



RIGHT TO CREATIVE EXPRESSION AND NEUROCOGNITIVE LEARNING AMONG CHILDREN WITH SPECIAL NEEDS: FOSTERING NEURODIVERSITY BASED TALENT IN TEACHING-LEARNING ENVIRONMENTS

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Abstract: Expressions and manifestations of human neurodiversity tend to hold the key to manifold opportunities and challenges when translated into a special need or diversity. When on one hand, disability is subjected to denigration, social exclusion, stereotyped understanding and despise; on the other hand disability is also manifested in the form of different and unique expressions of boundless abilities. Specifically, evidential literature around the Globe have reflected the unflinching creative abilities of the children with special needs. The present study was undertaken to cross-cut through the existing challenges in teaching-learning environments pertaining to the Right to Creative Expression and addressing Neurodiversity among children with special needs; to curtail stereotypes of “inability” among the children and to foster a positive classroom environment with optimal grounds for expression of their latent talents, inclusivity and strengthening of Child Rights as a whole. The study variables included ability enrichment, metacognition and inclusive classroom ergonomics in a 2X2 quasi experimental single subject research design methodology. Results of the present intervention study indicated a positive and significant difference among the research variables at .05 and .01 levels of significance. This further indicated that fostering neurodiversity and talents among children with special needs in teaching-learning environments enhance as well as enrich their Right to Creative Expression and Neurocognitive Learning abilities. The study also paved the way for cross-cutting through the existent stereotypes related to disability and Disablism among children with Special Needs. Both quantitative and qualitative results were suggestive of creating an enriching teaching-learning environment for children with special needs, in a synchronization with their Child Rights and neurodiversity-based cognitive disposition.

Index Terms –Child Rights, Counselling, Creative Expression, Neurodiversity.

Introduction

Social and behavioral landscapes across the latitudes and longitudes of the Globe started transcending and positively transforming with the development of the UNCRC or the United Nations Convention on the Rights of the Children. Equally impactful changes were observed with the advent of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD). Of the 4 major types of Child Rights carved out (Right to Survival, Right to Protection, Right to Development and Right to Participation), the Right to Development and Participation play a significant role in setting marker standards of inclusive development of children with special needs. In this line, **Right to Creative Expression** holds equally important space when it comes to infusing a child-like childhood in the otherwise challenging lives of children with disabilities; in cross-cutting through the pangs of denigration, despise, stereotypical attitudes and social exclusion; and in fostering their neuro-diverse creative talent in teaching-learning environments.

Neurocognitive Learning unifies psychology and neuroscience in revisiting the connections between brain and behaviour, replacing the cognitive-versus-affective binary traditional to clinical thinking with a scenario of the

cognitive and emotional learning processes that work together to shape adaptive and pathological behaviour. *This foundation in learning theory illuminates the learning intervention relationship, synching how teachers / therapists teach with how children with special needs learn, with guidelines for educating to encourage change.* Often acting as a potential and positive “change-agent” in terms of improving the overall quality of teaching-learning scenarios and dealing with Disablism is *Ability Identification in Children with Special Needs, fostering their Meta-Cognitive pursuits and working on building an Inclusive Classroom Ergonomics.*

Flavell (1979) opined that **Metacognition** is the ability to control thinking processes through various strategies, such as organizing, monitoring, and adapting. Additionally, it is also the ability to reflect upon the tasks or processes that is undertaken, to select and utilize the appropriate strategies necessary in intercultural interactions. *Metacognition is considered a critical component of successful learning.* It involves self-regulation and self-reflection of strengths, weaknesses, and the types of strategies that are created.

Classroom Ergonomics involves developing an inclusive classroom that integrates both neuro-typical children and children with special needs to learn, interact, explore and experience the teaching components together. It includes creating more space for movement, ramps, accessible toilets, signage, multi-sensory learning environments and so on.

Review of Literature

In a breakthrough action research by Greenberg et al (2004) titled, “the PATHS Curriculum: Theory and Research on Neurocognitive Development and School Success”, the role of neurocognitive learning in enhancing socio-emotional intelligence and achievement of children was scientifically studied. Results of the PATHS curriculum of neurocognitive learning indicated towards a significant difference in positive teaching-learning scenarios and achievement.

Smith (2007) indicated towards the interrelation between classroom ergonomics and learning performance. The study titled, “the Ergonomics of Learning: Educational Design and Learning Performance”, reflected that a well-designed classroom ergonomics enhances inclusivity and learning outcomes in classroom teaching environments.

