Virtual Laboratory: The Solution to Improving the Efficiency of Learning in High School

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My project offers the solution to improving the learning efficiency, reduces the number of chemical explosions and saves country's budget by using the Virtual Laboratory based on smartphone and VR technology. Virtual Laboratory allows users to do practical exercise, competes with online opponent in 3D environment and contributes resources. Subject used for applying software is Chemistry. The procedure contains 5 steps. Firstly, I survey the domestic and abroad need to use this app. After analyzing I found that 197/200 students want to use this app. So, thirdly, I decide to build this app by using UNITY, code language is C#. When it's debugged, I survey 218 students again about the effectiveness and approximately 99% students like using this application. According to theoretical calculation, if we use this application instead of using references, it will save more than $ 2,6 billion around the world. If we use this application like a plugin in real laboratory, 127 developing countries can save about $ 203 billion. The Virtual Laboratory application is really an effective solution to the lack of laboratories as well as their quality in most high schools. Using the Virtual Laboratory app help students become more interested in the subject and teachers teach lessons effectively. Students can study anytime, anywhere and practice beforehand at home. In the future 12/2019, the application can run on many operating systems such as IOS, Window…, integrate with MR technology to bring enjoyable experiences. Application will be a support tool for industries like Biochemistry, Food, Pharmacy…

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