

## **THE INFLUENCE OF COMPUTER GAMES AS CULTURAL ARTEFACTS ON CHILDREN'S THINKING ABOUT MATHEMATICS**

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Children's knowledge about Number integrates several components that develop at different times and interrelate in particular ways, according to children's individual level of understanding. The exploration of these interrelated components could benefit from the construction of a computational environment that connects children's knowledge and encourages new ways of thinking about number.

In this study we, as lay-computer programmers, successfully used Stagecast Creator to design and program a new computational environment integrating specific epistemological principles to explore cultural differences in English and Portuguese children's thinking strategies about written multi-digit numbers.