REVOLUTIONIZING ART EDUCATION: THE ROLE OF VIRTUAL REALITY IN ADVANCING CREATIVITY AND ENGAGEMENT IN PRIMARY SCHOOLS

Liqun Shen[1*], Sahadat Hossain[2], Arunava Roy[3]

[1*]Nanchang Institute of Science and Technology, Xinjian District, Nanchang, Jiangxi, China, 330100
shenqunli2023@outlook.com
[2]Limkokwing University of Creative Technology, Cyberjaya, Selangor, Malaysia
hossain.sah@gmail.com
[3]Narsee Monjee Institute of Management Studies, Mumbai, Maharashtra, India
arunava1232@gmail.com

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ABSTRACT

The advancements that take place in virtual reality (VR) have proven to be fruitful for the education of art for primary section students. This is majorly because of the interaction and customised learning process that VR is able to provide. The main issue that has been identified in respect of providing education to primary section students learning art through VR is the enhancement of the cleaning process. The study analyses data gathered from parents of 200 students who are learning art through VR in order to gain necessary responses. The data has been gathered using a questionnaire survey method and further analysed using IBM SPSS. It has been observed that the overload of VR can prove to be a challenge in the art education process using VR. However, the customised education process is also an effective medium in order to promote enhanced learning of art using VR.

Keywords: VR, Art education, Deep learning, Customisation, innovation

1. INTRODUCTION

The field of art education has seen the development of ***virtual reality (VR)*** as a ground-breaking instrument, particularly in the primary level, which has completely changed how pupils view and interact with art. Young learners can experience a variety of artistic genres, eras of history, and cultural contexts first-hand by being transported to immersive virtual surroundings using VR (Jeon, 2019). They are more creative, more engaged, and have a deeper comprehension of artistic ideas because of utilising this technique for their art education purpose to this technology (Jeon, 2019); (Pellas, 2020). Students can engage with iconic artwork, digitally visit art galleries, and even produce their own virtual works of art. VR in art education encourages hands-on learning, improves visual literacy, and fosters a lifetime appreciation for art, providing young minds with a dynamic and engrossing platform to explore their artistic potential (Arnab, 2019) (Frisby, 2020). Students from schools can actively contribute to the creative process through VR. They can experiment with diverse techniques, handle virtual materials and tools for art, and let their imaginations run wild without worrying about making mistakes. Students are given the opportunity to own their artistic expression and discover their individual talents thanks to VR's interactive features (Arnab, 2019).

Additionally, VR offers a secure setting for young students to interact with art (Belbase, 2022). Barriers like fragility and limited accessibility, which are frequently connected to physical artworks, are removed. Students can get a close-up look at delicate items, study minute details, and develop a thorough understanding of artistic methods that might otherwise be difficult to see in action. VR in art instruction also develops visual literacy skills.

The use of ***Virtual Reality (VR)*** in basic art education involves a number of issues that must be resolved for efficient deployment and utilisation. These difficulties centre on instructional issues, technical limitations, and moral dilemmas.

The high cost of VR headsets and related hardware, it can be difficult for schools with little funding to adopt and maintain the setups required for widespread use. There is a serious issue with the price and availability of VR equipment (Lo, 2019). Further impeding their adoption in primary classrooms is the fact that setting up and troubleshooting VR systems requires a certain level of technical expertise. The production of curriculum materials that are appropriate for primary-level kids is also necessary (Lo, 2019) (Lashley, 2019). In the elementary portion, art instruction is focused on developing students' imagination, creativity, and fine motor abilities. It is crucial to create VR experiences that are in line with these educational goals and offer age-appropriate content that effectively engages and tests young learners.

