

Special Education

C.G.VENKATESHA MURTHY

Banerjee, N. 1988. **An investigation into the problems of adjustment of blind students reading in secondary schools of West Bengal.** Independent study. *Visva-Bharati*. [ERIC Funded]

Problem: The study addresses the problem of emotional adjustment of visually handicapped school-going adolescents.

Objectives: (i) To identify the areas of adjustment problems of visually handicapped (VH) children, (ii) to compare the visually handicapped (VN) adolescents with visually normal adolescents studying in normal schools with regard to their adjustment in these areas, and (iii) to identify causes of lower adjustment of all adolescents in different areas.

Methodology: The sample comprised visually handicapped adolescents in the age-group of 12-18 years, who belonged to rural and urban locales. They were selected from three types of schools of West Bengal, i.e. schools run by the state government, or different missions or by private organisations. The tools used included an Adjustment Inventory developed by the researcher and a personal data sheet. The collected data were evaluated using a three-point scale.

Major Findings: (1) The distribution of the two groups, VH and VN, according to the intensity of total adjustment was found to be significant.

(2) It was found that the group of VH adolescents vary with age of onset of the handicap in their adjustment to the interacting environment. [SRA 1112]

Bhattacharya, M. 1988. **An investigation into the learning disabilities developed by secondary school students in the area of equation-sums in algebra.** Ph.D., Edu. Univ. of Kalyani.

Problem: Equations, viewed in a broad perspective, have utilitarian, cultural and disciplinary values. The power of equations lies in their power of solving indirect problems. But students fail to understand the meaning and purpose of equations and are unable to utilise them in solving problems. This study is undertaken to find out the backwardness of students in the area, and to suggest some solutions.

Objectives: (i) To provide a comprehensive analysis of learning disabilities developed by secondary school students in the area of Linear Equations in algebra, and (ii) to compare experimentally the effectiveness of two mathematical methods of solving such sums (simplified method and transposition method) so that these learning disabilities may be prevented.

Methodology: The initial sample comprised 1,000 students of Class VIII, pooled from two

districts, seven towns and seven villages, covering 24 schools. The final sample — after the administration of the diagnostic pre-test — comprised 400 subjects. The tools used included a diagnostic test and audio-visual aids. Descriptive statistics, ANOVA and ANCOVA were computed while analysing the data.

Major Findings: (1) Students developed more learning disabilities in understanding linear equation sums in one unknown, than in solving them, while they did not develop learning disabilities in the application level. (2) Students developed more learning disabilities in the application than in the knowledge of linear equation sums in one unknown rather than in solving such sums. (3) The simplified method was more effective than the method of transposition in the development of knowledge and in solving linear equation sums, while on the understanding plane, the two methods did not differ. (4) On the application plane, the simplified method was more effective than the method of transposition, in solving linear equation sums. [PDR 0632]

Biswas, Anju. 1989. **Learning disabilities in critical thinking in some areas of physical science: Diagnosis and prevention.** Ph.D., Edu. Univ. of Kalyani.

Problem: Science is one of the courses of study where school teachers get an opportunity to train students in critical thinking. Critical thinking consists of (a) Comprehension of the problem, (b) Cause-and-effect relationship, (c) Comparison and contrast, (d) Statement of the absurdity, (e) Discrimination, (f) Finding out errors, (g) Problem solving, (h) Deducing Laws, (i) Prediction, (j) Verification, and (k) Classification. The researcher addresses schools to develop students into critical thinkers. The present study focuses on this concern.

Objectives: (i) To diagnose the detailed pattern of disabilities in some areas of physical science, and (ii) to try innovative teaching methods which could work as remedial tools.

Methodology: The sample comprised 250 students of Class X from four schools (two boys' and two girls') of backward areas, who were tested for learning disability. For testing preventive measures, 170 students were selected from the above groups. The tools used included a diagnostic test, an intelligence test, and the Academic Motivation Test of Bhattacharya. The collected data were treated with F-ratios and the Mann-Whitney U-test.

Major Findings: (1) Twenty-three major patterns of disability were identified. (2) The F-ratio between variance and within classes was significant. (3) The U-value showed improvement in the achievement motivation of the experimental group. [PDR 0634]

Chandrakar, Gopal, 1988. **Field-dependence and sensation-seeking abilities of handicapped children.** Ph.D., Psy. Ravishankar Univ.

Problem: The study attempts to find out whether handicapped children differ within themselves on field-dependence and sensation-seeking abilities, and also, as compared to non-handicapped children.

Objectives: (i) To study the level of field dependence-independence of various categories of handicapped children, and (ii) to assess the sensation-seeking abilities of various classes of handicapped children.

Methodology: The sample comprised 350 handicapped boys (physical, deaf, dumb, crippled, emotional, socio-economically handicapped, intellectually handicapped, and academically handicapped) and an equal number of handicapped girls, together with 200 normal children (control group) equally divided into two groups (of 100 boys and 100 girls). Thus a total of 550 children were selected randomly belonging to the 15 years age-group.

The tools used included Witkin's EFT of Field Dependence-Independence, Zuckerman's Test of sensation-seeking form, Kuppuswamy's Socio-

economic Status Scale (Urban), Cattell's Culture Fair Test of Intelligence, Teacher's report and student's examination records. Means, SDs, 't' values, CR, and ANOVA were used to analyse the data collected.

Major Findings: (1) The normal children displayed significantly higher field-dependence than the handicapped children. Further, the sex difference was also significant. (2) The normal children were found to possess higher sensation-seeking ability as compared to handicapped children. Even here, sex differences were found to be significant. (3) The normal children showed a significant difference on the field-dependence, from various types of handicapped children (physically, emotionally, socio-economically, intellectually, and academically handicapped). Further, sex differences also existed in their sensation-seeking abilities. (4) The normal children differed significantly in their sensation-seeking abilities from the physically, emotionally, socio-economically, intellectually and academically handicapped children. Sex differences existed too. (5) Emotionally handicapped children scored the highest mean on sensation-seeking while the academically handicapped scored the lowest mean. [VPS 0861]

Chengappa, Shyamala, 1989. **Speech and language behaviour of the Cerebral Palsied.** Ph.D., Lang. Univ. of Mysore.

Problem: The study addresses the problem of speech and language patterns of cerebral palsied children.

Objective: To investigate and identify the speech and language patterns of cerebral palsied children.

Methodology: The sample comprised nine cerebral palsied children (six spastics and three athotoids, aged 4-10 years) having mild, moderate severity of the disability and normal intelligence. The speech samples collected on tape recording and diary-keeping of spontaneous, elicited, narrative and imitated speech have been analysed

in terms of articulation, voice, fluency, rhythm and language ability in terms of their phonological, morphological and syntactic features. Besides, individual description, intra-group and inter-group comparisons of spastic and athetoid children were attempted.

Major findings: (1) Various deficiencies and deviances in terms of speech and language behaviour of cerebral palsied children were highlighted. (2) Dysarthria, poor intelligibility, delay in language development, limited language output, incomplete and deficient linguistic structures, expressive aphasia, pronominal reversal and confusion were some of the language deficits and deviations seen. (3) Language comprehension was much better than language expression in both types of cerebral palsied children. [BNS 0984]

Jangira, N.K. and Ahuja, Anupam. 1990. **Disability and disabled persons in newspapers: A review.** Independent study. National Council of Educational Research and Training.

Problem: The study attempts to find out the status and level of coverage related to disability and disabled persons in newspapers.

Objective: To assess the coverage of disability and the disabled in newspapers.

Methodology: The sample comprised the print media which includes newspapers published in English and Hindi during the month of September 1989, from Delhi, as well as from Project Integrated Education of the Disabled States in English, Hindi and Oriya. A content analysis sheet served as a tool. Content analysis was used in the analysis of the study.

Major Findings: (1) Newspapers mostly (70.27%) carried news items. (2) There was only a small coverage in photographs. (3) Editorials were conspicuously missing. (4) The comments, advertisements and posters had minimal coverage. (5) The message-intent and content of coverage was almost one-fifth each for information and advocacy, followed by

rehabilitation and restoration, government, non-government organization's action and prevention. (6) There was a low coverage of education— both general and special schools. (7) The maximum messages (77.02%) had positive loadings implying positive imaging of disabled persons. (8) There was no coverage for identification and assessment of children with disability, or of vocational training and employment. [Author 1036]

Jangira, N.K.; Mukhopadhyay, Sudhesh and Rath, K.B. 1988. **Survey of research in special education in India**. Independent study. National Council of Educational Research and Training. [ERIC Funded]

Problem: The study attempts to survey the researches carried out in the area of special education.

Objectives: (i) To document the research studies in special education and related areas, and (ii) to identify the quantitative/qualitative trends.

Methodology: The survey covered researches in the area of special education from 1961 to 1988, covering visually impaired, physically handicapped, orthopaedically handicapped and mentally retarded children. A questionnaire was used to collect abstracts. Only the frequencies were used to treat the data.

Major Findings: (1) On the visually handicapped, 45 studies had been conducted; 13 studies were conducted up to 1980, while 32 studies were conducted during 1981 and onwards. This indicates the concern for research in special education during the 1980s. (2) On education of the hearing impaired, 14 studies had been conducted. (3) On education of the orthopaedically handicapped, there were 45 studies. Most of the studies were conducted at diploma level. In terms of subject area, psychology and education were on equal footing, social welfare being the third area to generate researches. (4) A large number of variables were covered but the studies per variable were not

enough to warrant generalisation. Psychological variables like personality traits, attitudes and behavioural problems were the variables studied most. (5) On education of the mentally retarded, there were 43 studies. The maximum number of researches appeared during 1976-80. [CGVM 1138]

Kamalam, Maria, Sr. 1989. **Training the Anganwadi workers in timely detection of disabilities in children**. M.Phil., Edu. Coimbatore: Avinashilingam Institute for Home Science and Higher Education for Women.

