AUGMENTED REALITY LEARNING FACILITATOR

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ABSTRACT:- The objective of the project describes the effective learning of the students using the learning facilitator for exams. Augmented reality is an interactive experience of the real world. Marker based augmented reality uses the objects like printed paper or image in the mobile or QR code. If the image is scanned, the camera uses the track points to keep track of the object. For each image, the model related to that is assigned. So, whenever the image is tracked using the camera, the assigned model will appear. This technology is used for most of the training purpose especially in medical, education, military etc. This will leverage the interest in students to learn and explore the products and the understanding will be accurate.

Keywords:

Augmented reality, markers, explode, buttons.

I INTRODUCTION

Whether you admit or not, education is one of the fundamental elements of our society. As such, it is all about sharing and expanding knowledge in the most efficient ways and we can take advantage of the new technology to reach the goals. This makes the education a perfect case for testing Virtual Reality an Augmented Reality solutions. Our project is to bring the current paperwork instructions which is very boring to read, to the exciting and interactive augmented reality. Using such technique one doesn't worry about losing his/her paper instructions or having to go through the entire book to understand the instructions. Augmented Reality core is highly used in the medicine and assembly applications where it detects the points in the surface and the objects appears in the tracked plane.AR devices are also available for the better training experience. So, the students will also get trained practically with the virtual objects. Skills are trained. While the education is treated with utmost seriousness, it is not without its issues, namely the limited availability of educational service and lack of trained personnel. In our project we gave the brief well explained study of an object in an real world interactive manner using AR, here the object is detailed described and dimensions of an object is perfectly designed and the ground is detected the object is "superimposed" on the ground where the dimensions are detected, the object is well adopted in that particular place with detected dimensions. The user can dismantle all the parts in the object they can reassemble all the parts of an particular object (example: CPU can be dismantled into many parts like disk driver, hard disk, wires, integrated circuitsetc.), for each components the buttons are created, you Can tap on the surface where you want to see your instructions. Then you can select all the components one by one to see where it should be placed. The information about the selected component is given as text and the explode button is given to dismantle/rearrange the placed components .The question paper is also provided for all the topics and the student can practice the tests.

1.1 Researches

Caudell and mizell (1992) in view of get together the outcomes are Developed AR applicationsfor airplane maintenance. Stickers Klinker and Muller (1999) reliant on get together outcomes are Developed AR application to be utilized in gathering of vehicle entryway lock systems. Saaaski et al(2018) in light of get together the outcomes depend on created AR applications to be utilized in get together of tractor power units. Henderson and Feinner (2009) in light of upkeep and results depend on the AR applications created to help faculty in the support of armoured military vehicles gave 46 rate more speed in support time contrast with the utilization of PC screen. Rios et al.(2013) in view of upkeep their outcomes are about AR applications created to help work force in the support of airplane engine gave around 17% time just as 24% expansion in quality. Ramtrez Mendoza and Medoza Gonzala (2015) in assembly according to manual instructions, during statistical process control, AR use allowed the process to be 30% faster and with reduced cost. Tang, oun Biocca and mou (2003) based on assembly their result based on use of AR in teaching assembly skills provided 82% lesser. Raghavan, Molineros, Sharma (1999) based on assembly their results are about developed AR application to support planning engineers.

II METHODS

This project is done using the unity software, Vuforia and Google's AR core plugin. The plugin is imported to the unity software by importing all the packages within. The camera is changed in to AR camera and the model of our project is added by dragging and dropping in to the scene view. The buttons are created for all the parts of the model .Once the button is clicked, the model appears and the user has to drag and drop the model to the particular place. If the model is placed correctly, it will fit there; else it will hang until you place correctly. Based on the instruction, the user has to place the model. There will be an explode button, once you click that button, all the arranged parts will hang in the particular place and the parts are marked and named for that parts of the model **.** The user can able to choose the specific subject book. The image in the model will be scanned and the information related to the particular concept will be explained. The audio and the video will play and description for the model will be shown once the button is clicked. The Study and test part is provided separately.

