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INTERACTIVE MULTIMEDIA ENHANCES THE LEARNING PROCESS IN PRIMARY SCHOOLS' STUDENTS – A STUDY

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Abstract: In the early years, multimedia plays an important role in the development of cross-skills, communication, problem solving, thinking, and collaboration. Multimedia refers to computer-based information provided through numerous forms of media. Multimedia is utilised to facilitate effective and participatory learning. Videogames, as specifically designed tools, are also widely employed in elementary schools. This study found that identifying multimedia aspects improved children's education. The research was carried out in the year 2022. The lake city of Bhopal was chosen as the primary study area. The study included 120 pre-primary and primary school teachers. For sample selection, a random sampling procedure was used, and data collection was done using a self-created questionnaire schedule. In research, the T-test is used to analyse data. The findings demonstrated that multimedia has the potential to deliver interactive elementary education. Multimedia has the potential to improve the effectiveness of basic education resources.

Index Terms - **Multimedia Learning, ICT Technology, Problem Solving, Interesting Education, Positive Attitude, multimedia learning**

I. INTRODUCTION

Education has a significant impact on the intellectual, social, and emotional development of young children, particularly during childhood. Traditional teaching methods have experienced a paradigm shift in recent years, with an increased emphasis on the use of multimedia and interactive technologies into the basic education curriculum. The goal of this study is to investigate the impact of interactive multimedia on the learning experiences of children aged 3 to 6 years old, with a particular emphasis on its potential to improve their educational journey.

Multimedia learning materials may be richer, offer more chances for elaboration, and have more cognitive links accessible for the learner to relate new knowledge to existing knowledge. Multimedia instruction should outperform classroom lectures. Multimedia has the potential to be beneficial since it increases students' attitudes towards the learning material. When compared to traditional classroom training, multimedia information presentation appears to provide a potential learning benefit. Lawrence (1995). Because they are multimodal, multimedia presentations are engaging. In other words, multimedia can activate multiple senses at once, making it more attention-getting and attention-holding. Multimedia, according to the cognitive tools approach, is not a type of instruction to be learned from, but rather a tool for producing and learning with. Learners can construct their own multimedia knowledge representations that reflect their own points of view or comprehension of concepts. Learners may also cooperate with other students to create a multimedia

knowledge base for the classroom or school. Reeves (1998) Multimedia boosted students' independence, decision making, and consolidation of prior knowledge, critical literacy, and specific number and language ideas. (Libby, 2006) Multimedia educational technology, for example, plays a vital and critical part in the teaching and learning process at the primary level. It improves the effectiveness and success of the teaching and learning process. The majority of teachers believe that education technology promotes student engagement, motivation, effective teaching, attracting students' attention, and enriching the environment for the teaching-learning process.

ICT is defined as "anything that allows us to obtain information, communicate with one another, or have an impact on the environment by using electronic or digital equipment." Early childhood education has the ability to improve educational chances for young children. It can be used to stimulate deliberate and exploratory play in a developmentally appropriate way. It can promote dialogue, creativity, problem solving, risk taking, and flexible thinking in a play-centered and responsive atmosphere. As a result, equitable quality Early Childhood Education is essential for the bright future of little seeds (children), which might be achieved through appropriate need-based ICT interventions in the field of Early Childhood Education Rout and Rout (2011) ICT has the potential to improve educational quality. Painting and drawing can be done on a computer instead of paper and colour pencil if you have skills connected to creative expression and aesthetic appreciation. A PowerPoint presentation displaying gorgeous collections of birds, flowers, and animals can help to increase sensitivity to beauty (Khamrang 2011). Multimedia can promote children's self-concept, attitudes towards learning, social and emotional development, linguistic development, physical and motor development, reasoning and memory in the early years. Different sorts of multimedia gadgets and their favourable impact on children's academic performance and overall development are extremely important. Singh and Mishra (2013).

