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Brun, J.; Coone, F.; Cordey, P.A.; Floris, R.; Lemoyne, G.; Leutenegger, F.; Portugais, J. Systematische Fehler und 'Schemes-Algorithmes'. (Erreurs systematique et schemes-algorithmes.)

Artigue, M. et al., Vingt ans de didactique des mathématiques en France. Hommage à Guy Brousseau et Gérard Vergnaud. Ed. La Pensée Sauvage, Grenoble. 203-209 (1994).

Our discussion concerns the algorithm of written division and the errors of calculation that pupils commit at that task. In a first part, we propose to enlarge the perspective adopted in VanLehn's Repair Theory about pupils errors by adopting the concept of ,,Scheme-Algorithme' proposed by G. Vergnaud in his ,,Theorie des Champs Conceptuels.' We consider errors as transitory forms which figure the trace of the progressive construction of the scheme of division. So we can integrate in a same theoretical perspective the fact that errors are manifestations of organised conducts of the subject and the fact that schemes take part in the dynamics of piagetian assimilation/accomodation process. We give examples of errors described from that point of view, which show, across four distinguished situations, how this scheme functions adaptatively. (orig.)

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