**PROJECT PROPOSAL FORMAT**

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| **Part -A** | | | | |
| **1.0** | **Title of the Project** | | **:** | Impact Study of Resource Materials for General Educators to Facilitate Inclusion of Children with Intellectual Disabilities (ID) and Learning Disabilities (LD) |
|  | **Area of Research**   1. Speech, Language, Hearing 2. Clinical Psychology 3. Special Education 4. ENT 5. Electronics 6. **Interdisciplinary** 7. Survey 8. Socio-Economic 9. Others | | **:** | Interdisciplinary |
| **1.1** | **Principal Investigator** | | **:** | Dr. G. Malar, Reader in Special Education (contract)  Responsibilities: Guidance for preparation of content for assessment and training materials related to educational management; analysis of data and report preparation |
| **1.2** | **Principal Co-Investigator(s)** | | **:** | Ms. S. Prathima, Itinerant Speech Therapist  Responsibilities: Guidance for preparation of content for assessment and training materials related to communicational management; analysis of data and report preparation  &  Mr. D. Gururaj, Resource Coordinator (contract)  Responsibilities: Guidance for preparation of multimedia training materials and coordination of data collection |
| **1.3** | **Collaborating Institution** | | **:** | Nil |
| **1.4** | **Total Grants Required**  (in figures and in words) | | **:** | Rs. 4.50 lakhs |
| **1.5** | **Duration of the Project** | | **:** | 1 year (12 months) |
| **2.0** | **Project Summary** (Max.300 words) | | **:** |  |
|  | The scene of education for children with special needs like communication disorders have been revolutionised in the past two or more decades, with their learning moving out of secure, sheltered environments to more demanding, mainstream learning environments. The phenomenal change has not only impacted differently-able children but also their service providers. The already over loaded general education teacher in the mainstream classroom has been entrusted with additional responsibilities like identifying special educational needs in children, providing an enabling environment and individualised instruction for learning, along with coordination of other moral and monetary supports. However, pre-service efforts to prepare them for the challenges have begun very recently, scarcely available, and are minimal in quantity and quality wherever they are available. This implies need for meticulous in-service training. In spite of arduous efforts undertaken by our government/s through Sarva Shiksha Abhiyan (SSA) and Rashtriya Madhyamik Shiksha Abhiyan (RMSA) programmes, teachers are found to largely exposed to theoretical information and minimal practical exposure. Thus, resulting in building up passive knowledge and incompetent attitudes rather than active skills necessary in classrooms. The efforts are left rudderless largely due to paucity of expertise and facilities to carry out practical orientation and training across the country. This dearth of competency building is aggravated with scarcity of objective measures for appraising them. While there have been a few valid measures for testing knowledge and rating attitudes, reliable procedures to analytically observe practical skills are hardly found. Thus, depriving endeavours to improve the situation of proper orientation. Another significant aspect in this striving for successful inclusion is that most of the efforts are directed towards traditionally prevalent and cursorily manageable disorders like sensory impairments. Teacher inadequacies compound when dealing with learners with impairments that directly challenge the potential for learning like intellectual disability, or which have more recently received attention and admittance like learning disability. Hence, there is an urgent need for developing comprehensive tools for realistic appraisal, as well as effective resource materials for imparting training to general teachers in handling such challenging impairments in learners. | | | |
| **3.0** | **Introduction** (under the following heads) | | | |
|  | ***3.1*** | ***Definition of the problem:***  Development of valid and reliable tools for appraising general teacher competencies for facilitating inclusive education of learners with intellectual and learning disabilities, as well multimedia resource materials for providing practical orientation to improve the same. And study the impact of the latter on teacher behaviour and skills, as well as on school performance in learners with the specified communication disorders. | | |
|  | ***3.2*** | ***Objectives:***  The aim of the study is to investigate the impact of resource materials on general school teacher’s knowledge, attitude and practice for including children with ID and LD in regular classrooms. The specific objectives of the study are:   * To develop tools for collecting data on general teacher competencies for facilitating inclusive education. * To field test the tool for validity and reliability * To develop multimedia materials involving text, audio, video, graphics and animations to provide essential information as well as simulated practical orientation. * To experiment with the resource material to study the impact on general teacher competencies, as well as school performances of learners with intellectual and learning disabilities. | | |

