

An Alternative Teaching Method for Activating Students: Student's Perception of the Cell Structure and Function

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Introduction

A research conducted in Alkaabia Middle-School aimed at applying a teaching method as an alternative to the frontal teaching method. The research was conducted due to the continuous difficulties of 8th grade students in understanding and the perception of cell, structure and function. A new teaching method, based on laboratory activities, computer video, and paste models was developed. This method, enabled students to be more activated, and highly motivated to learn and understand this topic.

Research Questions

1. How much the students understand basic concepts of the cell structure and function?
2. Could the students differentiate between plant cell and animal cell?
3. Does an alternative teaching method improve student's understanding and perception of the cell?

Findings

Two teaching approaches were employed in the current study: frontal teaching in which teaching was mainly based on "the transfer of information", and the second was made with aim to "making the students more activated".

Our finding showed that the new teaching method brought about an increase in the students' understandings and achievements. In addition, results indicated that the alternative teaching approach was able to reduce their misconceptions about cell structure and function.

Research Method

- Semi-Structured Interviews (pre-post).
- Achievement Test.

Common answers repeatedly given by students to the different questions of the semi-structured interviews:

Student 1:

"The lab activities and videos helped me in getting a better understanding of the structure of cell and its organelles"

Student 2:

"Building the model of plant and animal cell, helped me in getting a better understanding of the difference between the 2 types of cells"

Student 3:

"It makes me more self-confident, my grades improved, it was very interesting"

Student 4:

"The competition increase my motivation to learn and not give up"

Laboratory activities, computer videos, paste models and competitions between students based developing bezels and game card

