CONCEPT MAPPING IN THE PRESCHOOL SETTING: CURRICULUM DEVELOPMENT, INSTRUCTION & ASSESSMENT
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SIGNIFICANCE
1. Informed knowledge enhances reading comprehension.
2. Knowledge gap related to poverty needs to be addressed.
3. Knowledge is stored in linguistic and nonlinguistic forms (visual).

CURRICULA
- Use nonfiction books as a source of content.
- Align with state standards.
- Focus on meaningful content, vocabulary development, and background knowledge.
- Are taxonomical in nature.
- Develop children’s thinking skills.
- Are nonlinguistic, i.e., graphic organizers.

Young Florida Naturals (YFN)
- Habitats and life cycles (plants)
- Process skills—observation, analogical methods
- Cross-links (propositions linking branches of the map)
- Connected concepts (called propositions) that show relationships among concepts
- Non-linguistic, i.e., graphic organizers
- Dual coding (propositions, cross-links, and hierarchy)

Healthy Habits through Literacy
- Environment (e.g., plants)
- Process skills—observation, analogical methods
- Cross-links (propositions linking branches of the map)
- Connected concepts (called propositions) that show relationships among concepts
- Non-linguistic, i.e., graphic organizers
- Dual coding (propositions, cross-links, and hierarchy)

CONTEXT
- Locations—Two urban child care settings
- Teachers and Students:
  2007: 3 child care teachers with 13, 3-year-olds and 10, 4-year-olds for YFN
  2008: 3 child care teachers with 18, 3-year-olds and 20, 4-year-olds for YFN
  2009: 4 child care teachers with 18, 3-year-olds and 30, 4-year-olds for YFN
- Teacher education—All teachers had at least a bachelor’s degree

INSTRUCTION / IMPLEMENTATION
- 26-22 lessons correlated with science/health standards
- Sets of nonfiction books
- Construction and use of class concept maps (see Figure 2)
- Teacher led (all teachers had at least a bachelor’s degree)

ASSESSMENT
- Assessments at 3 times asking preschool and pre-K children questions
- What do you know about plants? (picture)
- What do you know about flowers? (picture)
- What do you know about plants? (picture—narrative)
- What do they look like about plants? (class concept map for reference)

PROVIDING INFORMATION ABOUT
- Language usage
- Recall
- Concept connections and misconceptions
- “Reading” the map

VALIDITY STUDY
- Measures:
  - Bracken Basic Concept Scale—Third Edition: Receptive (BBCS-3: R)
  - Expressive Vocabulary Test, Second Edition (EVT2)

Table 1. Correlations with National Norm-Referenced Tests

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REFERENCES