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|  | **3.3** | | ***Review of Status of Research and Development in the Subject:***   * ***Education of the Children with Special Needs in India***   Apart from being an essential equipment of survival and sufficiency, education is also a dominant device for social change in the modern world. Especially, providing opportunities for inclusion and upward social mobility of marginalized and disadvantaged groups like differently-able individuals in developing communities like India. Over the years, there has been a major change in the educational scene of the country, resulting in enhanced educational practices for learners with special needs. Until the 1970s, the official policy for children with special needs leaned towards ‘segregation’. Most educators considered that children with physical, sensory, or intellectual disabilities were so different from that of typically developing children that they could not participate in the activities of a general school (Advani, 2002). Initially, it the pre-independence era, special schools for children with disabilities were setup by parents of these children or philanthropists. In the post-independence India, central and state governments in the country took initiatives to set up model schools in every district headquarters, as well as provide supports voluntary organizations for the establishment of schools for the blind, the deaf, and the mentally retarded.  The first official acknowledgement of education of children with special needs as part of mainstream education was rendered by Prof. Kothari in his recommendations as part of the recommendations of the Third Indian Education Commission 1966-68, which triggered progressive movement towards mainstreaming and inclusion of learners with special needs in the ensuing National Policies of Education in 1986 and 1992 (Department of Education, 1992; Committee for Review of NPE 1986, 1990; Department of Education, 1986). The government of India had expanded its efforts to materialize these policy directives in the form of various programmes and schemes beginning from the centrallysponsored scheme of Integrated Education forDisabled (IED) in 1974-75; whose main aim was toprovide educational opportunities to children withdisabilities in regular schools, and to enable smooth progress of theirachievement and retention. Following lukewarm progress of the programme in the ensuing decade; in the year 1987 the National Council of EducationalResearch and Training (NCERT) along withUNICEF undertook a trial Project Integrated Education forDisabled Children (PIED) to find out means for strengtheningthe integration of learners with disabilities into regularschools, which resulted in the evolution of the Inclusive Education for Disabled Children (IEDC) 1992 scheme, and later metamorphosed into the Inclusive Education for Disabled at Secondary Stage (IEDSS) in 2009 (Julka, 2014; Julka et al., 2014).  In most of these endeavours preparedness of general teachers with necessary competencies, as emphasised by earlier researches was one of the major focal areas. This very same aspect had been underlined by research evidences during that period (Puri & Abraham, 2004; Yathiraj, 1994) as an essential criteria for meaningful and successful mainstreaming of children with special needs like communication disorders. Especially, the PIED and the ensuing IEDC 1992 endeavours incorporated a systematic 3-tiered mechanism for comprehensive training of all teachers in the mainstream educational scene, which are found to have undergone restructuring in the contemporary inclusive education scene. Ratta (2009) in a review report highlights the various constructive measures undertaken by the governments in India, especially through the Sarva Shiksha Abhiyan (SSA) scheme for promoting inclusive education. Sensitisation and training of general teachers forms an integral aspect of these measures apart from other constructive efforts for building up necessary resources and infrastructure.   * ***Status of Teacher Capacities for Inclusion of Children with Special Needs in Indian Educational Scene***   The advent of inclusive education policy in India in the twilight of the previous millennium was followed by a flurry of research in the new millennium on the preparedness among mainstream school teachers for embracing inclusive education. In spite of the univocal zeal and multifarious efforts of the government/s at various levels in India, there were considerable evidences (Reddy, 2004; Dharmaraj, 2000; Sarojini, 2000; Selvakani, 2000) emanating from different parts of our country and throughout these early years of the new millennium that inadequate knowledge, low attitudes and incompetent skills in general teachers are a major hindrance to the realisation of meaningful inclusion of children with special needs in the mainstreams. Reddy (2004) carried out an inter-state survey of 527 general teachers in the south Indian states of erstwhile united Andhra Pradesh and Tamil Nadu sponsored by Ministry of Social Justice and Empower, Government of India. He reported of low level of awareness, unenthusiastic attitudes and insufficient competencies among the participant teachers, and emphasised on the imminent need for enhancing them. The findings had emphatically reinstated several research evidences generated earlier like that of Dharmaraj, Sarojini, Selvakani, Sivakami and Harinath (2000).  This is more relevant with regards to inclusion of children with communication disorders whose problems are often complex and obscure. AIISH as a pioneering institute in the field of communication disorders had spearheaded investigations in this regard. Basavaraj, Malar, Sreedevi, and Suresh (2012) in a survey of 236 general teachers from the south Indian states of Karanataka and Kerala had also reported distorted perceptions about inclusive education and capabilities for learning in children with communication disorders, as well as inadequate capacities for their educational management in the mainstream learning environment. These again reiterated earlier findings of Sreedevi (2008) which addressed teacher preparedness for managing diverse communication disorders in the inclusive educational scene. As well as evidences generated specifically with respect to learners with hearing impairment by research surveys undertaken by Gangadharan and Malar (2010), and Kanaga Subramanyam, Malar & Mamatha (2015). These researches covered 200 and 78 general teachers, respectively from schools in the city of Mysuru and in the surrounding rural environs concerned children with hearing impairment.  