



Genius Steam- Plant

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Abstract—Facing the global challenges of the industrial revolution 4.0 (RI4.0) has impacted the educational landscape today. The Internet of things (IoT) became the gauge for RI4.0 by expanding the use of the internet as a whole. The application of Science, Technology, Engineering, Mathematics (STEM) in the curriculum is the best platform to bring students together to explore the wonders of the world without limits with teacher guidance. In the context of primary school education, I like to integrate the elements of art into STEM making the concept of Science, Technology, Engineering, Art, Mathematics (STEAM) as an approach that more animates the concept of entertainment. However, the concept of STEAM is too broad to be digested by primary school students. Limited existing knowledge makes lesson content difficult to link to STEAM effectively. Based on the issues that have been raised, the STEAM Genius innovation has been built to link learning content with STEAM in detail. As the starting point of the STEAM Genius innovation, the plant title was chosen to explore how plants are viewed from a STEAM perspective. STEAM-Plants Genius is an android app that revolves around science in plants, technology and engineering in agriculture, artistic elements as well as interesting facts about the diversity of tree species in our ecosystem. The strength of this app is its interactive learning and facilitation process (PdPc) through interactive and entertaining gamification methods. Clear display, user -friendly, universal content as well as interactive online and offline activities are very much in line with the concept of entertainment education in PdPc. The app connects learning about plants from the perspectives of science, technology, engineering, art and mathematics specifically. This android app is very effective in sparking students' curiosity and exploration to STEAM in more depth. The small size and easy-to-spread applications through a variety of social media indeed make the STEAM-Plant Genius an innovation with high potential to be given space in supporting the STEAM approach in education. Get the full version of Genius STEAM and experience it!

Keywords—Explore, STEM, integrate, curiosity, STEAM