Additionally, many schools, especially those in underfunded areas, face challenges in allocating resources for advanced technologies like VR, further widening the educational gap. The lack of technical training for educators compounds the problem, as teachers may struggle with setting up and troubleshooting VR systems, increasing reliance on external support (Huang, 2021) (Tlili, 2021). Furthermore, there is a limited availability of curriculum materials specifically designed for primary school students, making it difficult to create VR experiences that effectively balance engagement with developmental appropriateness (Cisneros, 2019) (Frisby, 2020). Without tailored content, the integration of VR into art education risks misalignment with the core objectives of fostering creativity, imagination, and fine motor skills in young learners. Additionally, it is essential to ensure that VR is used ethically in art instruction (Southgate, 2019); (Chong, 2021). Important factors that must be taken into account include protecting student privacy, mitigating any potential motion sickness or discomfort brought on by VR experiences, and avoiding the exposure to offensive or violent content.

Concerns regarding the potential replacement of tactile, hands-on experiences with virtual ones are also raised by the use of VR into art instruction. Physical materials are often used in artistic creation (Fiesler C. G., 2020); (Tuttle, 2020). However, when adopting VR as the main instrument, artistic creation may lose the tactile materials and sensory engagement that are frequently used. In order to guarantee that students obtain a well-rounded education, it is crucial to strike a balance between virtual and real-world art experiences (Fiesler C. G., 2020).

Finally, there is a requirement for thorough teacher support and training (Gamage, 2020); (Amhag, 2019). Teachers need to be properly trained in the use of VR

technology, including how to move around in virtual spaces, lead fruitful discussions, and assist students in creating and interpreting virtual artwork. In order to utilise VR in enhancing the art teaching in the basic section to its full potential, several issues must be resolved.

A. Aim

The main aim of the study is to examine and evaluate the use of VR in the Advancement of art education in the primary section.

B. Objectives

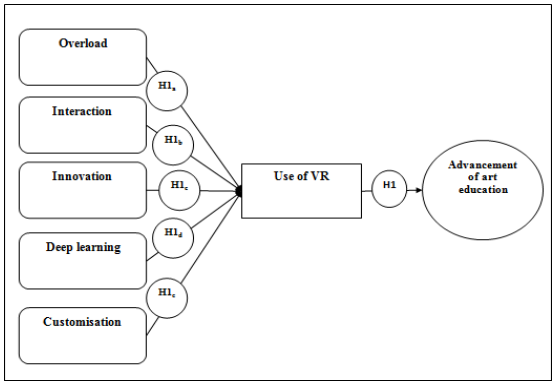
RO1: To examine the application of VR in the advancement of Art education.
RO2: To analyse the impact of overload, interaction, innovation, customization and Deep learning on Advancement of art education.
RO3: To evaluate the advantages of using VR in the Advancement of art education.

C. Research Questions

RQ1: What is the impact of the use of VR in art education in the primary section?
RQ2: How can overload affect the advancement of VR in primary section art education?
RQ3: What are the strategies that mitigates the challenges faced by the VR in relation to overload?

D. Research Hypothesis

IV: Overload: Overload describes the excessive dependence or use of VR technology without taking into account any potential negative effects.
Interaction: With the use of VR technology, students may actively connect with and interact with virtual art spaces, promoting a deeper understanding and improving the educational process.
Innovation: Virtual Reality (VR) in art education is moving forward thanks in large part to innovation.
Deep Learning: deep learning has significantly improved the process of 3D art that is considered as an integral form of VR.
Customisation: This concept can be used in art education to generate a connectivity of the artists with the art being generated with the help of customisation factors.
DV: Advancement of art education: The flexibility of VR allows art education to involve various art related aspects and develop the learning process of every individual.
H1a: Overload has a significant impact on the advancement of art education.
H1b: Interaction has a significant impact on the advancement of art education.
H1c: Innovation has a significant impact on the advancement of art education.
H1d: Deep learning has a significant impact on the advancement of art education.
H1e: Customization has a significant impact on the advancement of art education.
H1: Use of VR has a significant impact on the advancement of art education.



