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Introduction:

Universities are sources for investment and development of manpower, which is the most important and valuable treasure of the society. So we realize that the quality of university graduates is the most important feature we must take into consideration and we must stress on improving it.

Egypt as a developing country has its own problems, and one of the major problems Egypt faces is the education, especially in universities. This paper tries to model and discuss the problems related to the educational process in the Egyptian universities, trying to reach a solution that will dissolve these problems and improve the educational process in these universities.

Context:

Many causes created a complex context that led to the severe problems facing the educational process within the Egyptian universities and consequently the deteriorating scientific level of the graduates.

Among these causes:

- 1. Egypt suffers from a phenomenon of population explosion that led along with the tuition free education system to an increasing number of students entering the universities each year.
- 2. Universities face a number of financial problems including: salaries, materials and services, etc.
- 3. The tuition free education system in the Egyptian universities led not only to a deteriorating resources in the universities but also to an increasing number of careless students whom show no interest in their studies.
- 4. Students' distribution among different faculties when they enter the university is not always according to their choices leading to less interest in the learning process from the students' side.

These causes among many others led to a situation with lack, misuse and waste of resources which in turn, led to an under standard educational process and less qualified graduate students.

Problem Description:

The problem is introduced through the question "How can we improve the quality of the educational process within the universities through introducing ELearning on a large scale?" The answer is proved and validated using the system dynamics approach.

This simulation-based study inspects the effectiveness of widely applying E-learning to the Egyptian universities. The model shows the quality of graduate students as well as the overall effectiveness of the educational process. Analysis of the model reveals the reasons why E-learning is an optimum solution for the current status of university education in Egypt.

Assumptions of the study:

- 1. E-learning is the best solution to the population explosion situation and the increasing number of students entering the universities each year.
- 2. Due to the market needs and the job opportunities available the students can study what they like and what fits them best.
- 3. There won't exist the problem of the disqualification of resources.
- 4. No more private lessons, teaching will all be online and teachers are available online.
- 5. A reduction in costs will result -by applying E-Learning- for the government and the students as well.

By using the system dynamics we can validate that E-learning can be applied on the Egyptian universities to improve the quality of the educational process.

Preliminary Causal Loop