Further scrutiny of these above cited evidences also led to the realisation that the teachers were relatively better prepared to brace up with precursory tasks like identification of disabilities in children and making necessary referrals, but were comparatively ill-prepared when it came to challenging tasks like promoting constructive learning or managing behaviours. The findings of these researches also made it evident that the self-reported competency scales which are generally adopted in many instances that the tools used in generating these evidences are fallible with contradictory findings like self-reported better competencies against poor knowledge necessary for the same (Kanaga Subramanyam, Malar & Mamatha, 2015; Gangadharan and Malar, 2010).  Research evidences from around the world echo the finding of inadequate preparation of general education teachers to brace up the multifarious roles (Obiakor, Bakken & Roraori, 2010; McKenzie, 2009). The resonance is heard with more intensity from developing parts of the world like Afro-Asian communities (Mukhopadhyay, Molosiwa & Moswela, 2009; Al-Zyoudi, 2006; Barnatt & Kabzems; 1992).  Most of the remedial efforts undertaken to rectify the lacunae are in their nascent stage taking form of informational orientation focusing on related knowledge development and moulding of attitudes, especially attending to more familiar and widely prevalent disabilities like hearing impairment (Vijetha & Nair, 2014; Mishra & Nair, 2011). Nevertheless, even in well developed educational communities, such restorative efforts have been reported to generate lukewarm responses (Carroll, Forlin, & Jobling, 2003), that too when concerning communicational disorders like learning disabilities (National Research Centre on Learning Disabilities, 2007).   * ***Imminent Need***   Thus the above as well as other research evidences (Sujathamalini, 2002) point to the fact that there is a pressing need for concrete measures for preparing teachers serving in the mainstreams of Indian education with practical knowledge and skills for coping with the challenges of inclusive education, preceded by a prerequisite necessity for evolving reliable tools to assess the existing status of ability levels, as well as impact on skills development. |
|  | **3.4** | | ***International and National Status:***   * ***Evidences from Asian Communities***   Extensive studies all over the world allude to inadequacy among general educators for facilitating inclusive education of children with special needs, with evidences abounding from educational systems of developing communities in Afro-Asian countries. Most of these researches shed light on awareness and attitudes, and that too with regards to all disabilities in general.  To begin with more positive findings; Ali, Mustapha and Jelas (2006) studied the attitudes and perceived knowledge of regular and special school teachers of primary and secondary schools towards inclusive education in Malaysia. The results revealed that, in general, both the group of teachers possessed positive attitudes towards inclusive education. They were of the opinion that inclusive education enhances social interaction and inclusion among the students and thereby reduces the negative stereotypes on children with special needs. The findings also suggested that group effort between the regular and the special school teachers is important and that there should be clear guidelines on the implementation of inclusive education. The findings of the study revealed significant implications to the school authorities, regular and special school teachers, and other stakeholders who directly and indirectly involved in implementing inclusive education.  Around the same time Al-Zyoud (2006) had investigated the teachers’ attitudes towards inclusive education in Jordan. 90 teachers from 7 schools, inclusive of both general education and special education were considered as subjects for the study. Investigator-developed questionnaire to assess the teacher’s preparedness and attitudes towards inclusive education was administered. The results of the study revealed that a majority of the teachers who participated in this study expressed a need for changes in public schools in order to meet the needs of students with disabilities, and they particularly emphasized the importance of increased knowledge and skills that could empower them as professionals. This study considered disability as a whole and specific concerns about communication disorders were not studied.  Deng (2008) who investigated the attitudes of primary school teachers in China reported that majority of the teacher participants were for segregating children with special needs for the purpose of education, and these opinions were more intense among teachers from rural regions. The report further adds that neither availability of resources, nor accumulation of experience could make a positive impact on the attitudes.  To conclude as Lai Hong An (2009) in the process of implementing and monitoring inclusive education process in Vietnam suggests, training of teachers and awareness creation among all other stakeholders is an imperative need for ensuring successful implementation of inclusive education.   * ***Evidences from Other World Communities***   Experts in advanced educational systems had all along been emphasising that understanding the capabilities and characteristics of general teachers is an important prerequisite for promoting inclusive education (Larrivee, 1985). Larrivee had surveyed 118 primary school teachers on seven categories of 74 variables said to be involved in educating learners with special needs like learning disabilities in mainstream classrooms. Following collection of data employing 14 different tools and analysis of the same, she had reported that children with learning difficulties arising out of special needs could survive and succeed in the mainstream learning environment on receiving appropriate attention and adequate support from their mainstream class teachers, which was of course seldom available.  More recent reports from these regions following with the advent of inclusive policies that emphasise on the involvement and responsibility of the general teachers, reveal slightly advantageous circumstances, while underlining that the most important factor that allow for successful inclusion of special education students is the attitudes of the regular education teacher regarding the inclusion of special education students into their classroom (Barnatt & Kabzems, 1992). These attitudes be able to create positive (or negative) opportunity and behaviours which increase (or limit) the successful inclusion of students with a disability in classroom environments. It is vital to obtain a precise picture of elementary school teachers’ attitudes toward inclusive education as these attitudes are important predictors of the success of inclusion for both students with and without disabilities (Villa, Thousand, Meyers, & Nevin, 1996). An insight into the understanding of these attitudes is essential for curriculum planning and in-service and pre-service training programs; and could have a significant impact on current and future educational policy, program planning and funding decisions.  Another notable in-depth foray was made by Chris Forlin from Western Australia independently at first and later extended in collaboration with other research colleagues (Forlin, 1995; Forlin, Douglas, & Hattie, 1996) in the early evolutionary stages of inclusive education. Their exercises addressed the issue of beliefs and practices among 230 teaching as well as 42 administrative educators who were involved in implementing inclusive education. The investigation involved comprehensive measures including both primary observations as well as secondary impressions for data collection. It was reported that educators were more for part-time integration than full-fledged inclusion, and acceptance levels were more for mild and less problematic disabilities in comparison to severe and complex conditions.  Dickens-Smith (1995) aimed at studying the attitudes of both regular and special educators towards inclusion. Results showed that, both groups of teachers were more favourable towards inclusion after their in-service training. They concluded that teachers training regarding the importance of inclusion are the key to the success of inclusion. Johnson (1996) studied and analyzed the attitudes of regular education teachers toward the placement of students with learning disabilities in their classrooms. Teachers of this study opined that classroom strength should be reduced to support inclusion and that teachers are basically enthusiastic about participating in inclusion. Results also revealed that the teachers were also concerned about their level of training regarding modification and received effective teaching strategies for student with disabilities.  Avramidis, Bayliss and Burden (2000) aimed at studying attitudes of mainstream teachers towards the inclusion of children with special needs in the ordinary school. The survey was conducted on 81 primary and secondary teachers from south-west of England. The analysis revealed that teachers who have been implementing inclusive programmes, and therefore have active experience of inclusion, possess more positive attitudes. Moreover, the data showed the importance of professional development in the formation of positive attitudes towards inclusion. In particular, teachers with university-based professional development appeared both to hold more positive attitudes and to be more confident in meeting the individualized educational program (IEP) requirements of students with special educational needs, thus highlighting the role that training at both pre-service and post-service levels has in the development of teachers' support for inclusion.  Darling-Hammond (2000) following a cross-country survey of 50 states in the United States of America came to the conclusion that better trained teachers were more creative and innovative in meeting special educational challenges in general classrooms. Other educational experts like Mastropieri and Scruggs (2004) also endorse the need for capacity building among mainstream teachers as vital condition for successful inclusion of children with special needs. |
|  | ***3.5*** | | ***Importance of the proposed project in the context of current status:***  The review of related research evidences point to the impending need for developing consistently effective and reliable resource materials for widespread training of general teachers dealing with children with communication disorders like intellectual and learning disability, as well as evolving false proof measures for accurate appraisal of teacher competencies. |
| **4.0** | **Work Plan** | | |
|  | **4.1** | **Method** | |
