**Model With Kids Learning**

**SYNOPSIS**

**Submitted By**

## **Vaibhav Tiwari**

## **2200290140173**

**Vandana Tiwari 2200290140174**

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## **Dr. Ankit Verma**

## **(Associate Professor)**



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**INTRODUCTION**

Augmented Reality is an advancement that incorporates a real object into a practical environment interactively. The impact of augmented reality on a student is used to explain motivation in a learning context. Augmented Reality applications as digital experiments for education modules using QR code scanner. This study aims to redesign a lesson unit supported with QR Codes and an augmented reality experience is created using the camera of a device like an iPhone or Android phone to view a real-world environment. An augmented reality experience is created using the device like mobile iPad, tablets etc. To learn the topic with real effect and the gets information for students digitally projected with the help of a camera. Database created in Vuforia developer portal then add each word QR code image, QR code image should be five-star clarity that means Scanner can find QR code at some distance. Augmented Reality applications can easily convey to students like image, video, or 3D Modules this technology helps the students to understand the complex topics and motivate them to learn more about them with digital experiments and visualization. The few recent additions to the material pools are smartphone apps using augmented reality with which the students can experiment on their own. Nowadays students are not studying a book so creating interest to study with the help of Quick Response (QR) codes for a particular word for which the student has not understood, the search is initiated with QR generator tool by QR code scanner reader application. Providing a solution for students with the help of QR code and Augmented reality. Understanding more concepts becomes easier using this application for children. The application helps the student to gain information related to the topics that can be conveyed interestingly and interactively. The project is to enable the student to be supported with additional resources to explain the topic by scanning QR code. The user can get information about photosynthesis, herbivores, carnivores, molecules, matter, etc.

**Abstract:**

The Kids Learning App represents a pioneering platform designed to revolutionize children's education through interactive digital experiences. Tailored for young learners, the app offers a dynamic blend of entertainment and education, engaging children in an immersive journey of discovery. Through a curated selection of age-appropriate content, interactive games, and captivating multimedia, the app fosters curiosity, critical thinking, and skill development in various subjects. With personalized learning pathways and adaptive features, it caters to the unique needs and preferences of each child, ensuring an enriching and rewarding educational experience. The app's commitment to safety, privacy, and accessibility ensures that children can explore and learn in a secure and inclusive environment. Embracing the transformative potential of technology, the Kids Learning App aims to inspire a lifelong love for learning and empower the next generation of learners to thrive in an ever-evolving world.

Designed with children in mind, the app features a vibrant and intuitive interface that captivates young learners from the moment they start their educational journey. Through a diverse range of interactive activities, games, videos, and quizzes, children are encouraged to explore various subjects in a fun and engaging manner. Whether they're learning basic math concepts, discovering fascinating facts about the natural world, or practicing language skills, the app provides a rich and immersive learning environment that caters to their individual interests and abilities.

**LITERATURE REVIEW**

In [1] This study was aimed at developing an original application for education consists of AR technologies and thus usage in education. And it was revealed it is effectively used by developing a 3D interactive mobile-based AR teaching system to help the students to improve critical and complex topics more easily

In [2] This writing audit centres around increased real factors (AR) for discovering that use portable, setting mindful advances (e.g., cell phones, tablets), which empower members to associate with computerized data inserted inside the actual climate. We sum up research discoveries about AR informal and casual learning conditions in schools and colleges with an accentuation on the affordances and impediments related to AR as it identifies with educating, learning, and informative plan.

In [3] In this paper, we present an AR application to help the instructing of the environment-related and frameworks created cooperatively with a few instructors, with the reason for improving the understanding of the environment-related and circulatory cycles, developing a perspective in students and improving the learning measures.

In [4] The interaction brought about a consolidation of augmented reality frameworks and the Controller in which the framework creates animated developments and virtual 3D item use marker which estimated 21cmx29, 7cm where the outcomes utilizing best distance while camera distinguishes the marker is 20cm45cm, the camera can recognize the item utilize the slope distance between 350 degree-1450 degree.

