



Implementing the craft interactive teaching approach in special education: a case study of Prabhat Foundation for children with intellectual disabilities

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Abstract

The research paper is an effort to discover the teacher's agreement and consensus on the necessary elements for developing the craft interactive teaching approach (CiTA) for intellectually disabled children. This was assessed by a selected group of twelve professional teachers who were having teaching experience of more than ten years in Special Education. The study was conducted in two phases. First phase helped children develop craft toys as a form of self-expression and second phase assessed teachers and their perceptions to include this approach in the learning module in the curriculum. The tutorial module was well received by the twelve instructors who used it for learning and instructing. The products developed were hand crafted toys which were affordable and creative helping children to interact in a better way.

Keywords: CiTA, intellectual disability, differently-abled children, self-expression, special education, education

1. Background

(Usha Ram, 2004), stated that atharva veda was the first to address mental disabilities. The sankhya, a far ancient philosophical system, offers a declaration on many forms of intellectual impairments. Babies with birth abnormalities were "born to parents whose thoughts are troubled," according to the garbha upanishad. The patanjali yoga sutras treat yoga as a therapeutic, and mental retardation has been considered for this therapy. It is unknown how common intellectual disabilities (ID) are in India. India has the world's highest population of children at risk of developmental impairments. According to disability statistics provided in the national sample survey organization's report (2002), ID prevalence in India is 10.5/1000. In comparison to the rural population, the urban population has a somewhat higher rate (11/1000). According to census 2011, 20% of people with disabilities in India have mobility problems, 19% have vision disabilities, and

another 19% have hearing disabilities. 8% of people have several impairments.



Figure 1: *Children participation in activity*

Source: *Field visit photos by author*



Figure 2: *Children participation in activity*

Source: *Field visit photos by author*

Among males with disabilities, movement difficulties account for 22% of cases, vision/hearing disabilities for 18%, and various disabilities for 8% of cases. 21.2. Screening: many of these kids are being monitored by clinicians for developmental delays. Therefore, pediatricians can examine children and test them for co-morbidities such hearing, vision, locomotor abnormalities, and epilepsy. These kids are then forwarded for more testing. 21.3. Diagnosis: the evaluated kids will have their adaptive functioning and IQ tested by child/clinical psychologists. ID is the inability to function normally and learn at a level that is expected of them. The degree of ID in children varies greatly. Children with ID may find it difficult to express their needs and wants to others and to take care of themselves.

2. Introduction

The term "intellectual disability" refers to considerable impairment in cognitive and adaptive behavior. Because of societal and political pressures, the name used to define this disease has evolved through time. The fundamental purpose for looking for a new name is to find vocabulary that is not as stigmatizing. Thus, mental retardation, which was widely used until the late twentieth century, has since been replaced in most nations by ID. Current approaches to ID are developmental in nature, relying on both intellectual and adaptive abilities.



Figure 3: *Children participation in activity*
Source: *Field visit photos by author*



Figure 4: *Children participation in activity*
Source: *Field visit photos by author*

The international classification of diseases (ICD-11) 11th edition proposes changing the word "mental retardation" to "disorders of intellectual development" (DID). The ICD-11 classifies ID as a health condition or illness rather than a disability. (Girimaji and Pradeep, 2018), ID is an aberration with huge societal consequences; it impacts not only the persons who suffer from it but also their families and society as a whole. Millions of individuals worldwide suffer from ID, with a frequency of 1 to 3% in affluent nations.

Autism spectrum disorder and specific learning disabilities are two categories of ID. A neuro-developmental illness known as "autism spectrum disorder" often shows up in the first three years of life and has a substantial negative influence on a person's capacity for communication, understanding interpersonal interactions, and relating to others. It frequently evokes images of odd or stereotyped rituals or actions. (RPwD Act of 2016).

Characteristics: a person who is retreating may take longer to respond when called, prefer solo play, or prefer to be by themselves. Uneven skill development inflexible, recurring, or repetitive behaviors, excessive commitment to or interest in one's favourite things, a long-term, intense interest in a certain problem, children that are verbal may ramble on and on about a favourite topic, they dislike change and dislike going to new places; they prefer routine.