Problem: This study attempts to conduct a training programme for the Anganwadi workers and enable them to detect various disabilities in children in the early years of life.

Objectives: (i) To enable the Anganwadi workers to develop comprehension regarding various disabilities during childhood, (ii) to train Anganwadi workers to acquire the skills to identify/detect disabilities in children, and (iii) to help Anganwadi workers to understand the modalities of referral services for the disabled and undertake the task after detection.

Methodology: The sample comprised 93 Anganwadi workers, selected through the purposive sampling method. The tools used included a questionnaire, screening schedules for detection of the disabilities in children and a screening kit for identifying disabilities in children. Mean, percentages, SD, and 't' tests were used in treating the data.

Major Findings: (1) Greater awareness of the types of disabilities was observed among the Anganwadi workers (AWWs) after the training as compared to the pre-training phase. (2) A significant difference was found in the knowledge of AWWs regarding the developmental milestones after the training. (3) A significant difference was found between the initial and the final awareness among the AWWs about the role of the families in helping the disabled as a large number of the AWWs were able to think rationally and

realistically after they completed the training. (4) As against the five ways of eliciting community participation to uplift the disabled in the society, the AWWs enumerated nine practical ways after their training. (5) A sizeable number of the AWWs became aware of the preventive measures against disabilities, such as avoiding early marriages, exposure to X-ray during pregnancy, late pregnancy and maintaining hygienic environment, after they attended the training. (6) A greater percentage of the AWWs were better able to conceptualise the management and rehabilitation services for the disabled, after they underwent the training. (7) As a result of participation in the training programme, a substantial number of the AWWs became knowledgeable about integrated education, reservation for employment and provision of loans for the disabled. (8) As for awareness of the special needs of the disabled, qualitative and quantitative improvements were seen after the training. (9) The training programme enabled the AWWs (86%) to comprehend well the characteristics and detection/identification of disabilities; the guidance to be given to parents to accept their disabled child; management of the disabled children at home; integration of the disabled in the society; and referral services. (10) Most of the AWWs were able to pinpoint the causes of various disabilities and identify the disabilities by the symptoms and characteristics as a result of the training. (11) Over a period of three months after the training, the AWWs were able to identify 40 disabled children in the communities. (12) There were remarkable changes in the attitudes of AWWs after the training, and they expressed positive attitudes. (13) Ninety-one per cent of the AWWs felt that the methods and approaches in the training programme were simple, easily comprehensible, with ideas adoptable in the Anganwadi set-up. (14) Parents' lack of interest to rehabilitate the disabled and lack of rehabilitation centres nearby for referral services were the difficulties encountered in offering a helping hand to the disabled. [MC 1687]

Kapoor, Swarsha. 1990. **Cognitive functioning and perspective-taking ability: A comparative analysis of normal and deaf children.** Ph.D., Edu. *Jawaharlal Nehru Univ.*

Problem: The study aims at examining the differences between normal and deaf children on perceptions of parental behaviour, perspective-taking ability and cognitive functioning. The study also attempts to see whether institutionalisation and multiple birth of deaf children make any difference to their performance on these variables and academic achievement.

Objectives: (i) To compare the normal and deaf children of some educational grades in terms of perceptions of parental behaviour, perspective-taking ability and cognitive function, (ii) to compare the institutionalisation and non-institutionalisation in terms of the above variables, (iii) to compare the single and multiple deaf children in terms of the above variables, and (iv) to examine the nature of the relationship between academic achievement and teacher ratings in normal and deaf groups.

Methodology: The sample comprised 275 children of Grades IV to VIII of municipal or government schools. Out of 275 children, 156 were normal and 119 were deaf. Children of both the sexes belonging to all educational levels had equal representation. The tools used included Parental Behaviour Inventory, Perspective-taking Ability — Facial Expression Test, Koh's Block Design Test, Alexander's Pass Along Test, terminal examination performance and teacher's ratings. The statistics used to treat the data were, ANOVA, 't' tests, Mann-Whitney U-test and step-wise regression analysis.

Major Findings: (1) Deaf children did not differ from normal children in perceptions of parental behaviour and perspective-taking ability. However, the difference between the deaf and the normal were significant for Koh's Block Design Test and Alexander's Pass Along Test. (2) Institutionalised deaf children perceived parental behaviour as more accepting than the

non-institutionalised deaf children, but the two groups did not differ significantly on perspective-taking ability, and on Koh's Block Design Test. (3) On academic achievement, non-institutionalised children were found to be significantly better. (4) Institutionalised deaf boys had better perception of parental behaviour than non-institutionalised boys, but on perspective-taking ability, no difference was found between the two. (5) The institutionalised and the non-institutionalised girls did not differ on perceptions of parental behaviour and perspective-taking ability. [SCG 0155]

Khader, M.A. and Ramaa, S. 1988. **Improving the Kannada reading performance of educable mentally retarded children.** Independent study. Mysore: Regional College of Education.

Problem: The study is structured with the focus on improving the Kannada reading performance of educable mentally retarded children.

Objectives: (i) To identify the educable mentally retarded (EMR) children from Grades III and IV studying in Kannada medium primary schools located in Mysore City, (ii) to assess the reading-readiness level of EMR children of 6 and more than 6 years of mental age, and to compare them with normal children of the same age-group, (iii) to identify whether the reading readiness level of EMR children was related to their chronological age (CA), mental age (MA) and /or IQ, and (iv) to validate the effectiveness of the remedial reading programme developed for the dyslexics of Kannada language in improving the reading performance among EMR children.

Methodology: The sample consisted of 58 EMR children attending Grades III and IV in 23 Kannada-medium primary schools meant for normal children. The EMR children were identified on the basis of tests and teachers' opinion. Remedial treatment was attempted only on 36 children from six schools. The comparable groups (experimental and control), consisting of 10 children each, were drawn up. The groups

were matched on sex, age, type of school, grade, mental age, reading-readiness level and level of academic performance. The tools used included Kannada Oral Reading Test, Raven's Coloured Progressive Matrices, Kamath's Intelligence Test, Reading Readiness Test, Letter Recognition Test, Kannada Word Recognition Test, and Reading Comprehension Test in Kannada. The data were analysed using 't' test and ANCOVA.

Major Findings: (1) EMR children of 6-7 years of age were consistently low in total reading-readiness as well as its sub-components as compared to normal children of the same age. (2) The gap between the normal children and EMR children in reading-readiness as a whole and in its sub-skills decreased at a little higher mental age. EMR children of 7-8 years of mental age were equal to normal children of 6-6.6 years of age in reading-readiness. (3) The reading-readiness level of EMR children was independent of intelligence quotient and chronological age but was dependent on their mental age to some extent. (4) The remedial reading programme was effective in improving the level of letter and word recognition and reading comprehension in Kannada among EMR children. The effectiveness of the programme was further strengthened by the analysis of errors conducted. [BNS 0986]

Khan, A.H. 1988. **Personality structure of blind children and its relation to their mental ability and educability.** Ph.D., Edu. Utkal Univ.

Problem: It is an attempt to investigate and analyse the personality-structure of blind children studying in residential schools for the blind, and to study the relationships between personality factors and educational achievements.

Objectives: (i) To investigate personality characteristics and personality-structure among totally blind children at three different educational levels, corresponding fairly, to three different developmental periods, (ii) to make a comparative analysis of the mental ability and achievement measures of blind children varying

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in educational level, and (iii) to demonstrate the relationships among personality, mental ability and achievement variables.

Methodology: The sample consisted of 246 students studying in all the schools for the blind in Orissa. They varied from the KG Class to Standard X. Each child was tested individually on each of the tests. The tools used include Vithoba Paknikar Performance Intelligence Test for the blind, 'The Way I See Myself' Scale, Achievement Orientation, Extraversion-Introversion Scale, Pre-Adolescence Dependency Scale, Intellectual Achievement Responsibility Scale, Teacher Rating Scale, and school achievement from school records. Mean, SD, ANOVA and correlation were used to analyse the data.

Major Findings: (1) There was a significant difference in the intelligence level among the lower primary, upper primary and secondary level blind children. (2) N-Ach decreased with increase in educational level. Lower primary and secondary class blind children differed significantly on n-Ach. test. (3) The blind children showed positive self-concept. Educational level and age did not influence the development of self-concept significantly. (4) With regard to intellectual achievement responsibility, the blind children were quite internal with regard to the attribution process. In failure situation, the blind children believed slightly in luck, chance, fate, etc., without any intergroup differences or variation. (5) The blind children were less extraverted and were more neurotic, self-centred and were of the withdrawal type. (6) In language achievement, the low educational-level group had average score; the upper primary group had a little less than the earlier and secondary group of blind children. (7) Achievement in SUPW increased significantly with increase in education of the blind children. (8) There was no significant relationship between IQ and achievement among the blind children. [KCP 0455]

Kohli, Tehal. 1988. **Impact of home-centre based training programme to reduce**

developmental deficits of disadvantaged young children under ICDS scheme in Chandigarh. Independent study. *Panjab Univ.*

Problem: It attempts to study the impact of home-centre based training programme to reduce developmental deficits of disadvantaged young children under ICDS Scheme in Chandigarh.

