The difficulties with the 'Guru' system which is a one-way process are that 1) the trainees are not necessarily dedicated as they used to be; specific efforts on the part of the faculty are needed to keep the trainees interested in the programmes; 2) particularly in the case of executive training, there is a distinct possibility that the participants, given a chance, will learn from each other as much as from the faculty. The realisation of these aspects has led to efforts in two directions: 1) making the lecture more interesting through the use of audio-visual aids, direct method approach, etc.; 2) allowing the trainees to participate in the training process. The methods generally used in the participatory system are: a) case method, b) incident process, c) statement discussion, d) syndicate method, e) management game, f) group exercise, g) role playing, h) simulation exercise. These methods, however, are effective mainly where the training involved is for orientation or for imparting skills and techniques. In case of executive training, there is greater need for a change in attitudes and values. The T-group or sensitivity training and allied methods are aimed at this particular aspect. These can involve severe psychological problems and as such have to be handled by persons with special training in these methods.

455 SAMBAMURTHY K: Pharmacy graduates versus pharmaceutical engineering. Indian Journal of Pharmaceutical Education 1971, 5(1), 22-4.

Strengthening of the pharmaceutical engineering curriculum has been suggested to enable pharmacy graduates to take their due place in the drug industry. The changes to be made in the pharmaceutical engineering curriculum have been detailed. Some of the changes suggested are: 1) making the second year course, which consists of sketching and drawing of pharmaceutical equipment, more specific; 2) introducing rheology and other topics like compressors, heaters and heat exchangers, molecular distillation, sublimation, dialysis, etc.; 3) including the teaching of unit processes in organic synthesis; 4) providing workshop practice and practical training in maintenance operation in a large scale industry.

456 SEMINAR ON UTILIZATION OF NATIONAL STANDARDS IN TECHNICAL EDUCATION, PATNA, 16 MAY 1971: [Recommendations]. ISI Bulletin 1971, 23(7), 313, 314.

The seminar advocated the reorientation of technical curricula to bring them in alignment with the industrial needs of the country.

As a first step towards cultivating awareness in student engineers about Indian standards, the seminar called for organized efforts to inject in relevant textbooks and instruction materials, information about the methodology of development and utilization of national standards, salient features of industrial standards and their types and role of standards in industrial economy. Stress was also laid on the need to establish standards cells in technical institutions for modifying the technical curricula in a phased and coordinated manner.

457 SHEJWALKAR P C: Supervisory development, training for results. ISTD Review 1971, 1(4), 7-10.

The desire on the part of the top management to treat supervisors as part of the management is increasing. The management-minded supervisors play a very important role in an industrial concern. The basic needs of management-minded supervisors are: 1) to think and act as full-fledged representatives of management; 2) to use the tools, instruments and techniques which will enable them to demonstrate leadership skills; 3) to grasp the skills which are required on the part of management man. In order to develop this management-mindedness on the part of supervisors, the higher management will have to organize development programme for the supervisors. Supervisors generally are apathetic towards training. Their sympathies lie with the working force as against the higher authorities. Taking these factors into consideration, the training should provide for adequate remedial programmes. One of the functions of the supervisors is to train the operating force working under them. The training that supervisors have to conduct has been detailed. Training the supervisors and then later on putting the supervisors in the role of teachers is an important task for the management.

458 STALEY E: Primary-secondary education and the occupational needs of development. Manpower Journal 1970-71, 6(3-4), 11-25.