Figure 5: *Children participation in activity*
Source: *Field visit photos by author*



Figure 6: *Children participation in activity*
Source: *Field visit photos by author*

The term "intellectual disability" has been adopted in place of the previous term "mental retardation," and it is defined as "a condition characterized by significant limitation in both intellectual functioning (reasoning, learning, problem-solving) and adaptive behavior, which covers a range of daily social and practical skills, including specific learning difficulties and autism spectrum disorders." (RPwD Act of 2016) It could take longer for intellectually challenged kids to pick things up.

3. Literature Review

Maheswari, Ms & Chinnasamy, Renuga Devi. (2022), designed the study to determine the impact of crafts and games on developing writing and numerical skills in children with ID. 30 students with ID between the ages of 6 and 12 who were enrolled in special schools' primary levels made up the study sample, which was chosen using purposive sampling. There were 15 students in the experimental group and 15 in the control group. A checklist of functional academic skills, including primary level writing and number, was designed and delivered to the sample to determine their accomplishment level via pretest, mid-test, and post-test.

Senaratne, H., Ananthanarayan, S., & Ellis, K. (2022, April). TronicBoards: an accessible electronics toolkit for People with intellectual disabilities. In CHI conference on human factors in computing systems (pp. 1-15).

Participating in electronic toolkits helps people become more creative, more confident, and better at solving problems while

also enabling them to make things that are meaningful to them personally. We used a guided exploration technique to evaluate it one-on-one with ten participants. Based on our findings, participants could construct basic sensor-based interactive circuits with varying degrees of help. We discuss Tronic Boards' strengths and drawbacks, taking into account users' accomplishments and struggles with manipulating and interpreting toolkit components, circuit construction activities, and troubleshooting processes.

Maaruf S Z, Syawani N, Subramaniam T S. (2021), the study emphasized the craft interactive teaching approach (CiTA). To gauge their agreement on the concept and development of the CiTA video module, this study used a carefully chosen sample of 12 expert teachers with more than 10 years of experience in special education. The CiTA video module was developed using the ADDIE model and the Delphi technique. This study, which was broken into three parts, followed the design development research (DDR) methodology. But for this work, the researchers will only look at Phase 2: design and development, which they used to create the interactive teaching approach video module. The tutorial module was well received by the twelve VAE teachers who used it for both learning and teaching.

P Davis. (2004), conducted a two-phased technique to accomplish the project objectives and answer the research questions. The first three questions drove the literature review, which took place in July and August 2003. The review's findings were next examined in light of the second three topics, which concern the future development of teaching tactics and approaches for students with special educational needs. This scoping analysis draws on national and international publications, such as research findings reviews, individual research reports, and professional teacher guidelines.

The review identifies the following "gaps" that require more attention:

1. Assessment of the timing and intensity of existing school-based initiatives.
2. Expanded comparative research following on from the study on children.
3. Understanding of particular procedures utilized to get access to certain curricular subjects.
4. Excellent evidence-based research on the unique needs of children with intellectual disabilities.

Their linguistic challenges are frequently subtle, difficult to recognize, and might be misunderstood as behavioral issues.

5. Systematic assessment of the advantages of 'new' communication technology with students with more complicated and severe communication and language requirements at various phases of their education.

6. Investigation of practical techniques such as fitness programs, learning styles, and multisensory learning.

7. There is a widespread dearth of long-term follow-up research that investigates the long-term impacts (or lack thereof) of various treatments.

Some promising teaching techniques in general, specific promising teaching tactics and approaches are emerging from the literature:

1. Emphasize the significance of giving opportunities for social interaction development and access to the child's local surroundings.

2. Emphasize the importance of providing opportunities for the child to develop skills that promote independence.

4. Objective

1. To find appropriate craft activities for use in special needs education that can be incorporated into the creation of the craft toolkit and ultimately suitable for commercial use.

2. To identify appropriate teaching techniques to apply when instructing crafts to students with special needs.

5. Materials and Methods

System design: sustainability for design

Product oriented sustainable product service system.

Offer: a tool for enhancing learning disabilities.

The product service mix: handicraft toys + learning impairments for differently abled children.

Satisfaction: a tool that enhancing learning disabilities.