Objectives: (i) To adapt the 'Portage Material' and develop a portage package for the use of professionals, para-professionals and non-professionals involved in one way or the other with pre-school education, particularly with mentally retarded or developmentally delayed children (MR/DD), (ii) to develop a low-cost affordable client-centred portage training model to enhance the development of the young children belonging to ICDS centres in the urban slums of Chandigarh, and (iii) to train a group of Anganwadi functionaries and parents as therapeutic teachers for implementing portage training on a long-term basis.

Methodology: Out of the initial sample of 3,000 children, of age range of 1-6 years, belonging to the Urban slums of Chandigarh, only 120 were selected for the final study. They were disadvantaged, developmentally delayed (mentally retarded) children with IQ (Comb) below 80. The parents (non-professional), the Anganwadi workers, and the para-professionals of these disadvantaged mentally retarded children formed another part of the sample, working with whom were four home advisers. The tools used included home-centre and community-based low-cost affordable helping models which were effective and practical in nature.

Major Findings: (1) Portage training was effective. (2) Longer duration of training had better impact, but with diminishing returns. (3) No sex differences were seen. (4) The degree of developmental deficits had insignificant impact on acquisition of skills and individual DQ gain scores. (5) The professionals—para and non-professionals—were almost equally effective in imparting training to the children. (6) There was

a positive relationship between various behavioural skills and various DQs. (7) There was a positive change in the attitude of mothers towards their children and towards portage training. (8) Sometimes pseudo-developmental delays in children persisted. [JNJ 0307]

Lal, Alka. 1992. A study of the personality, mutual perception, attitude and vocational preference of the blind and the sighted. Ph.D., Edu. Univ. of Allahabad.

Problem: It attempts to study the personality, mutual perception, attitude, and vocational preference of the blind and the sighted among the students of Delhi.

Objectives: (i) To find out the differences in vocational interest, ten psychological needs, attitudes and anxiety-level of the blind and the sighted, boys and girls, and (ii) to find out the difference in mutual perception regarding the attitudes of blind and sighted peers towards each other.

Methodology: The sample comprised 300 blind and sighted boys and girls of Standards IX to XII, institutionalised in schools for the visually handicapped in Delhi. The various tools used included Vocational Interest Record, Meenakshi Personality Inventory, Rating Scale, Sinha's Anxiety Scale and a scale for measuring mutual perception. The data collected were analysed using the mean, SD, and 't' tests.

Major Findings: (1) It was found that the blind boys and girls, and the sighted boys and girls differed significantly on all aspects of vocational interest record. (2) Sighted and blind boys, sighted and blind girls, sighted boys and blind girls differed significantly on all the ten needs of Meenakshi Personality Inventory. Further, the sighted girls and blind girls did not differ significantly on n-Endurance. (3) Sighted and blind boys differed significantly on the rejection-acceptance, unworthy-worthy, anxious-relaxed, withdrawn-participating dimensions of the rating scale. Similarly, sighted and blind girls, sighted

boys and blind girls and sighted girls and blind boys were found to differ significantly on the above-mentioned dimensions. Sighted boys and blind girls and sighted girls and blind boys did not differ significantly on the low aspiration-high aspiration and low fantasy-high fantasy dimensions. (4) All the five groups differed significantly on anxiety. (5) The blind and the sighted did not differ significantly on their mutual perception. [PCS 0947]

Lidhoo, M.L. and Dhar, Lalita. 1989. Schedule of reinforcement: A learning model for mental retardates. *Indian Educational Review*, Vol. 24 (1): 72-83.

Problem: This is an attempt to develop a learning model for mentally retarded students using behaviour modification techniques.

Objectives: (i) To identify children in different schools who are mentally retarded but educable, (ii) to develop an intensive case history of each retarded subject so as to schedule various modification programmes of improvement for each subject, and (iii) to study the designed schedules and learning paradigms to help the subjects to improve upon their base level performance in the field of academics, social interaction and cognitive behaviour.

Methodology: The sample comprised 1,980 boys belonging to the age-group of 14-16 years, studying in the high and higher secondary schools of Srinagar City. The tools used included Cattell's Culture Fair Intelligence Test, Stanford Binet Test, Vineland Social Maturity Scale, the parents' comments and the teacher-comment check-list of the investigators.

Major Finding: By and large, the subjects had improved and were doing better in their academic performance as also in their socially adaptive behaviour. [VKJ 1517]

Mandaravalli, M. R. 1991. Cognitive development in visually handicapped children:

Concrete operational stage. Ph.D., Edu. Univ. of Mysore.

Problem: The study attempts to analyse the cognitive development in visually handicapped (VH) children with specific reference to the concrete operational stage.

Objectives: (i) To analyse the developmental trend among visually handicapped children in acquiring selected concepts and operations to attain the Concrete Operational Stage as described by Piaget, (ii) to analyse the developmental trend among visually handicapped children in acquiring selected concepts and mental operations as represented by this performance on a test of cognitive capabilities, (iii) to study the significant relationship between the cognitive development status of visually handicapped children and their nature of handicap, type of school and sex, and (iv) to develop and try out an action programme for fostering cognitive development in VH children.

Methodology: The sample comprised 190 VH children studying in Classes I to VII, their age ranging from 6 to 16 years. Five special schools for the blind in Karnataka, two out of four government schools, and three private schools were selected for the study. The researcher used the Cognitive Capabilities Test for the Visually Handicapped (CCT-VH), developed by the researcher. Percentage analysis, mean, SD, CR values, chi-square test of independence, contingency coefficient were computed for the analysis.

Major Findings: (1) In all the tasks selected for the study with 10 VH children, the substages found among VH to attain the operational level of thinking (stage III) corroborated with the substages of Piagetian theory, but with a clear developmental lag with respect to their age. (2) Most of the VH children processed from stage I to III directly. (3) VH children attained the Concrete Operational Stage (COS) at a later stage as compared to the sighted children. (4) The chronological age of VH and their COS was not

linear. (5) There was no significant relationship found between the nature of handicap and the COS of VH children. (6) The relationship between COS of VH and the type of management in their schools was not significant. (7) There was no significant relationship between the COS and the sex of the VH children. (8) All the 10 children acquired different higher levels of conservation in their post-test as compared to their pre-test performance on both the tasks. [BNS 0968]

Mandke, Kalyani. N. 1991. **Effect of single modality stimulation upon speech and language development of hard of hearing children.** Independent study. Tilak College of Education, Pune. [ERIC Funded]

Problem: The study attempts to analyse whether a single-modality (visual or auditory) stimulation to its maximum capacity reflects positively upon speech and language performance of hearing-impaired individuals.

Objectives: (i) To measure hearing loss of children, (ii) to form a homogeneous group in the classroom with reference to hearing sensitivity along with chronological age, (iii) to evolve a scale for measurement of language skills, and (iv) to investigate individual needs of the students and to plan an individualised programme of language development.

Methodology: The sample comprised 40 children in the experimental group and 20 children in the control group. They were selected using the criteria of (i) chronological age — between 7 to 9 years, and (ii) the degree of hearing loss, only severe and profound category. The tools used included, an audiometer and a self-evolved language test. The analysis of the data were done using 't' test and ANCOVA.

Major Findings: (1) On the test of nouns, children could identify all the ten items and they answered in the form of complete sentences. (2) Children developed the concept of singular and plural number, gender, usage of adjectives, verbs, prepositions, cases and story telling. (3) It

was found that there were significant differences in the case of the pre-test and post-test scores in both the experimental groups but not in the control group. (4) It was also found that the single-modality approach worked more effectively than the multisensory approach. (5) Children with profound hearing loss proved better candidates for speech-reading. But, there were a few children with a good amount of residual hearing who exhibited poor candidacy for amplification due to some physiological factors, such as poor dynamic range, recruitment, and persistent discharging ears. These children were considered for visual-modality stimulation. [Author 1205]

Mishra, S. 1991. **Effects of home environmental variables on language acquisition of learning disabled and normal children.** M.Phil., Psy. Utkal Univ.

Problem: It attempts to study the effect of home environmental variables on language acquisition of learning-disabled and normal children.

Objective: To examine the extent to which home environmental variables affect language acquisition of the learning-disabled and normal children.

Methodology: The sample consisted of 26 children divided into two sub-groups on the basis of normal and learning-disabled status. The normal subjects were taken from Standard I, belonging to the age-groups of 3+ and 4+, respectively. But age was not taken as a factor in the case of learning-disabled children. The selected learning-disabled children and their mothers were free from speech and learning defects. The tools used included Home Environment Questionnaire of Jacckuck and Khandai, and Test of Oriya Syntactic Ability (TOSA). Mean, SD, 't' test, and factor analysis were used to analyse the data.

Major Findings: (1) Parental aspiration and living conditions of the home environment had a

significant effect on the test of Oriya Syntactic Ability. (2) The normal children differed from the disabled children on their home environment in favour of the enriched home environment. (3) Test of Oriya Syntactic Ability (TOSA) had relationship with the home environmental factor but it was not high. (4) The parent-child interaction and mass media had a significant relationship. [KCP 0512]

Mohapatra, S. 1991. **Reading, memory and attention processes of normal and reading disabled children.** M.Phil., Psy. Utkal Univ.

Problem: It attempts to study the problem of reading, memory and attention processes of normal and reading-disabled children.