2.1 Flow diagram
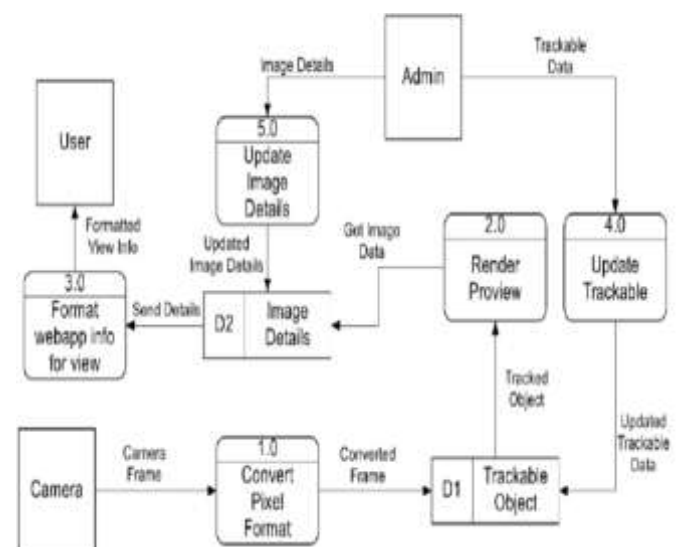
III EXPERIMENTAL RESULTS

This will result in increase in interest of the study to learn the subjects and the tests will be provided to train the students. The results also will increase the achievement of student, the theoretical knowledge alone will not make the student to understand properly as the student learns practically through augmented reality, and it will be easier for the student to survive in the real world. Thus, AR innovation applications can be utilized as viably in applied courses for better understanding. Enlarged Reality can fill the quantity of needs. It helps the understudies effectively obtain process and recollect the data. Moreover, AR makes learning itself all the more captivating and fun. It isn't restricted to single age gathering or level of instruction and can be utilized similarly well in all degrees of tutoring ,directly from pre training to school or even grinding away.

The Augmented Reality can possibly supplant paper course books, physical models, banners, printed manuals. It offers convenient and more affordable learning materials. Subsequently, training turns out to be progressively open and versatile. Enlarged Reality doesn't require costly equipment. Since 73% of the teenagers right now claim an advanced cell, AR innovations are promptly accessible for use for most of target crowd. Intuitive Gamified AR learning can have the huge positive effect on the understudies. It keeps them connected through the exercise and makes learning fun and easy.

Increased Reality application offer tremendous chances to broaden and stir up exhausting classes. Intelligent exercises, where all understudies are associated with the learning procedure simultaneously, help improves collaboration abilities. It additionally assists understudies with accomplishing better outcomes through representation and full inundation in the topic.
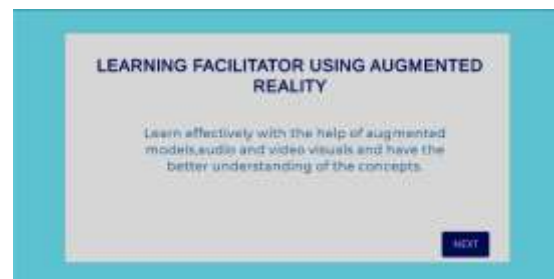
IV FUTURE SCOPE AND CONCLUSION

The AR is can be utilized in vision based following system, it tends to be utilized in picture preparing method to compute the camera posture and point comparative with true article. Sensor based following strategy before showing the virtual item in the genuine condition must be fit for detecting the earth and following the watcher's development

ideally with 6 level of opportunity. Projection based presentation are acceptable choice for application that don't require a few uses to wear anything they can be utilized to give a wide field see.

AR has made some amazing progress yet at the same time some separation to go before businesses the military and the overall population will acknowledge it comfortable UI with social acknowledgment it could be feasible for wide spread utilization of AR frameworks in regular daily existence.

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