

# THE IMPACT OF THE DIFFERENCE IN THE ELECTRONIC FEEDBACK PATTERN WITHIN THE SOFTWARE-BASED SIMULATION TO INSTILL EDUCATIONAL ROBOT PROGRAMMING FOR GIFTED STUDENTS AT THE INTERMEDIATE LEVEL SKILLS IN JEDDAH

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**ABSTRACT\_** This research aimed to measure the impact of the difference in the electronic feedback pattern within the software-based simulation to instill Educational Robot programming for gifted students at the intermediate level skills in Jeddah. To achieve the purpose of the research, the researcher followed the semi-experimental method and developed the experimental design based on two groups. The research sample consisted of (60) gifted female students from the middle school level in Jeddah. The tools of the research were the achievement test (prior & subsequent) to measure the extent of cognitive achievement for the skills of programming an educational robot, and performance test (prior & subsequent) with a related note card to measure the extent of command over the skills of programming an educational robot. The Research concluded some results, including the existence of statistical variables of (0.05) between the mean scores of the first experimental group members that uses the immediate feedback pattern, through a simulation-based software, and the second group that uses the delayed feedback pattern, through a simulation-based software in subsequent measurement of the skills of programming an educational robot, in favor of the first experimental group. In light of the outcomes of the research, some recommendations and suggestions are presented the most important of which is the importance of paying attention to the employment and activation of feedback in simulation-based educational software to introduce different levels of aid and guiding for these educational materials.

**KEYWORDS:** The electronic feedback pattern, software-based simulation, Educational Robot programming, gifted students.