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Article: **Effect of the Flipped Science Classroom on Academic Achievement of Grade Seven Students**

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Effect of the Flipped Science Classroom on Academic Achievement of Grade Seven Students

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Abstract

A pilot study was carried out in a local secondary school to measure the effectiveness of digital literacy in terms of flipped classroom teaching. A grade seven science class was purposefully flipped and compared with traditional teaching classroom arrangement to evaluate the student's academic achievement. The population of study comprises all male and female 259 students of class seven, first term of session 2019-20. Study sample was further divided into two groups: two sections of boys (61 male students) and two sections of girls (66 female students) were randomly selected as the experimental group, the flipped classroom. The remaining four sections (132 students) performed as a control group, the traditional classroom. Instructional strategies were the independent variable. Student's achievement grades in pretest, ongoing posttest assessments and term exam were dependent variables. Scores of pretest were compared with posttest ongoing assessments and school term exams. The analysis was made through t-test and ANCOVA. At the end of the thirteenth week, a Likert scale survey was conducted to evaluate the student's perception regarding the learning environment in flipped class. The results indicated that" (i) there is a statistically significant difference between achievement scores of the flipped class compare to traditional class students. Flipped class students achieved better results than conventional class learners. (ii) Analysis indicated that there is no significant difference in achievement scores among male and female students of the experimental and control group. (iii) Likert scale survey results showed students increased involvement, mutual interaction and in-depth learning in flipped classroom environment. This study is a contribution to a positive change in the prevailing education system of Pakistan by transferring a deeper understanding of the importance of student-centered learning. The technological tools motivate student of

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this age to collaborate academically and socially to become a self-standing, curious and creative learner.

Keywords*:* Exponentially Growing, Flipped Science Class, Learning strategy at secondary level.