

Inclusive Mathematics Education in Classroom Practice

OPEN ACCESS

Manuscript ID:
ASH-2021-08033462

Volume: 8

Issue: 3

Month: January

Year: 2021

P-ISSN: 2321-788X

E-ISSN: 2582-0397

Received: 29.09.2020

Accepted: 02.11.2020

Published: 01.01.2021

Citation:

Das, Kaushik. "Inclusive Mathematics Education in Classroom Practice." *Shanlax International Journal of Arts, Science and Humanities*, vol. 8, no. 3, 2021, pp. 1-5.

DOI:

<https://doi.org/10.34293/sijash.v8i3.3462>



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Kaushik Das

Department of Mathematics, Gobardanga Hindu College, Gobardanga, West Bengal, India

 <https://orcid.org/0000-0002-2812-0261>

Abstract

The present study focused on inclusive mathematics education in classroom practice. Inclusive mathematics education creates new challenges for teachers, requiring additional knowledge and possibly changed classroom practices. One teaching job gaining importance is differentiating through task design, as teachers need to provide conceptually rich learning opportunities even to students with mathematical learning disabilities. This paper investigates the ways teachers engage with inclusive mathematics in their classrooms. The main purpose of this study was to explore inclusive mathematics education in classroom practice. The methodology of the study is qualitative. This study employed international and national journals, library consultation, expert opinion, online journals, periodicals, newspapers, and documents.

Keywords: Classroom practice, Inclusive education, Inclusive mathematics education, Mathematics education.

Introduction

Inclusion is a fundamental component of equity in any education. Interest in inclusive education drives significant instruction changes all through the world. India is no exception. Inclusive education is the focal point of an impressive approach and practice development around the globe. The estimation of inclusive education, the teaching of all learners in shared, general classrooms, is well researched, with benefits accumulating to students with and without disabilities and to the school all in all (Cologon, 2013; Hehir et al., 2016). Mathematics teaching has generally been drawn nearer with a suspicion of the advancement of consecutive aptitudes. It can be viewed as a more noteworthy test to separate from different regions of the curriculum. Inclusive mathematics education recognizes assorted human variety and includes supporting the different adapting needs of all students when all is said in done mathematics classrooms. Das (2019) studies various factors to measure the Level of Job Satisfaction of Teacher Training Colleges based on multi-dimensions that are like working Conditions, Salary Status, and Understanding between Colleagues, etc. So, teaching satisfaction depends on their not only work; it may vary with other factors. Also, Salary, adjustment & cooperation with colleagues is not significantly affected job satisfaction (Roy & Das, 2020).

The Government of India has made various arrangements around a custom curriculum since its freedom in 1947. Even though the Government of India has endeavored to make arrangements that are comprehensive for individuals with inabilities, their usage endeavors have not brought about a comprehensive arrangement of instruction, nor have they arrived at their objective of "education for all" the nation over. The Government of India needs to connect the holes in their training framework to construct a solid arrangement of comprehensive instruction in India. Inclusive education - "is a process of strengthening the capacity of the education system to reach out to all learners."

In mathematics education, the observed relative quality in nonverbal ability and the predominance of visuospatial working memory when contrasted and hear-able working memory (Lanfranchi et al., 2009) and the articulated troubles with arithmetic (Faragher 2017) require thought in making acclimations to the manners in which that mathematics is taught. Mathematics teachers in different nations likewise experience a few issues teaching students with disabilities (Akakandelwa & Munsanje, 2012; Healy & Fernandes, 2011; Pritchard & Lamb, 2012). Current research suggests that inclusive education has a positive influence on improving language skills for this group of students. At the same time, there is not any proof about the impact on mathematics learning for this group. Disability arises from a physical, cognitive, behavioral, intellectual, sensoria, sensorial, emotional, developmental disability, or a mix of those factors.

In India, 2,10,68,557 (2.21 percent) individuals experience some type of disability. MOSPI: Disabled Persons in India, A statistical Profile 2016, Ministry of Statistics and Programme Implementation, 2016. Among this all out crippled populace, 1.14 percent were of the 0-4 age group, 1.54 percent were of the 5-9 age group, and 1.82 percent were of the age group 10-19. The education of disabled children in regular schools should take as an ideal as well as a practical solution to advance the universalization of education and to accomplish an equivalent chance to prevail in India (Du, et al., 2004). The government and local authorities must endeavor to promote students with disabilities in regular schools, and the resource teachers paved an integral role in promoting inclusiveness in the regular classroom. The resource teachers have a fundamental role in recognizing children with special needs, counseling parents, guardians, organizing clinical camps, preparing initial individual education programs, and offering remedial teaching. People with incapacities bring an abundance of information and various methods of realizing that are useful to propelling the field.

Inclusive Mathematics Classroom Strategies

There is a clear requirement for educators to be upheld in executing an inclusive classroom. Most educators had either nonpartisan or negative perspectives about inclusive education. A lot of this

is because they don't feel they are truly proficient, capable, or certain about how to educate students with disabilities (SWD). However, similar to parents, like guardians, teachers with more experience and, in the case of teachers, more training with inclusive education was fundamentally more certain about it. The Pedagogical Approaches in Mathematics Education investigates the obligation of Mathematics Teachers and discovers the issues and difficulties to mix Mathematics and Pedagogical information. It diminishes the issues and difficulties in integrating Mathematics and Pedagogical information (Das, 2019). Evidence supports that to be effective; teachers need an understanding of best practices in teaching and adjusted guidance for SWD; however, uplifting perspectives toward incorporation are likewise among the most significant for creating an inclusive classroom that works.

