

ZMATH 2003b.00262

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Designing technology for children: moving from the computer into the physical world with electronic blocks.

Inf. Technol. Child. Educ. Annu. 2002, 219-244 (2002).

Electronic Blocks are a new programming environment designed specifically for children between three and eight years of age. As such, the design of the Electronic Block environment is firmly based on principles of developmentally appropriate practices in early childhood education. Electronic Blocks are the physical embodiment of computer programming. They aim to have the unique programmable properties of a computer minus its complexity, thereby allowing children to explore programming concepts in an intuitive and meaningful manner. The Electronic Blocks are physical, stackable blocks that include sensor blocks, action blocks, and logic blocks. By connecting these blocks children can program structures that interact with the environment. A six-day evaluation with over 30 preschool children showed that the blocks' ease of use and power of engagement created a powerful tool for the introduction of meaningful technology education in an early childhood setting. The Electronic Blocks provide opportunities for open-ended, discovery-oriented play, that a screen and keyboard can never provide. (orig.)

Classification: Q51