 J Psychology, 3(1): 1-11 (2012)

# Evaluation of Sensitivity Training Program on Academic Problems in Elementary School Children for Inclusive Education Resource Teachers under Sarva Siksha Abhiyan-Karnataka

**S. Venkatesan**

*Department of Clinical Psychology, All India Institute of Speech and Hearing, Mysore 570006, Karnataka, India*
*Telephone : +91-0821-2514449-142; Cell: 098447 37884; Fax: 0821-2510515*
*E-mail: psyconindia@gmail.com psyconindia@aiishmysore.in*

**KEYWORDS** Resource Teachers. Children with Special Needs. Impact Indicators

**ABSTRACT** This study uses a prospective and semi-longitudinal recurring interventional design to evaluate the efficacy of program content, procedures, materials and activities, their immediate outcomes of a recently concluded state level 2-week sensitivity training program on academic problems in elementary school children organized for around 550 Inclusive Education Resource Teachers. An identified set of topics, critical skills and competencies were taught to participants by a team of rehabilitation professionals by multiple modalities. Results of an in-built evaluation scheme revealed statistically significant immediate gains in 'knowledge' scores of IERTs, along with concurrently favorable evaluations on or about the program providers, processes, contents and materials. An item analysis and another content analysis of the reports on post program activities during 3-6 month follow-up period as impact indicators of the sensitivity training are discussed in the light of their implications for periodic bench marking, future potential and possibilities for research along these lines.

## INTRODUCTION

Sarva Shiksha Abhiyan (SSA) (a.k.a. Universal Elementary Education) (UEE), launched in 2001-2002, is a flagship project of Government of India implemented in partnership between Central, State and local governments by invoking community ownership of the school system. Although initiated through foreign aid (Ward 2011; Colclough and De 2010), it is currently run on a 50:50 partnership formula between the Union and State governments. The objective of SSA is to bring all children between 6-14 years in the net of 1-8 elementary, free and compulsory education, retain them in school till they complete the eight year cycle and see that they attain standards of a specified quality. The program currently addresses to the needs of 192 million children in 1.1 million habitations (Banerji and Mukherjee 2008).

Among its several objectives, the SSA seeks to empower teachers through extensive training. It provides grants for developing teaching-learning materials and strengthening of academic support structure at a cluster, block, and district levels. There is special focus on 'Children with Special Needs' (CWSN) (Singal 2006a; 2006b; Hegarty and Alur 2002). Its strategic partnership with 'Directorate of State Educational Research and Training' (DSERT) is to foster teacher education by periodic in-service training in regional languages using a participatory model and by including activity based group work, live demonstration, didactic lectures and presentations. Teacher training is provided during summer and winter vacations by a cascade mode at District Institutes of Education and Training (DIETs), Block Resource Centers (BRCs), Cluster Resource Centers (BRCs) or even by means of tele-conferencing. The resource personnel at block and cluster levels undergo training by an induction program before they become master trainers (Tara 2007; Dyer 2005; Julka 2005).

UEE has meaning only when it includes the 5-10 % of CWSN invariably seen among school aged population. The enrollment in Karnataka for the 6-18 age groups is 79.60 lakh. Out of this, the CWSN amounts to 81900 which is less than 30 % in the state. While debates and differences continue about disability estimates (Jeffery and Singal 2008; Mitra and Sambamoorthi 2006; Arya et al. 1997), the CWSN includes kids with sensory impairments (hearing and vision), physical handicap, mental retardation and learning disability. Equity and integration of education for these kids do not mean simply enrolling them into regular schools or classrooms. It also means that physical and psychological barriers between these children and the

others are broken. There is particularly a great attitudinal barrier that hinders integration or inclusion of CWSN. Teachers in the traditional mode are prone to view these children as incapable, difficult to handle, or merely worthy of segregation into special schools. These children require physical and emotional acceptance at home and school. They need a flexible curriculum, barrier free classroom or school environment, modified schemes of examination and teaching practices, adapted teaching aids and above all-a sensitive teacher (Kalyanpur 2007; Sarva Shiksha Abhiyan 2007; Mehrotra 2006; Jha 2002).

Therefore, training becomes a needed bridge between teachers and pupils with special needs. Training is the systematic and organized procedure or act of increasing specific knowledge, attitudes, habits or skills of an employee or non-personnel to fulfill a specific purpose or for doing a particular job as well as for preparing to hold future positions (Hart 1991). The procedure must always begin by identification of training needs, followed by assertion of proper techniques of training. There are several techniques of training, such as, on-the-job-training, training by demonstration, job instruction training, vestibule training, apprenticeship, coaching-mentoring-understudy, job rotation, job instruction, lectures and conferences, syndicate, behavioral modeling, games and simulation training, case study, role playing, in-basket exercises, management games, sensitivity training, audio-video films, and transactional analysis (Gupta 2004).

Sensitivity to circumstances and feelings of CWSN is the cornerstone of teacher-pupil relationships. Sensitivity is not just an emotion. It must express itself in actions, especially when teachers know or understand the pain or difficulties CWSN are experiencing in their educational pursuits. By and large, it is found that sensitivity training in small group enables participants to become aware of themselves as well as their relationships with such children. Sensitivity training involves making participants understand about themselves and their target groups reasonably. It includes social sensitivity and behavioral flexibility. The former refers to empathy or the ability of an individual to sense what others feel and think from their own point of view. The latter is ability to behave suitably in the light of such an understanding (Lakin 1971).

