

# 26<sup>th</sup>

## EECERA ANNUAL CONFERENCE

‘HAPPINESS, RELATIONSHIPS, EMOTION &  
DEEP LEVEL LEARNING’

**Dublin, Ireland**

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# ABSTRACT BOOK



Watson and Raban (2013) which investigated the relationship between children's home literacy environment and their early hypotheses about printed words. The study and findings were analysed through an ecological model framework. Data were collected via a qualitative case study method, including semi-structured interviews and participant footage of reading experiences using a GoPro camera. The use of the GoPro proved to be a non-invasive data collection tool. A case study methodology was used, consent was gained from participants and multiple data collection methods were implemented to strengthen research findings. Videos and voice recordings were used ethically with parental consent. It is acknowledged that this study is of a small scale, however it gives a basis for further research. The main aim was to collect 'deep data' about the reading episodes of the families who participated in my study. Parents used a wide variety of behaviours in order to scaffold their child's knowledge through story reading. In particular, the parents scaffolded the links between the literature and children's experiences. This presentation will conclude with recommendations to consider regarding strategies to use when parents and educators are story reading with children. The findings have implications for a diverse range of stakeholders in the early childhood sector including policy makers and facilitators of parent education programs as well as educators and parents.

Keywords: early literacy development, story reading, parent/child interaction, relationships/attachment theory, children's books

## **SYMPOSIUM SET B/ 6**

### **IMPROVING MATHS PEDAGOGY IN THE EARLY YEARS**

Individual Papers

CHAIR: MARIA FIGUEIREDO

School of Education and CI&DETS, Polytechnic of Viseu, Portugal

#### **Mathematical pedagogical content knowledge in early childhood education: A study in initial teacher education in Portugal**

MARIA FIGUEIREDO HELENA GOMES AND CATIA RODRIGUES, Polytechnic of Viseu, Portugal

The study aims to explore the specificity of mathematics Pedagogical Content Knowledge in Early Childhood Education Pedagogy. The pedagogy of ECE (Siraj-Blatchford, 2010) and the didactics of ECE (Pramling & Pramling-Samuelsson, 2011) suggest dimensions of knowledge that require strong content and PC knowledge of teachers. Recent studies about PCK of ECE teachers highlight similar specific dimensions: organization of educational environment and interactions with children (Lee, 2010, McCray, 2008, Rojas, 2008). The current framework for ECE Teacher Education in Portugal (since 2007) focuses both content knowledge and subject didactics. PCK has been labelled the 'great unknown' in ECE (Rojas, 2008) in traditions where the child's development is considered as the main knowledge base for ECE (Chen & McNamee, 2006, Cullen, 2005, Hedges & Cullen, 2005). We studied the perspectives of 27 initial teacher education students about knowledge for teaching and about ECE Pedagogy. We used one open-ended questionnaire and students' analysis of episodes focusing children's answers or discourse relevant for mathematics (about high numbers and square root). The questionnaire was anonymous and students' permission to use the answers was obtained. In the questionnaire, interactions with children (62%) and organization of the educational environment (38%) are highlighted as the most important focus for the teacher. Students suggested tasks that were adult planned and oriented to further the situations presented in the episodes. Very few references to children's exploratory actions (Bonawitz et al., 2011) were made. The specificity of ECE (child initiated activities, e.g.) needs to be further developed in initial teacher education.

Keywords: early childhood education pedagogy, mathematics, pedagogical content knowledge, initial teacher education, early childhood education

#### **Teaching Mathematics - Pedagogical content knowledge for preschool teachers' in the Swedish preschool**

KERSTIN BÄCKMAN, University of Gävle, Sweden

This study aimed to investigate Swedish preschool teachers' pedagogical knowledge when they have a play-based approach in their teaching of a mathematical content like shapes Research by Shulman (1986) about