The occupational education and training that will be appropriate for developing needs of countries has to keep in view the following: 1) there is rapid proliferation of new occupations; 2) old occupations themselves are changing; 3) current practices in many occupations are bound to be out of date soon; 4) the chances that a person will shift from one occupation to another during his lifetime are more. The main functions which an occupational education and training should perform are: 1) general education; 2) general plus pre-occupational education; 3) job-entry training plus further education; 4) career-long further training and retraining plus further education. The responsibility of the schools should be education including pre-occupational education, while the responsibility for specific

training should be carried out by institutions which form part of the employment system itself. It is better to model general education in such a way that it integrates vocational aspects also instead of establishing separate vocational schools. Thus, the products of general schools will be readily trainable in a range of occupations. The actual occupational training should be at the point of job entry, and the reasons for this are: 1) less wastage from unutilised specific training; 2) more realistic and appropriate training; 3) better coordination with demands of the labour market; 4) opportunity for earning while learning; 5) better motivation for learning. For making primary-secondary education relevant to productivity in occupations, the following steps are suggested: 1) relating the general education curriculum to the world of work; 2) providing opportunities for the students to acquire realistic information and orientation about various kinds of occupations; 3) introducing a number of pre-vocational type courses dealing with occupations available in the local environment; 4) cooperating with other agencies in pre-service training programmes and programmes of further education.

459 Technical education / Editorial / Assam Tribune 6 August 1971, p. 4, cols. 1, 2. 500 words.

The following remedial suggestions have been made in view of the unemployment problem among the technically trained personnel: 1) provision of practical industrial training to students; sandwich courses started in some selected institutions are a beginning in this direction; 2) assessment by the expert groups of the needs of industries, existing or potential, in recasting the courses of study in technical institutions; the expert groups now formed exclusively with faculty members would perhaps do better with the inclusion of some industrial experts.

WORKERS' EDUCATION

460 SAHOO S C: Workers' education in Orissa. Yojana 1971, 15(8-9), 38, 39.

A regional centre at Rourkela and a sub-regional centre at Barbil provide workers' education. There is poor response to the scheme both from the employers as well as from the unions in Barbil area as compared with Rourkela region. Some of the problems hindering workers' training have been pointed out. The following suggestions have been made: 1) the trade unions must prepare themselves to take the responsibility of education of their members; 2) a fact-finding survey should be conducted to evaluate the impact of workers' education;

3) the different federations and central organizations of workers in in the State must, in collaboration with the universities and colleges, conduct courses by getting grants from the Central Board for Workers' Education; 4) the State government through the Labour Directorate should use the Multipurpose Labour Welfare Centres for training worker teachers and workers directly; 5) topics relating to workers' education may be introduced in the technical and vocational schools; 6) workers' education should be introduced in the universities and colleges where there is labour as a special subject; 7) the Central Board should take steps for the establishment of Workers' Education Department in the Central Trade Union Organizations and other federations in the State; 8) the location of the sub-regional centre should be changed once in 3 or 4 years.

461 Workers' education [Editorial] Economic Times 16 September 1971, p. 5, cols. 1, 2. 800 words.

Workers' education should not only equip workers with a better knowledge of their own work but also encourage them to play an increasingly important role in shaping social and economic relations. Though the programme of workers' education has been in operation since 1958, only one tenth of the industrial workers in the organised sector have so far been covered, while the workers in other vital sectors like agriculture have not been covered. The lacunae noted by the Estimates Committee on Workers' Education Programme are that the government has not given due attention to the problem of workers' education and to the recommendations of the National Labour Commission, and that it has not evaluated the impact of the programme on the workers, the trade unions, and the employers. It has been suggested that an evaluation committee should be immediately constituted for making an independent appraisal of the workers' education scheme so that it can be reoriented. The basic requisite for the oft-suggested scheme like workers' participation in management is workers' education, and it is only by a slow and arduous process that a sound industrial relations system can be built.