Objectives: (i) To investigate the differences between the normal and reading-disabled children of Grade II and Grade IV on the measures of decoding, (ii) to compare the differences between normal and reading-disabled children of Grade II and Grade IV on the measure of comprehension, and (iii) to analyse the differences between normal and reading-disabled children in the psychological processes of attention and memory.

Methodology: The sample comprised 40 subjects, 20 each from Grade II and Grade IV. Among them, 10 were normal and 10 were reading-disabled. The tools used included Decoding Test, Comprehension Test, Oral Reading Test, Digit Span Test, Letter Cancellation Test, Visual Closure Test, Visual memory Test, Auditory Closure Test and Auditory Memory Test. Mean, SD, and ANOVA were calculated to treat the collected data.

Major Findings: (1) The normal and the reading-disabled children did not differ with respect to their intelligence. (2) In the case of decoding score, the normal subjects of both grades performed better than the reading-disabled subjects. (3) In the case of oral reading errors, the normal children made significantly less errors than the reading-disabled children.

(4) There was a significant difference in comprehension as a function of reading ability only and not grade. (5) There was a significant difference in the Digit Span score as a function of reading ability only and not for grade. This indicated that the normal children of both grades had better performance in digit recall than the reading-disabled of both grades. (6) The differences in the errors in letter cancellation as a function of grade was not significant, but for reading ability the differences were significant. (7) There was no significant difference in the letter cancellation time as an effect of grade as well as an effect of reading ability. [KCP 0485]

Mohite, Prerana. 1989. Developing and implementing a classroom instructional programme for children with learning difficulties. Independent study. *The Maharaja Sayajirao Univ. of Baroda.* [ERIC Funded]

Problem: This is an attempt to develop and implement a classroom instructional programme for children with learning difficulties.

Objectives: (i) To develop suitable screening devices which would enable teachers with minimum qualifications to identify children with learning difficulties, (ii) to develop a Teachers' Rating Scale (TRS), to identify children who have learning difficulties, (iii) to develop a Graded Word Test of spelling to identify spelling difficulties, (iv) to develop a Criterion Referenced Test of Reading covering the major components of reading skills, oral reading, silent reading, listening comprehension, word recognition and hearing sounds in words, (v) to identify children with learning difficulties from Standards I to IV of four municipal schools, and (vi) to develop a classroom instruction programme of reading and writing for children facing difficulty in learning.

Methodology: The sample comprised 60 children belonging to all the three municipal corporation schools. Among them, 18 had dropped out. Finally, 42 children were considered. The tools used included Teachers' Rating Scale (TRS),

Graded Word Test of spelling (GWT), and Criterion-Referenced Test (CRT) of reading.

Major Findings: (1) It was found that many children of the experimental group improved, i.e. progressed to higher-level paragraph in post-test as compared to pre-test in oral reading. (2) On silent reading, it was found that most of the children irrespective of being in the experimental or the control group progressed to higher-level paragraphs. (3) On listening comprehension, it was found that most of the children in the experimental group improved, except in Standard IV where children regressed to lower-level paragraph. (4) In Graded Word Test, it was found that the pre-test score differences between experimental and control groups for all the standards were not significant, indicating that before the programme both the groups performed at the same level. [CGVM 1151]

Mukhopadhyay, S. and Sharma, V. 1990. Identifying teaching competencies specifically for integrated education of the disabled children. Independent study. *National Institute of Educational Planning and Administration.* [ERIC Funded]

Problem: The study addresses the problem of Identifying teaching competencies specially for the integrated education of the disabled children so that special support can be provided for these children in a general classroom.

Objectives: (i) To study the attitudes of teachers towards integration of disabled children, (ii) to identify the general and specific competencies required for the integration of disabled children, (iii) to infer implications for the teacher education programme, and (iv) to develop a tool for identification of teaching competencies for integration of visually disabled children.

Methodology: The sample comprised teachers drawn from a model school for blind children run by the National Institute of Visually Handicapped (NIVH), and three special schools located in Delhi and Dehradun. Two higher secondary schools

with integrated provision for the blind, at Coimbatore and Delhi, were also included. In all, the study covered a sample of 33 teachers. The tools used included a check-list for studying attitudes of teachers towards equal educational opportunity for exceptional children in the integrated classroom, and a Competency Rating Scale for teachers. Mean, SD, and 't' ratios were used to treat the data.

Major Findings: (1) It was found that the teachers had a positive attitude towards equal educational opportunity for disabled children in integrated classrooms. (2) The male and female teachers did not differ in their perception of skills required for enhancing integration. (3) In terms of pattern of ranking of competencies for integration, there was unanimity in the perceptions of ranking of integrated schools. Special schools did differ in their perceptions of pattern of ranking. However, it was found that more importance was given to competencies such as setting of a social goal, followed by planning teaching activities. (4) 'Competencies for evaluation' was given the third rank, and the least importance was given to identification and placement. [VKR 1172]

Muruganandam, S. 1990. **Development of teaching-learning strategies in teaching science for visually impaired children.** M.Phil., Edu. Madurai Kamaraj Univ.

Problem: The study attempts to answer the question whether it is possible to develop a teaching-learning package in science for effective teaching of science to visually impaired children.

Objectives: (i) To prepare teaching-learning packages in science for teaching visually impaired children, and (ii) to compare the effectiveness of teaching with prepared packages on achievement over the traditional method of teaching.

Methodology: The sample comprised 27 visually impaired children of Standards VI and VII in the Government School for the Blind, Madurai, and St. Joseph's School for the Blind,

Paravai. Various tools included a Multi-Sensory Skill Test, Criterion Test and Reaction Scale, which were constructed and used. Also used was a specially designed teaching-learning material which was prepared and used for teaching science. The collected data were treated with mean, SD and 't' test.

Major Findings: (1) The visually impaired children learned more science concepts when they were taught through the specially prepared teaching-learning materials. (2) The learning package on science teaching for visually impaired children was found effective. [MKU 1068]

Narayan, J. 1990. **Comparison of the effectiveness of adult and peer models on the learning and retention of performance skills in mentally retarded children.** Ph.D., Edu. Utkal Univ.

Problem: The study attempts to compare the relative effectiveness of adult and peer models on the learning and retention of performance skills in children, using Educable Mentally Retarded (EMR) and Trainable Mentally Retarded (TMR) children.

Objectives: (i) To identify the EMR (IQ 51-75), and TMR (IQ 25-50) children between the ages of 10 and 14 attending the services at the National Institute for the Mentally Handicapped, Secunderabad, (ii) to develop a kit of performance skills to test the performance ability of the retarded children, (iii) to compare the effectiveness of adult and peer models with a no-model condition in learning and retention of the performance skills, and (iv) to find out the extent of retention of the performance skills learnt by the EMR and TMR children through the adult and peer models.

Methodology: The sample consisted of 150 mentally retarded children including 75 educable mentally retarded children (EMR) with an IQ varying from 51 to 70 and 75, and trainable mentally retarded children (TMR) with IQ ranging from 25 to 50. All the subjects were matched for

their chronological age, ranging from 10 to 14 years. The tools used included the Vineland Social Maturity Scale of Malin, and a Skill Test. Mean and ANOVA were computed to treat the data.

Major Findings: (1) Peer modelling was significantly more effective than adult modelling in the learning of motor skills. (2) The performance of immediate recall was significantly better than delayed recall under all the modelling conditioning for both groups. (3) The interaction between levels of retardation and type of modelling revealed that the TMR children under peer modelling committed significantly less number of errors than the EMR children. Both the groups committed more errors under adult modelling and maximum under no-model conditions. (4) In the learning of perceptual skills, the EMR children committed significantly less errors than the TMR children. (5) There were less errors under the peer modelling condition. (6) Acquisition of perceptual skills was better during immediate recall than under the delayed recall. (7) In learning communication skill, the EMR children committed significantly less errors than the TMR children, showing that the performance of EMR children was superior to TMR in learning. (8) Among the modelling conditions, the peer model was significantly more effective than the other two, the adult model being better than the no-model condition. (9) Immediate recall was better than delayed recall of communication skills among both the groups. (10) There was significant interaction between the levels of retardation types of modelling and the two learning conditions. (11) Under the conditions of peer modeling, the number of trials taken were significantly less than the adult model and the no-model condition. The adult model groups took a significantly lesser number of trials than the no-model group. (12) The retarded children took less number of trials during delayed recall than the initial learning phase. [KCP 0388]

Narayan, Jayanthi and Ajit, M. 1991 **Development of skills in mentally retarded**

child: The effect of home training. *Indian Educational Review*, Vol. 26(3): 29-41.

Problem: The study explores the feasibility of systematic training of parents in enhancing skill development in a mentally retarded child.

Objective: To assess the effect of parent training on the skill development of a mentally retarded child.

Methodology: Using the single-subject design, a female mentally retarded child aged 5 years 7 months was studied. She had no other associated physical handicap or medical problems. She was the first of two children of educated parents, living as an extended family with grandparents. The tool used was a pre-primary level check-list developed at the National Institute for the Mentally Handicapped (NIMH). Percentages were used while evaluating.