At present, under SSA, the Block Resource Persons (BRPs) are given a three day Awareness Program on Inclusive Education. In turn, they train Cluster Resource Personnel (CRPs) and Inclusive Education Resource Teachers (IERTs) under SSA-Karnataka until it cascades down to teachers at elementary school level. Not speaking of transmission losses in the quality and quality of information percolating down the cascade, a perusal of contents on the curriculum included about CWSN will at once show a scant mention about certain types of disabilities. There is hardly any information given on scholastic problems in children by way of mild or undetected sensory disabilities, scholastic delays, lowered general intelligence, emotional problems, conduct disturbances or learning disabilities in children. It is ironical to note that the participants have 10-day English Language Training at a Regional Institute of English but none on learning difficulties! Based on the feedback from several try outs of conducting short 2-day programs for Resource Personnel at All India Institute of Speech and Hearing, Mysore, there was felt need and demand for more extensive in-service sensitivity training program on academic problems for resource teachers under SSA-Karnataka (Thirumurthy and Jayaraman 2007; Dyer 1996).

Academic problems come in various hues and varieties in school children at different ages and stages of their scholastic pursuits. At preschool levels, it may manifest as speech, language and communication disturbances like delayed, inadequate or dysfluent speech, mispronunciations, voice or volume control disturbances, etc. After that stage, during early elementary school years, children with otherwise average or even above average general intelligence, healthy sense organs and sufficient schooling, are often described to be better ‘orally’ than in the three R’s (reading, writing, arithmetic). Much later, notwithstanding their general intelligence and adequate competencies in non-academic behaviors, these children succumb to accusations from parents/ teachers that they are ‘dull’, ‘inattentive’, ‘lazy’, ‘stupid’, ‘mischievous’, ‘naughty’, or even ‘mentally retarded’ (Venkatesan 2011). Curiously, these kids show neither visible disability nor observable incompetence in non-academic areas-such as, sports, watching television, playing on computer, video games, art, music or such other allied interests. These non-cur-

ricular interests and motives often become the source for their being scolded, reprimanded or rebuked by others (Venkatesan 2010a, 2010b).

This is followed by the period when these children start to retaliate and indulge in negative behaviors or misconduct that becomes difficult to handle for the caregivers. They show escape/avoidance behaviors, indulge in aggression, school refusals, tell lies, or refuse to obey commands-rendering them eligible them to be labeled as children with 'conduct disturbances'. Meanwhile their academic performance goes on a slide with an ever widening gap between their expected and actual grade level performances. Many of these kids also experience severe emotional disturbances with the ongoing pressures from peers, parents and teachers to perform better in their academics. They undergo fears, anxieties, depression, and panic-alternating with upheavals of anger, aggression, envy, jealousy and sense of retaliation. This is when they are mistaken as children with 'emotional disturbances'. During their middle and high school years, their conduct and emotional disturbances crystallize and harden into a pattern of temperamental or personality disturbance-either as extremely passive, withdrawn, shy and sensitive individual or as a antisocial and juvenile delinquent (Venkatesan and Purusotham 2006).

From the foregoing, it is evident that topics related to sensitivity training of in-service teachers or attempts towards reforming their opinions, knowledge and attitudes with focus on academic problems in elementary school children or towards promoting inclusive education practices in elementary school settings has never been reported in India (Hodkinson and Devarakonda 2009; Walia 2004). Further, there are hardly any evaluation reports in the country on in service teacher training programs except a pilot study to ascertain the relative merits by process evaluation of a diploma level training program conducted through online vis-à-vis regular mode (Basavaraj et al. 2010); or another on cost-benefit analysis of an ongoing government pension scheme for persons with mental retardation (Venkatesan 2010); or yet another study to investigate barriers in optimizing home training programs for children with developmental disabilities (Venkatesan 2008). Evaluation of any training program is a dynamic activity concerned with the determination of change in behaviors, attainment of certain goals and objectives in terms of certain goods, services or deliverables. It involves measurement of impact on cost incurred and benefits achieved. Evaluation of training programs is always carried out against their set measurable and observable goals and objectives. Data is collected by self assessment answer sheets, question-answer records, feedback questionnaires, interview, and observation reports. The analysis of data should be quantitatively summarized for comparison with data from other similar training programs. Such exercises help the prospective trainers to improvise, innovate or revamp methodology or strategies of similar training programs in future.

**Objectives**

The objectives of this study were,

- To orient and sensitize IERTs of BRCs and CRCs by a multi-disciplinary team of rehabilitation professionals for a semi-longitudinal recurring program under SSA-Karnataka on various aspects, characteristics, prevalence, and causes of academic problems in elementary school students;
- To provide the target group of IERTs a simple recipe approach based tips, guidelines and techniques through didactic lectures, power-point presentations, case work or observations, parent-child interactions, group discussions, and reading materials in native language for identification/ management of academic problems in elementary school children;
- To undertake process evaluation on efficacy of the program materials and activities, their immediate outcomes or direct beneficial effects on knowledge changes in the participating IERTs sensitized about academic problems in elementary school children under this program; and,
- To undertake post program trend analysis of institutional referral rates and/or other follow up indicators of long term impact of the sensitivity program on academic problems in elementary school children upon the IERTs under SSA-Karnataka.

## METHOD

The present study uses a prospective and semi-longitudinal recurring interventional de-

sign. The scheme of intervention involves use of small-group sensitivity encounter techniques initiated singly and serially by a dedicated multi-disciplinary team of rehabilitation professionals who served as facilitator-advocate-organizer. The program developers and providers were expert faculty belonging to the implementing agency in All India Institute of Speech and Hearing, under Ministry of Health and Family Welfare, Government of India, located at Mysore, Karnataka, India. SSA-Karnataka was identified as the funding agency.

