

# Contents

## **Editorial**

- A DILEMMA IN UPPER SECONDARY TEACHER EDUCATION  
Muammer Çalik ..... 5

## **Articles**

- TEACHING COMPUTER SCIENCE & ENGINEERING THROUGH ROBOTICS: SCIENCE & ART FORM  
Andrea C. Burrows, Mike Borowczak, Timothy F. Slater, J. Chris Haynes ..... 6
- PORUGUESE HIGHER EDUCATION STUDENT'S COSTS:TWO LAST DECADES VIEW  
Luisa Cerdeira, Tomás Patrocínio, Belmiro Gil Cabrito, Lourdes Machado, Rui Brites ..... 16
- A PROPOSAL TO TEACH LIGHT IN A UNIFIED FRAMEWORK USING THE FEYNMAN METHOD  
Maria de los Ángeles Fanaro, Maria Rita Otero, Marcelo Arlego ..... 27
- DISTANCE, REMEMBRANCE, TOLERANCE: EUROPEAN REMARKS ON CONTEXTUAL CHRISTIAN EDUCATION  
Geert Franzenburg ..... 40
- ANALYTICAL STUDY OF KNOWLEDGE PREFERENCE USING THE PEDAGOGICAL EPISTEMOLOGY OF EDUCATION FRAMEWORK OF QUANTITATIVE, QUALITATIVE, AND PERFORMATIVE KNOWING AMONG SECONDARY SCHOOL STUDENTS IN THAILAND  
Sudgasame Jantaraweragul, Noy S. Kay ..... 50
- HOW DO ANIMALS SPEND THE WINTER? A FINNISH STUDY ON THE USE OF VEE HEURISTICS IN A BIOLOGY UNIT FOR EIGHTH GRADERS  
Sirpa Kärkkäinen ..... 69
- CRAFT AS A BOUNDARY TOOL FOR MULTI- AND INTERCULTURAL EDUCATION: A CASE IN TEACHER EDUCATION  
Tarja Kröger ..... 91
- EFFECTS OF GENDER ROLE PORTRAYAL IN TEXTBOOKS IN KENYAN PRIMARY SCHOOLS, ON PUPILS ACADEMIC ASPIRATIONS  
David N. P. Mburu, Grace Nyagah ..... 100
- PROPOSITIONAL COURSES OF TEACHER EDUCATION: ISSUES AND CHALLENGES  
Joana Paulin Romanowski, Pura Oliver Martins, Simone Manosso Cartaxo ..... 110
- PEDAGOGICAL PRINCIPLES OF SYNCHRONOUS VIRTUAL EDUCATION: THE ELLUMINATE LIVE CASE AT THE FACULTY OF EDUCATIONAL AND LANGUAGE STUDIES (THE OPEN UNIVERSITY)  
Sonia M. Santoveña Casal ..... 126

4	TEACHER CAREERS AND TEACHER EDUCATION : A BRAZILIAN DILEMMA Hustana Maria Vargas .....	144
	AN EARLY UNDERSTANDING OF MECHANISM OF RAINFALL: A STUDY EXAMINING THE DIFFERENCES BETWEEN YOUNG MINORITY IMMIGRANT AND NATIVE-BORN CHILDREN José Domingo Villarroel .....	152
	COST AND BENEFITS OF RUNNING A TEA-BASED FARMER FIELD SCHOOL IN KENYA Stephen Wambugu Maina, John Gowland-Mwangi, Dave Boselie .....	165

**Information**

INSTRUCTIONS FOR AUTHORS .....	178
--------------------------------	-----