Service: handicraft toys which enhance learning disabilities in mentally disabled children.

Field of study: Prabhat Foundation, Ahmedabad, Gujarat, India.

Sample size: 12 children and 12 teachers.

6. Round One

Activity One: a selection of appropriate craft-making tools and supplies for use in special education

Used car tires, rope, ice cream stick, felt, bead, used t-shirt, used t-shirt, paper, box, ribbon, bottle, button, hair clips, pvc pipe.



Figure 7: Participation in activity
Source: Field visit photos by author

Activity Two: range of effective teaching techniques to be applied when teaching crafts to children with specific needs

Demonstration of crafts, music, grouping, pictures assisted by computer, discussion, lots of movements, learning base on project, learning by playing, using variety of colours.



Figure 8: Children participation in activity
Source: Field visit photos by author

Activity Three: a variety of craft projects that are appropriate for special needs education and materials that can be used in CiTA and designed for sale

Suitable teaching methods for teaching crafts to students with special needs.

Round table, foot mat, picture frame, woman accessories, lamp, box, purse, vase, pencil box, money container, bookmarks, door gift, clock, chair, kite, matting.

The areas of focus were: Parameters of making handicraft toys

1. Interaction and communication.
2. Learning and cognition.
3. Social, emotional, and behavioral growth.
4. Physical and/or sensory development.

7. Round Two

On a scale from strongly disagree to strongly agree, teachers were asked to rate 16 items ranging from strongly disagree to strongly agree. Since the data gathered is used to produce the interactive video, questions 1 and 2 are the most important ones in the survey. In the second section, there were inquiries concerning the best tools for helping youngsters with disabilities learn the trade. On a scale from strongly disagree to strongly agree, respondents were also asked to rate 16 alternatives. The last query was on the most effective methods for instructing children with special needs in a craft. The 11 possibilities, which ranged from strongly disagree to strongly agree, were evaluated by the respondents.

The questions are as follows:

Q1. What craft projects are suitable for special needs education and may be utilized to create

Interactive teaching strategies to produce crafts suitable for sale?

Q2. What are the best tools and resources for creating engaging teaching methods when

instructing crafts for profit in special needs education?

Q3. What are the greatest teaching methods for teaching special needs pupils how to do crafts?

The researchers met each of the 12 respondents in person before conducting the surveys. The respondents were given a consent form to complete round one of the survey before it was conducted. The main objective and technique for round one of the surveys were also described by the researchers. The respondents were then fully informed of the instructions.

Consensus Levels

1. High consensus.
2. Moderate consensus.
3. No consensus.

In the inter-quartile readings analyzed using advanced microsoft excel statistical analysis, three rounds reveal that all 16 selections have a high consensus level that ranges between 0 and 1. Readings from rounds one and two were contrasted with one another. To help the researchers find the pattern that matched the two readings, a comparison was done. The results showed that there is a considerable level of consensus between the polls' round one and round two. The results showed that there was broad agreement among all the experienced instructors regarding the components used to develop the craft interactive teaching approach. The results also showed that it is strongly advised that the special needs education instructors' selections for the module's contents be used. Future development may, however, focus on producing more specialized arts and crafts through a variety of artistic disciplines, such as visual arts, music, and performing arts. According to the authors, arts education can grow and strengthen special needs kids' cognitive and motor abilities and progressively increase other skills that are usually essential for an individual's overall growth.

8. Concluding Remarks

Finally, the main ideas of this approach may be expanded in the future to improve the living skills of special needs children. This research paved the way for creating interactive craft modules that are effective in special education and can be improved for other types of arts educations.

According to Alexander (2003), pedagogy is "what one needs to know, and the abilities one needs to command, in order to make and defend the many various kinds of judgments that constitute teaching." At the most fundamental level, this study concludes the following highlights:

1. Children: their traits, growth, and upbringing.
2. How to best motivate, achieve, identify, evaluate, and build upon learning.
3. Preparing, carrying out, and evaluating instruction.
4. Curriculum: the range of methods that kids should learn, comprehend, act, create, research,

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11. Conflict of Interest

The authors declare no conflict of interest in the study.

12. Funding

No funding has been provided for this study.