**Sample**

The 20 program providers for this study were rehabilitation professionals and subject experts exclusively indoctrinated during a pre-program reconnaissance exercise. They were faculty from disciplines of audiology, clinical psychology, physiotherapy, special education, speech therapy, occupational therapy, and medicine (including ENT, neurology and pediatrics) in the implementing agency. The program receivers included nearly 550 IERTS representing 30 BRCs/CRCs from across SSA-Karnataka to be covered under this program in 15 batches of 30-40 participants under each. The nomination of IERTs for a given batch was directed by the funding agency. The actual sensitivity training was carried out by the implementing agency between January, 2009-December, 2010.

**Tools and Materials**

Evaluation, as recognized and operationally defined in this paper, is a dynamic scheme for assessing the strengths and weaknesses of programs, policies, personnel, products and organizations to improve their effectiveness (Wholey et al. 2010). Process evaluation describes and assesses program materials and activities. Outcome evaluation studies the immediate or direct effects of the program on participants. Impact evaluation looks beyond the immediate results of policies, instruction or services to identify long term and unintended program effects. Regardless of the kind of evaluation, all types of evaluation must derive qualitative and quantitative data in a systematic manner. In the context of the aims and objectives of this study, this investigation covered five inter-related bur distinct components:

(a) Knowledge Evaluation;
(b) Proficiency of Program Providers;
(c) Program Materials;
(d) Program Processes Evaluation; and
(e) Evaluation of Impact Indicators

All these components were covered through development of appropriate measurement tools and materials as explained below:

***(a) Knowledge Questionnaire***

This 40-item format contained statements to elicit information on or about the current level of knowledge or awareness of participants on or about various aspects, characteristics, prevalence, causes and management of academic problems in elementary school students. Each statement was to be read before answering as either right or wrong. The sum total of correctly answered statements was taken as composite 'knowledge score' of a given respondent. This questionnaire was administered twice for every participant: once as pre-test format on the first day before commencement of the sensitivity training program and again as post-test measure on last day at the end of the program. The post versus pre-test score differences were taken as indication of knowledge gain or loss for a given individual at the end of the program.

***(b) Proficiency of Program Providers***

This format had 13 statements describing the essential qualities needed or expected of typically effective program providers. The trainer characteristics included clarity of voice, coverage of topic, extent or depth of knowledge in the subject, fluency and eloquence in presentation, etc. The respondents were instructed to rate each trainer after the completion of their respective session along a Likert type rating scale on individual items beginning 'Exceptional' (Score: 5), 'Above Average' (Score: 4), 'Average' (Score: 3), 'Below Average' (Score: 2), 'Poor' (Score: 1) or 'Can't Say' (Score: 0) respectively. Higher scores indicated positive ratings for a given program provider. The maximum score possible for any given individual program provider rated on this protocol is 13 x 5: 65. An in-house 2-week test retest reliability exercise on a subsample of 50 raters revealed a correlation coefficient of 0.87 and another inter-rater reliability coefficient as 0.91 respectively. Face validity for this

instrument established by circulation between the three psychologists was found to be high.

***(c) Evaluation of Program Materials***

This protocol had 12 statements describing the essential attributes expected of typically effective program materials. In actuality, program materials come in many shapes or different formats. It can be reading materials, hand outs, brochures, pamphlets, posters, bulletins, text manuals, work book exercises, theme based dance-drama skits, etc. The attributes of typically appreciable program materials as covered in this tool included simplicity of language, coverage of subject, sequential arrangement of contents or presentation, illustrations and examples, printing and presentation, volume or size, etc. The respondents were instructed to rate each of these attributes after perusing the program materials along a Likert type rating scale on individual items as in the previous questionnaire on or about program providers. Higher scores indicated positive ratings for a given program material. The maximum score possible on this protocol is 12 x 5: 60. A 2-week test retest reliability exercise on a subsample of 50 raters revealed a correlation coefficient of 0.74 and concurrent validity between two groups of respondent sub-sample was found to be 0.78.

***(d) Program Processes Evaluation***

This tool comprised of 11 statements describing the essential traits of effective training programs, such as, quality of lectures, coverage of topics, use of gadgets or audio-visual presentations, reviews and monitoring, punctuality and regularity, etc. The respondents were instructed to rate each of these attributes after the program along a Likert type rating scale as in the previous questionnaires. Higher scores indicated positive ratings. The maximum score possible for on this protocol is 11 x 5: 55. A 2-week test retest reliability exercise on a subsample of 50 raters revealed a correlation coefficient of 0.79 and concurrent validity between two groups of respondent sub-sample was found to be 0.77.

***(e) Evaluation of Impact Indicators***

This evaluation was carried out in terms of case referral rates for a period of three-six months from the date of completion of the sensitivity training program. Further, qualitative reports were received and recorded periodically from individual participants in terms of their undertaking initiatives like conducting disability detection camps, teacher orientation programs, preparation or distribution of related literature, telephone based consultations given or enquiries made, advocacy or empowerment activities, escorting cases or caregivers to service providers, etc.

**Procedure**

Sensitivity training is a form of coaching that claims to make people more aware of their own attitudes and prejudices. It involves use of psychological techniques with groups through a series of workshops, activities and programs to bring about mutual acceptance and positive changes (Surhone et al. 2010). The ‘Sensitivity Training Program’ was conceived under three dimensions:

***(a) Intensity***

This refers to the depth or saturation of contents in the program. This varies according to the targets under study. For example, master trainers, trainers of trainers, and/or behavior change coaches require highly intensive program as compared to end recipients like classroom teachers or parents/caregivers. Concurrently, the objectives of the sensitivity training are also different for each of these target groups. For the end group sensitization of teachers, orientation alone is the objective. For master trainers, such as the present one for IERTs, there is a need for equipping them with skills and competencies to enable the information transmission process.