List of periodicals abstracted

ASPBAE Journal 1971: V 5, No 3-4
Economic and Political Weekly 1971: V 6, Nos 30-2
Education and Psychology Review 1971: V 11, No 1
Educational India 1971: V 38, Nos 1-3
ISI Bulletin 1971: V 23, No 7
ISTD Review 1971: V 1, Nos 3, 4
Indian Journal of Adult Education 1971: V 32, Nos 7-9
Indian Journal of Applied Psychology 1971: V 8, No 2
Indian Journal of Experimental Psychology 1971: V 5, No 2
Indian Journal of Mental Retardation 1971: V 4, No 1-2
Indian Journal of Pharmaceutical Education 1971: V 5, No 1
Journal of the College of Education, Karnatak University 1971: V 8, No 1
Journal of Educational Research and Extension 1971: V 8, No 1
Journal of English Language Teaching 1971: V 6, Nos 1, 3
Journal of the Gujarat Research Society 1971: V 33, No 2/130
Journal of the Indian Academy of Applied Psychology 1971: V 8, No 1-2
Khadi Gramodyog 1971: V 17, No 12
Mainstream 1971: V 10, No 1-4
Manas 1971: V 18, No 1
Manpower Journal 1970-71: V 6, No 3-4
Mathematics Education 1971: V 5, No 2
Monthly Bulletin, Madras Institute of Development Studies 1971: V 1, No 3
NIE Journal 1971: V 5, No 4
Naya Shikshak (Teacher Today) 1971: V 13, No 4
Psychological Studies 1971: V 16, No 2
Publishers' Monthly 1971: V 13, No 9
Quest 1971: No 71
Quest in Education 1971: V 8, No 3
Rajasthan Board Journal of Education 1971: V 7, No 1
Risala Rahnuma-i-Talim 1971: V 66, Nos 7, 8
Rural Education Review 1971: V 1, No 1
School Science 1971: V 8, No 4
Social Welfare 1971: V 18, No 4
Swarajya 1971: V 16, No 7
Teaching 1971: V 43, No 3
University News 1971: V 9, Nos 7, 8
Yojana 1971: V 15, No 8-9

Newspapers:

Assam Tribune: 17 July; 6 August 1971
Economic Times: 12 July; 16 September 1971
Hindu: 13, 20 July 1971
Times of India: 8 July 1971

SPECIAL SECTION

BASIC EDUCATION - I

A77 ALL INDIA NATIONAL EDUCATION CONFERENCE, WARDHA, ZAKIR HUSAIN COMMITTEE: Basic national education - report. Wardha, Hindustani Talimi Sangh, 1938. 202p.

The following resolutions were passed at the Wardha National Education Conference, 22nd and 23rd October 1937: 1) free and compulsory education be provided for seven years on a nation-wide scale; 2) medium of instruction be the mother-tongue; 3) the conference endorses the proposal made by Gandhiji that the process of education throughout this period should centre round some form of manual and productive work and all the other abilities to be developed or training to be given should as far as possible be integrally related to the central handicraft chosen with due regard to the environment of child; 4) the conference expects that this system of education will be gradually able to cover the remuneration of teachers. The Conference then appointed a committee under the Chairmanship of Dr Zakir Hussain to draw up a detailed syllabus on the lines of the above resolutions. The report consists of the following sections: 1) Basic principles of the scheme; 2) objectives; 3) training of teachers; 4) supervision and examinations; 5) administration. A detailed graded syllabus has been presented for 7 years' education in 1) basic crafts, viz., agriculture, spinning and weaving, card board, wood and metal work, 2) mother tongue and Hindustani, 3) mathematics, 4) social studies, 5) general science, 6) drawing, 7) possible correlations with the Basic craft of spinning and weaving. A chart showing the scheme of coordination has also been appended.

A78 AVINASHILINGAM T S: Gandhiji's experience in education. New Delhi, Ministry of Education, 1960. ii, 87p.

Gandhiji came to the conclusion that the existing system of education was unsuited to the needs of the country (India). The result was that he was constantly making experiments in education. The various experiments he made started with the training of his own children. Later on, he had opportunities

to try out his ideas at the Sphinx Park, the Tolstoy Farm, the Champaran schools, Sabarmati Ashram and then in numerous other institutions that were started in pursuance of his scheme of Basic education. An account of these experiments has been given.

A79 AVINASHILINGAM T S: Understanding Basic education. New Delhi, Ministry of Education, 1955. ii, 61p.