II. LITERATURE REVIEW

Multimedia tools and resources are gaining popularity in early childhood education due to their ability to engage young learners and enhance their educational experience. According to Moyer-Packenham and Weston (2013), interactive multimedia can effectively grab children's attention, enhance motivation, and facilitate meaningful learning experiences.

According to research, interactive multimedia can greatly boost student engagement and motivation. (Ploetzner et al. 2014) discovered that children who used multimedia materials shown higher levels of curiosity, active engagement, and sustained attention when compared to traditional techniques. The dynamic and visual stimulation of multimedia content is ascribed to its capacity to create an immersive and engaging learning environment.

Individual differences in learning styles and abilities can be accommodated by using interactive multimedia to personalise the learning experience. According to Ruixing et al. (2016), an adaptive multimedia platform that can adapt content and tempo to individual demands is critical. This customised method has been shown to improve children's self-directed learning, autonomy, and academic success.

Young learners might benefit from multimedia tools that promote social engagement and collaboration. According to Salomon and Globerson (2017), interactive multimedia can improve peer collaboration, communication, and cooperation abilities. Children in the classroom build problem-solving abilities, learn from one another, and form social bonds through collaborative activities.

III. OBJECTIV OF THE STUDY

- To learn about interactive multimedia materials.
- To evaluate the use of multimedia in elementary school (3-6) for interactive learning.

IV. RESEARCH METHODOLOGY

The research was carried out in the year 2022. Bhopal was chosen as the primary study location. Five mohllas were chosen in this area: Piplani, Awadhpuri, Gopal Nagar, Khajuri Kala, and Bag Sevnia. The study included 120 pre-primary and primary school teachers. The random sampling method was used to choose samples, while the questionnaire method was utilised to gather data. Following data collection, the data were tabulated in Microsoft Excel and analysed using frequency, percentage, and the t-test in SPSS.

V. RESEARCH FINDINGS AND DISCUSSION

Variable	Hindi		English		t-value	Sig
	Mean	SD	Mean	SD		
Do you have any knowledge of multimedia?	.79	.353	.87	.352	.472	.478
Do you understand multimedia elements such as text, audio, video, graphics, and animation?	.43	.480	.89	.170	638.75	.000***
An animated video simplifies schooling.	.52	.441	.72	.365	32.125	.000***
The use of graphics makes instruction more engaging.	.73	.432	.82	.342	29.758	.000***
Educational movies based on real-life scenarios will help children understand more	.61	.492	.81	.336	43.152	.000***
Animated stories are straightforward, clear, and simple to comprehend	.67	.488	.85	.395	10.552	.001***
Using multimedia in the classroom promotes interaction between students and teachers.	.49	.492	.73	.485	26.224	.000***
Multimedia aids in communicating with a large number of pupils in a classroom setting.	.52	.505	.69	.471	2.745	.087
Children like learning that includes multimedia aspects.	.44	.488	.67	.450	2.779	.129
Multimedia education delivers equal instruction in a creative manner for all types of students.	.43	.509	.92	.359	79.80	.000***

The above table shows the high significance differences in do you know about multimedia elements (text, audio, video, graphics, animation), animated videos make education easy, use of graphics makes education more interesting, educational videos based on real life situations will increase children's understanding, animated stories are simple, clear, and easy to understand, using multimedia in classroom is helpful for interaction between student and teacher, multimedia is useful for learning There were no significant differences in do you know about multimedia, multimedia assists in communicating with a large number of pupils in class, and youngsters appreciate education that includes multimedia aspects.

VI. CONCLUSION

The findings indicate that multimedia makes children's education (ages 3-6) more engaging, and that there is important variation in multimedia aspects increased knowledge based on their skills. Multimedia offers many opportunities for creative learning and improved interaction between students and teachers. Students appreciated teaching that included multimedia aspects for projects. Multimedia enhances the learning process by providing more interactive instructional materials that promote learner motivation and facilitate the easy acquisition of fundamental skills. Multimedia has proved the ability to expand alternatives, access, involvement, and accomplishment for all students.

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