

## **Thesis**

**Title:** Vegetative propagation of Embryophytes in Biology Education in Elementary Schools

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## **ABSTRACT**

This thesis deals with vegetative reproduction of plants in Biology in secondary school. Firstly, the concept of vegetative reproduction is defined based on scientific literature. The next section focuses on how this topic is covered in Biology textbooks in secondary school focusing on botany, whether the topic is mentioned in the textbooks, how the issue is addressed, and whether everything is in line with the Framework Educational Program (RVP).

Furthermore, a lesson plan on the topic of vegetative reproduction of plants was created. As part of the plan, a worksheet was included where students recorded their observations. The topic was practically applied to four species of plants – students, working in groups, proposed a method and propagated their species of plant.

The work also includes didactic pre-tests and post-tests. These were given to students before and after the practical lessons to quantitatively evaluate whether there was a positive change in their level of cognition.

In the final part, it is analysed whether the questions given in the tests were relevant to the teaching and whether they were well formulated. This was evaluated based on standardized coefficients commonly used in education sciences.

The conclusions of the work are that the textbooks vary greatly in terminology, making the topic unclear. The teaching block was applied in five classes, altogether a positive change of 21% was observed. The evaluation of the didactic test was also positive, with only one out of thirteen questions scoring negative values.

## **KEYWORDS**

Vegetative plant reproduction, botany, secondary school, Biology textbooks, didactic tests, worksheets, inquiry-based teaching, practical teaching.