Jalongo (2012) in his reflective paper titled, “the Child’s Right to Creative Thought and Expression” indicated that creative expression depends not on talent alone, but also on motivation, interest, effort and opportunity. The creative process, contrary to popular opinion, is socially supported, culturally influenced and collaboratively achieved. Therefore, educators should try to provide students with role models of motivation, and persistence in creative thought, and arrive at more capacious ways of creative expressions.

Rationale

Evident research allusions although point towards the efficacy of neurocognitive rights based interventions in teaching-learning environments across the globe, however, its implementation in both special schools and inclusive school settings in Odisha is yet to be explored. Given to the neurocognitive nature of impairments in children, an ethical action research based model is imperative when it comes to exploring, internalizing and expressing the Right to Creative Expression of the children with special needs. Because every child should not only get access to his/her inalienable right to Survival, Protection, Development and Participation, but also in terms of living a childhood with optimum potentials; including expression of talents as well as inherent qualities. Given to the rationale, following objectives were carved out for the present study:

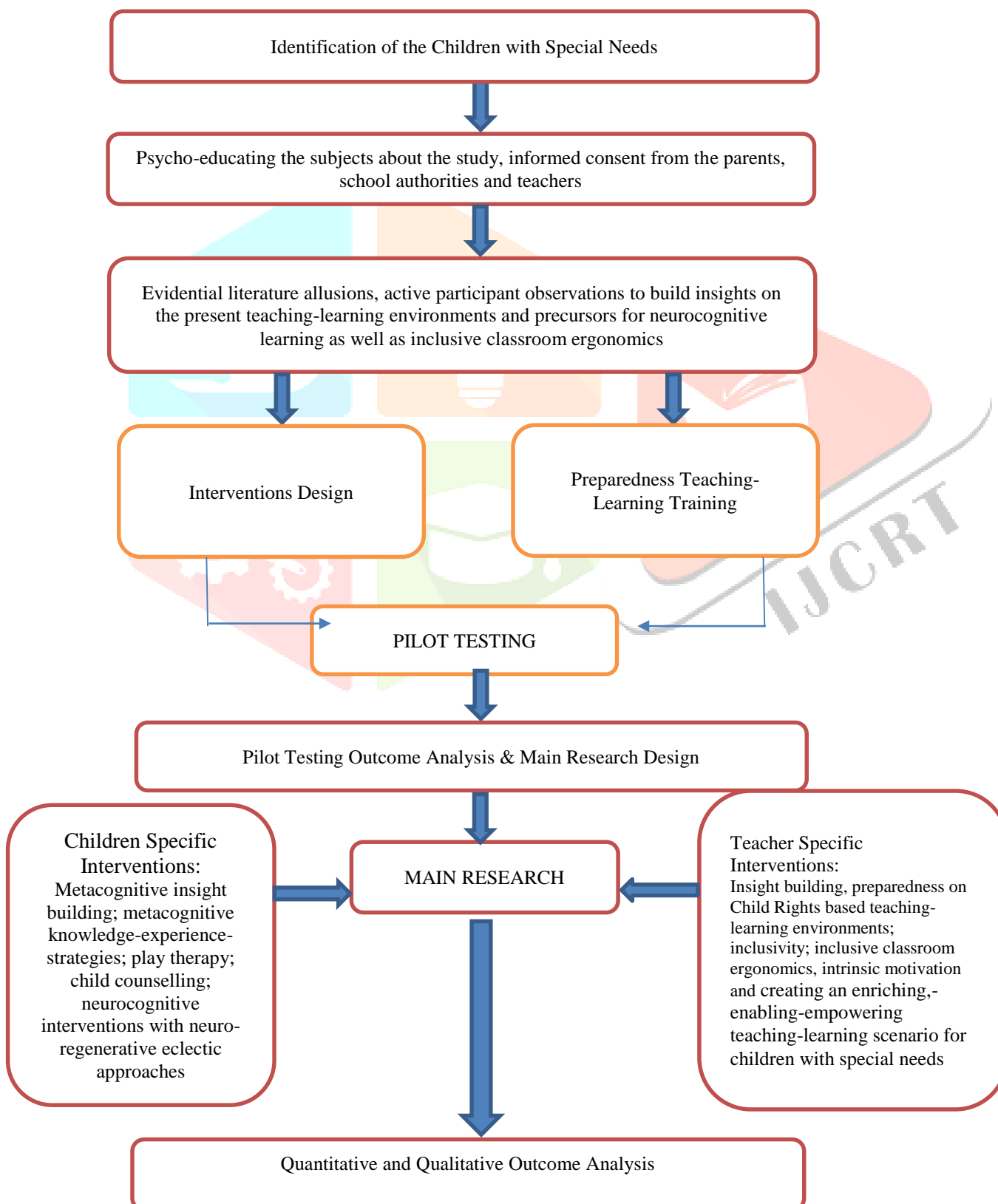
Objectives

1. To develop neurocognitive based models and teaching-learning approaches of Creative Expression in Children
2. To develop intervention models for inclusive classroom ergonomics for children with special needs
3. To develop intervention techniques based on metacognition, abilities enrichment in the best interest of the children on the spectrum of special needs
4. To study the interaction between the research variables and their impact

Method of Study

The present study incorporated a 2X2 quasi experimental single subject research design model. The research variables included ability enrichment, metacognition and inclusive classroom ergonomics. 25 children with special needs selected through purposive sampling formed the sampling frame of the present action research. The entire time frame of the study was spread over a period of 9 months. Interventions based on fostering the research variables were developed on the basis of baseline study and pilot research. Following a qualitative appraisal of the pilot research, the main research study was carried out. Tools used in the study included standardized psychometric tools developed by the present researchers. The entire study was laid on the foundations of research ethics, informed consent and integrity. The following figure epitomizes the algorithmic representation of the present study:

Fig: Algorithmic Representation of the Study



Results and Discussion

Quantitative Analysis

The obtained data were analysed by using quantitative data analysis method of Analysis of Covariance (ANCOVA). The F-Ratios for ability enrichment and metacognition were 4.25 and 5.29 significant at .05 level and .01 level of difference respectively. The quantitative data is suggestive of a positive interrelation between Right to Creative Expressions and Neurocognitive Teaching-Learning Environments in enhancing Ability Enrichment and metacognition among children on the spectrum of Special Needs.