E. Scope of the project

The primary section's research of Virtual Reality (VR) in art education is of utmost importance since it should be provided special chances to improve and modify the learning process for young students. Immersive and hands-on learning are made possible by VR in art education. It enables students to interact with art in a way that traditional approaches are unable to duplicate by taking them to virtual art galleries, museums, and cultural venues (Liritzis, 2021). Their senses are stimulated, their understanding is increased, and their general engagement with the material is improved by this immersive experience. Students can investigate and experiment with a variety of artistic techniques and styles by being given a virtual canvas and art supplies (Agostino, 2020) (Cope, 2021). This ability to express one's creativity in a virtual setting promotes innovation, imagination, and increased self-assurance in one's artistic abilities. Students can express themselves artistically through VR without worrying about criticism or restrictions.

VR also makes it easier to access cultural and artistic resources. Many elementary schools lack the means or access to tour renowned museums or view works of art from many eras and cultures. With the use of virtual reality (VR) technology, students can digitally experience works of art from around the world, overcoming financial and geographic constraints (Li, 2021); (Algraini, 2021). It ensures that all students have the chance to engage with various art forms and enhance their perspectives by democratising access to cultural resources. VR also improves visual literacy abilities.

2. LITERATURE REVIEW

Overload on the advancement of VR

Virtual Reality (VR) advancement in basic section art instruction is hampered by the influence of (Kantaros, 2023) (Amirkhan, 2021). Overexposure to virtual worlds has the potential to be a serious effect of overload (Amirkhan, 2021) (Kantaros, 2023). Overusing VR can result in sensory overload, which can make young pupils feel exhausted, disoriented, and even motion ill. This may make it more difficult for them to interact with art and badly affect how they learn in general. Supporting potential neglect of conventional art materials and hands-on experiences is another effect of

overload (Rhee, 2021) (Amirkhan, 2021). While virtual reality (VR) can provide immersive and engaging experiences, it should not take the place of the tactile and sensory elements of making physical art.

Additionally, overburdening kids might result in a dependency on technology, which hinders their capacity to think critically and creatively without the aid of computerised tools. In order to ensure that students obtain a well-rounded art education, it is imperative to create a balance between the usage of VR and other conventional art methods (Perales, 2021) (Degli Innocenti, 2019). It is crucial for educators to carefully prepare and include VR experiences into the curriculum in order to lessen the effects of overload. Qver quantity should be prioritised, and they should provide engaging VR experiences that complement and improve conventional art education (Richerme, 2021). In addition, taking regular pauses and using VR sparingly might lessen the consequences of overload and enable students to interact with the technology in a healthy and balanced way.

Interaction

Virtual Reality (VR) in art education is progressing thanks in large part to interaction (Mkhitaryan, 2021). Students can experiment with different artistic styles, utilise virtual art tools, and produce their own virtual works of art through interactive VR experiences (Lee, 2021). This practical method, students are given the freedom to express their creativity, take calculated risks, and hone their artistic abilities in a vibrant virtual environment. Personalised learning experience is also made possible by interactivity in VR art instruction (Cisneros, 2019). Students can move around virtual galleries at their own pace and level of interest, zoom in on particular aspects, and examine artworks.

Additionally, interaction promotes social involvement and collaboration. Through VR platforms, kids can engage in virtual interactions with peers, teachers, and even well-known artists (Ho, 2019) (Ho, 2019). In order to build a sense of community and encourage collaborative learning, they can talk about and evaluate artworks, exchange ideas, and get feedback. Additionally, interactive VR experiences offer quick feedback and evaluation.

Innovation

With the advancement of technology, educators are now able to push the limits of conventional teaching techniques thanks to cutting-edge breakthroughs in VR hardware, software, and content creation tools (Soto-Martin, 2020). These developments offer chances to develop immersive, interactive art experiences that enthral and involve students in novel ways (González-Zamar, 2020). Additionally, these innovations range from novel VR applications and simulations to ground-breaking content creation techniques.

