

# Chemistry 101: A Chemistry Guide and Simulation Mobile App

Ghaith , Jenan (School: Mayar International Schools)

After noticing the repetition of several complains from the students regarding certain topics in the curriculum, and the often incompetence of searching for information regarding what they learn in class on the internet, I decided to conduct a research that aims to examine the effectiveness of Chemistry 101 that was designed specifically for students and scholars to meet their needs, and provide a solution for the issued they had; all via the app's diverse features that will aid chemistry learners in their studies and make their search for information notably easier. Each student or scholar was asked to fill a survey followed by an online interview regarding their experience with learning chemistry. The students were later asked to review the first version of the app, try out its various features, and submit their feedback; to help improve the efficiency of the final version of the app. The study results have further supported our observations, and the student's survey results and feedbacks has also confirmed the fact that a mobile app will provide an efficient solution to these issues. Chemistry 101 makes searching for information about any of the elements, compounds, laws and chemical reactions easier, as well as providing 3D demonstrations for the distribution of electrons in the orbitals and the bonds between the elements, Arabic-English translation, links for qualified websites and videos related to each topic, a lesson library, in which the lesson is explained using the methods that the students used while studying and that helped them better understand the topic, a quiz following each lesson that includes the right answer to the question, and also explains the reason behind it. All in a simple and easy-to-use interface with a simple design and clear graphics.