***(b) Extensity***

This refers to the spread, extent or breadth of contents in the program. This parameter is also likely to vary according to the nature and constituency of the target group, their location or duration of contact program and the purpose of that sensitization.

***(c) Levels***

This refers to the different heights in the contents of the program. It could be at a surface or

**Table 1: Display chart on proposed levels of induction into sensitivity training program on academic problems in school children enrolled under SSA-Karnataka**

| *Levels* | *One* | *Two* | *Three* |
|---|---|---|---|
| *Nomenclature* | Basic | Intermediate | Advanced |
| *Objective* | Awareness and Orientation (40:60) | Theoretical: Practical (90:10) | Theoretical: Practical (90:10) |
| *Bases* | Information Based | Skill Based-Preliminary | Skill Based-Advanced Practice |
| *Duration* | 80 Hours | 160 Hours | Refresher/updates |
| *Resource Persons* | Level Two Personnel | Level Three Graduates | Subject Experts |
| *Location* | At AIISH classrooms/clinics | At AIISH labs/clinics | At AIISH labs/clinics |
| *Materials* | Charts, Posters, Public Address Systems, Brochures, Pamphlets, Handouts, Power Point Presentations, Self Instructional Reading Manuals, Questionnaires, Screening Checklists, etc. | Intervention Tools, High Risk Registers, Home Visitations, School Visit Diaries, Teaching Kits, Record Keeping Gadgets and Procedures, Reporting, IEP Formats, etc. | Trainers Kit and Manuals, Referral Forms, Evaluation Formats, Follow Up Registers, etc. |
| *Methods* | Public Talks, Didactic Guest Lectures, Radio/TV Talks, Stage Shows, Drama and Song Enactments, Movie Shows, Exhibitions, Poster Presentations, Media Talks, TV Chats, etc | Case Demonstrations, Parent Teacher Meetings, Community Advocacy, Individualized Case Work and Submissions, Therapeutic Activities, Preparing Teaching Aids, etc. | Case Work, Individualized or Group based Remedial Teaching, Inclusion Activities, Skill Training, Home Planning, etc. |
| *Investiture* | Participation Certificate | Course Competency Certificate | Trainers Competency Certificate |
| *Contents* | Scholastic Problems: Case Illustrations | Scholastic Problems: Case Work up and Submissions | |
| | Expectations and Misconceptions on Children | Diagnostic and Interventional Assessment | |
| | Examples of Problem Children – Identification and Referral | Minimum Cases Intervened Parent Counseling | |
| | Home tips for handling difficult situations or disordered children | School/classroom based Interventions and Mini Project | |
| | Home Assistance and Backups-Environmental Manipulation for Optimizing Affected Kids | Compilation and Preparation of Teaching Aids/Formats | |
| | | Camp Organization | |
| | | Career Guidance and Counseling | |

deeper levels again depending on the target group and the objectives of the program for that specified group. There are several levels that can be conceived for the contents depending on the target groups envisaged under a program as Foundation, Intermediate or Advanced Level Program. Table 1 depicts a comparison of the Curriculum Content at all these three levels of the Sensitivity Training Program.

Going by these considerations, and since the program receivers were middle level functionaries like IERTs, a 12-day sensitivity training program was envisaged by covering topics on case history taking, introduction to developmental disabilities, prevalence, causes and characteristics, screening and developmental assessments, identification and remediation of speech-hearing problems, medical problems and classroom emergencies, skill training and problem behavior management, school based physical and occupational therapies, play based activity scheduling and training using specially assembled toy kits; child, parent or family counseling, disability or child rights and medico-legal aspects, etc. Emphasis was given on schemes, techniques and procedures of classroom, school as well as home based training for identified or enrolled children with special academic needs in school and home settings. A highlight of the training included exposure to specially prepared toy kits for identified children with developmental disabilities in different age groups and/or severity levels, parent interaction and simulated brief counseling sessions, role play and modified psychodrama, field visits, live therapy demonstrations, audio-video clippings and short film shows, lectures and power point presentations by subject experts, distribution of reading materials, manuals, flip charts, posters, preparation of assignments, etc. The IERTs were trained in small-groups 30-40 participants per batch so that in turn they carry out similar initiatives upon larger groups of elementary school teachers under SSA across the

state. As change agents, they were to eventually target groups of elementary school teachers toward the predetermined affirmative outcome of inclusive education for CWSN in their respective geographical areas. Data collection involved securing the filled in questionnaires from individual IERT participants across for or about the program developers/providers, processes, materials and outcomes across all batches. This was carried out after ascertaining that the parameters being assessed are uniformly understood from the available glossary with each tool and also after ensuing that the translated version of the developed tools by reverse translation methods are only used.

## RESULTS AND DISCUSSION

The results of the study are presented under the following discrete but related headings:
(a) Knowledge Evaluation;
(b) Proficiency of Program Providers;
(c) Program Materials;
(d) Program Processes Evaluation; and
(e) Evaluation of Impact Indicators

### (a) Knowledge Evaluation

For the overall sample of IERTs (N: 564) covered through 15 batches on the 40-item 'Knowledge Questionnaire', the mean pre-test knowledge score derived was 22.89 (SD: 3.70) out of maximum possible score of 40. Contrast this with the same sample of 548 IERTs (excluding mid course drop outs, non-respondents or unreturned questionnaires), the mean post-test knowledge score derived was 24.27 (SD: 5.44). The differences were found to be statistically significant (t: 4.959; df: 1110; SED: 0.278; P: < 0.001) (Table 2). The Anderson-Darling Normality Test yielded a p-value > alpha: 0.05 thereby indicating normality in the statistical distribution.