Deep learning

It can be said that use of VR in art education can generate advancement with the impact of 3D art format (Ravi, 2020). In accordance with this, it can be said that deep learning is useful to be applied to a wide range of applications that includes the factors of art education (Ganaie, 2022) (Mokmin, 2023). The biggest benefit that VR can provide in art education is related to object identification. If the machine learning process has improved highly in the past years. This has contributed majorly to the process of object identification (Paszke, 2019). The improvement of machine learning and its benefits to object recognition in the field of VR has contributed massively to the field of VR in education (Chen, 2019) (Ved, 2021). Deep learning is an essential factor that can contribute to the improvement of VR when it is implied in the field of VR in art education (Huang, 2021) (Chu, 2021) (Pellas, 2020).

Customisation

VR is mainly concerned with developing a customised experience for the users in order to develop the interaction they have. Customisation has a positive impact over the users of games when they interact (Cuthbert, 2019) (Kupers, 2019). It is mostly concerned with the development of sense of control and identity of the aspects that form a part of the games. In accordance with this, that customised motion training is an important aspect for game developers related to virtual reality (Chuan, 2021) (Tzima, 2019). Thus, it needs to be kept in mind when artists are making use of VR to take training in this aspect in order to improve the customised art development capacity (Shehade, 2020) (Sanfilippo, 2022) (Tlili, 2021). Implication of customisation will develop the fields of art education in significant manners and advance the education process of primary sections.

The study has considered various aspects that are important to the concept of VR and art education advancement. However, there are certain aspects that have been left behind and these could have improved the quality of the study in future. One such factor includes the flexibility of VR and the impact it has on developing the education field related to art.

Hypothesis development

H1: Impact of overload on the advancement of VR in primary section art education
H2: Interaction is a necessary content of VR advancement in art education.
H3: Innovation serves as the key function in advancing VR in art education.
H4: Impact of deep learning on advancement of art education in primary section
H5: Customisation is an important aspect for advancement of VR in art education.

Literature gap

The chapter has well discussed in a critical manner the various studies that have been conducted previously related to VR and art education. The multiple variables that have affected the study have been analysed as a part of this chapter in order to develop concepts related to VR and art education. The methods that are to be used in the study are to be analysed in the next chapter.

3. METHODOLOGY

The research philosophy is adopted in order to identify the process used in order to collect the data for the study. The positivist philosophy has been adopted for this study in order to support the analysis process through developing the data gathering process. The effectiveness of the positivism philosophy lies in the fact that it gathers data based on the observations obtained from any phenomena based on which the research is conducted (Alharahsheh, 2020). This adds to the effectiveness of reduced biases in the study. Since the data is collected based on observation, there is less chance of human opinion-based biases from affecting the authenticity of the data. This is the reason behind selection of positivism philosophy over any other philosophies related to gathering data related to using VR in art education in primary section students through observation (Botha, 2021). Positivism philosophy is effective in gathering data for quantitative studies and hence it is a better choice in comparison to interpretivism philosophy that is effective for qualitative strategies (Corry, 2019).

The deductive approach had been adopted in accordance with the adopted positivism philosophy since it is associated with development of a hypothesis. Hypothesis development is mostly effective in quantitative studies. The research approach is defined for a study, as it is useful in defining the method that is to be followed in order to gather data (Rakhmatova, 2022). Deductive approach is useful in application of theories in the study in order to generate a hypothesis (Wardani, 2020). Existing theories are studied in order to generate the current hypothesis for further study. The benefit of using the deductive approach is that it provides data related to accuracy of information that is gained from analysing the theories (Bergdahl, 2019).

The descriptive research design has been adopted for this study in accordance with the early-identified research philosophy and approach. The research design provides the blueprint that is to be followed in order to conduct the study. This has led the adoption of descriptive research design to be an effective choice in comparison to the other available designs for the research. The descriptive research design is effective in systematically describing the phenomenon or situation that is being studied (Sundler, 2019). A proper description of the variables and the impact it has on the study related to VR art education of primary students is also gained. The variables of the study observed only and not manipulated (Patel, 2022). This is relevant to the adopted positivism philosophy and hence its effective to develop the observation-based data to the study.

