

Virtual Reality: A Critical Overview of Digital Primary Education in Indian Context

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DOI: <https://dx.doi.org/10.51584/IJRIAS.2026.11020003>

Received: 10 February; Accepted: 13 February; Published: 23 February

ABSTRACT

The current Era is the Digital Era. The education system of this Digital Era is completely different from the traditional education system. We all know that Education is a tool that can change the entire society. An incredible achievement of science and technology is virtual Reality. An important pillar of entire education system is primary education. Currently, in the area of digital technology, Virtual Reality is an excellent aspect in primary Education. This study is a review-based study. The aim of this study is to discuss about virtual Reality in Digital Primary Education in India. And the merits and demerits of various aspects of virtual reality in digital primary education in India has been analysed. This paper shows that, Students get more opportunity to gain knowledge through virtual reality and they can visit geographically distant and inaccessible places and they become more curious about the topic.

Keywords: Virtual Reality, Digital Education, Digital Primary Education

INTRODUCTION

We all know that education is the backbone of humanity. The current era is the digital era. The whole education system of this digital era is completely different from traditional educational system According to UNICEF, Digital learning can be a lifeline: reaching children in conflict zones, supporting teachers in remote areas and opening new pathways for girls, children with disabilities and those out of School. Virtual reality technology has emerged as a game enhancing tool in 21st century education, offering an immersive and interactive learning experience that holds tremendous potential, particularly in primary education (Rogers, 2019). Virtual reality is not real in the true sense but science-based imagination that creates consciousness like reality. Learning about historical events in a virtual reality setting can increase engagement, empathy, presence and knowledge mastery (Calvert & Abadia, 2020). According to Pinho (2004), virtual reality is characterized by immersion in the 3D world interaction with virtual environment. In primary education classrooms, students use virtual reality to transform abstract concepts into real-world situations. Virtual reality allows for real-time feedback among students, as students can get immediate feedback using virtual reality as they explore any topic.

Objectives of the Study

- To discuss about virtual reality in digital primary education in India.
- To explore merits and demerits of various aspects of virtual reality in digital primary education in India.

DISCUSSION

Objective :1 To discuss about virtual reality in digital primary education in India.

Just as the foundation of a house needs to be well-built, so too does primary education form the foundation of the entire education system. If a child does not receive this education properly, the entire education system will collapse. Primary education, crucial stage in the developmental and learning process of children, is no exception. As educators and decision makers strive to address the ever-evolving needs of student born in digital age, Virtual

Reality (VR) emerges as a revolutionary tool with the potential to fundamentally reshape the landscape of primary education (Zanfir, C.M.2023). Virtual Reality in primary education opens up new horizons for students. Virtual reality is a unique aspect of digital primary education. **UNICEF's new digital Education strategy 2025-2030 is a call to action to transform learning through the smart, sustainable and inclusive use of technology.** According to pinho (2004), "virtual reality is characterized by Emerson in the 3D world interaction with virtual environment. Traditional learning about digital learning." Virtual reality bridges the gap between traditional and digital learning.

Objective: 2 The explore merits and demerits of various aspects of virtual reality in digital primary education in India.

Merits of various aspects of virtual reality in digital primary education:

Virtual reality to solve various complex problems in mathematics:

We cannot go without mathematics in our daily lives, be it time calculations or money calculations. If primary school students solve all the real-world problem-centered numbers given in their math books through virtual reality, math fear will be greatly reduced and their attention to mathematics will increase.

Increased attention to lessons:

Virtual reality enhances childrens intrinsic motivation through individualized learning (Zanfir, C.M. (2023). Various studies have shown that, virtual reality is much more interesting and engaging in digital primary education than the previous traditional education because when students wear headsets in virtual reality, they wander in a different world of knowledge. Students' attention to the subject increases and the content of the lesson is remembered for a long time.

Expression of different values:

Mentioned in the Indian Constitution and we all know that our India is a sovereign, socialist, secular, democratic, republican country. In this country, primary students are taught various values such as brotherhood, cooperation, equality in the curriculum. When students learn an educational story through virtual reality, the expression of values becomes much clearer and more interesting. Morality is developed among students.

Interested in seeking knowledge:

The current generation of students not only acquire knowledge but also seek knowledge. Going beyond the boundaries of the previous traditional methods, students today have welcomed education through technology. In digital learning, primary level students seek knowledge through virtual Reality.

Opportunity to visit remote places:

Just as digital learning improves the quality of education and makes students skilled, another important aspect of this digital learning is virtual reality. Through this virtual reality, elementary students get the opportunity to visit all the inaccessible places in their textbooks. By visiting this adventure, students become wanderlust. Standing on the ground of reality, students never had the opportunity to visit remote places, which would have left their lives at risk. But through virtual reality that impossible task is also possible.

Development of imagination power:

A virtual classroom can be more than just seats, desks, children and an educator. Children can learn by interacting with their content through virtual field trips (Bailey & Bailenson,2017). In technology-based education, primary level students wander through the world of imagination through virtual reality. As a result, the power of imagination develops in them. They become more imaginative when it comes to thinking about any subject matter.

Hands-on experience with content:

Virtual reality gives students the opportunity to put book reading into hands-on experience. This increases students' ability to provide experiences.

Demerits of various aspects of virtual reality in digital primary education in India.

De-humanization:

In today's machine-based civilization, people and students have become mechanical. The qualities of humanity are disappearing among students (Smith,2023). Students are considering virtual reality as real.

Lack of interaction:

Since virtual reality is the main focus of technology-based education, students spend hours exploring content through virtual reality. If there is a lack of interaction between each other, uncertainty will prevail in society (Jones,2022).

Indifferent to the feeling of reality:

In most cases, it is seen that primary school students who receive virtual reality-centered education are indifferent to the feeling of reality, wandering in a world of imagination at will. They have no regard for what events are happening in reality. They live in their own world (Lee,2021).

Damage to vision and hearing:

Two of the five senses of every person are the eyes and ears. Without these two senses, a person is unable to do many things. But in virtual reality-centered education, primary school students suffer from vision and hearing damage (Brown,2020) due to wearing headsets for a long time.

CONCLUSION

In the 21st century, the opportunity for primary level students to study in virtual reality is increasing the quality of education on the one hand. On the other hand, due to not taking appropriate steps, primary students at all levels (such as special needs students, tribal children, remote area children) are not able to accept advanced technology-based virtual reality-centered education. As we move forward in the age of experiential learning, embracing virtual reality is not just an opportunity but a necessary to provide school age children with a holistic and engaging education that prepares them for a digital future (Zanfira, C.M.(2023). Nevertheless, it can be said that the incredible success of science and technology is virtual reality. Through this, primary level students have accepted virtual reality-centered education along with digital learning. As a result, students have entered a fantasy-based world like the present world.

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