Kylie Peppler is one of 12 Hoosiers to get the Governor’s Award for Tomorrow’s Leaders.

In describing what he called a “delightful dozen,” Gov. Mitch Daniels said at the Statehouse ceremony this month, “The future of this state will depend entirely on people like these 12 young leaders.”

Peppler, 30, is an Indiana University graduate who traveled to UCLA to earn her doctorate degree and then returned to IU an assistant professor in the School of Education.

Her teachers at Homestead High School in Fort Wayne probably aren’t at all surprised. Interviewed last week from her Bloomington home, Peppler said her research career started in ninth grade.

“I guess it was out of frustration with my own education, but I wanted to help make school systems and teaching environments better,” she recalled.

“So I did a project on gender bias — literally using a stopwatch to observe teachers and how long they spent with male and female students.

“Actually, I was shocked to see there was a lot of gender bias. And the teachers were shocked to see there really were inequities in the classroom, inequities they really did not believe occurred until they looked over my data,” she said.

The problem Peppler proved was that male students were getting significantly more teacher attention than females.

“I got really passionate about research from that point on,” she said.

Passionate might be an understatement. Peppler has already earned seven grants, published six scholarly articles and co-edited a book published earlier this year, titled The Computer Clubhouse: Constructionism and Creativity in Youth Communities.

And that was before finding out on Wednesday that she’d just won a $700,000 MacArthur Foundation grant to further her research into digital media and learning.

Peppler latched on to the Computer Clubhouse after-school program while at UCLA and brought it to the Bloomington Boys and Girls Club. The program is extraordinary in its reach. Instead of teaching young and often underprivileged youths mainstream computer skills, it teaches them programming skills such as how to create an animated story, a music video or a Web site.

“It’s not about giving them second-rate tools; its about giving them first-rate tools,” she explained.

“They frequently surprise me how well they take to this kind of stuff. They mostly inherently understand media but they’ve been exposed to it passively. They’ve watched cartoons and videos. But they’ve never been given the tools to create them.”

There is a learning curve, to be sure. But as with a lot of things, children aren’t burdened with the “I don’t know how to do this” attitude.

“What I love is that some of the kids that have been a part of my work can’t read and identify letters but they find out they can do computer programming,” Peppler said. “It really takes the whole notion of who can design technology and turns it on its head. Some of these kids are disenfranchised from school and suddenly they’re capable of doing some pretty great things. It changes their identities and they begin to see themselves as capable and able. And from that, it makes them want to learn to read and write well because they have seen that they have the ability.”

A prodigious volunteer during her undergraduate years at IU and graduate study in Los Angeles, Peppler sees tremendous value in out-of-school programs. “I like to step into the classroom, too,” she said, “but a lot of the value of that for me is to see what they do and how after-school programs really help stimulate the creative side of the students’ education.”

For example, she said, in out-of-school programs, a young student might indulge his or her interest in everything from the latest hip-hop artist to Sponge Bob Squarepants — subjects that might not be acceptable for school projects. In the process, she said, they can play, get creative and learn skills at the same time.

The assistant professor in education said she’s looking forward to expanding the capabilities of the computer lab at the Bloomington Boys and Girls Club. She’s donating her $1,000 governor’s award to the club with hopes it will go a long way toward helping the club buy a computer server. When that happens, she said, students will be able to store their projects on that central server and not have to compete to work on the same computer where they’ve stored work on the hard drive.

“We will still need some technical support because that’s a little out of my league, so I’m hoping that someone with those skills can come in and help us with that,” she said.

Another program Peppler has helped launch at the Boys and Girls Club is a cross-cultural awareness program that pairs the local club with students working with Bar-Ilan University in Israel.

“I feel very fortunate,” she said. “My work allows me to bring together my interests in children, in education reform, in the arts and in psychology all together.”