The data collection method for the study is important to the research since it will form the base of the study. A specific data collection method is identified in order to define the process that is to be adopted for collecting data. This study has been using a primary data collection process, as their aim is to gather data from the identified research samples. The biggest advantage of using primary data collection is the collection of raw data from identified samples that have not been used in any data previously

(Franzitta, 2020). The process allows authentic and original data from parents of students learning art through primary education.

This is the most important aspect of the majority of the studies considering using a primary data collection process. In comparison to secondary data analysis, where available data is already data is simply analysed, the primary data analysis requires gathering and then analysing the final data for the study (HR, 2022). Under the primary data collection process, in this study, a survey method is to be adopted in order to collect data as the main instrument. A selected sample size is to be provided the questionnaire that developed for the study where they can provide their response for their study.

The data that is to be collected needs to be analysed as well in the future stages to generate an interpretation. In accordance with the adopted data collection process, a data analysis method is also required to be adopted. Thus, for this study, a quantitative approach has been adopted in order to analyse the data that has been selected. Quantitative data analysis approach makes use of a statistical technique in order to analyse the data that has been gathered (Abulela, 2020). The need of using a quantitative data analysis approach is that it is effective in analysing and interpreting numerical data that is gathered from the survey through graphs and tables. This makes it easier to interpret and identify its impact on the study.

IBM SPSS software is one of the effective mechanisms that is adopted in order to analyse the data that is collected through the survey. It is a statistical software package that effectively analyses the data collected and portrays it in a readable format for an individual (Kurinjimalar Ramu, 2023). This statistical process is mainly used as the analysis tool in order to interpret data gathered in primary research.

This is significant since the data collected is forming the base of the final interpretation made. A Stratified sampling method has been adopted in order to develop the sample for the study (A. Ramezan, 2019). A sample size is generated from the population regarding whom the conclusion is required to be drawn for the study. In this case, the sample size would be of 260 parents of students who are studying VR implemented art. The sample size has been adopted from a population of 790 parents of students who served as the population from Western International School of Shanghai.

Ethical considerations include considering the legal aspects that make the studies conducted authentic. It is necessary to obtain the consent of participants prior to gathering data from them as a part of the study (Fiesler C. , 2019). The personal details of the participants are required to be kept confidential and the data is required to be gathered anonymously. Data gathered is to be maintained in accordance with the ***"Data protection Act, 2010".***

The reliability and validity of the data is to ensure that accuracy of the information gathered has been maintained. The reliability of data ensures consistency of information that has been gathered and validity ensures the accuracy of information (Sürücü, 2020). Both aspects ensure that proper data has been collected and analysed from the results of the study.

A feasibility test or pilot study needs to be conducted prior to the development of the actual study (Carroll, 2020). This ensures that methods have been selected accurately for necessary data collection. The chapter has summarised the methods that have been used for research and the reason or justification for selecting the methods. This is able to develop the authenticity of the data that has been collected for interpretation. The results chapter is to analyse the data that has been gathered using the above methods and then provide the interpretation in accordance with it.

4. RESULTS

Demographic Detail

The demographic data that is available during the study in this respect portrays the demographic features of the participants that can have a significant influence over the results. The trends that can be defined from the table are significant in identifying the characteristics of the participants who have been cooperative towards the study (Freeman, 2022). It can be seen from the above table that the majority of the parents who formed a part of the survey belonged from an age group of 35 to 45 years. The next age group was also close as the major contributor having provided data to the survey related to VR in art education. Majority of the respondents were females, although the difference between males and females were comparatively less. This can signify that the mothers of the students were most eager to this survey as a form of care to their children. Highest participants were from an income group of RM 25,000 to RM 35, 000, signifying a moderate level of income.