|  |  | ***Subjects / Participants:***   * Four mainstream schools with optimal number learners with ID and LD shall be selected as the field of study (with reference to records of IST, Department of Clinical Services & School Adoption Team, Department of Special Education at AIISH). * Teacher and learner-participants from the four schools shall be shall be identified through purposive sampling. Two schools each shall be randomly assigned as a lot for control and experimental treatment. If necessary the schools shall be stratified according to socio-economic strata, before random assignment. It shall be endeavoured to maintain equivalency among micro group of teacher-participants across the schools in terms of age, educational qualification and professional experience. * ‘N’ number of teachers who consent to participate in the study shall be included in the knowledge and attitudinal survey, henceforth referred to as macro group of teacher-participants. * Among them 4 teachers from each of the school (16 teachers in all), who handle learners with ID and/or LD who have been clinically diagnosed at the Department of Clinical Services at AIISH as having ‘delayed / inadequate speech and language with intellectual disabilities / learning disabilities’, shall be earmarked for skill observation also. Henceforth they shall be referred to as micro group of teacher-participants. * Learners diagnosed as D/ISL with ID / LD in the age range of 6 to 10 years (from lower primary level) and 11 to 14 years (from higher primary level) who are receiving direct instruction from the micro group of teacher-participants will also be part of the study. | |
|  |  | ***Material:***  Three types of materials shall be developed and field tested in the process of the study –   * Bilingual tools (in English & Kannada) for collecting data –   + About general teacher competencies for facilitating inclusive education, including –   + Objective, open-ended test for knowledge   + Attitudinal rating scale   + Observational checklist for classroom behaviours and skills   + About target learner-participants’ school performances in terms of –   + Academic achievement   + Classroom interaction with teachers and peer group * Multimedia materials (bilingual in English & Kannada ) involving text, audio, graphics and animations to provide essential information as well as simulated practical orientation about –   + Differential abilities & special needs   + Communication strategies   + Facilitating use of necessary assistive aids / devices   + Essential classroom behavioural management   + Maintenance of enabling physical learning environment   + Adapting instructional content, methods, materials & evaluation procedures   + Counselling caregivers   — of / for learners with intellectual and learning disabilities   * Format for collecting details of the children with selected disabilities.   + Academic achievements   + Classroom interactions with teachers and peer group | |
|  |  | ***Procedure:***  The investigation shall be carried out in 3 major stages & component steps as described below:   * Phase I: Development of Tools & Resource Materials   + Step 1: Development of valid, objective tools for appraising knowledge, attitudes and skills of general teachers for facilitating inclusive education of children with ID / LD   + Step 2: Develop multimedia resource materials for practical orientation of general teachers for accommodating special educational needs in children with ID / LD through approximately 32 hours of exposure   + Step 3: Carrying out validation & field trials of the tools and materials developed in the study * Phase II: Data Collection   + Step 1: Pre-intervention survey of existing knowledge, attitudes and skills among general educators for promoting inclusive education with developed tools, as well the school performances of learners with intellectual and learning disabilities receiving instruction under them.   + Step 2: Intervention through practical orientation to general educators with multimedia materials developed.   + Step 3: Post-intervention survey of knowledge, attitudes and skills among general educators for promoting inclusive education with developed tools, as well the school performances of learners with ID / LD receiving instruction under them.   + Step 4: Exposure to teachers of control group to multimedia training materials (for ethical purposes). * Stage III: Analysis & Reporting   + Step 1: Analysing and reporting validity and utility of tools and materials prepared.   + Step 2: Analysing and reporting prevalent status of general teacher potentials for facilitating inclusive education and the school performances of their wards with communication disorders like intellectual and learning disabilities.   + Step 3: Analysing and reporting impact of resource materials on enhancing general teacher potentials for facilitating inclusive education and consequent influence on school performances of their wards with ID / LD. | |
|  |  | ***Analyses:***  Appropriate descriptive and inferential statistical procedures shall be employed to determine the –   * Content, concurrent and construct validity, as well as internal consistency and inter-rater reliability of the tools developed for appraising the general teacher knowledge, attitude and skills for facilitating inclusive education. * Existing status of knowledge, attitudes and skills for managing special educational needs in learners with ID and LD in the classroom. * Impact of the multimedia resource materials used for intervention in terms of –   + Enhancing teacher competencies for facilitating inclusion of learners with ID / LD.   + Enhancing school performances of learners with ID / LD. | |