

## Spaced Formula Learning

Engin Baysen

*\*Near East University, Atatürk Education Faculty. Near East Blv. Nicosia,  
North Cyprus, Mersin 10, Turkey  
E-mail: engin.baysen@neu.edu.tr*

**KEYWORDS** Physics Learning. Rapid Presentation Rate. Spaced Learning. Massed Learning. Spacing Gap

**ABSTRACT** Spaced learning was applied to solve a very challenging aspect of the traditional approach in learning scientific formulas. Learning formulas, starting from their memorization to their application and the attitudes toward them, was asserted to be achieved using the spaced learning approach. A sequential, explanatory, mixed methods research design was implemented to see the effects of massed and spaced learning on learning formulas in three intact groups of early childhood teacher candidates. Lessons were designed to resemble the teaching carried out in most traditional physics classrooms and convince physics teachers that there is an approach to solve the problems they encounter in formula learning. Although teacher candidates think positively about repetition, and while massed learning was found to be boring, massed learning is also more efficient in achieving positive attitudes towards formulas and results in greater retention than spaced learning. Discussions concerning the results were subsequently held.