		Count	Column N %
age	25-35	78	30.0%
	35-45	131	50.4%
	45 and above	51	19.6%
gender	Male	124	47.7%
	Female	136	52.3%
income	RM 10,000-RM 25,000	78	30.0%
	RM 25,000-RM 35,000	72	27.7%
	RM 35,000- RM 45,000	110	42.3%

Table 1: Demographic Detail

Reliability Analysis

The reliability testing provides the consistency of the results that have been obtained and the accuracy of the data for the study. The reliability testing process through Cronbach Alpha is the most well-known process and it has been applied in this study (Amirrudin, 2021); (Schrepp, 2020). It is able to define the reliability of the measurement used in the study. The measures are considered reliable if the value is

within the range of 0.7 to 0.9. In this study, it can be seen that the value is 0.792. Thus, it can be said that the data set is reliable.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.796	.792	36

Table 2: Cronbach Alpha

Item Statistics

	Mean	Std. Deviation	N
O1	4.3577	1.03926	260
O2	3.6500	1.21945	260
O3	3.7731	1.08981	260
O4	3.9885	.99993	260
O5	4.0885	1.13383	260
O6	3.9346	1.05795	260
I1	4.3385	1.01383	260
I2	3.5731	1.26980	260
I3	3.8346	1.12172	260
I4	3.9769	1.08671	260
I5	4.1615	.80350	260
I6	4.0769	1.08065	260
IN1	3.8731	1.11641	260
IN2	4.3500	1.04188	260
IN3	3.4885	1.24734	260
IN4	3.8500	1.05294	260
IN5	3.9346	1.06159	260
IN6	4.1615	1.10669	260
Dl1	3.8500	1.11354	260
Dl2	4.4269	.98171	260
Dl3	3.5731	1.19136	260
Dl4	3.7500	1.14364	260
Dl5	3.8769	1.06191	260
Dl6	4.0308	1.13857	260
C1	3.8846	1.09145	260
C2	4.5115	.90252	260
C3	3.5038	1.26582	260
C4	3.9269	1.08626	260
C5	3.8346	1.09030	260
C6	4.2692	1.04559	260
VRAE1	4.3808	.98110	260

VRAE2	3.4923	1.23492	260
VRAE3	3.8962	1.12225	260
VARE4	3.8769	1.06554	260
VRAE5	4.1346	1.08747	260
VRAE6	3.9654	1.05941	260

Table 3: Reliability Analysis

The item statistics table provides a descriptive analysis of the data collected to have an understanding on the pattern or trends that are existing in the datasets. The value of mean can be used in order to determine the rate of agreement and disagreement of individuals in the study. A high value of mean would result in high rate of agreement of individuals while low rate of mean results in disagreement. The highest value of mean was obtained against the factor of customisation for C2 at a value of 4.5115. This portrays the parents opinion that customisation provides an effective experience for the users and are beneficial in terms of Art education for primary school children.

Multiple Linear Regression Analysis

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.083	.743		.112	.911	-1.381	1.547
	O1	.117	.069	.114	1.688	.053	-.020	.253
	O2	.179	.066	.205	2.710	.007	.049	.309
	O3	.136	.063	.139	2.139	.033	.011	.261
	O4	.213	.066	.199	3.204	.002	.082	.343
	O5	.011	.062	.011	.173	.863	-.111	.132
	O6	-.037	.065	-.037	-.571	.569	-.165	.091
	I1	-.132	.068	-.125	-1.933	.054	-.266	.003
	I2	.013	.066	.015	.191	.049	-.117	.142
	I3	-.030	.068	-.031	-.438	.062	-.164	.104
	I4	.039	.065	.040	.601	.048	-.089	.167
	I5	-.136	.082	-.103	-1.666	.097	-.298	.025
	I6	.012	.063	.012	.186	.053	-.113	.137
	IN1	-.023	.061	-.024	-.380	.004	-.144	.097
	IN2	.130	.067	.127	1.942	.053	-.002	.262
	IN3	-.100	.062	-.117	-1.615	.008	-.222	.022
	IN4	.058	.066	.057	.880	.080	-.072	.188
	IN5	.056	.072	.056	.778	.037	-.086	.199

