

**Paper 123 – Education**

**EFFECTS OF USING FREE SOCIAL MEDIA ON UNDERSTANDING GRAPHS OF TRIGONOMETRIC FUNCTIONS**

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**ABSTRACT**

This study aimed to determine the effects of using free social media on understanding graphs of trigonometric functions. The quasi-experimental research utilizing the matching only pretest-posttest control group design was used in this study. The respondents were first year engineering students from two intact classes handled by the researcher during the first semester, SY 2012-2013. For the performance of the students, the validated test by Ilao (2011) was used. Math Anxiety Survey Form by Bai, H., et al. (2009) was used to determine the mathematics anxiety level of the respondents of this study. Findings reveal that at 0.05 level of significance, there was a significant difference between the pretest and posttest scores of both control and experimental groups with t-value of -9.45 and -8.07, respectively. There was no significant difference between the posttests of the control and experimental groups as computed t-value of 1.13 has a p-value of 0.26 that is greater than 0.05 level of significant. The t-value of the control (1.05) and experimental (0.53) groups in the pretest and posttest mathematics anxiety was found to be not significant. The levels of anxiety between the two groups after the experiment were also found no significant with t-value of 0.33. The results revealed that full e-Learning via free social media and traditional face-to-face strategies were equally effective on understanding graphs of trigonometric functions. The levels of mathematics anxiety of the two groups were not affected by the type of pedagogy used.

**Keywords:** Free Social Media