A content analysis of pre-test scores on individual statements of this questionnaire for this sample shows that there is greater unawareness on or about several key issues of child care and management. For example, only few respondents were clear on the nature and cause of problem behaviors in children (N: 41 out of 564; 9.4 %) or could correctly differentiate between 'mental retardation' and 'mental illness' (N: 75 out of 564; 14.01 %). Only a few of them considered it inappropriate to start teaching the three Rs as early as at preschool age level (N: 79 out of 564; 19.15 %). However, at post-test level, responses to these statements reflect a dramatic change towards the better. The scores on understanding the dynamics of 'problem behaviors' enhance almost by double (N: 80 out of 564; 14.60 %). Among other things, they also show improved understanding of the various grades of mental retardation, the importance of play based or activity oriented teaching, on the roles of various rehabilitation professionals for referring children with specific types of signs or symptoms, or on the dates of appearance for different developmental milestones in children, etc.

### (a) Proficiency of Program Providers

Across all the batches undergoing sensitivity training and on the rated 13 statements which sought to describe the essential qualities needed or expected of typically effective program providers, the mean score awarded by the IERTs is 53.70 out of maximum possible score of 53.70 (SD: 1.06). While this score may be interpreted as being on the positive side from 'above average' to 'exceptional', a further deeper and analysis of scores on individual test items of this rating sale was undertaken to discover that the program providers are rated consistently high across all qualities including clarity of voice (Mean: 4.26; SD: 0.07), coverage of topic (Mean: 4.20; SD: 0.08), extent or depth of knowledge in the subject (Mean: 4.25; SD: 0.08), fluency and eloquence in presentation (Mean: 4.13; SD: 0.10) and so on (Table 3A).

The results of inter item correlation coefficients for the 13-item tool used to evaluate program providers reveals consistently high positive covariance range (r: 0.98-0.60); and conse-

**Table 2: Pre and post program 'knowledge scores' of IERTs**

| *Variable* | *N* | *Mean* | *SD* | *Probability* |
|---|---|---|---|---|
| Pre test score | 564 | 22.89 | 3.70 | T: 4.9586; df: 1110; SED: 0.278; P: < 0.001 |
| Post test score | 548 | 24.27 | 5.44 | |

**Table 3A: Feedback on proficiency scores of program providers**

| *S. No.* | *Variable* | *Mean (N: 546)* | *SD* |
|---|---|---|---|
| 1 | Clarity of voice | 4.26 | 0.07 |
| 2 | Coverage of topics | 4.20 | 0.08 |
| 3 | Extent/Depth of subject knowledge | 4.25 | 0.08 |
| 4 | Fluency/Eloquence in presentation | 4.13 | 0.09 |
| 5 | Relevance to given topic | 4.13 | 0.10 |
| 6 | Coherence in presentation | 4.15 | 0.08 |
| 7 | Timing within presentation | 4.08 | 0.10 |
| 8 | Sustenance of audience interest/ Motivation | 4.07 | 0.10 |
| 9 | Supervisory abilities/Clinical skills | 4.03 | 0.08 |
| 10 | Opening and conclusion | 4.08 | 0.09 |
| 11 | Illustration and examples | 4.14 | 0.09 |
| 12 | Enabling constructive inter-student interaction and maintenance of class atmosphere | 4.05 | 0.10 |
| 13 | Dressing and present ability | 4.18 | 0.09 |
| | Overall | 53.70 | 1.06 |

(Exceptional: 5; Above Average: 4; Average: 3; Below Average: 2; Poor: 1; Can't Say: 0)

quently, the Cohen's Kappa (k; 0.86) demonstrating 'almost perfect' inter-rater agreement and high intrinsic validity (p: <0.001) (Table 3B).

## (c) Program Materials

The 12-item Likert-type rating scale on which the IERT respondents (N: 543) scored on or about various attributes of the materials supplied to them during the sensitivity training program (Table 4A) show that, on the whole, they have awarded a mean score of 48.69 marks (SD: 5.14) out of the maximum possible score of 60 on this questionnaire. While, on an average, high or positive ('Above Average'; Score: > 4) is awarded by the respondents for attributes like 'illustrations and examples' (Mean: 4.19; SD: 0.67), 'simplicity of language' (Mean: 4.14; SD: 0.54), 'coverage of subject' (Mean: 4.13; SD: 0.60), 'printing and presentation' (Mean: 4.11; SD: 0.68); the lower scores were given to attributes like 'tables and charts' (Mean: 3.95; SD: 0.60), 'external appearance and packaging' (Mean: 3.97; SD: 0.72) and 'Grammar, Vocabulary and Sentence Length' (Mean: 3.99; SD: 0.62). Although not intended as defense, it must be mentioned herein that the materials given to the participants at the time of their ratings were only draft or spiral bound black-white photocopies which have been since been revised, reconstructed and repacked as ISBN marked 'training manual' and 'instructor manual' in Kannada and English as crown size booklets in multi-color offset printing (Venkatesan 2010a;

**Table 4A: Feedback on supplied reading materials**

| *S. No.* | *Test items* | *Mean (N:543)* | *SD* |
|---|---|---|---|
| 1 | Simplicity of language | 4.14 | 0.54 |
| 2 | Coverage of subject | 4.13 | 0.60 |
| 3 | Sequence of contents | 4.08 | 0.65 |
| 4 | Illustrations and examples | 4.19 | 0.67 |
| 5 | Printing and presentation | 4.11 | 0.68 |
| 6 | Volume and size | 4.10 | 0.67 |
| 7 | External appearance and packaging | 3.97 | 0.72 |
| 8 | Font size | 4.06 | 0.66 |
| 9 | Tables and charts | 3.95 | 0.60 |
| 10 | Reading exercises | 4.04 | 0.63 |
| 11 | Glossary | 4.02 | 0.67 |
| 12 | Grammar, vocabulary and sentence length | 3.99 | 0.62 |
| | Overall | 48.69 | 5.14 |

