

Literature Review: Role of Skits and Games in Reducing Phobia of Mathematics

Lekha Anil¹, Dr. S.K. Tripathy²

¹Research Scholar, Department of Research and Planning, Shri. Venkateshwara University, Gajraula, (Amroha District), Uttar Pradesh, India.

²Research Supervisor, Associate professor, Shri Venkateswara University, Gajraula, (Amroha District). Uttar Pradesh, India.

OPEN ACCESS

Article Citation:

Lekha Anil¹, Dr. S.K. Tripathy² "Literature Review: Role of Skits and Games in Reducing Phobia of Mathematics", International Journal of Recent Trends in Multidisciplinary Research, May-June 2025, Vol 5(03), 134-135.

©2025 The Author(s). This is an open access article distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Published by 5th Dimension Research Publication

Abstract: The word 'phobia' which is an irrational fear of something is mostly connected with mathematics in curriculum. It may be a feeling of tension, apprehension or fear that interfaces with mathematical performance. The causes for it can wither genetics or the environment. To make the learning outcomes fruitful, we have to indulge in various learner-centric activities. These activities play significant roles in effective transaction of curriculum. The role of teachers and the assurance of learner participation during classroom instruction have evolved as important pre-requisites of curriculum change. In this situation, the involvement of students in various activities is solicited. Here, the role of games is vital. It can be in various disciplines like Mathematics, Social Science, English or any other Discipline.

1. Introduction

Mathematics Phobia and Anxiety

Mathematics anxiety is also known as maths phobia, is a worldwide phenomenon a concern and is recognized globally as a barrier for student's achievement in examination. The terms mathematics phobia was introduced by Mary Fider Gough in 1950's, and various researches have been conducted to explore its causes, such as the subject complexity, fear of failure, and even poor instructional techniques, Mathematical phobia even refers to a person's feelings of stress and anxiety which arises when dealing with numbers and solving problems in academic settings. So the studies are conducted both in' International and Indian Contexts, to observe the discomfort and the nervousness an examinee faces during a Specific mathematics related situation.

Countries like the United States, Europe and Asia have identified the negative Impact of thus anxiety which affects negatively and which makes an adverse impact of thus anxiety which affects negatively and which makes an adverse effect on both cognitive and emotional aspect of a learner.

In various countries like Finland and the US the researchers have revealed that this anxiety, which is subject-specific, should be related to their mathematical achievement.

In the international context, Winfield (1988) interrogated mathematical anxiety in college students and found that this irrational Jean existed in them. Gardener and Tamir (1989), conducted several survey, in Malaysian students, and investigated a term "interest", as a preference for Certain types of activities over others, Spielberger (1995) explained that; a psychological and physical response to a self-concept, consciously perceived feelings of tension is anxiety. In the United States, research by Ashcraft and Moore (2009) highlighted the long term effect of math-phobia on academic achievement. Some studies have also highlighted the detrimental effect of math anxiety.

A strong, universal relationship between Maths anxiety and achievement is indicated in a study conducted by Hembuee (1990) across multiple countries in Europe. The Programed for International Student Assessment (PISA found that-European students often experience math anxiety due to fear of failure and parental pressure, Wellcor (2004) concluded that Math difficulties, the flow of learning and application are complex in the engineering curriculum. Ascending to Maluky (2006), Math anxiety is a worldwide, nude spread issue away from college and unmeant students. Owens and New begin 1998) have found that students who experience mathematics anxiety are more likely to delay completion and also exhibit negligence to the task assigned to them.

In the Indian context, the attitudes towards learning geometry are examined by D-k Jani (1919). Singh (1986) found that attitudes towards mathematics should be related to mathematical achievement. Verse (2001) investigated that mathematical phobia is a little more than fear of concepts.

2. Role of Games in learning

In various countries like Finland and the U.S, educational games are considered as a pedagogical tool to alleviate anxiety and in India, through NEP 2020, the role of Games in Learning is emphatically stated. Educational Games. Foster active participation in learning process and thereby improve problem_ solving skills and enhance the comprehensive level of the learners and thereby leads to low_ stress and mental conflict while grasping the higher level complex questions. Studies by Jo Boaler(Stanford University) indicate that engaging students in activities like Games can significantly reduce math anxiety. IN U.S, Ashcraft and Moore (2009) highlighted on the long-term negative effects of math anxiety on academic performance. Math phobia or anxiety bis strongly correlated with societal pressures and avoidance behaviours so to overcome the stress generated during the teaching Learning process of mathematics, Games can be used as a tool in making Learning more engaging and accessible. It helps to change the learners' attitude towards the subject and allow students to practice mathematical concepts without the traditional testing

3. Role of Drama and Skits

Drama and skits in education enhance creativity, develop cognitive skills and foster a balanced Learning environment. A recent research in Australia revealed that Drama bas3d instructions improves student understanding of abstract concepts. Anderson and Dunn (2013) found that skits help to transact abstract numerical concepts to real life situations, thereby improving both confidence and comprehension. Drama and skits allow students to externalities their fears, thereby reducing their anxiety. IN U.K, kempe and Holroyd (2007) demonstrated that Drama and skits in class rooms can reduce students fear of failure and promote collaborative Learning In a supportive environment. A study on the Role of Drama in learning Mathematics by Elahi Maosum (Iran.2013) indicates that Game based abd dramatic practice in class room can help better perception of the concepts.

4. Impact of Curriculum

Curriculum materials play a vital role in mathematical instruction. Some studies provide positive impact of standard based Curriculum materials on student achievement.

Battistich, Allredge and Tsuchida (2003) have found that students in standard based Curriculum class rooms have deeper mathematical understanding compared to students of traditional curricula Also the role of teachers in Curriculum transaction also crucial. The studies in Canada, by Sutton_ Smith(2019) stressed that the teachers play a vital role in reducing students anxiety effectively .Ln Germany Becker and Goets(2014) found that interactive and fun based methods improve both attitude and understanding towards the subject

5. Conclusion

By reviewing these studies, we can conclude that skits and Games are strong tools of reducing phobia of mathematics and the topic can be taken for further studies as skits and Games are instrumental in reducing anxiety while learning Mathematics. While it is an accepted fact globally, progressive systems like those in Finland and Canada show challenges such as rigidity in Curriculum and teacher training also are the areas to be addressed to fully realize the benefits of Skits and Games as a tool to reduce phobia.

Reference

1. Ashcraft, M. H., and Moore, A. W. (2009). *Mathematics anxiety and the affective drop in performance. J. Psychoeduc. Assess.* 27, 197–205. doi: 10.1177/0734282908330580
2. Hembree, R. (1990). *The nature, effects, and relief of mathematics anxiety. Journal for Research in Mathematics Education*, 21(1), 33–46. 10.2307/749455
3. Boaler, J. (2016). *Mathematical mindsets: Unleashing students' potential through creative math, inspiring messages, and innovative teaching.* San Francisco, CA: Jossey-Bass.
4. Anderson, M., and J. Dunn. (2013). *How Drama Activates Learning: Contemporary Research and Practice.* Bloomsbury Academic.