A New Approach to Teaching

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It is often thought that the burden of responsibility for the advancement of Qatar toward a knowledge-based economy rests on the shoulders of the next generation, yet how this knowledge is passed from one generation to another is of critical importance.

‘Improving reading skills in the middle school science classroom’ is a research project led by Dr Dudley Reynolds, Teaching Professor of English, Carnegie Mellon University in Qatar, that seeks to fundamentally change how reading is taught in Qatari schools, specifically to counter deficiencies in reading, mathematical, and scientific literacy among students. The project, which includes key investigators from Texas A&M University - College Station and Qatar University, is entering its third and final year as a National Priorities Research Program of the Qatar National Research Fund but has already
achieved several milestones in its aim of introducing new approaches to teaching.

“The ultimate aim of the project is to help students become better readers of science texts,” Dr Reynolds told The Foundation. “The general strategy is to work through the teachers to incorporate better teaching methods to help their students achieve.

“Between the time that the grant was awarded, in 2011, and the time when we got ready to conduct the research a year later, the school systems of Qatar made a very smart, strategic decision of introducing students to science content in Arabic first. Our focus all along had been that we had to help students use better reading strategies, so we continued with the grant to maintain and emphasize this need.”

The project is based on adopting a professional development process that was originally developed in Japan: ‘Lesson Study’. Working in a small group, teachers collaborate with one another, meeting to discuss learning goals, to plan an actual classroom lesson. From there, one of the teachers will teach the lesson, while the other members will observe it being taught, but their focus will not be on the teacher; rather it will be on whether the students are learning.

“We're judging the lesson, not the teacher,” said Dr Reynolds. “There's a reflection period afterwards within the group on what elements of the lesson worked and what didn’t. That's the general model, which you cycle through.
several times.”

Following one year of baseline research, the second of the project involved running a pilot program from March-April 2014 in two schools in Qatar to gain a better understanding of the students’ general reading comprehension.

“In order to learn from scientific content, the bulk of which is published in English, students in Qatar need to not just be able to read in Arabic and English, but be able to integrate the two,” said Dr Reynolds.

“We decided to focus on the middle school level because that’s where the science curriculum begins to step up and becomes a lot more difficult. If you intervene at that level then hopefully you’re setting a good foundation for secondary school and university level.”

For the third and final year of the project, Dr Reynolds is hoping to see the fundamentals of the project expand beyond a pilot program to potentially become the seeds for the growth of Lesson Study across classrooms in Qatar.

“For Year 3, we’re still finalizing details but what we’re hoping to work out with the SEC (Supreme Education Council) is that we will bring in leaders from a number of different schools and train these leaders to then go back to their schools and run such a group for the academic year,” said Dr Reynolds. “The big challenge for us will be that unlike in our second year, where our research teams ran pilot programs, now we will have to train others to run the same programs effectively.

“We’re really hoping that this model for teachers’ personal development can catch on. We would love for teachers to say: “This is working for us” and by personalizing this system into their teaching, make students fully aware of the learning process. That’s my ultimate goal.”