(Exceptional: 5; Above Average: 4; Average: 3; Below Average: 2; Poor: 1; Can't Say: 0)

**Table 3B: Inter-item correlations on the tool to measure proficiency scores of program providers**

| *Item/S* | *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* | *11* | *12* | *13* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | | | | | | | | | | | | |
| 2 | 0.90 | - | | | | | | | | | | | |
| 3 | 0.87 | 0.96 | - | | | | | | | | | | |
| 4 | 0.83 | 0.95 | 0.90 | - | | | | | | | | | |
| 5 | 0.84 | 0.94 | 0.93 | 0.95 | - | | | | | | | | |
| 6 | 0.80 | 0.93 | 0.90 | 0.97 | 0.98 | - | | | | | | | |
| 7 | 0.68 | 0.83 | 0.84 | 0.88 | 0.91 | 0.92 | - | | | | | | |
| 8 | 0.78 | 0.93 | 0.91 | 0.95 | 0.95 | 0.96 | 0.89 | - | | | | | |
| 9 | 0.66 | 0.83 | 0.85 | 0.89 | 0.91 | 0.90 | 0.89 | 0.95 | - | | | | |
| 10 | 0.78 | 0.88 | 0.85 | 0.94 | 0.93 | 0.93 | 0.90 | 0.91 | 0.87 | - | | | |
| 11 | 0.72 | 0.87 | 0.79 | 0.95 | 0.89 | 0.94 | 0.83 | 0.91 | 0.82 | 0.92 | - | | |
| 12 | 0.64 | 0.78 | 0.76 | 0.87 | 0.89 | 0.87 | 0.87 | 0.90 | 0.95 | 0.91 | 0.82 | - | |
| 13 | 0.70 | 0.75 | 0.73 | 0.79 | 0.76 | 0.77 | 0.73 | 0.70 | 0.60 | 0.79 | 0.80 | 0.60 | - |

(Range: 0.98 – 0.60)(r: 0.98-0.60; Cohen's Kappa: 0.86; p: <0.001)

**Table 4B: Inter-item correlations on the tool to receive feedback on supplied reading materials**

| *Item/S* | *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* | *11* | *12* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | | | | | | | | | | | |
| 2 | 0.36 | - | | | | | | | | | | |
| 3 | 0.45 | 0.48 | - | | | | | | | | | |
| 4 | 0.38 | 0.46 | 0.44 | - | | | | | | | | |
| 5 | 0.40 | 0.30 | 0.43 | 0.47 | - | | | | | | | |
| 6 | 0.36 | 0.30 | 0.41 | 0.33 | 0.45 | - | | | | | | |
| 7 | 0.34 | 0.34 | 0.38 | 0.32 | 0.36 | 0.47 | - | | | | | |
| 8 | 0.38 | 0.30 | 0.36 | 0.32 | 0.44 | 0.44 | 0.42 | - | | | | |
| 9 | 0.37 | 0.37 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.47 | - | | | |
| 10 | 0.44 | 0.39 | 0.41 | 0.38 | 0.37 | 0.43 | 0.43 | 0.33 | 0.53 | - | | |
| 11 | 0.31 | 0.40 | 0.40 | 0.39 | 0.36 | 0.30 | 0.38 | 0.30 | 0.47 | 0.50 | - | |
| 12 | 0.47 | 0.30 | 0.39 | 0.31 | 0.40 | 0.36 | 0.32 | 0.38 | 0.46 | 0.44 | 0.45 | - |

(Range: 0.30 – 0.53)(r: 0.30-0.50; Cohen's Kappa: 0.65; p: <0.001)

2010b). The inter item correlation coefficients for the 12-item tool used to evaluate program materials shows consistently high positive covariance range (r: 0.30-0.50); and consequently, the Cohen's Kappa (k: 0.65) demonstrating 'substantial' inter-rater agreement and high intrinsic validity (p: <0.001) (Table 4B).

### (d) Program Processes Evaluation

The 11-I tem scale used to measure program processes revealed a consistently high and positive rating by the IERTs for the whole program (Tables 5A and B). As shown in Table 5A, the respondents have consistently and highly rated as 'above average', the overall 'quality of lectures' (Mean: 4.35; SD: 0.51), 'coverage of topics' (Mean: 4.32; SD: 0.56), 'use of gadgets or audio-visual presentations' (Mean: 4.22; SD: 0.65), 'reviews and monitoring' (Mean: 4.13; SD: 0.57), 'punctuality and regularity' (Mean: 4.28; SD: 0.57), etc. A 2-week test retest reliability exercise revealed a correlation coefficient of 0.79 and concurrent validity on a sub sample between two groups of respondents was found to be 0.77. The inter item correlation coefficients for this tool to evaluate the program processes shows consistently high positive covariance range (r: 0.31-0.57); and consequently, the Cohen's Kappa (k: 0.69) demonstrating 'sub-