Major Findings: (1) Though the chosen skills to be trained were only two, there was an improvement in the overall development in all areas. (2) On the first skill, i.e. 'squeeze the wet cloth to remove water', it was seen that the base-line was at 50%, and in three sessions with three trials each, the child reached 90% accuracy in the skill. (3) On the second skill, i.e. 'identifying her name', her base-line was 25%. It was raised to 50% by the end of the second session. By the third session, the child achieved 75% and maintained between 80% and 100% success from the fourth session onwards. [SPr. 1506]

Narayan, Margaret. 1991. **Prevalence of mental retardation among slum children in Lucknow city.** Independent study. *Lucknow: Regional Centre, NIPCCD.*

Problem: The study attempts to investigate the prevalence of mental retardation among children belonging to the economically weaker sections of society living in slum areas of Lucknow City.

Objectives: (i) To identify children under 16 years of age living in slum areas, suffering from mental retardation, (ii) to investigate the factors

associated with mental retardation among the selected sample of children, (iii) to investigate the behavioural problems of the mentally retarded, and (iv) to identify the nature and type of services being provided for these children.

Methodology: The sample comprised 2,018 households which were selected from eight selected slum areas. Of them, finally, a total of 550 cases which were found to be mentally retarded were taken as subjects for the study. Standardised tests were used apart from the clinical assessments conducted by the experts.

Major Findings: (1) Mental retardation was found to be 5.5% in the general population. Further, it was 13.65 among male, and 10.55 among female children. (2) The prevalence of mental retardation was found to be the highest in the age-group 12-15 years and lowest in the age-group of below three years. (3) 22.73% families had more than one mentally retarded child in the family. (4) It was found that 82.82% of mentally retarded children were mildly mentally retarded, while 18.18% children had moderate to severe mental retardation. (5) Both parents of 50.73% of mentally retarded children were illiterate. (6) 84.74% of mentally retarded children belonged to families with a per capita monthly income of less than Rs.300. (7) The majority of children were first- or second-born. (8) It was found that 68% of deliveries were conducted at home and about 32% of the deliveries were conducted by relatives and by untrained persons. (9) About 68% of mentally retarded children had been identified before the survey, and 55% of mentally retarded children were recognised as such by their mothers. The mean age at which children were recognised as mentally retarded was 3.03 years. (10) The majority of children were born to mothers who were below 30 years of age. (11) No mentally retarded child was found to be attending any special school. (12) It was also found that no welfare agency was working in the slum areas for the welfare of mentally retarded children. (13) No recreational facilities/rehabilitative

services were found to be available to the mentally retarded children in slum areas. [NS 1042]

Panda, B. K. 1991. **Attitude of parents and community members towards disabled children.** Ph.D., Home Sc. Utkal Univ.

Problem: This is an attempt to study the attitude of parents, teachers and community members towards disability of different categories.

Objectives: (i) To find out if parents, teachers and the community members have different attitudes towards various groups of disabled children, (ii) to find out if attitudes towards disability differ as a function of sex of parents, teachers and community members, (iii) to see if attitudes towards different types of disability are different, (iv) to see if sex of parents, teachers and community members interact with disability categories with regard to expressed attitudes, (v) to see if the type of people, i.e. parents, teachers and the community members, interact with the disability categories with regard to expressed attitudes, (vi) to see if sex and categories of people interact with regard to expressed attitudes towards different categories of disability, and (vii) to see if there is interaction in the expressed attitudes towards the disabled between sex, category of disabled and categories of people.

Methodology: The sample consisted of 100 parents having disabled children, 100 teachers, and 100 community members equally drawn from male and female subgroups in five randomly drawn districts of Orissa. The researcher used the Semantic Differential Technique as a tool. Mean, SD, and ANOVA with repeated measures were used to treat the data.

Major Findings: (1) Attitude is dependent upon the sex of the people, whether they are teachers, parents or community members. In general, females showed favourable attitudes towards normal, hearing-impaired, visually-

impaired, and severely mentally retarded children on the evaluative dimension. Males showed more favourable attitude towards the educable mentally retarded (EMR) and speech impaired. Female parents had significantly made favourable attitudes than the male parents. On the activity factor, sex had no differential effect on attitudes towards disability. On the potency dimension, the females were slightly more favourable towards EMR, and hearing-impaired than the males. (2) Parents, teachers and the community members revealed differential attitudes towards the disability groups. Teachers showed negative attitudes to the severely mentally retarded and the neurologically impaired epileptics. Parents were less negatively disposed towards these groups than teachers. Community members were negatively disposed towards the severe mentally retarded. Teachers and community members had nearly similar attitudes reflected in the evaluative dimensions towards EMR and the crippled. In the activity and potency dimensions, there were no such differential attitudes. [KCP 0379]

Pandey, S.P. 1991. **A study of the disabled in the rural society of eastern Uttar Pradesh with special reference to Bahraich, Deoria, Pratapgarh and Ballia.** Independent study. Lucknow: Pandit Govind Ballabh Pant Institute of Studies in Rural Development.

Problem: The study addresses the problem of analysing the socio-economic problems faced by the disabled in the rural areas of eastern Uttar Pradesh, and of evaluating the measures lodged by the government and voluntary organisations for their welfare.

Objectives: (i) To assess and analyse the extent and type of existing disabilities in the rural areas, (ii) to examine the status of the disabled in the family/ society, (iii) to review the ongoing schemes and measures for the welfare and upliftment of the disabled, and (iv) to suggest remedial measures for their development.

Methodology: The sample comprised 400

male and female disabled, covering the totally blind, the crippled and the dumb of all age-groups and different religions and castes. It also considered 400 heads of families to which the disabled belonged and 400 neighbours from four selected districts of eastern Uttar Pradesh, i.e. Bahraich, Deoria, Pratapgarh and Ballia. In addition, the opinion of the officials of concerned departments and voluntary organisations was also incorporated in this study. The tools used included Schedules, Interviews, Discussions and Observations. In addition, the secondary sources of information were also collected and used. The percentage method was used to treat the collected data.

Major Findings: (1) It was found that from among the total sample of the disabled, 16% were totally blind, 10.5% were dumb, 11.5% were mentally retarded and 3% were leper cases. (2) The disabled were living in a critical condition. (3) Most of the people did not want to mix with the disabled and look down upon them (52% of the disabled reported). Disability also caused problems for the relatives (47.50% of the disabled reported). (4) The disabled were unwelcome in community places like schools, temples, parks, public wells, etc. (60% of the heads of families of the disabled and about 52% neighbours reported). In certain cases, the family also discouraged them from mixing in society due to fear of harm from other persons (19.50% respondents reported). (5) The educational level of the disabled was poor as they belonged to the poorer sections of society. 13.7% of the disabled were economically engaged in different occupations. The per capita annual income of the working disabled was Rs.1,144 only. (6) Developmental plans related to the disabled had little coverage in the rural areas. A low proportion (42%) reported awareness about the development schemes for the welfare of the disabled. [NR 1240]

Paranjape, Lata Sadashiv. 1991. **A study of the effect of a supplementary education programme for hearing impaired children on**

their language development and socialisation, and the effect of parental education programme on their awareness of acceptance of their child's handicap. Independent study. Pune: Tilak College of Education. [ERIC Funded]

Problem: This research attempts to study the effect of a supplementary training programme on the language development and socialisation of hearing-impaired children and to study the effect of parental education programme on the parents' awareness of acceptance of their child's handicap. The researcher evolved a structured programme both for the children and also for the parents.

Objectives: (i) To find out the hearing loss of deaf children as well as to study their socio-economic background, (ii) to identify the problem of deaf children in their language development, (iii) to evolve a programme of supplementary education for the language development of deaf children, (iv) to identify the problem of deaf children in respect of their socialisation and to evolve a programme for supplementary education for socialisation of the deaf children, and (v) to identify the problem of the parents in accepting the handicap of their child and evolve a programme for developing the awareness of the parents regarding the acceptance of handicap.

Methodology: The sample comprised 34 children in the age-group of 3 to 12 years, who were chosen using the purposive sampling technique. Two sets of tools were used in the study — one set for parents and the other for the children. The tools used for the parents included Interview Schedule, Questionnaires, Participatory programmes for the parents, and Socio-economic proforma. The tools used for the children included Programmes, Check-list, Rating Scale for Socialisation, case studies, observations and language tests. The collected data were subjected to percentiles and 't' ratios and analysed accordingly.

Major Findings: (1) As a result of the supplementary educational programme, the children started speaking boldly. They started

speaking full sentences. They were eager to express themselves without feeling shy. This was substantiated by the quantitative analysis. (2) During the programme the children developed a positive social behaviour such as answering, taking turns, volunteering for work, etc. In most of the cases the increase in the positive behaviour was doubled in the third phase. This was an indication of good socialisation of the children. (3) The children were expected to pick up some higher social behavioural traits, such as admiring the good work done by others, feeling free in the presence of strangers, etc. In this case, also, the children showed good development. (4) Parents could not give the exact nature of the defect of their child, but they knew about the degree of hearing loss. The misunderstandings on the Cochlear Implant were totally removed. (5) As a result of parents' awareness programme, the parents became aware of the positive points, such as, the residual hearing of the child. Parents became more free and open-minded in disclosing the facts regarding the consultations with different doctors or following other than medical measures. They realised the necessity of teaching the child to lip-read. (6) Parents gave up many wrong concepts regarding their hearing-impaired child and developed the right concepts in many respects. (7) At the end of the project, parents started keeping a record of the child's receptive and expressive language. All of them started teaching their child. They could detect the difficulties on the part of the children about words. They become more attentive towards the problems of the child. (8) It was observed that there was a lot of enrichment of the teachers participating in the project and the student-teachers involved in the project. [Author 1201]

Phoola, K. 1990. **A study of physically handicapped children in Jammu province.** Ph.D., Edu. Univ. of Jammu.