Learning in Inclusive Mathematics Education

Inclusive education has seen an expanded enthusiasm in educational systems across numerous nations and mathematics education research. Concerning mathematics education, the biggest new group of students for teachers is the dangerous group of under-achieving students in mathematics. Research in mathematics education indicates that students with MLD (mathematical learning disabilities/difficulties, for an overview of terminology, see Scherer et al., 2016). Don't generally contrast in their gaining from students without MLD: under constructivist perspectives on learning, both groups require adroitly rich learning circumstances in which they can draw on their encounters to create mathematical concepts (Scherer, et al., 2016).

Mindful Vision for Inclusive Mathematics Education

The mindful inquiry has a history in Eastern Wisdom Traditions in unloading the searcher's profound situated convictions and qualities in making his/her excursion additionally uncovering, seeing, and reminiscent. Aristotle, for instance, underscored reasonable knowing as a key reason for intelligence. All the more along these lines, Vedic and other "Sanskrit" conventions (e.g., Upanishads) underlined darśana, where its conceivable importance is sight or seeing (Prime, 2002). In

spite of the fact that Upanishads propose various strategies for acknowledging such transformative dreams, I come to realize that individual experiential looking for gives off an impression of being a typical component in various techniques, which, as per Mandukya Upanishad, is a disposition to go past the impediment of ordinary consequence (i.e., Maya, the elusive reality) (Roy, 2017). The idea of integral has a long history in the Eastern insight conventions, for the most part in Vedic and Buddhist customs. Vedic “fire” ceremonies have been built in guilefully incorporated manners to contribute to both supposed celestial and demon credits of the universe (Mahony, 1998). In Buddhist traditions, uneven radicalism has consistently been disheartened as a reason for articulating colloquially the interconnected nature of humans and non-humans and lives and non-lives. Known as an all-quadrant-all-level (AQAL) model, it contains an autobiographic-emotional, social inter-subjective, logical goal, and social logical bury target information frameworks as potential approaches to decipher our experience about the world inside and outside of us (Wilber, 2001).

Changing Teachers’ Beliefs and Professional Learning

Teachers’ beliefs have been perceived as urgent determinants of what teachers do in their classrooms. Hence, a major area of research concerning teachers’ convictions has focussed on changing teachers’ beliefs and practices (Wilson & Cooney, 2002), which is, obviously, the goal of professional learning programs. Many studies have endeavored to connect teachers’ practices with their convictions, and the translation of clear inconsistencies between what instructors maintain to accept and the manners by which they act has pulled in banter. The use of ICT tools in Mathematics education, teaching- Learning, and discussion advances (ICT) are indispensable pieces of everyday life, including the teaching-learning process (Das, 2019).

Mathematics Learning Difficulties (MLD)

Research on mathematics learning difficulties (MLD) has been directed essentially from a mental viewpoint with the end goal of recognizing causes. Mathematics-laboratory more effective for teaching-learning in classroom teaching & it exhibits

relatedness of mathematics concepts with everyday life in real situations (Das, 2019). Moderately little is thought about effective mathematics teaching for students with MLD (Baker, et al., 2002). However, that which is known to a great extent agrees with suggestions for successful mathematics teaching generally. One exception may identify students exhibiting a specific subtype of MLD described by Geary (2004) described by trouble in utilizing and deciphering spatial portrayals of mathematical material. Mathematics phobia creates students’ daily practices and teaching strategy of mathematics teachers in their classroom (Das & Gupta, 2020).

Marginalizing Practices in Mathematics Education

In spite of the fact that the field of mathematics education espouses access and equity for all, research and practices involving students with disabilities miss the mark concerning this desire (Tan & Kastberg, 2017; Kleinert, et al., 2015; Kroesbergen & Van Luit, 2003). value and access incorporate both ensuring that all students attain mathematics proficiency and increasing the numbers of students from all racial, ethnic, gender, and socioeconomic groups who attain the highest levels of mathematics achievement.

Reflections of Inclusive Mathematics Education (IME)

A portion of the complexities and difficulties that feature the inclusive mathematics induction program was impacted by context-specific and systemic constraints. Additionally, these difficulties and complexities may have obstructed endeavors toward progressing comprehensive arithmetic practices. Mathematical knowledge is related to another discipline like as history, geography, fine-arts & physical education (Das, et al., 2019). Mathematics education, as well as the nature of all instructors in the teacher education department, additionally should be met (Das, et al., 2019). The absence of a chance to team up with a custom curriculum instructor appeared to influence the capacity of our members to progress IME standards. It is significant for early vocation instructors to approach proficient learning openings and to tutor to turn into a comprehensive mathematics teacher. Instructors ordinarily want to propel their science teaching

method through associations with natural individuals and practices. Another component of encouraging an acceptance program is giving members reality to talk about issues making boundaries and difficulties as early-profession educators - the instructing calling as well as for the facilitators to comprehend issues influencing the members.

Conclusion

This study shows that attitude towards mathematics practice in the classroom. The same number of others will authenticate; upholding for comprehensive instruction can be troublesome and very baffling. Educators were urged to participate in every one of the meetings and exercises with the requirements of youngsters in their classes as a primary concern to limit the disjuncture between the settings of the expert learning program and their homerooms and consequently to augment the odds that thoughts talked about in the program would affect the instructors' classroom. The chance and force in focusing on getting the hang of, thinking, and so on happens for singular students is likewise featured and can advance a practical way ahead. The intellectual impeded students must be presented to the universe of experience, practices, and assets like any normal children.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest concerning the research, authorship, and publication of this article.

Funding

The author(s) received no financial support for the research, authorship, & publication of this article.

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Author Details

Kaushik Das, Department of Mathematics, Gobardanga Hindu College, Gobardanga, West Bengal, India,
Email ID: kaushik.das53@gmail.com