

MASTER OF EDUCATION THESIS DEFENSE

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9:00 a.m., Room 215, Memorial Hall

Thesis Title:

Young Children Representing Numbers: Implications for Teaching

ABSTRACT

This qualitative study explored the responses and strategies used by children age's two to five when prompted about numbers and numerals. This study, based on a socio-constructivist framework, hopes to facilitate discussion among early childhood educators and to challenge current mathematical practices in early childhood education. The children participated in two different sessions: a whole class session and an individual session. Both sessions were videotaped. The whole class session involved all children from each age class (a 2-year old class; a 3-year old class; a 4-year old class, and a 5-year old class). During this session children were asked to count and to locate numerals in the class environment. The individual sessions involved 16 children (a boy and a girl) from each age group. Children responded to three different tasks: a Symbolic response Task (SRT), a Printing Response Task (PRT), and a Reading Response Task (RRT). The SRT purpose was to observe children's strategies and responses when prompted to use any type of symbolic representation other than oral language. The PRT focused on exploring children's numeric representation after being presented with three boxes that contained different amounts (3, 9, and 14). The RRT purpose was to observe children's reading responses of their own numeric notations. From a pedagogical perspective, several themes emerged from the observations. Themes such as the role of rote counting, children's one-by-one understanding of sets, and children's emotional responses toward reading numerically are discussed. Implications for teaching are suggested based on children's responses.