Problem: It attempts to study the physically handicapped children in relation to various variables and to compare them with normal children.

Objectives: (i) To identify physically handicapped boys and girls on the basis of the operational definition, (ii) to find out the degree of relationship between physically handicapped and normal students in relation to intelligence, adjustment, feelings of security/insecurity, personality, academic achievement, reactions to frustration and parent-child relationship, (iii) to find out sex differences in the physically handicapped group with regard to various variables, (iv) to find out sex differences in the normal group with regard to various variables, (v) to compare physically handicapped and normal students on different variables gender-wise, and (vi) to study and compare different types and directions of aggression and reactions to frustration, between boys and girls in physically handicapped and normal groups separately.

Methodology: The sample comprised 600 students of various randomly selected high and higher secondary institutions during the session 1986-87, from four districts of Jammu Province. The tools used included Tendori's Group Test of Intelligence for children, Saxena's Adjustment Inventory, Maslow's Security-Insecurity Inventory, Maudsley's Personality Inventory, Rosenzweig's Picture Frustration Study and questionnaires for measuring relationships with parents, teachers and peers. The collected data were treated with coefficient of correlation and 't' tests.

Major Findings: (1) There was a substantial negative relationship between physical handicap and intelligence. (2) The physically handicapped were found to be highly insecure. (3) Severity in disability caused poor adjustment. (4) Disability and extraversion were negatively correlated. (5) Poor academic achievement and physical disability were found to be highly related. (6) The physically handicapped showed poor relationship with parents, teachers and peer group. (7) The physically handicapped boys were more intelligent, better adjusted to health, social, emotional and school areas and developed insecure feelings, kept poor relationship with

parents but better relationship with peer group. (8) The physically handicapped girls felt more insecure than the boys. (9) The handicapped boys and girls differed significantly on obstacle dominance, and ego defense reactions to frustration. (10) The physically handicapped boys tended to be more aggressive as compared to girls. [SPS 1280]

Prabhatsinh, Chudasama Raghubha. 1992. **A study of the adjustment, aggressiveness, achievement-motivation and self-concept of physically handicapped students as compared to normal students.** Ph.D., Edu. Saurashtra Univ.

Problem: The study attempts to compare the adjustment, aggressiveness, achievement-motivation, and self-concept of physically handicapped students with those of normal students.

Objective: To compare physically handicapped children with normal children on adjustment, aggressiveness, achievement-motivation and self-concept.

Methodology: The sample consisted of 426 normal and 426 physically handicapped students, drawn from six different districts of Gujarat. They were students studying in Standards VIII and IX. The tools used included Adjustment Inventory of K.G.Desai, 'My Behaviour' (Aggressiveness Inventory) developed by the investigator, Achievement Motivation Inventory of Prayag Mehta, and 'What do you feel' inventory by D.A. Uchat. Mean, SD, and 't' test were used to treat the data.

Major Findings: (1) The normal students of Standards VIII and IX were better adjusted than the physically handicapped students of Standards VIII and IX, respectively. (2) Among the physically handicapped students, Hindu and Muslim students were better adjusted as compared to Jain students. (3) The physically handicapped and the normal children did not differ significantly as far as aggressiveness

and achievement-motivation were concerned. (4) Normal boys were superior to physically handicapped boys and normal girls were superior to physically handicapped girls with respect to self-concept. [DAU 0005].

Rai, Kamallesh. 1991. **Cooperation-based learning strategies for disabled and non-disabled children in integrated settings.** *Indian Educational Review*, Vol.26 (3): 110-22.

Problem: This is a theoretical article based on a review of studies attempting to explore effective cooperative learning strategies for promoting a constructive relationship, positive attitudes and integration between disabled and non-disabled peers in the regular classroom.

Major Findings: It has been found from the review that cooperative-learning experiences promote a closer relationship between the disabled and the non-disabled. When learning situations are structured cooperatively and they work together, they interact in positive ways, feel supported and encouraged to achieve. The five major sets of strategies for structuring cooperative learning include (a) clearly specifying the objectives of the lessons; (b) decision about placing of students and size of the group; (c) explaining the task, positive inter-dependence and learning activities in students; (d) monitoring the learning groups and intervening to provide task assistance; and (e) evaluating students in their achievement. [KCN 1512]

Ramaa, S. 1990. **Study of neuro-psychological processes and logico-mathematical structure among the dyscalculics.** Independent study. *Mysore: Regional College of Education.*

Problem: It is an attempt aiming at identifying whether dyscalculics who are normal in reading and writing, are deficient in the specific neuro-psychological processes.

Objectives: (i) To identify dyscalculics who are free from dyslexia and dysgraphia from among

children studying in primary schools, (ii) to find out whether there are sub-categories within the group of dyscalculics who are normal in reading and writing in terms of the difficulties encountered by them while doing arithmetic sums, (iii) to analyse the kinds of arithmetic errors committed by such children, (iv) to find out whether the children with only dyscalculia are different in the specific neuro-psychological processes, auditory sequential memory, and visual sequential memory and in the different components of logico-mathematical structure-seriation, conservation and classification, and (v) to find out whether dyscalculics who are normal in reading and writing demonstrate different patterns of deficiencies in the cognitive abilities assessed.

Methodology: In order to identify dyscalculics, 10 primary schools (both government and private management) of Kannada medium, located in Mysore City were selected. Finally, 15 were identified as dyscalculics based on the diagnosis. Tools used included Kannada Oral Reading Test of Jayabai, Reading Comprehension Test of Ramaa, Arithmetic Diagnostic Test, Visual Sequential Memory and Auditory Sequential Memory Sub-tests of Illinois Test of Psycholinguistic Abilities of Kirk and McCarthy, Metric Relations and Conservation Sub-tests of Mysore Cognitive Development Status Test of Padmini and Nayar and a Classification Test developed by the investigator. The collected data were subjected to qualitative analysis by comparing with the norms for normal children and through error analysis.

Major Findings: (1) Dyscalculics differed among themselves in acquiring certain most basic skills, and a majority of them experienced difficulty in reading and writing integers with more than two digits, in sequential reproduction and seriation of numbers and they experienced more difficulty in multiplication and division. (2) Solving simple problem of addition and subtraction involving verbal and numerical relations appeared to be difficult. They had

extreme difficulty in fraction terminology and basic operations involving fractions and also in understanding and applying algorithms relating to different arithmetic processes. (3) Almost all the Dyscalculics of the present study failed to solve problems involving spatial and numerical relations. (4) The psycholinguistic ages for visual sequential memory and auditory sequential memory were much below that of CA in all the dyscalculics of the study. (5) The performance of mathematically deficient subjects were poorer than mathematically proficient children in sequential memory and they recalled more information with the verbal presentation. (6) Majority of the children with dyscalculia experienced difficulty in seriating the objects, dolls and sticks height-wise and length-wise, respectively, and a majority of them could seriate the objects in terms of area and volume. (7) Distance estimation which involves spatial relations was very difficult to the subjects of the study. (8) With regard to conservation ability, only a few were conserves of judgement of invariance of number and a few conserves of length. (9) With regard to classification ability among dyscalculics, only 50% of Grade IV could classify a set of signs in terms of odd and even numbers. [BNS 0985]

Rath, S. 1991(b). **An individualised instruction training approach for teaching children with learning difficulties in reading and comprehension skills.** M.Phil., Psy. Utkal Univ.

Problem: The study centres around the problem of an Individualised-Instruction Training Approach for teaching children with learning difficulties in reading and comprehension skills.

Objective: To demonstrate an Individualised Instruction Training Approach for teaching children with learning difficulties, specially in reading and comprehension skills.

Methodology: A sample of five subjects was chosen keeping in view that they did not read at the level of their mental and physical age. At the

time of conducting the present study, all the subjects were enrolled in a special education programme at Open Learning Systems, Bhubaneswar. Their ages ranged between 12 and 19 years. These children had earlier been identified as having problems or difficulties in learning, reading/comprehension skills or abilities, by the institution they were attending. This small group was chosen as the sample after careful screening of over 15 children enrolled in the same programme. The tools used included a test of Oriya Syntactic Ability, and a General Evaluation Check-list. Percentages were used in the analysis of the data.¹

Major Finding: It was found that there was improvement in scores in the post-training session as compared to the pre-testing scores. [KCP 0471].

Sahoo, J. 1991. **A comparative study of the behavioural characteristics of the blind, deaf, dumb and the normal children of Orissa.** M.Phil., Edu. Utkal Univ.

Problem: This is a comparative study of the behavioural characteristics of the blind, deaf, dumb and normal children.

Objectives: (i) To study and compare the behavioural characteristics of the blind, deaf, dumb and normal children, and (ii) to compare the sub-variables associated with the behavioural characteristics of the blind, deaf, dumb and normal children.

Methodology: The sample comprised 90 children, covering 27 blind children, 34 deaf and dumb children, and 29 normal children of Standards IV, V and VI. A three-point rating scale was used as a tool. Mean, SD, and 't' test were used to treat the data.

