MATHEMATICS INSTRUCTION WITH AN OUT-OF-DATE REINFORCING MECHANISM

JOSEPH ANDREW JULIANO JALOBER
BS Mathematics/ MS Mathematics

Mathematics instruction is among the most explored research area in education. Different teaching methodologies emerged that are used by teachers to improve instruction. And nowadays, the most commonly used is computer instruction (Aydin, 2005).1

In today’s digital age, there are so many instances found out by a well-known neo-behaviorist, Burrhus Frederic Skinner, why computer instruction is the effective tools to use than in a traditional teaching specifically in mathematics education. According to him, an immediate positive reinforcement given to students from each response they give will strengthen student performance. Skinner has gone through this study when he noted that a teacher is out-of-date as a mere reinforcing mechanism. His studies show that students usually received delayed reinforcements and do not reach at least 50,000 reinforcements during the first four years of education, one of the two important facts to improve the teaching/learning process. And with this, he made programmed instruction design to change the behavior of the learners. His fundamental approach was to identify the desired behaviors, then to prepare situations in which successive approximations of the behavior would be reinforced.

---

Through Skinner’s study on programmed instruction, different CAI programs came out and were used all over the world. Different researchers globally conducted various studies with regard to the usefulness and effectiveness of computer-aided instruction in education.

As an educator, we should know how to adapt in this fast changing world. Consistency to hold the word change could help us to maintain our goal to help our students. Nowadays, different kind of students with different learning style are seeking for a teacher who is flexible and could adapt for them to learn. Based on the study of Skinner, we could use modern technology that could catch the attention of our students and at the same time they will learn. CAI was developed not to replace the human element in teaching but it is an assistance to make learning more effective (Barlis and Fajardo, 2013)². We need to accept the fact that, technology is not a nasty thing that destroy and waste the time of students, but a thing, a tool and a way that will help them to grow and to become globally competitive in this age.

² Barlis and Fajardo (2013). Effectiveness of Simulation and Computer Assisted Instruction on the Performance of Students Under Regimental Training on Selected Topics in Physics II.