# **ARC '16**

مؤتمر مؤسسة قطر السنوى للبحوث **OATAR FOUNDATION** ANNUAL RESEARCH CONFERENCE

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### Social Sciences, Arts and Humanities Pillar

http://dx.doi.org/10.5339/gfarc.2016.SSHAPP3354

## Improving Reading: From Teacher Development to Student Reading

Dudley Reynolds<sup>1</sup>, Zohreh Eslami<sup>2</sup>, Maha Ellili Cherif<sup>3</sup>, Nancy Allen<sup>3</sup>, Samah Al-Sabbagh<sup>1</sup>

<sup>1</sup>Carnegie Mellon University in Qatar, QA <sup>2</sup>Texas A&M University, US <sup>3</sup>Qatar University, QA

Email: dudleyreynolds@gmail.com

On multiple international assessments of student learning including the IEA's TIMSS and the OECD's PISA, Qatar students have performed poorly on both reading and science when compared with international peers. To counter this academic and societal challenge, NPRP 4 - 1172 - 5 - 172 "Improving Reading Skills in the Middle School Science Classroom" trialed an innovative model for professional development of teachers that would impact how reading is taught as part of both science and English instruction at the preparatory level. This paper reports on changes in teacher knowledge and student performance over the course of the program.

#### Background

Following a baseline study of reading demands, students' use of reading strategies, and instructional patterns, a pilot professional development program for 11 teachers in two preparatory schools was developed. The program employed a cyclical model of professional learning known as Lesson Study (Fernandez & Yoshida, 2004; Takahashi & Yoshida, 2004) in which a group of teachers study a topic, jointly plan a lesson, observe the lesson being taught to a group of students, and then reflect on how the lesson could be improved. In the Qatar program this cycle was repeated five times. Topics studied by the teachers included motivation to read (interest and purpose), strategic processes involved in reading, and the development of lessons with reading components.

#### Method

In the final year of the study, teachers from 12 schools were trained to lead Lesson Study groups with three additional teachers in their respective schools using the materials previously developed. The impact of the research on the participating teachers and students was measured through multiple means including a quasi-experimental

Cite this article as: Reynolds D, Eslami Z, Ellili Cherif M, Allen N, Al-Sabbagh S. (2016). Improving Reading: From Teacher Development to Student Reading. Qatar Foundation Annual Research Conference Proceedings 2016: SSHAPP3354 http://dx.doi.org/10.5339/qfarc.2016.SSHAPP3354.



assessment of student reading performance and strategy use before and after the program; teacher interviews before, during, and after the training; and classroom observation notes from researchers and participants.

#### Results

Results from the student assessment are still being analyzed. Qualitative indicators from the teacher interviews and class observations suggest that teachers developed a deeper understanding of 1) the component mental processes involved in reading as an ability, 2) practical methods and activities for modeling and having students practice strategic reading behaviors, and 3) the personal value of professional development that incorporates reflective learning.

#### Discussion

Beyond the immediate impact on student learning, the research also contributes an interesting case study for the international policy debate regarding the use of native languages versus English as part of instruction. During the period in which the research occurred Qatar changed from teaching science through English to teaching it in Arabic with limited exposure to scientific terminology in English. In response to this change, the researchers encouraged participants to consider a form of pedagogy known as "translanguaging" in which speakers do not restrict themselves only to one language but rather think of all the languages at play in a contact situation as resources to draw on (García & Wei, 2014). The Lesson Study groups comprised teachers of English teaching in English and teachers of science teaching in Arabic. Reading materials in both Arabic and English were provided for sample lessons, and the research team and participants switched back and forth between languages during training sessions. Translanguaging emphasizes the need to be strategic whether reading, writing, or speaking, and as such formed a natural complement to the focus on strategic reading in the professional development. As a case study, this research suggests alternatives to policies that try to dictate one language over another.

#### References

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