

THE EFFECT OF USING VISUAL PROGRAMMING ON SELF-EFFICACY IN PROGRAMING AMONG PREPARATORY YEAR PROGRAM FEMALE STUDENTS IN KING SAUD UNIVERSITY

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ABSTRACT_ This study aimed to measure the effect of using Visual Programming on self-efficacy in programming among preparatory year program female students in King Saud University in Riyadh, Saudi Arabia. The study experiment was conducted on a group of 30 students during the second semester of 2015 Academic year. The group skills were measured prior to attending a four weeks Scratch workshop and were measured again after finishing it. The study measured four Factors, which are, Independence and persistence, Complex Programming tasks, Self-regulation, Simple programming tasks. The results of the study have shown that the group scored higher than the prior measurement after attending the workshop, and it statistically significant as explained further below, Results showed Students had scored higher average grades and showed improving performance after attending the workshop, showing that they gained 39,464% more self- efficacy in computer programming which the study measures in the first factor "Independence and persistence". Students had also been able to perform simple and complex programming tasks which the study measures in the second and third factors with 48,801% and 49, 74% improvement respectively. Finally, students had shown improvement in Self-regulation with 33, 8097% rate.

KEYWORDS: Visual Programming, Scratch, Self- Efficacy in Computer Programming, Computer Programming.