Qualitative Analysis

Qualitative analysis of data indicated that when inclusive classroom ergonomics was facilitated, children with special needs showed higher levels of self-acceptance, empowerment, metacognition and neurocognitive learning. Use of assistive devices, behavioural cybernetics and an enabling teacher-led programme scaled up the Right to Creative Expressions and Neurocognitive Learning of the Children with Special Needs. Their level of participation also increased across various situations and settings. More so, an increased interpersonal communication and empathy was also observed among all the children including the neuro-typical and children with special needs.

The following figures are suggestive of the positive impact of Right to Creative Expressions and Neurocognitive Learning in fostering neurodiversity based talent in teaching-learning environments:



Conclusion

“Nothing about Us, Without Us” (J. Charlton)

Every child is uniquely endowed with abilities and skill sets that blossoms at its own temporal and spatial considerations. Children with special needs are no exceptions in this regard. However, pertaining to the social exclusion, denigration, psychosocial challenges and Disablism; children with special needs do not get an optimal environment to explore, internalize and express their latent talents. Neurocognitive teaching-learning environments with an inclusive classroom ergonomics play a vital role in enhancing the abilities and metacognitive levels of the children with special needs; thereby amazingly cultivating their **Right to Creative Expression**. Children with special needs have to Right to survive, be protected, develop and participate in the mainstream learning and societal fabric without any discrimination.

The present study highlighted a scientific evidence based methodological approach of empathizing and understanding the opportunities of development among children with special needs; exploring and identifying their latent creative potentials and imparting them with Neurocognitive Rights Based Ergonomic Teaching-Learning Environment that facilitates and fosters their maximum human potentials.

Implications

The positive implications of the present study are indicated as under:

1. Development of novel scientific and evidence based neurocognitive interventions for children with special needs that enhances their Right to Creative Expression
2. Sensitizing ECCE and Child-Specific functionaries in exploring, internalizing and enriching the inherent talents and creative abilities of children with special needs
3. Setting marker standards of practice and implementation in terms of building inclusive classrooms and teaching-learning environments, in a synchronization with the unique neurocognitive disposition and best interest of the children
4. Developing policy level implementation frameworks for stronger handholding between children with special needs, educators, parents, and all the stakeholders from grassroots to global levels

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