

The Effect of Explicit Instruction on Improving Students' Understanding of the Female Reproductive System

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Introduction

- The issue of the female reproductive system causes students to face certain difficulties and misconceptions.
- Action research by teachers can identify these difficulties, analyze the situation and propose appropriate solutions.
- Direct instruction is one of the most effective teaching methods

Research Question

1. What are the difficulties and misperceptions of students regarding the "female reproductive system" topic?
2. Can those difficulties and misperceptions be overcome?

Research Tools

- Semi-structured interviews (pre-post)
- Achievement test.

Examples of difficulties and misconceptions

- Every meeting between a sperm cell and an oocyte leads to fertilization.
- All of the released sperm reach the oocyte.
- If two sperm cells enter one

oocyte, identical twins will form.

- Difficulties in understanding interactions within the system.
- A problem in understanding the difference between the different number of sperm cells produced in the male and the number of oocytes produced by the female.
- A problem in understanding the relationship between the structure and function of part in the female's reproductive system.

Finding

- Students improved their achievements in the post-test.
- Direct instruction helped the students overcoming difficulties and reduce the misconceptions.
- Students improved their understanding of the interactions within the system and the relationship between the structure and function of the female reproductive system.

Summary

Intended intervention by teachers through action research using direct instruction can yield impressive results: Overcoming difficulties in understanding and reducing the students' misconceptions.