

## Quantitative Insights on trends and directions of Egyptian architectural students toward civil curricula - a longitudinal study

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### ABSTRACT

The study aims at forming quantitative insights into the trends/directions of Egyptian architecture students in civil courses. This was done by monitoring the averages of success-rates/grades, in architecture/civil courses; the study is a quantitative, longitudinal cohort study. The multi-level model was adopted, the study sample was chosen by purposive sampling, the study sample students were selected by the homogeneous sample method, the number of the study sample is 176, their grades were collected/purified and then analyzed by statistical methods/tests, the most important of which is, Boxplot, matrix scatter plot, Logistic regression, and Paired t-test. Post-hoc tests (Scheffe's) conducted for some tests, the practical significance was examined. The results showed the highest success-rate was in the engineering survey 83%; the success rates of females in civil courses were higher than the male's success rates, the highest average score in the steel structure (70.82), the relationship between students' grades in architecture/civil courses is a positive relationship. The highest grade in the students' results is in the architecture courses, the odds ratios of student's success in the civil courses increased by 10.44%. The equation for regression between students' grades in architecture ACAG/civil ASGOCC can be represented in the equation:  $ASGOCC=0.415(ACAG)$ . It is evident from this that the higher ACAG, the higher is ASGOCC by 42%. Eventually, there are differences between the final grades of students at different academic levels, the biggest differences are between a medium- and low-student, with 20,017 grades. Eventually, the study presents theatrical implications, represented in a procedural road map for application of longitudinal quantitative studies in architectural education. Furthermore, the study proposed implications for practice to deal with these quantitative insights, it can be summarized in encouraging students to balance academic performance between the two majors (architecture-civil), in addition to the need to present an awareness plan in all design studios to students, given the importance of achieving high grades in civil courses, and spreading this culture among students.

### Keywords:

Architectural students' success rates- Architectural students' success grades- The correlation between architectural and civil courses.