The book is intended to give a clear and concise understanding of Basic education. The author as the first Education Minister of the Madras State in free India, introduced Basic education in that State. Many of the chapters in this book are talks delivered to students in colleges or conferences of teachers and administrators. The following are the chapter headings:
1) historical background; 2) some misunderstandings;
3) psychological background; 4) philosophy of Basic education;
5) technique of Basic education; 6) problem of self-support;
7) utilising festivals; 8) food and Basic education;
9) teacher training in Basic education; 10) the future.

A80 Basic national education, revised syllabus for grades I to V. Wardha, Hindustani Talimi Sangh, [Year?]. 56p.

The National Educational Conference, 1945 stressed the need for pre-Basic education. The Talimi Sangh appointed a committee to prepare a scheme of pre-Basic education. The committee observed that the objective of pre-Basic education is the all-round development of children below 7 years of age. This development should include the first steps in social training. It was recommended that the Hindustani Talimi Sangh restrict its scope of work at present to children in rural areas. The committee made several recommendations in regard to the following aspects:
1) place of pre-Basic education in the constructive programme;
2) mutual relation between pre-Basic and adult education;
3) programme of pre-Basic education; 4) concept of pre-Basic education;
5)necessary qualifications of workers; 6) school administration and organization. The first syllabus of Basic education was published in 1938. The Hindustani Talimi Sangh appointed a committee in 1946 to revise the syllabus for Basic schools for the first five grades and to prepare a detailed syllabus for the training of teachers for the first five grades. The committee made full use of the experience of several institutions and workers and had presented the revised syllabus.

A81 BHATIA H R: What Basic education means. Bombay, Orient Longmans, 1954. 59p.

The main principles and merits of the system of Basic education have been dealt with briefly.

A82 GANDHI M K: Basic education. Ahmedabad, Navajivan Publishing House, 1950. 114p.

Basic education introduced in India in 1937 by Gandhiji was not new to him. He has been experimenting with it for thirty years in small groups. The unpractical nature of the education introduced by the British and the non-violent order which Gandhiji wished to see established in India constitute the background of this scheme. The educational theoretical aspects on which it is based are that: 1) the true education of the individual which is all-round development of his faculties is best obtained through action; 2) this education, if it is to draw out to the full the latent capacities of the child has to be through a craft. Gandhiji's writings and speeches regarding Basic education have been arranged chronologically under the following sections: 1) the new education; 2) Basic education conference; 3) self-supporting education; 4) teachers; 5) criticisms and clarifications; 6) Basic education findings; 7) post-Basic education.

A83 INDIA. CENTRAL ADVISORY BOARD OF EDUCATION. FIRST COMMITTEE TO CONSIDER THE WARDHA EDUCATION SCHEME: Report. New Delhi, Ministry of Education, 1939. 15p.

The Committee appointed by the Central Advisory Board of Education (CABE) in December 1938 and known as the Kher Committee examined the implications of the main resolutions passed by the All-India National Education Conference (October 1937) held at Wardha. The conclusions drawn by the Committee have been set out as follows: 1) Basic education should first be introduced in rural areas; 2) the age range of compulsion should be 6 to 14; children of 5 years could be admitted to Basic schools; 3) diversion from the Basic school to other kinds of schools should be allowed after the 5th class or about the age of 11+ . 4) the medium of instruction should be the vernacular of the pupils; 5) Hindustani with both Urdu and Hindi scripts be made the common language of India, provision should be made for teaching them; 6) the activity of learning by doing should be of many kinds in the lower classes and later should lead to a Basic craft, the produce from which should be saleable and proceeds applied to the upkeep of the school; 7) cultural subjects which cannot be correlated with the Basic craft should be taught independently; 8) the training of teachers

should be reorganised and their status raised; 9) no teacher should receive less than Rs.20/- per mensem; 10) efforts should be made to recruit more women teachers; 11) Basic schools should be started only on the availability of suitable trained teachers; 12) the curriculum should be revised; 13) English should not be introduced in Basic schools; 14) States should provide facilities for religious teaching; 15) external examinations are not to be held; at the end of the Basic school course, a leaving certificate based on an internal examination should be given; 16) promotion from class to class to be determined by results of internal examinations subject to the supervisor's inspection.

