

1. Record Nr.	UNINA9910454685903321
Titolo	On the teaching of linear algebra [[electronic resource] /] / edited by Jean-Luc Dorier
Pubbl/distr/stampa	Dordrecht ; ; Boston, : Kluwer Academic Publishers, c2000
ISBN	1-280-20772-8 9786610207725 0-306-47224-4
Edizione	[1st ed. 2000.]
Descrizione fisica	1 online resource (313 p.)
Collana	Mathematics education library ; ; v. 23
Altri autori (Persone)	DorierJean-Luc
Disciplina	512/.5
Soggetti	Algebras, Linear - Study and teaching Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Epistemological Analysis of the Genesis of the Theory of Vector Spaces -- Epistemological Analysis of the Genesis of the Theory of Vector Spaces -- Teaching and Learning Issues -- The Obstacle of Formalism in Linear Algebra -- Level of Conceptualization and Secondary School Math Education -- The Teaching Experimented in Lille -- The Meta Lever -- Three Principles of Learning and Teaching Mathematics -- Modes of Description and the Problem of Representation in Linear Algebra -- On Some Aspects of Students' Thinking in Linear Algebra -- Presentation of Other Research Works.
Sommario/riassunto	To a large extent, it lies, no doubt, in what is presented in this work under the title of 'meta lever', a method which it is certainly interesting to develop and further refine. There exists in mathematics courses a strange prudery which forbids one to ask questions such as, « Why are we doing this? », « At what is the objective aimed? », whereas it is usually easy to reply to such questions, to keep them in mind, and to show that one can challenge these questions and modify the objectives to be more productive or more useful. If we don't do this we give a false impression of a gratuitous or arbitrary interpretation of a discipline whose rules are far from being unmotivated or unfounded. One must also consider the time aspect. Simple ideas take a long time

to be conceived. Should we not therefore allow the students time to familiarize themselves with new notions? And must we not also recognize that this length of time is generally longer than that of the official length of time accorded to this teaching and that we should be counting in years? When the rudiments of linear algebra were taught at the level of the lycée (college level), the task of first year university teachers was certainly easier : for sure the student's knowledge was not very deep, however it was not negligible and it allowed them to reach a deeper understanding more quickly.