Major Findings: (1) The normal children showed much better behavioural functioning as compared to the blind, the deaf and the dumb. (2) The blind, deaf and the dumb children exhibited low self-concept as compared to the

normal ones. But the blind children did not differ significantly from the deaf children with regard to their self-concept. (3) The blind children differed significantly from the deaf, dumb and the normal children with regard to disturbed relationship with peers. The deaf and the dumb children were able to maintain good relations with peers just like normal children. (4) It was also found that, with regard to inappropriate relationship with teachers, parents and their authority figures, the blind, deaf and the dumb children were able to maintain almost an equal level of relationships as the normal children. (5) The blind, deaf, and the dumb children showed more social-emotional problems, as compared to normal children. But the social-emotional problems of the blind, deaf and the dumb children did not differ much. (6) The independence, responsibility and maturity of the blind children did not differ much from the deaf and dumb children. [KCP 0489]

Saxena, R. R. 1991. **Intellectual and non-intellectual characteristics of slow learners.** Ph.D., Edu. *Banasthali Vidyapith.*

Problem: The study aims at exploring the main intellectual and non-intellectual characteristics of slow learners so that they can be identified properly and suitable guidance programme can be developed in tune with their expectations and problems.

Objectives: (i) To explore the levels of growth among slow learners and deviations from norms, with regard to intellectual factors and non-intellectual factors, (ii) to explore their persistent problems and expectations, and (iii) to develop a guidance programme for slow learners.

Methodology: The sample comprised 400 slow learners of Class IX, having IQ below 90. Half the sample were male and half were female slow learners having IQ between 80 and 89. In the second category 100 male and 100 females slow learners having an IQ between 70 and 79 were chosen. The tools used included Cattell's Culture

Fair Intelligence Test, Jalota's General Mental Ability Test, Differential Aptitude Test (Indian adaptation by J.M.Ojha), Learning Digits Substitution Test, Rao's Achievement Motivation Test, Kumar's Maturity Scale, Krishnan's Temperament Schedule, Values Check-list, Problem Check-list and Expectation Check-list. The collected data were treated with mean, SD, 't' test and ANOVA. Further, graphical representations were also used.

Major Findings: (1) Slow learners of both sexes under the first category displayed much better learning speed than their counterparts in the second category. The learning speed of the slow learners increased with practice. (2) The slow learners had a lower level of intellectual development than the normals on all the six intellectual factors, meaning thereby that the slow learners had low levels of intellectual factors. (3) The male slow learners had lower level of growth than the normals on some non-intellectual factors, i.e. Achievement Motivation, Maturity, Temperament, and Impulsivity suggesting that retardation in learning speed inhibits the growth of the specified non-intellectual factors. (4) The male and female slow learners had a poor level of vocational interest. This suggests that the retardation in learning speed badly affected their vocational interest. (5) Male slow learners had a lower level of values than normals on political, theoretical and economic values, but higher on social and aesthetic values. Female slow learners had low levels of religious and economic values only. [RPS 0732]

Sharma, I.P. 1990. **A comparative study of the personality traits, interests and aspirations of high-creative and low-creative physically handicapped students of higher secondary schools.** Ph.D., Edu. *Rohilkhand Univ.*

Problem: This study attempts to compare the personality traits, interests and aspirations of low-creative and high-creative physically handicapped children which can facilitate the

development of a proper programme aiming at their better education and rehabilitation.

Objectives: (i) To compare rural and urban physically handicapped boys and girls on creativity, and (ii) to compare the personality traits, interests and aspirations of high-creative and low-creative physically handicapped students.

Methodology: The sample comprised 500 physically handicapped students, covering 400 boys and 100 girls of Classes X, XI and XII from different schools of north India, who were selected randomly. On the basis of creativity test scores, the students were classified into low- and high-creative groups. The tools used included Verbal Test of Creative Thinking by Baqer Mehdi, Cattell's 16 P.F. Questionnaire (Indian Standardised version of Kapoor), Non-Language Preference record by Chatterjee, and Test of Level of Aspiration by Shah and Bhargava. Mean, SD, and 't' tests were used to treat the data.

Major Findings: (1) Among the physically handicapped students, boys were found to be more creative than girls. (2) No significant difference was found between rural and urban students on creativity tests. (3) High-creative handicapped students achieved significantly higher mean scores on personality factors, B, E, G, M and Q2, but lower mean values on factors A and Q4 than their low-creative counterparts. (4) On the interest inventory, high-creative handicapped students scored higher mean values in the areas of fine arts, science and technical work, while the low-creative group had shown more interest in crafts. (5) No significant difference was found in the level of aspiration of high-creative and low-creative handicapped children. [BS 0954]

Sharma, M.C. 1988. **An exploratory study on the use of teaching aids for developing concepts among handicapped (deaf) children.** Independent study. *National Council of Educational Research and Training.*

Problem: There is evidence from various studies conducted on development of concepts among normal children. But, to know the process of development of concepts among handicapped children seems to be a challenging task. Hence, this study has been taken up.

Objective: To find out the effectiveness of the teaching-aid method based on the Concept Attainment Model as compared to the effectiveness of the normal teaching method.

Methodology: The sample students were selected from Lady Noyce School for the Deaf, Delhi. About 30 students from Classes I to V (excepting Class III) were selected. Four criterion tests were constructed by the researcher. Eight concepts, two to each class, were taught by the teaching-aid method and the normal teaching method. Two equivalent groups of 15 students each in one class were formed by assigning students in each group. The pre-tests and post-tests were conducted. The mean, SD, 't' test were used to treat the data.

Major Findings: (1) The teaching-aid method was found superior to the normal teaching method for the development of concepts among deaf children of Standards I and II. (2) The teaching-aid method could not establish a significant difference over the normal teaching method for Standard IV and Standard V children. But it did show a hierarchical order from the teaching-aid method to the normal teaching method in terms of effectiveness due to high mean score in teaching-aid method and low mean score in normal teaching method. [SRA 1127]

Sharma, Premlata, 1989. **A study to explore the linguistic competence of the hearing-impaired in IED and in special schools of Haryana and Delhi.** Independent study. *National Council of Educational Research and Training.* [ERIC Funded]

Problem: This study attempts to explore the linguistic competence of the hearing-impaired in IED and in special schools of Haryana and Delhi.

Objectives: (i) To explore the linguistic competence of the hearing-impaired studying in special and in normal schools, through the case study approach, and (ii) to compare the levels of linguistic competence of the special schools hearing-impaired with the levels of the hearing-impaired children attending normal schools.

Methodology: The sample comprised 48 hearing-impaired students from special schools and 48 hearing-impaired students from the normal schools of Delhi and Haryana. The tools used included a Linguistic Competence Test in Hindi, constructed by the investigator, Raven's Progressive Matrices Test, and a Questionnaire covering the socio-economic status, degree of hearing loss, age and sex of the selected sample. The case study approach was used to assess the linguistic competence of the hearing-impaired studying in the special and IED schools of Delhi and Haryana. Mean, SD, 't' test and correlation techniques were used to treat the data.

Major Findings: (1) The linguistic competence attained by the hearing-impaired of special schools was less than that of the hearing-impaired of the IED schools. (2) The hearing-impaired children of special schools were found to be significantly better on their intelligence than the IED children. (3) The linguistic competence of the hearing-impaired studying in IED was significantly better than those of special schools. [Author 1164]

Sharma, Premlata and Pandey, Savitha. 1992. **An experimental study to assess the effectiveness of adapted instructional material in science on hearing-impaired from IED and special schools.** Independent study. Mysore: Regional College of Education.

Problem: This study attempts to assess the effectiveness of the adapted instructional material in science for Classes I-VII in both integrated and special schools of Delhi, Haryana and Mysore (Karnataka).

Objectives: (i) To facilitate the teachers of the

hearing-impaired teaching science to Classes I-VII in raising their level of classroom participation, (ii) to help the teachers of IED schools in developing insights for devising better teaching methodologies for IED classes, (iii) to help the hearing-impaired studying both in IED and special schools from Classes I-VII in learning science concepts better, (iv) to facilitate the teacher to teach the difficult concepts by involving other sensory channels for providing the same learning experience in IED classes, and (v) to provide compensatory inputs to both the hearing-impaired and normal hearing children for understanding the taught concept clearly.

Methodology: The sample comprised 327 students (90 normal hearing and 237 hearing-impaired children) from Classes I-VII drawn from eight schools (both IED and special schools) of Delhi, Haryana and Karnataka. The tools used included the handbook on adaptation in science instructional material which was developed and tried out through teachers of the hearing-impaired for teaching science in IED and special schools; science achievement tests to assess the effectiveness of the adapted material used for teaching science for Classes I-VII. Mean, SD, 't' test and F-test were used to treat the data collected from pre-test and post-test scores.

Major Findings: (1) The performance of the hearing impaired from IED and special schools on post-test was better than on the pre-test. But the performance of Classes II and IV of special schools was better than the students of Classes II and IV studying in IED settings, both on pre-test and post-test. Further, it was also found that the performance of the hearing-impaired was better on the post-test than on the pre-test. (2) The hearing-impaired from Classes V-VII from IED setting, in general, had performed better than the hearing-impaired studying in special schools, on both pre-test and post-test. The performance of the hearing impaired from the IED setting on post-test was significantly better than on the pre-test. (3) Significant differences were found on age variables, but not so on gender variables among

the hearing-impaired in both the settings. (4) It was also found that the medium of instruction had no impact on the science achievement of the hearing-impaired studying in integrated and special schools, excluding Class VI. [Author 1337]

Sharma, Sunita. 1988. **Mainstreaming the visually handicapped.** *Indian Educational Review*, Vol. 23 (4): 30-41.

Problem: The study centres around the problems of the visually handicapped who in India constitute about one-third of the blind population of the world and are generally exploited and left out of the mainstream of national progress.