A84 INDIA. CENTRAL ADVISORY BOARD OF EDUCATION. SECOND WARDHA EDUCATION COMMITTEE: Report.....together with the decisions of the Board thereon. Delhi, Manager of Publications, 1940. 27p.

The second Wardha Education Committee was appointed by the CABE in 1939 to consider issues arising in connection with the system of Basic education such as its relation to other branches of education and the financial problems implicit in its adoption. The main conclusions of the Committee are: 1) the duration of Basic education course should be eight years in two stages, from the age of 6 to 14 years, the junior stage covering a period of 5 years and the senior stage 3 years; 2) the transfer from 'Basic' to other kinds 'post-primary' school should be allowed at the end of 'junior Basic' stage; 3) special arrangements should be made for pupils to continue their education after completing the full course in the Basic schools i.e. after 8th class; 4) the central government should contribute not less than half the amount of the net recurring expenditure on Basic education in each province; the balance should be borne by the provincial government and the local bodies; for capital expenditure on buildings equipment etc. a loan system should be adopted; 5) a central province to dispose the marketable articles produced in schools.

A85 INDIA. MINISTRY OF EDUCATION: Handbook for teachers of Basic schools. New Delhi, the Ministry, 1956. 325p.

The Central Advisory Board of Education had appointed a Committee on curriculum in Basic schools which had recommended among other things, that the Ministry should bring out a handbook of suggestions for teachers of Basic schools. This handbook is divided into two parts. The first part deals with the aims and objectives of Basic education, its place in the modern industrial age and certain other general problems like organization of Basic schools, technique of correlated teaching and evaluation. This

is meant to provide a general background for the second part which cover the methodology of the various parts of the curriculum. The methodology of teaching has been given for the following subjects: 1) craft - a) spinning and weaving, b) agriculture, c) paperwork, cardboard work, woodwork and metalwork, d) fisheries, e) home craft; 2) mother tongue; 3) social studies; 4) mathematics; 5) general science; 6) art; 7) national language; 8) physical education.

486 INDIA. MINISTRY OF EDUCATION. COMMITTEE FOR THE INTEGRATION OF POST-BASIC AND MULTIPURPOSE SCHOOLS: Report. New Delhi, the Ministry, 1960. 34p.

The Committee was appointed by the Union Ministry of Education at the instance of the CABE in 1957 to study the problem of integration of post-Basic and multipurpose schools. The origin and growth of the post-Basic schools and multipurpose schools have been traced; similarities and difference between post-Basic and multipurpose schools have been pointed out. The following recommendations have been made: 1) the study of crafts in post-Basic schools should be considered equivalent to the study of the electives in the multipurpose schools; for this, proper standards should be laid down for both; 2) assistance should be provided to all post-Basic schools to raise the standards of study in humanities and sciences to the level of electives in every higher secondary school; 3) while selecting schools for conversion to multipurpose schools, the post-Basic schools should be given the same consideration for this conversion as other higher secondary schools; 4) a common scheme of examination for both post-Basic schools and the multipurpose schools should be instituted by the State Boards of secondary education after giving due cognizance to the special features of work done in post-Basic schools; 5) during the interim period, the governments should recognise post-Basic school final examination as equivalent to the higher secondary school certificate for the purpose of employment and urge upon the universities to recognize the same for purposes of admission to institutions of higher learning; 6) financial assistance should be made available to post-Basic schools to improve the quality of teachers and strengthen laboratory, library, etc.; 7) the products of post-Basic schools in the earlier stages should be given preference in the matter of employment on those special jobs for which their training has specially equipped them; 8) the recommendation of the All-India Commission for Secondary Education regarding the study of crafts as a compulsory subject should be implemented in all higher secondary and multipurpose schools; 9) the technique of correlation should be specifically emphasised in all higher secondary and multipurpose schools; and 10) the post-Basic schools should add the word 'higher secondary' to their name.

