A stone house is home to innovative child development research

By Mary Lou Peter

The joyful sound of children playing fills the air as preschoolers make up games and decide who will be the leader on a warm spring morning. The scene could be any child care center or preschool across the country, but this one is different. A closer look reveals that many of the children are wearing tiny GoPro cameras that are recording their interactions with each other and with adults.
The recording cameras are part of the latest child development research project at Kansas State University’s Hoeflin Stone House Early Childhood Education Center. Researchers can observe the children without disturbing their play.

Certified early childhood teachers at Stone House teach and care for children while their parents work or attend classes. The playgrounds and classrooms are also a laboratory where child development researchers observe children’s interactions with each other as well as their teachers and assistants. Stone House is a home for high-quality early education for children and families to be sure, but it is also a research site and a place where teachers and college students come to learn.

Stone House — an iconic historic building on the Manhattan campus — was built in 1866 as a private home and was purchased by the university in 1925. It was named Hoeflin Stone House in 1977 to honor Ruth Hoeflin, dean of the College of Human Ecology from 1975 to 1983. Additions and renovations followed, and now the updated building has six classrooms as well as meeting and office space, plus a fly on the wall

The team is particularly interested in the interplay among characteristics of adults, children and the environment they’re in on children’s development and learning, Norris said.

Two primary lines of research within RAIN@SH are “The Power of Play” and “Infants, Toddlers, Preschoolers, Language, Literacy and Learning Environments.”

For a recent six-month Stone House study, and with the consent of parents and the children themselves, preschoolers donned GoPro cameras that recorded 130 videos — hours and hours of children playing or, in some cases, staying on the sidelines. K-State student who works at Stone House then spent more than 200 hours watching the videos to look for and code certain behaviors, such as peer interactions or pretend play. The children are not identified by name; instead, the research team is looking at how children’s social and cognitive play, plus their physical activity, changes over time.

The researchers also are studying how the availability and complexity of play spaces and materials influence children’s social and cognitive play as well as their physical activity.

Once recorded, quantified and analyzed, the video results will be converted to early childhood education. Their insights will benefit children, teachers and parents, as well as students who are training to become early childhood teachers. Children have direct play on playgrounds, which enables the foundation for language development, imitation, emotional control and complex problem-solving. Research has demonstrated long-term benefits to establishing these skills through play in a child’s early years.

“Something that surprised us is the richness of what we have in these videos,” Francois said. “One thing that surprised us is the richness of what we have in these videos.”

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Opportunities for students

Norris and Francois noted that undergraduate and graduate students studying child development and learning at Stone House can gain a fly on the wall, which allows us to extend previous research examining children’s child-directed play.”

Another now K-State study is investigating how young children’s executive function skills — such as working memory, cognitive flexibility and self-regulation — change over time. In this study, children complete tasks on a touch-screen monitor, and their performance on these tasks over time provides an understanding of how their executive function skills change.

As part of the infant-toddler line of research, Francois has been using eye tracking to investigate how familiar caregivers influence young infants’ language skills. Data are collected beginning when the infants are 1 to 3 months old for one month. The researchers specifically want to understand how young infants come to recognize familiar caregivers. What makes a familiar caregiver familiar? How does infant attention to the characteristics of familiar caregivers change over time? And how does infant attention to the social characteristics of familiar caregivers differ from attention to unfamiliar people?

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No one can reach the heights of students and collaboration,” Norris said. “It’s been really nice learning the diversity of students and contributions to the early childhood field.”

“The early childhood field is desperate for graduate students who’ve been in classrooms and have education, but who also have hands-on experience in this kind of research,” Norris said. “Research opportunities with RAIN@SH are an exciting opportunity to further students’ development while contributing to the early childhood field.”

Seek more information and opportunities for students at Hoeflin Stone House Early Childhood Education Center. k-state.edu/seek

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