In [5] The Augmented Reality (AR) innovation improves the human view of the world by consolidating the genuine climate with the virtual space. With the dangerous development of amazing, more affordable cell phones, and the rise of complex correspondence framework, Mobile Augmented Reality (MAR) applications are acquiring expanded fame. Blemish permits clients to run AR applications on cell phones with more prominent versatility and at a lower cost.

In [6] In this research, the author proposed to assemble the item to be used, the author used blender programming for the object modelling process. To have the option to show 3D items, authors apply target picture strategies, to be specific by utilizing a marker acquired from the book Sobotta Human Atlas Anatomy is adjusted to necessities of preclinical medical students. At the point when the AR camera catches the marker, the camera recognizes the example contained in the marker and then matches the data stored in the database.

In [7] In this survey, the author presents an increased reality learning framework that uses the input of a depth camera to intelligently instruct life systems to secondary school students. The goal is to exemplify topic explanation by showing 3D models over the body of an individual continuously, utilizing the Microsoft Kinect profundity camera.

In [8] The author aims to develop an augmented reality application such that students can easily understand the particular topic explanations using 3D image visualization. The method used in this system is AR marker on a mobile platform. The strategy utilized in this framework is an expanded reality marker on the versatile processing stage. The marker is caught by snapping a photo. At that point, the caught picture is partitioned into pieces and the example is coordinated with pictures put away in the data set.

In [9] Augmented reality can be described as a technology that allows the computer-generated virtual image to overlay a live direct or indirect real-world environment in real-time. Augmented reality has been developed and used on a big scale in a variety of applications in recent years. The usage of Augmented Reality in Education is one of them.

In [10] Augmented Reality is a new and exciting innovation in mobile technology that allows for the insertion of external data on top of camera input and output in a 3D user-friendly manner. AR is used in many areas such as the gaming world, navigation system, tourism, and education tool etc. The main objective of our project is to present the next generation of school students with a multipurpose educational tool that can be used ubiquitously in an educational environment.

In [11] Augmented Reality (AR) is touted as powerful LMS technology for incredible training delivery. Retail salespeople may quickly play an augmented video to demonstrate the benefits of their items to customers in this way even in urgent health settings, surgeons about best patient safety.

In [12] Technological advances brought applications of innovations to education. Teaching method is surviving thanks to new technologies and more learner-centered environments. Traditional learning materials have been upgraded to be more appealing, motivational, and technologically advanced. This project intends to redesign a term that is supported by QR Codes and to obtain feedback from learners on the modified material.

**PROPOSED SYSTEM**

The proposed system is developed AR application student will get information about which they need to the learners. Adapting the contents into the AR environment – Once the imported 3D models, image, or video of the like environment, herbivores, photosynthesis, matter or carnivores. A student is supported with additional resources to explain the topic by scanning a QR code. The purpose of the proposed system is designed as an Augmented Reality in educational learning modules it can be conveyed more interesting learning to students. The user can get information about photosynthesis, carnivores, herbivores, matter, molecules, environment, types of solutions, etc. Interactive learning platform for students. In-depth viewing experience and explanation of difficult topics. Create a QR code for each topic like environment, matter, photosynthesis etc.