A87 INDIA. MINISTRY OF EDUCATION: Syllabus for Basic schools. New Delhi, the Ministry, 1956. 105p.

At the request of some of the State Governments, the Central Advisory Board of Education appointed a Committee in January 1947 to prepare a curriculum for Basic schools and a handbook for teachers in Basic schools. The Committee recommended syllabuses in 1949 and observed that the syllabuses prepared should be treated more as a book of suggestions than a text or manual. The objectives of each of the following Basic school subjects are presented: 1) craft - a) spinning and weaving, b) gardening leading to agriculture, c) book craft including paper and cardboard work leading to wood and metal work, d) leather work, e) clay work and pottery, f) fisheries, g) home craft; 2) mother tongue; 3) social studies; 4) mathematics; 5) general science; 6) art including drawing, music and aesthetics generally; 7) Hindi; 8) games and physical activities. Detailed syllabus for classes I to VIII have been given.

A88 KAUL ADALTI A: Orientation programme, why and how. Educational Review 1959, 65(a), 193-6, 196.

The writer discusses how speedily the elementary schools could be re-oriented to the Basic pattern, and suggests to this end, a number of steps. A programme of re-orientation is considered necessary to make education richer and more purposeful by introducing some more features to the elementary stage. This will do away with the unhappy situation which has arisen as a result of the two types of elementary education existing to-day. The steps visualised to help create an atmosphere favourable to the eventual conversion of the elementary schools into Basic ones include: a) enriching contents of the elementary school syllabus with life-situation activities; b) production of suitable literature; c) training of the teaching personnel; d) educating public opinion; e) production of proper equipment; and; f) evaluation of programme.

A89 KRIPALANI J B: Latest fad, Basic education. Wardha, Hindustani Talimi Sangh, 1954. 102p.

The following are the contents of the book: 1) introduction of the scheme; 2) its implications; 3) march of civilization and Basic education; 4) past experiments; 5) Soviet experiment; 6) failure of past experiments; 7) problem study; 8) tyranny of words; 9) social and ethical aspects of the scheme; 10) principle of self-sufficiency; 11) main principles of Basic education; 12) difficulties in the way; 13) Basic education, its place in Gandhiji's philosophy - a) school, individual and society, b) Gandhiji's philosophy of life, c) the unity of the Gandhian way.

A90 MALHOTRA O P: Basic education. School World 1958, November, 21-6.

The article is a plea for introducing Basic education in public schools. The public schools are considered best fitted to make the experiment in Basic education a success and help other schools in the speedy orientation towards the Basic pattern by creating confidence in the system. The article discusses in some detail the principles of Basic education as conceived by Mahatma Gandhi and points out the similarity between the Basic and public schools in respect of many curricular and cocurricular activities. Introduction of Basic education in public schools will not only benefit them but also the country. A still greater benefit would be that it would help to make public schools veer round to the national system of education and send their roots deeper into the soil of the country. They would no more remain exclusive.

A91 MATHUR V S: Future in Basic education. Jullundur, Basic Education Publishers. [Year ?]. 100p.

This is a collection of articles on Basic education. The following are the topics included: 1) significance of Basic education; 2) is Basic education educationally sound? 3) pre-Basic education; 4) Madras scheme - a compromise with Basic education; 5) correlation what and how? 6) problem of self-sufficiency in Basic education; 7) an adventure in the education of Basic teachers; 8) need for research in Basic education; 9) self-reform in Basic schools; 10) bottle-necks in Basic education.

A92 MULKANI N R: Assessment of the Government policy on Basic education. AICC Economic Review 1957, 8(17), 69-71.

Examines how far the recommendations of the Assessment Committee on Basic Education regarding the following matters have been accepted, altered, or rejected by the conference of State Ministers of Education called by the Ministry of Education on the 2nd and 3rd September, 1956, to discuss, among other matters, the above report: 1) concept of Basic education; 2) conversion of existing schools into Basic ones and the time limit in which to do it; 3) integrated course of 8 years of Basic education; 4) co-existence of post-Basic schools and higher secondary and multipurpose schools; 5) predominating influence of universities in the formation of school curriculum; and 6) the place of English.

