

Session 24, 5/10/07

Final Student Presentations (Powerpoint Shows) – following completion of project proposals

**(1) Housing Construction in the Earthquake-affected Areas of Northern Pakistan  
by Zehra Ali**

- We need to involve the local people in the reconstruction
- The burning of biomass has caused indoor air pollution problems in the area
  - People have developed respiratory problems
- Our solution involves three steps:
  - Constructing a demonstration home
  - Training members of the community in the construction and teaching processes
  - Disseminating educational materials about construction practices that are more efficient, adaptable, affordable, and resourceful
- We make use of small scale building improvements
- Construction:
  - Local mason and three construction workers
  - Staff from partner organizations
- Educate about the need for improved building methods and how to teach those methods
  - Training staff: community partners and the IDEAS team
  - Participants: 30 local residents (men/women, skilled/unskilled)
- Illustrate essential ideas about:
  - Improved seismic resistance
  - Rainwater harvesting
  - Improved thermal efficiency
  - Ventilation and day-lighting
- Improved design over the makeshift shelters and heavy traditional housing that is currently common in the area
- Phases 1 and 2
- Who's involved from the local community:
  - Local masons
  - Residents of Bana (unskilled)
  - Women
  - Persons from nearby village
- We'll be traveling to Pakistan this summer to carry out our plan
- The construction of an individual house will take around two weeks
- We can save lives with this construction in case of a future earthquake, since these homes will be able to better withstand seismic activity

- We have funding from community partners, and our building costs are sponsored and subsidized to make them affordable
- Rainy season in the area will start in July, and we'll have to get the foundation, walls, and roof up before the rains start. We can continue the rest of the construction during the rainy season.
- Once we have a model in place, then we can start pitching it to organizations like Habitat for Humanity, which primarily focus on dissemination of design, rather than on design itself

**(2) LearnTB by Jessica Lee**

- TB is an extensive problem in India
- We want to stop TB using preventative education and local awareness
- We've created a curriculum for teaching
- Five person group with 4 undergrads and 1 grad
  - All of us have teaching or tutoring experience
  - Three of us speak some Indian dialect
- Two solutions:
  - DOTs
    - This is the standard method of addressing TB right now
    - It only addresses TB once it has already occurred. It does not work to prevent it.
    - It is very expensive
  - LearnTB
- Our community partner: ASHA for education
- The Innovation
  - There is not similar pre-existing program that targets children to educate them about TB
  - Our curriculum is based on a 10 lesson plan to be taught over 3 weeks
  - There's a lot of time put aside for role-playing, arts and crafts and participation from the children
  - Our plan is culturally sensitive
  - We plan to disseminate our lesson plan and materials, and we'll be placing all the materials online to make them more readily accessible
- Funding from MISTI India and from MIT DLab
- We'll be having all of our materials translated into three or four Indian languages

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