IN6	-.002	.066	-.002	-.035	.072	-.132	.127
Dl1	.027	.060	.028	.443	.058	-.092	.145
Dl2	-.138	.068	-.127	-2.023	.044	-.272	-.004
Dl3	.067	.064	.075	1.050	.025	-.058	.192
Dl4	.032	.064	.034	.501	.017	-.093	.157
Dl5	.106	.062	.106	1.723	.086	-.015	.228
Dl6	.125	.060	.134	2.083	.038	.007	.243
C1	-.027	.063	-.028	-.433	.065	-.151	.097
C2	.039	.079	.033	.493	.022	-.116	.194
C3	-.086	.067	-.102	-1.294	.017	-.217	.045
C4	.011	.062	.011	.178	.059	-.111	.133
C5	.170	.063	.174	2.704	.007	.046	.294
C6	.138	.065	.135	2.130	.034	.010	.265

a. Dependent Variable: VARE4

Table 4: Multiple regression analysis

The regression analysis is able to provide data related to the impact the independent and dependent variables have on the study. It can be seen from here that the first hypothesis has satisfied the study (Kim, 2021); (Baek, 2020). A value is considered to have supported the study if the significant value is less than 0.05. In the case of the first variable, the value is less than 0.05 for the majority of the factors. Thus, the variable related to overload has a significant impact over the study that is being conducted related to VR advancements in art education. Similar results can be seen to be obtained for the variables like Customisation, innovation, deep learning and interaction. Thus, it can be said that all of the variables have satisfied the necessities of the regression analysis and have a strong impact on the dependent variables in the study. This assures that the hypotheses that have been developed in the study regarding the variables have also been satisfied because of the significant relationship between the variables.

5. DISCUSSION AND CONCLUSION

The conclusion of the study where, the regression analysis, and other data gathered from the surveys there has been a mixed response to the use of virtual reality (VR) in art teaching for pupils in the primary division. The second set of responses only partially satisfies the requirements; even while the first set of responses shows that, the constant elements are satisfied, suggesting a beneficial influence of VR. This suggests that incorporating VR into art instruction has the potential to boost learning. However, there may be aspects that still need to be refined. The third and fourth sets of responses, however, show that parents are not happy with how VR is being used in art education. In order to maximise the advantages of VR technology in basic art instruction, it is important to solve the found weaknesses. In order to maximise the use of VR in art education, additional research and development are required.

The following suggestions for further improvement are based on the examination of the use of virtual reality (VR) in art education for pupils in the primary section:

- Enhance content diversity by extending the scope of VR experiences in art education to cover a wider range of creative approaches, methods, and contexts. This will guarantee that kids are exposed to a wide range of artistic expressions, developing creativity and cultural awareness.
- Create user-friendly interfaces that are especially suited for young students to make it simple for them to interact and navigate the VR environment. Additionally, by offering cost-effective and dependable VR equipment ideal for primary educational settings, you may increase the accessibility of this technology. In order to promote peer connection and teamwork, integrate collaborative features into the VR platform.
- Implement mechanisms within the VR system that give prompt feedback on students' artwork, enable them to improve their talents in real-time. Provide real-time feedback and assessment. Teachers will be able to track more effectively their pupils' development by including assessment tools.
- Teachers' professional development: Provide thorough training programmes for art instructors to make sure they are equipped with the skills and knowledge needed to incorporate successfully VR technology into their curriculum.

However, implementing these suggestions into practice, the use of VR in primary art education can be improved further, promoting student engagement in the artistic process, creativity, and cultural understanding.

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