A93 PATEL M S: Educational philosophy of Mahatma Gandhi. Ahmedabad, Navajivan Publishing House, 1958, xiv, 282p. 228 ref.

This book contains critical exposition and evolution of Gandhiji's philosophy of education. Gandhiji began his experiments in education at the Tolstoy Farm in South Africa. He continued these experiments when he returned to India and established his Ashram first at Sabarmati and later at Sevagram. Basic education was the result of these experiments. It actually emerged out of his desire to solve the problem that confronted the Congress when it took office for the first time in 1937 in various Provinces. The problem before the country was two-fold. Firstly, to make the education as imparted in primary schools more related to life and secondly to find ways and means of making it universal. Basic education scheme which discards mere bookish learning aims at an all-round education for the child to enable him to be a useful member of society. It has been described in short as the education of the three H's, i.e. Hand, Heart and Head. Gandhiji felt that unless a part of the expenses of this education was met through the productive activity, it would be difficult to make it universal. Further, the learning of a craft will be useful to the student after he left the school. Gandhiji's view in regard to religion in education, linguistic problem and women's education have also been discussed.

A94 REGIONAL SEMINARS ON THE ORIENTATION OF ELEMENTARY SCHOOLS TOWARDS THE BASIC PATTERN: Report - consolidated report of the four regional seminars on the orientation of elementary schools towards the Basic pattern held in June, July 1958. New Delhi, Ministry of Education, 1960. 75p.

The Assessment Committee on Basic education (1955-56) recommended that immediate steps should be taken to introduce such of the elements of Basic education in non-Basic schools as do not require much financial resources or specially trained personnel. In order that the idea of this orientation is understood in its full and correct import by all teachers, it was thought necessary that the administrative authority should be fully made aware of their responsibilities and the whole administrative machinery mobilised towards achieving this end. The Union Ministry of Education therefore drew up a scheme for organizing four regional seminars of District/Divisional Inspectors of Schools. The regional seminars considered problems peculiar to a region. The reports of all the regional seminars taken together covered all the aspects of the orientation programme.

A95 RAO M K: Syllabus of a primary teachers' Basic training institution. Journal of the Mysore State Education Federation 1959, 13(7), 165.

Although the scheme of Basic education is based on a certain set of accepted principles, the quality and quantity of the training experiences that Basic teachers in different States have received have varied very much. This is due to the different syllabuses pursued in the country's different training institutions. Training institutions in some States have emphasised the academic subjects in their syllabuses, while others have given great importance to the philosophy and practice of Basic education. In some States the period of training is one year, whereas in other States the period consists of two years of continuous training. The article, which is a plea for a uniformity in the syllabuses of the training institutions, offers suggestions as to what should be the contents of such syllabuses.

A96 SAIYIDAIN K G: Orienting primary education towards Basic pattern. Education Quarterly 1959, 11(43), 192-5.

The writer stresses the magnitude of the job of reforming primary schools of which we have about three lakhs in the country. The best way to tackle the formidable problem would be to break it up into small and concrete steps. Sufficient thought and attention should also be given to adjusting means to ends. State departments of education should have a well organised section which would produce educational literature, specially directed to the needs of the teachers. The supervisory staff also needs reorientation and they should offer constructive suggestions instead of formal criticisms. All-out efforts should be made to create a favourable climate of opinion among teachers and supervisory officers who would be able to work for the concept of a school oriented towards the Basic pattern.

A97 SALAMATULLA: Correlated teaching, some pre-requisites. Buniyadi Talim 1960, 3(4), 167-9.

