

Building handicrafts for the study of the infinite dimension of linear spaces

Autores

I Cohen

Abstract

One of the main responsibilities of the pedagogical practice is to guide the teaching process towards significant knowledge obtention. The design and implementation of learning strategies contributes to this task. The present paper shows how a teaching strategy based on the inflationary universe theory creates images of the concept of infinite dimensional linear spaces from the concrete reality of the student, thus solving one epistemological obstacle associated with the assimilation of this concept. This work is a descriptive qualitative research that follows the design research paradigm to develop a teaching experiment over a linear algebra course conformed by 18 students from the mathematics education undergraduate program of the "Universidad del Atlantico, Colombia". The results of the present work suggest that the designed experiment is a suitable teaching tool that solves an epistemological obstacle associated with the significant learning of the infinite dimension concept of vector spaces.