Objective: To analyse and review the previous researches to study the intellectual, personal and other characteristics of the visually handicapped.

Methodology: The study was based on a review of the related literature.

Major Findings: (1) Loss of sight does not produce any special behaviour among the blind. (2) Maladjustment in society, family and specially in school, and unsuitable school settings are the most prominent factors which lead to academic retardation of the visually handicapped. (3) After completing pre-primary or primary education at special institutions, emphasis should be laid on placing the visually handicapped in integrated educational settings. [JPM 1417]

✓ Srivastava, Sushila and Afiah, F.Z. 1992. **Learning disabilities among elementary school children: Influence of sex, age and religion.** *Indian Educational Review*, Vol.27 (4): 1-11.

Problem: The study focuses on the identification of the learning-disabled and assessment of their ability in reading, writing, spelling, language and arithmetic.

Objectives: (i) To identify the learning disabled, (ii) to assess their ability in those aspects such as reading, writing, spelling, language, and

arithmetic, and (iii) to investigate the interaction among age, sex and religion with reference to learning abilities among elementary school children.

Methodology: The sample comprised 150 elementary school children (75 male and 75 female) of ages 8,9 and 10 years belonging to three religions, i.e. Hindus, Muslims and Christians. The tools used included Raven's Coloured Progressive Matrices, Gray Oral Reading Test, Peabody Picture Vocabulary Test (revised version), Compass Diagnostic Test in Arithmetic, Jone's Spelling Scale, Standard Scale for Judging Handwriting by Truman Gray, school records for sex, age and religion. The statistics used included mean, SD, 't' test and ANOVA.

Major Findings: (1) Age had a significant influence on disability in reading, language, writing and spelling. (2) There was no significant difference between boys and girls in their disabilities in reading, arithmetic, language and spelling but sex had a definite bearing on the writing disability of the learning disabled. (3) The Hindus, Muslims and Christians did not differ significantly on five learning disabilities. [JPM 1897]

✓ Tangri, Poonam. 1990. **A study of social and psychological factors in families with handicapped children.** Ph.D., Psy. *Punjab Univ.*

Problem : The study attempts to investigate the social and psychological factors in families with handicapped children.

Objectives: (i) To study the temperament of handicapped children, and (ii) to investigate the impact of a handicapped child on the family.

Methodology: The sample consisted of the mothers of 50 physically handicapped children (24 boys and 26 girls), 50 mentally handicapped children (29 boys, 21 girls) ,with IQ range 35-70, and 50 normal children (26 boys and 24 girls). All the children were drawn from Chandigarh and adjoining areas, belonging to the age range of 8-

15 years. The tools used included Parental Attitude Scale of Bhatti and Narayanan, Marital Adjustment Questionnaire of Bhat and Gauba, Social Burden Scale of Pai and Kapur, and Temperament Measurement Schedules of Malhotra. The statistical treatment of the data included two-way ANOVA, 't' test and correlations.

Major Findings: (1) No significant difference was found on orientation towards child-rearing, knowledge of handicap and attitude towards the handicap. Mothers of physically handicapped children had more favourable attitude towards management of the handicap than mothers of mentally handicapped children, with mothers of boys having a more favourable attitude towards it as compared to the mothers of girls. (2) Parents of normal children had better marital adjustment than those of handicapped children. Mothers of mentally handicapped children reported more disruption in family routine, family interaction and more overall burden than those of physically handicapped children, with mothers of handicapped girls reporting more disruption than those of boys. (3) Normal children were more sociable, emotional, energetic and distractable than handicapped children. (4) Physically handicapped children were found to be more sociable and distractable, but less emotional than the mentally handicapped children, while, they didn't differ on the energy characteristic. Boys were more energetic, more sociable and distractable than girls in both the handicapped groups. Normal girls were more sociable and distractable than the boys. (5) The temperament of children had no correlation with the marital adjustment of the parents in any of the groups. (6) Mental health of the non-working mothers of mentally handicapped children was affected more than that of the working mothers. [JNJ 0270]

Tripathi, L.B.; Tripathi, A.N. and Srivastava, A.N. 1991. **Learning disabilities: Some behavioural manifestations.** Independent study. *Univ. of Gorakhpur.* (ERIC Funded)

Problem: The concept of learning disabilities

as simply the underachievement of a child is not educationally useful. Learning disabilities are multi-faceted. They consist of educational disabilities, cognitive, perceptual and motor disabilities, language disabilities, social-emotional disabilities and many other behavioural disabilities. There is considerable controversy regarding the diagnosis of these disabilities. Various researchers have attempted to assess one or more of these areas through tests developed by themselves. Yet one has to admit that each of the disability areas has been only minimally researched and there appear to be a number of different approaches of investigation, each of which seems adequate for some children and not for others. It is all the more vital that research in this field be greatly expanded. The present study depends primarily upon the assumption that the key areas of all learning disabilities is the classroom.

Objectives: (i) To develop an adequate tool to diagnose learning disability, and (ii) to study the variation in the psychological functioning of the children.

Methodology: The sample consisted of children of Grades I, II and III studying in convent schools and Palika schools of Gorakhpur City. They ranged in age from 4 years to 9 years. A total of 1,053 children were drawn from five advantaged (575) and five disadvantaged (478) schools. The tools used included Learning Abilities Rating Scales, (LARS I and II), Draw A Man Test, Wechsler's Intelligence Scale for Children (WISC), Bender Visuo Motor Gestalt Test, Parent Rating Scale, and a Raw Achievement Test. The collected data were treated with 't' test, Pearson's product-moment correlation, and path analysis.

Major Findings: (1) Perceptual motor behaviour of the LD and NLD students was assessed by the Marianne Frosting Development Test (MFFDT). It was found to be significant between LD and NLD on the whole test. (2) Hyperkinesis behaviour of LD and NLD students was assessed by the count of errors of the

individual card of the Bender Visual Motor Gestalt Test, and it was found that the two groups differed significantly. (3) Significant differences were found between LD and NLD students in their competence. (4) LD and NLD subjects were similar in the development of their cognitive map. (5) LD and NLD subjects had significant differences on the length-assessment task. (6) LD children were significantly poor in recognising the shape of the English alphabet characters and Arabic numerals presented in various rotated positions. (7) NLD children demonstrated a high level of iconic memory, whereas the LD children could not tackle the task very successfully. (8) The path analysis indicated that the longer the path was between achievement and comprehension, a closer path emerged. The middle range of path distance came out between achievement and competence. (9) The path product between perception and competence was negative, whereas between perception and comprehension, a positive path relation emerged. [SKB 1876]

Upreti, V. 1988. **A comparative study of self-concept, need pattern and intelligence of normal and orthopaedically handicapped children.** Ph.D., Psy. Rohilkhand Univ.

Problem: The study centres upon the differences between the self-concept, need pattern and intelligence of normal children and those of handicapped children.

Objectives: (i) To compare the self-concept, need pattern and intelligence of normal and orthopaedically handicapped children, and (ii) to know the effect of age and sex on the above variables.

Methodology: The sample of the study comprised 200 children (100 normal and 100 orthopaedically handicapped), who were in the age range of 13-18 years. They were drawn from 26 educational centres of Moradabad City. The tools used included Self-Concept Questionnaire of R. K. Saraswat, Tripathi Personal Preference Schedule of R.R.Tripathi, and Group Test of General Mental Ability Test of Jalota. The collected data were treated with mean, SD, and 't' test.

Major Findings: (1) Self-concept of normal children was significantly better than that of the handicapped children. (2) Handicapped children achieved significantly higher mean scores on Order, and Abasement needs, whereas the normal children's mean score was significantly higher on Change need. (3) Normal children were found to be significantly more intelligent than the handicapped ones. (4) No significant difference existed between the self-concept of boys and girls. (5) No significant difference was found between the self-concept of 13-15 years old and 16-18 years old handicapped children. (6) Handicapped girls achieved significantly higher mean values on Achievement, Difference, Order, and Succorance needs, and handicapped boys achieved significantly higher mean value on Heterosexuality needs than their respective counterparts. (7) Handicapped children of 13-15 years achieved significantly higher mean value on Order need and lower mean value on Aggression need than the 16-18 years handicapped children. (8) No significant difference existed between the intelligence of handicapped boys and girls. (9) Handicapped children of 16-18 years were more intelligent than the 13-15 years old handicapped children. [BS 0958]

Also See

Dutta, Anima. 1990. **Learning disabilities in the reasoning power of the students in geometry — Diagnosis and prevention.** Ph.D., Edu. Univ. of Kalyani. [PDR 0639]

(See in Chapter 20.)

Hariharan, M. 1991. **Invulnerable children: Some studies on disadvantaged children's competence and coping style.** Ph.D., Psy.

Utkal Univ. [KCP 0410] (See in Chapter 6.)

Mishra, R. 1991. **Development of teaching steps for handling arithmetic-disabled children.** M.Phil., Psy. *Utkal Univ.* [KCP 0510] (See in Chapter 20.)

Muthiah, P.N. 1989. **Vocational education for the disabled students in Tamil Nadu: A**

survey. Independent study. *Madurai Kamaraj Univ.* (ICSSR Funded). [NR 1232] (See in Chapter 26.)

Vasanthi, R. 1991. **Mathematical learning disabilities in relation to certain psychological, social and educational factors.** Ph.D., Edu. *Univ. of Madras.* [DRG 0093] (See in Chapter 20.)