Chapter 37
Science Animation and Students' Attitudes

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ABSTRACT

Drawing and sustaining the interest of learners as well as ensuring better understanding seems to be the main advantages in animation. The technique of capturing successive frames of pictures or positions of toys or models that create an illusion of movement while the movie is shown as a sequence gives life to animation. The invasion of e-resources into the educational arena had opened innumerable avenues for the instructors, administrators, and researchers. This chapter makes an attempt to test the effectiveness of science educational animation over conventional class through an experimental study and also would like to sense the attitude of the learners towards animation classes. The findings support the fact that science teaching through animated lessons stands superior to conventional science classes and students also have positive attitude towards animation. The researcher concludes that animation in its own virtue along with enthusiasm of digital native learners would grow leaps and bounds in the near future in the educational sphere.

INTRODUCTION

Teaching is a kind of social engineering that does not deal with lifeless machines and hard wares; it cultivates tender minds into brave hearts that in turn with brimming confidence is going to build the society. In this endeavour every student is important, every detail present in each topic is essential and every batch of students is precious. The digital transformations that are taking place in educational arena had opened newer avenues for the teachers, learners, administrators and researchers in the form of animation. Animation in its own virtue along with enthusiasm of digital native learners had grown leaps and bounds. The need for animation in third world countries seems to be pinning as teacher- pupil ratio

DOI: 10.4018/978-1-5225-7365-4.ch037

is alarmingly high when comparing with many of the Western counterparts and majority of the education machinery is examination ridden. When the teacher has to run behind the content and ensure zero failure it becomes imperative to teach science with animation. And the metamorphosis that animation could take as per the projection of experts is very promising. This study makes an experimental approach with science animation in secondary school classes and its impact through achievement and attitude.

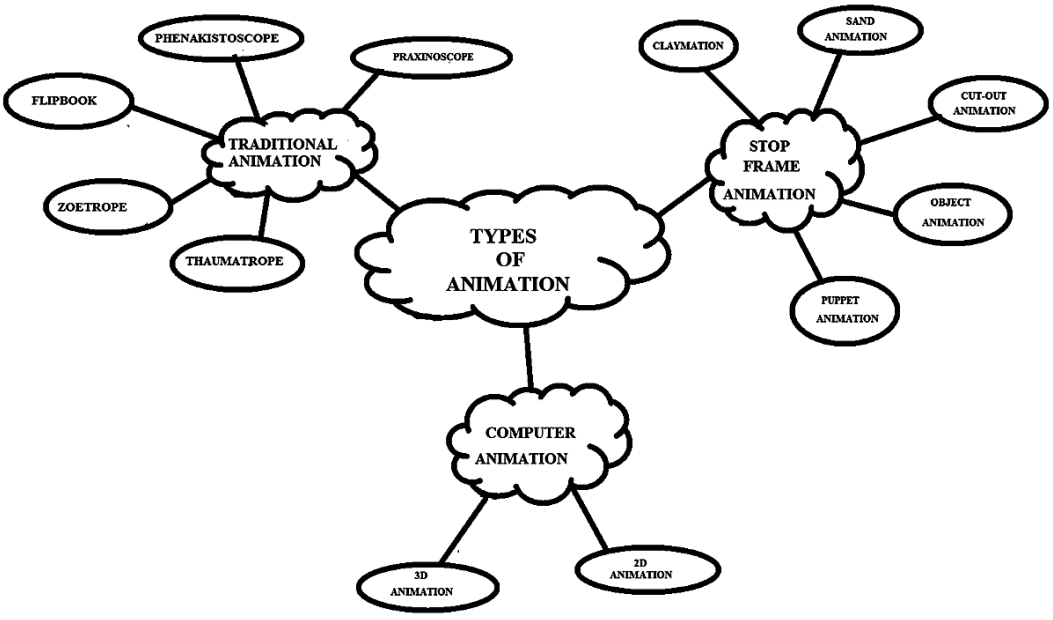
Meaning of Animation

Etymologically animation has got Latin origin animatio from animare which means the condition of being alive or giving life. Rapid display of images, pictures or frames is called as animation. The technique of capturing successive frames of pictures or positions of toys or models that create an illusion of movement while the movie is shown as a sequence gives life to animation. In other words a collection of static images joined together and shown consecutively so that they appear to move is called as animation.

Evolution of Animation

Animation's origin can be tracked right from 1824 with the wide usage of thaumatrope that was largely given credit to John Aryton of Paris. Since then the field of animation had experienced various meaningful adaptations and thereby can be classified into three wide verticals namely (i) Traditional animation, (ii) Stop frame animation and (iii) computer animation (2D and 3D). Traditional animation includes Thaumatrope, Phenakistocope, Zoetrope, Flip book, and Praxinoscope.

Figure 1.



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Rex Perez Bringula, John Vincent T. Canseco, Patricia Louise J. Durolfo, Lance Christian A. Villanuevaand Gabriel M. Caraos (2022). *International Journal of Technology-Enabled Student Support Services (pp. 1-13).*
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