**METHODOLOGY**

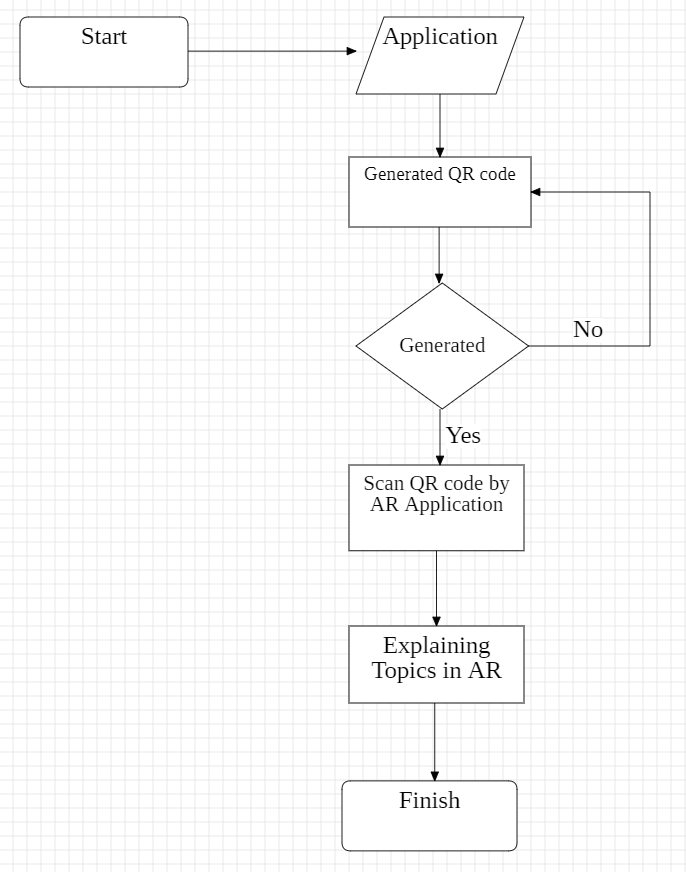
Some of the properties like setting the Vuforia camera, adjusting the Vuforia plane, adding the materials and adding the voice property to the models in the Unity editor. A mobile application is developed by using the SDK, NDK and Android build support package within Unity. The research method used in this application development is a systematic design method for AR content development that includes the steps of creating a 3D model, videos, images into an AR asset with 3D unity, and designing the interactive interface. The user can begin utilizing the mobile application once it has been installed on the student mobile device.

The proposed AR application consists of three phases:

[i] importing QR code images into databases in Vuforia and import 3D, video, images into Unity 2019. The models are imported into unity by creating the folder in the unity editor and drag into the hierarchy section in unity 2019.

[ii]Adapting the contents into the AR environment – Once the 3D model or image, videos of the difficult word get imported. Properties are to be set to the models in the scenes like the Vuforia camera, adjusting the ground plane, adding the materials, and adding the voice property to the models in the Unity editor.

[iii] Using the inbuilt SDK, NDK, and Android build support package in the unity, can export the android apk into the user mobile as an android application.



**Figure: Architecture diagram of the proposed system**

**CONCLUSION**

In conclusion, the development and implementation of a kids' learning app offer a promising avenue for fostering educational growth and personal development in children. By harnessing the power of technology and interactive design, such an app can engage young learners in meaningful ways, catering to their diverse interests and learning styles. Through the incorporation of age-appropriate content, gamified experiences, and personalized feedback mechanisms, the app has the potential to inspire curiosity, promote critical thinking, and cultivate essential skills in children from a young age. As we continue to refine and expand upon these efforts, the ultimate aim is to empower children to become lifelong learners, equipped with the knowledge, confidence, and enthusiasm needed to thrive in an ever-evolving world.

**FUTURE SCOPE**

Looking ahead, the future scope of the Kids Learning App is brimming with possibilities. Continued advancements in technology present opportunities to further enhance the app's features and expand its reach. This includes integrating cutting-edge technologies such as augmented reality (AR) and virtual reality (VR) to create even more immersive learning experiences. Additionally, leveraging machine learning and artificial intelligence can enable the app to deliver even more personalized and adaptive learning pathways for each child.

Furthermore, partnerships with educational institutions, content creators, and experts in child development can enrich the app's content offerings and ensure its alignment with evolving educational standards. Collaboration with parents, teachers, and caregivers will also be crucial in providing support and guidance to children as they navigate their learning journey.

Moreover, the global expansion of the app to reach underserved communities and diverse populations will be a key focus, ensuring equitable access to quality education for all children. Localization efforts to accommodate different languages and cultural contexts will further enhance the app's inclusivity and relevance.

In essence, the Kids Learning App stands poised to continue its mission of transforming education and empowering the next generation of learners. With a commitment to innovation, inclusivity, and excellence, the app will continue to evolve and adapt to meet the ever-changing needs of children in the digital age. Together, we can shape a brighter future where every child has the opportunity to thrive and succeed.

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