Correlated teaching is one which seeks to interrelate the experiences that a learner acquires. Experiences thus gained become more meaningful. They are, therefore, functional and lasting. Some pre-requisites are necessary for correlated teaching. They are: i) children must be engaged in some worthwhile activity. In carrying on any activity it should be borne in mind that it must be exploited to the maximum for educational ends. It must stimulate thinking and learning on the part of children. In order to achieve this objective, it is essential that firstly children must feel a need for this. Secondly, they should be guided and helped to plan it in the

minutest details. Thirdly, they should try to execute the plan as far as possible. The last stage should consist in making an assessment of the whole procedure in terms of its adequacy for the end in view; 2) the correlated knowledge needed to carry on the activity must be integrally related to it and supplied at the appropriate moment; i.e. when the need for it arises. Sometimes an activity may serve primarily as a teaching aid rather than a centre of correlation. These two functions should not be confused; 3) the materials to be correlated with an activity must be well graded. Sometimes the same subject matter is gone through by children of various grades in the basic school again and again. The teacher needs definite guidance as to what material would be appropriate for a certain grade in relation to a particular craft process.

A08 SHRIMALI K L: Wardha Scheme, Gandhian plan of education for rural India. Udaipur, Vidya Bhawan Society, 1949. xi, 308p.

The study begins with an account of the existing educational situation. This is followed by a discussion of the social and political philosophy of Mahatma Gandhi and an analysis of Basic national education. An attempt is made to show how the latter is related to the former and how both have their roots deep in India's cultural heritage. An examination of the present social and economic conditions of Indian society is made in order to indicate how the craft-centred Basic education programme is suited to meet the present needs of the predominantly rural population of India. The linguistic problem in Indian education and the problem of religious education, which have existed in India since the advent of the British are also discussed and an attempt is made to show how the Wardha scheme tries to solve these problems. In the end, the main trends of social, economic and political life of the country are analysed with a view to indicating how the Basic education can, to some extent, shape these developments.

A09 SOLANAKI A B: Technique of correlation in Basic education. Baroda, M.S. University of Baroda, Faculty of Education and Psychology, 1956. 43p.

The technique of correlation which is a pedagogical method of Basic education has been understood in various ways resulting in confusion in using the technique. The methodological aspects of this technique, its evaluation in terms of other teaching techniques, and the history of its actual practice in Basic education have been described. The purpose of this pamphlet is to help practising teachers to use the technique correctly and efficiently instead of being artificial and steriotyped.

A100 SUBBARAO C S: Basic education in practice. Secunderabad, Ajanta Publications, 1958. xvi, 160p.

The book has been written on the basis of a survey conducted in Telangana region of Andhra Pradesh. Besides, all the relevant records in the office of the Director of Public Instruction have been made use of. Many of the defects which the survey has revealed are easily remediable. There are other problems such as provision of suitable and adequate agricultural lands, efficient organization of craft instruction and its correlation to teaching, attainment of self-sufficiency, etc. which have financial implications. With regard to teacher education, a 3 year course of training for secondary and a 2 year course for graduate teachers have been suggested. The following are the contents of the book: 1) introduction; 2) buildings and land; 3) administration and supervision; 4) content and organization; 5) correlation and crafts; 6) teachers and training; 7) examinations and evaluation; 8) conclusion.

A101 SUBRAMANYAM D: What I mean by Basic education. Journal of the Mysore State Education Federation 1960, 14(6), 129-30.

Basic education imparted to children in primary schools is a challenge to the traditional system now prevalent in India. It meets almost all the demands on our education today. For proper implement tion of the system the teachers should be well qualified to do the job and they should be a contented lot. The present two-way training courses, one imparted by the teacher-training institutions and the other by the Basic training centres have no co-ordinating features. There should be only one pattern of training for all teachers. All training institutions imparting general training should be converted into Basic training centres so that teachers are trained on Basic lines. For proper implementation of the scheme there should be a separate joint director of Basic education for the State helped by District officers. Inspectors of schools in charge of each taluk must necessarily be trained in Basic education and they would be answerable to District Basic Education Officers concerned in matters relating to the progress and inspection of Basic schools. This scheme of administration and supervision of Basic schools should continue for a period of at least 10 years by which time all primary schools will have become Basic schools and all training institutions Basic centres and all teachers trained in the Basic system of education.