LEARNING AND INSTRUCTION

An Official Journal of the European Association for Research on Learning and Instruction

Website http://elsevier.com/locate/learninstruc/ Association Website http://www.earli.org

Volume 38 2015

Contents

THE EFFECTS OF TECHNOLOGY-MEDIATED IMMEDIATE FEEDBACK ON KINDERGARTEN STUDENTS' ATTITUDES, EMOTIONS, ENGAGEMENT AND LEARNING OUTCOMES DURING LITERACY SKILLS DEVELOPMENT K.R. Muis, J. Ranellucci, G. Trevors and M.C. Duffy	1
DOES EARLY READING INSTRUCTION PROMOTE THE RATE OF ACQUISITION? A COMPARISON OF TWO TRANSPARENT ORTHOGRAPHIES P. Soodla, MK. Lerkkanen, P. Niemi, E. Kikas, G. Silinskas and JE. Nurmi	14
THE MULTIMEDIA EFFECT AND ITS STABILITY OVER TIME J. Schweppe, A. Eitel and R. Rummer	24
PROBLEM-BASED LEARNING AS A FACILITATOR OF CONCEPTUAL CHANGE S.M.M. Loyens, S.H. Jones, J. Mikkers and T. van Gog	34
EFFECTS OF A SCIENCE CENTER OUTREACH LAB ON SCHOOL STUDENTS' ACHIEVEMENT – AR STUDENT LAB VISITS NEEDED WHEN THEY TEACH WHAT STUDENTS CAN LEARN AT SCHOOL? H. Itzek-Greulich, B. Flunger, C. Vollmer, B. Nagengast, M. Rehm and U. Trautwein	_
EARLY LANGUAGE AND EXECUTIVE SKILLS PREDICT VARIATIONS IN NUMBER AND ARITHMET SKILLS IN CHILDREN AT FAMILY-RISK OF DYSLEXIA AND TYPICALLY DEVELOPING CONTROLS K. Moll, M.J. Snowling, S.M. Göbel and C. Hulme	IC 53
EXPLORING EVOLUTIONS IN RECIPROCAL PEER TUTORING GROUPS' SOCIALLY SHARED METACOGNITIVE REGULATION AND IDENTIFYING ITS METACOGNITIVE CORRELATES L. De Backer, H. Van Keer and M. Valcke	63