Today’s talk

- Overview of Digital StudyHall
- Description of an evaluation study that is just beginning

Rural India

- Lack of qualified teachers
- Poor infrastructure
- Teacher absenteeism
- Poor teaching techniques
- Few books or supplies

Educational challenges in rural India

Schools

Digital StudyHall

- SEWA, UP
- CHINHAT, UP
- RECORD LESSONS AT CENTRAL SCHOOL
Facilitators play a key role

Digital StudyHall
- DSH Partners with Educational Centers of Excellence
  - Radiate their excellence to surrounding slum and village schools
- First DSH Partner: StudyHall Private School in Lucknow
  - Employs many excellent teachers
  - Afternoon school program for neighboring slum children

Project background
- Project started by former Princeton Professor Randy Wang
- Initially established at StudyHall Private School in Lucknow, India
  - Hindi content for local schools
  - Hubs established in other cities

Capturing pedagogy
- How do we distribute excellent teachers?
  - Typically centralized at private schools
- Build a database of excellent teachers
  - Deliver sequences of classes from the government curriculum
  - 3rd Std. Math

Videoing live classes

Lessons based on state curriculum
- Based on state government textbooks
- Carefully planned coherent sequences
Recording of live lessons

- Highly interactive, with lots of:
  - Questions and answers
  - Role playing
  - Activities

Matching student background

- StudyHall morning sessions
- StudyHall after school program for slum girls
- Madantoosi (village) school (public)

Mediation based-pedagogy

- The teacher and the digital lesson form a team
- The teacher is the most important part
  - Digital lesson provides the framework
  - Teacher engages the class, conducts activities

Training for mediation

Different uses of lesson material

- Motivated teacher took own initiative
- Used the system to train/teach self
- Abandoned crutch during live lessons
- "Graduating" teachers: the ultimate success

DSH status

- Original schools in Lucknow
  - Kannar, Madantoosi
- Expansion in Lucknow
- Independent Hubs
  - Pune, Bangalore, Dhaka, Calcutta
- Spinoff projects
  - Digital Green
  - Digital PolyClinic
**Does DSH Work?**

- NSF Funded Study
  - University of Washington
  - StudyHall Educational Foundation

**Evidence so far**

- Success stories
  - Sustained use in partner schools in Lucknow
  - Enthusiastic response from teachers
  - Observed student performance gains
  - Observed improvement in teaching skills
- Failures
  - Lack of sustained use in sites external to Lucknow

**Preliminary evaluation study**

- Study of four DSH schools
- Testing of students in DSH classes
  - Significant improvement in test performance
- Detailed observational study of classroom
  - Tracked change in use of DSH by teachers
- Critique
  - Lack of control condition
  - Working in schools with established DSH relationships

**Study goals**

- Evaluate new deployments of DSH
- Moderate scale
  - Potential for statistically significant results
  - Variety of schools
  - Use current DSH technology and content
    - Limit technological innovation
  - Target setting where DSH has potential for massive use

**Evaluation metrics**

- Student performance
  - Grades
  - Standardized tests
  - Custom tests, pre and post
- Student attitudes
- Usage and adoption
  - Sustainability
  - Impact on school
  - Attendance
  - Retention
- Impact on teachers
  - Attitude
  - Attendance
  - Teaching ability

**Chinhat evaluation study**

- Chinhat Development Block
  - Periurban district of Lucknow, Uttar Pradesh
- Schools surveyed in 2005 Unesco study by Urvashi Sahni
  - 18 primary schools evaluated
    - Grades 1 to 5
    - Government schools
    - Town and rural schools
  - Deficiencies identified in initial study
    - Lack of teachers
    - Poor quality facilities
Study design

- Select 12 schools from Chinhat Development Block
- Each school will have one class for control, one class for treatment
  - 3rd grade English, 5th grade Math
- Regular tests for students
  - Pre-test, Post-test, Monthly quizzes
  - Regular classroom observations
  - Regular teacher interviews
- Two academic years

February visit

- Visit all schools and complete school selection

Tuesday

- S1
  - School closed due to lunar eclipse
- N1
  - Teacher interested, low attendance
- S2
  - Teachers interested, “why us, we are not a good school”
- U1 and U2
  - Teachers and principle missing
- G1
  - Well run, high attendance

Wednesday

- S1
  - Return visit, school open
- U1
  - Teacher interested in DSH for professional development
- U2
  - Staged activities
- D1
  - Well run, teacher had student in StudyHall
- D2
  - School dropped from study, inadequate facilities

Thursday

- A1
  - Had not given data earlier
  - Strongest school in study
- R1
  - Teachers expressed frustrations about not being able to teach
- S3
  - Principal on election duty
  - Excluded from study
- P1
  - Low attendance
  - Students leading classes
- P2
  - Very few students
  - Cancelled midday meal program

School statistics

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</table>
Visit observations

- Electricity situation better than expected

Visit observations

- Student and Teacher Attendance low

Visit observations

- Generally positive Principal/Teacher response

Visit observations

- Adequate physical facilities

Visit Observations

- Efforts to promote school attendance

Research Question 1: Deployment

- What contributes to success or failure of DSH deployments
Research Question 2: Student performance

- Does the use of DSH produce measurable gains in student performance

Research Question 3: Pedagogy

- Are the teachers successful in adopting the DSH teaching model?
- Does this transfer skills/knowledge to the teachers?

Future Research Question: How People Learn

- Assuming that we get improved results and pedagogy is adopted, what is contributing to student learning?

What may go wrong

- Schools drop out
- Schools fail to use DSH
- Student attendance too low
  - Absence, drop out, school disruption
- Mixed grade teaching
- Teacher selection bias
- Control class not a true control
- Compromised testing
- Different populations in control / treatment

Timeline

- Dec 08, School survey
- Feb 09, School visits
- Mar 09, Principal meeting
- Apr 09, Teacher orientation
- Jun 09, DSH deployment
- Jun 09, Teacher workshop
- Jul 09, Pre-test
- Jul 09, DSH use in school
- July – April, Observations, Interviews, Quizzes
- Apr 10, Post-test

Comments?
Thank you!

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