

## TEACHING ATOMIC CHEMISTRY TO YOUTUBE GENERATION

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### ABSTRACT

YouTube, arguably the most powerful website for video-sharing, is popular not just for entertainment, but for education as well. Next to social networking sites, YouTube is the most visited site by millennials on a daily basis. Given its power and popularity among the screen generation, educators now tap it as valuable teaching resource not just for online and distance learning but for blended and regular face-to-face classroom set ups too. This study took a closer look at the impact of YouTube-available videos among high school students. It specifically measured the effect of these supplement materials to student conception of atomic chemistry, particularly the history and development of atomic models and theories which is one of the most difficult topics to teach in high school general chemistry. This research used five YouTube-available videos about atomic chemistry, chosen based on content, relevance, delivery, and running time. A total of 82 students were purposively chosen as subjects of the experiment and were randomly assigned to particular video to watch. Using a pre-and-posttest scheme to measure students' understanding of chemistry concepts, triangulated with their perceived effectiveness and teacher observations during the conduct of experiment, this research shows that the five chosen YouTube videos were effective in enhancing student conception by visually showing how the experiments helped explain the structure of the developing atomic models, and promote positive attitude towards learning chemistry through its clarity, simplicity, organization, audio-visual appeal, and humor which students find enjoyable and interesting to learn from.

**Keywords:** Atomic chemistry, 21st century learning, mobile learning, technology-enhanced learning, YouTube education.