**Table 5A: Results on program review protocol**

| *No.* | *Items* | *Mean (N: 542)* | *SD* |
|---|---|---|---|
| 1 | Quality of lectures | 4.35 | 0.51 |
| 2 | Coverage of topics | 4.32 | 0.56 |
| 3 | Sequential arrangement of program | 4.32 | 0.61 |
| 4 | Clinical illustrations/Examples | 4.22 | 0.62 |
| 5 | Approachability | 4.04 | 0.58 |
| 6 | Use of gadgets, AV presentations | 4.22 | 0.65 |
| 7 | Punctuality and regularity | 4.28 | 0.57 |
| 8 | Supporting reading materials | 4.21 | 0.62 |
| 9 | Reviews and monitoring | 4.13 | 0.58 |
| 10 | Assignments | 4.25 | 0.54 |
| 11 | Supervision | 4.41 | 0.57 |
| | Overall | 46.76 | 4.50 |

(Exceptional: 5; Above Average: 4; Average: 3; Below Average: 2; Poor: 1; Can't Say: 0)

**Table 5B: Inter-item correlations on the tool to review program effectiveness**

| *Item/S* | *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* | *11* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | | | | | | | | | | |
| 2 | 0.46 | - | | | | | | | | | |
| 3 | 0.44 | 0.45 | - | | | | | | | | |
| 4 | 0.37 | 0.42 | 0.40 | - | | | | | | | |
| 5 | 0.41 | 0.45 | 0.43 | 0.53 | - | | | | | | |
| 6 | 0.35 | 0.39 | 0.42 | 0.46 | 0.47 | - | | | | | |
| 7 | 0.42 | 0.44 | 0.48 | 0.43 | 0.47 | 0.44 | - | | | | |
| 8 | 0.31 | 0.39 | 0.41 | 0.42 | 0.44 | 0.46 | 0.43 | - | | | |
| 9 | 0.42 | 0.41 | 0.40 | 0.47 | 0.49 | 0.44 | 0.48 | 0.49 | - | | |
| 10 | 0.38 | 0.40 | 0.44 | 0.48 | 0.46 | 0.41 | 0.45 | 0.45 | 0.53 | - | |
| 11 | 0.48 | 0.44 | 0.49 | 0.46 | 0.43 | 0.43 | 0.57 | 0.43 | 0.46 | 0.52 | - |

(Range: 0.31 – 0.57)(r: 0.31-0.57; Cohen's Kappa: 0.69; p: <0.001)

stantial' inter-rater agreement and high intrinsic validity (p: <0.001) (Table 5B).

**(e) Evaluation of Impact Indicators**

A series of impact indicators were periodically collected from the outgoing IERTs and recorded for a period of 3-6 months starting the dates of their exit from the program. Although not exhaustive, this impressionistic qualitative content analysis of the collected corpus of registers maintained thereof reveals that many IERT pass-outs engaged in activities like screening or enumeration of affected cases, conduct of disability detection camps in their respective geographical locations, organizing of invited expert talks, teacher orientation programs, preparation or distribution of inclusion related literature, telephone based consultations or enquiries on individual suspect cases with the author or implementing agency, radio/TV talks, poster preparations, holding of press conferences, advocacy or empowerment activities, escorting cases/caregivers to service providers, etc. (Table 6). The actual procedure of sensitivity training covers unfreezing the old values, development of new values and refreezing of new ones respectively (Govinda and Bandyopadhyay 2010; Jangira 1995; Jangira and Ahuja 1992), which have been seemingly achieved by this program under review.

**Table 6: 3-6 month period program impact indicators**

| *S. No.* | *Suggestions* | *N* |
|---|---|---|
| 1 | Disability detection camps | 8 |
| 2 | Parent/Teacher orientation programs | 12 |
| 3. | Preparation/Distribution of related technical literature | 8 |
| 4. | Telephone based consultations/Enquiries | 21 |
| 5. | Advocacy or empowerment activities | 9 |
| 6. | Escorting cases or caregivers to service providers | 14 |
| 7. | Screening/Enumeration of affected cases | 12 |
| 8. | Organizing of invited expert talks | 14 |
| 9. | Radio talks | 3 |
| 10. | TV spots | 2 |
| 11. | Poster preparations | 14 |
| 12. | Addressing press meets | 3 |
| 13. | Celebrating events like 'Special Olympics', 'Day of the Disabled', etc. | 7 |
| | Total | 127 |

## CONCLUSION

To conclude, the results of the sensitivity training program between the implementing agency (AIISH, Mysore) and the funding agency (SSA-Karnataka) resulted in

(i) An immediately apparent enhancement of 'knowledge scores' of the IERTs on or about various aspects, characteristics, prevalence, and causes of academic problems in elementary school students in age group of 6-14 years;
(ii) The program providers, processes and materials developed or distributed to IERTs as part of the program being rated on the positive side from 'above average' to 'exceptional' across several defined rating attributes;
(iii) The assessment tools/techniques and evaluation practices/procedures being standardized and made operational as baseline bench marks for comparisons across several similar such sensitivity training programs that may be undertaken in the future.

## ACKNOWLEDGEMENTS

The author seeks to place on record the gratitude and credits due to Dr. Vijayalakshmi Basavaraj, former Director, All India Institute of Speech and Hearing, Mysore, and Dr. SR Savithri, Director, All India Institute of Speech and Hearing, Mysore, for their kind patronage; and Mrs. Vanditha Sharma, IAS, Mr. Selva Kumar, IAS, and Mrs. Venugopal Sharma, IAS, the State Project Directors (in succession), Sarva Shikasha Abhiyaan-Karnataka, for their benevolent financial grants and appointment of the staff involved in this state level collaborative project titled 'Sensitizing Teachers on Academic Problems in School Children Enrolled under SSA in Karnataka'. Thanksgiving is also due to all the program providers, IERT participants, the unnamed parents-caregivers, and hundreds of anonymous children with academic problems, who were main ingredients of this program and for all of whom this dedication is probably a pittance in return for all their magnanimous contribution to this project.

## REFERENCES

Arya S, Venkatesan S, Prakasam BS, Menon DK 1997. Prevalence of disability among preschool children in rural areas. *Disabilities and Impairments*, 11(1): 1-8.

Banerji R, Mukherjee AN 2008. Achieving universal elementary education in India: Future strategies for ensuring access, quality and finance. *The Journal of Applied Economic Research*, 2(2): 213-228.

Basavaraj V, Venkatesan S, Vasanthalakshmi MS, Purusotham P. 2010. Pilot study on process evaluation of DHLS program conducted through real vis-à-vis virtual modes: 2007-08. *Journal of All India Institute of Speech and Hearing,* 29(2): 283-292.

Colclough C, De A 2010. The impact of aid on education policy on India. *International Journal of Educational Development,* 30(5): 497-507.

Dyer C 2005. Decentralization to improve teacher quality? District institutes of education and training in India. *Compare: A Journal of Comparative and International Education,* 35(2): 129-152.

Dyer C 1996. Primary teachers and policy innovation in India: Some neglected issues. *International Journal of Educational Development,* 16(1): 27-30.

Govinda R, Bandyopadhyay M 2010. Social exclusion and school participation in India: Expanding access with equity. *Humanities, Social Sciences and Law,* 40(3): 337-354.

Gupta CB 2004. *Human Resource Management.* New Delhi: Sultan Chand and Sons.

Hart LB 1991. *Training Methods that Work: A Handbook for Trainers.* Menlo Park, CA: Crisp Publications.

Hegarty S, Alur M 2002. *Education and Children with Special Needs: From Segregation to Inclusion.* New Delhi: Sage

Hodkinson A, Devarakonda C 2009. Conceptions of inclusion and inclusive education: A critical examination of the perspectives and practices of teachers in India. *Research in Education,* 82(1): 85-99.

Jangira NK, Ahuja A 1992. *Effective Teacher Training Co-operative Learning Based Approach*. New Delhi: National Publishing House.

Jangira NK 1995. Rethinking Teacher Education. *Prospects,* 25(2): 261-272.

Jeffery R, Singal N 2008. Disability estimates in India: A changing landscape of socio-political struggle. *Economic and Political Weekly,* 43(12 and 13): 22-24.

Jha MM 2002. *Schools Without Walls. Inclusive Education For All*. Oxford: Heinemann.

Julka A 2005. *Educational Provisions and Practices for Learners with Disabilities in India*. Department of Education of Groups with Special Needs, National Council of Educational Research and Training, New Delhi, INDIA.

Kalyanpur M 2007. Equality, quality and quantity: Challenges in inclusive education policy and service provision in India. *International Journal of Inclusive Education,* 12 (3): 243-262.

Lakin M 1971. *Interpersonal Encounter: Theory and Practice in Sensitivity Training*. New York: McGraw Hill.

Mehrotra S 2006. Reforming elementary education in India: A menu of options. *International Journal of Educational Development,* 26(3): 261-277.

Mitra S, Sambamoorthi U 2006. Disability estimates in India: What the census and NSS tell us. *Economic and Political Weekly*, 41(38): 4022-4026.

Sarva Shiksha Abhiyan 2007. Inclusive Education in SSA. From<164.100.51.121/inclusive-education/Inclusive_Edu_May07.pdf >(Retrieved February 10, 2012).

Singal N 2006a. Inclusive education in India: International concept, national interpretation. *International Journal of Disability, Development and Education,* 53(3): 351-369.

Singal N 2006b. An ecosystemic approach for understanding inclusive education: An Indian case study. *European Journal of Psychology of Education,* Special issue: Ten years after Salamanca, XXI(3): 239-252.

Surhone LM, Tennoe MT, Henssonow SF 2010. *Sensitivity Training.* VDM Verlag Dr. Muller AG and Company.

Tara SN 2007. Indian elementary education at the cross roads: Way forward, *Education.* 35(1): 29-45.

Thirumurthy V, Jayaraman B 2007. Special education in India at the crossroads. *Childhood Education,* 83(6): 380-384.

Venkatesan S, Purusotham P 2006. Historical analysis on course and clinical presentations of children with learning disabilities in India. *Disabilities and Impairments,* 21(2): 99-107.

Venkatesan S 2008. Barriers in optimizing home training programs for children with developmental disabilities. *Journal of All India Institute of Speech and Hearing,* 28: 128-134.

Venkatesan S 2010. Case study on cost benefit analysis for government sponsored pension scheme for persons with mental retardation. *Asian Journal of Developmental Matters,* 4(1): 176-188.

Venkatesan S 2010a. *Academic Problems in School Children: Training Manual*. Bangalore: Sarva Siksha Abhiyaan. Mysore: All India Institute of Speech and Hearing.

Venkatesan S 2010b. *Sensitivity Training of IERTs on Academic Problems in Primary School Children Enrolled under SSA-Karnataka: Instructor Manual*. Bangalore: Sarva Siksha Abhiyaan and Mysore: All India Institute of Speech and Hearing.

Venkatesan, S 2011. Blame game triangulation between parents, teachers and children with academic problems. *Psychological Studies,* 56(2): 206-215.

Walia K 2004. Reform of teacher education in India: Trends and challenges. *Humanities, Social Sciences and Law,* 3(2): 93-106.

Ward M 2011. Aid to education: The case of Sarva Shiksha Abhiyan in India and the role of development partners. *Journal of Education Policy,* 26(4): 543-556.

Wholey JS, Hatry HP, Newcomer KE 2010. *Handbook of Practical Program Evaluation*. San Francisco, CA: Jossey-Bass.