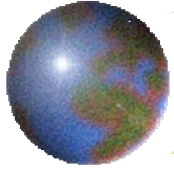


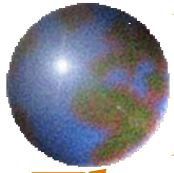
*What in the World are They Learning?
Capstone Engineering Design Experiences
Across National and Cultural Borders*

*William S. Kisaalita
Biological & Agricultural Engineering
University of Georgia
Athens, Georgia*



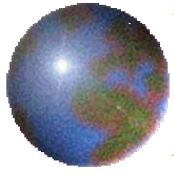
Why Do It?

- ⊕ What students who have been say
- ⊕ What educators say
- ⊕ What employers say
- ⊕ What politicians say
- ⊕ What the international customers say



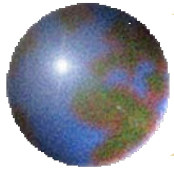
Three Top Reasons Why Engineering Students are Reluctant to Participate in Overseas Exercises as Part of Their Undergraduate Learning Experiences

- ⊕ Increased time to graduation
- ⊕ High cost
- ⊕ Can not be away from “community”



International Capstone Engineering Design Course Elements

- ✚ Real-life international/global problem
- ✚ Web-based sights and sounds
- ✚ Multidisciplinary design team
- ✚ Intercultural communication module
- ✚ Globalization module
- ✚ Partnerships



Class Schedule

- ⊕ Customer Interviews taped during fall
- ⊕ Interview clips are posted on the web
- ⊕ Student design team uses interviews to generate solution concepts
- ⊕ During spring break, the team travels to present solution concepts
- ⊕ Detailed analysis is completed after the trip

Hide Navigation

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Case Study
Assignments
Study Tools
Assessment
Gradebook

Rural Cooling Plant: View Designer Options

ENGR 4920 - Engineering Design (International Section)

Home > Case Study > Rural Cooling Plant

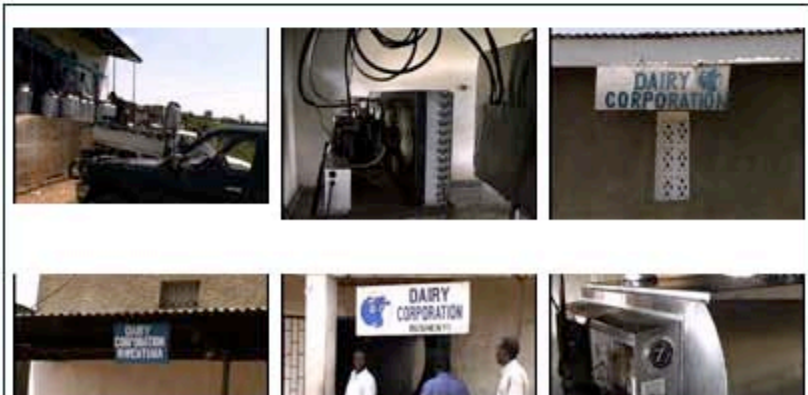
ACTION MENU: [Previous](#) [Next](#) [Contents](#) [Retrace](#) [Refresh](#) [Index](#) | [Search](#) | [Discussions](#)

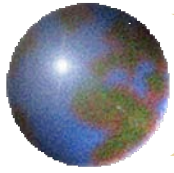
Click **Contents** at the top of this page to move to the other case studies
Click an image to watch the movie

Rural Cooling Plant

To be able to convey a true image of a typical rural milk cooling plant, six plants (bushenyi, kabwohe, kashaka, kigoma, kyamuhunga, and rentula) were visited. The following collection of quick time movies and still images provide a tour of a typical plant.

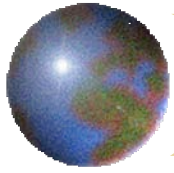
Plant Building and Surroundings





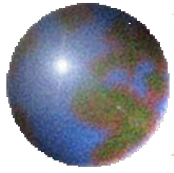
Design Projects





Design Projects



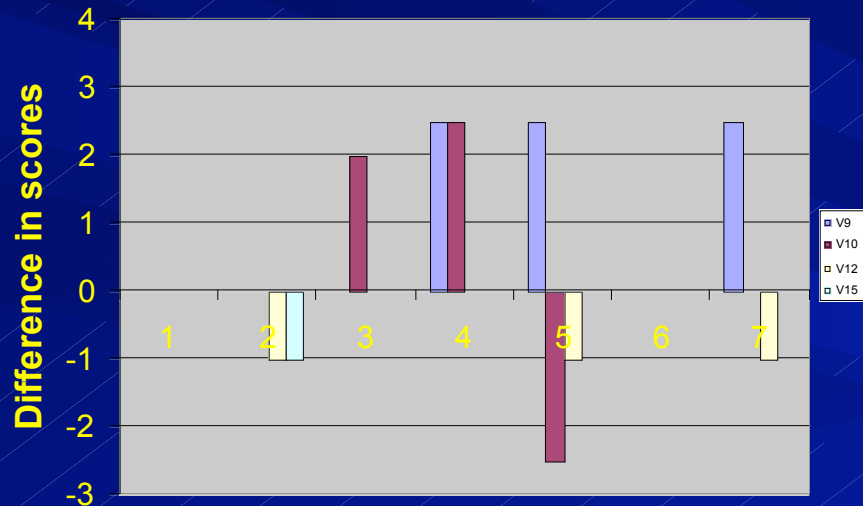


Assessment

- ❖ Critical thinking (Watson and Glaser, 1994)
- ❖ Global Awareness (Corbitt, 1998)
- ❖ Attitude (Kisaalita, 2004)
- ❖ Interethninc communication apprehension (Neuliep and McCroskey, 1997)

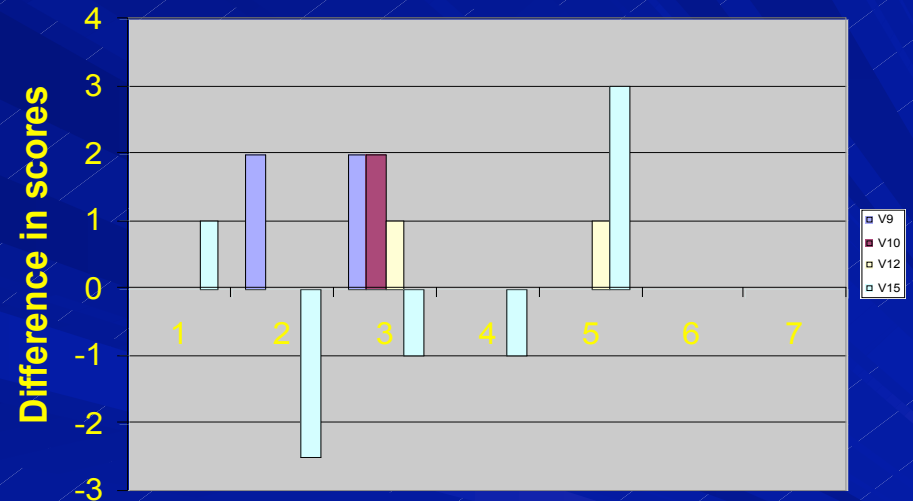
Difference between Pre- and Post-Test Scores: Combined Questions and Scores

EXPERIMENT

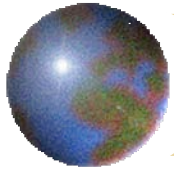


Students

CONTROL



Students



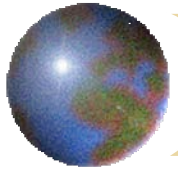
Acknowledgements

Dr. Sid Thompson – collaborator

UDSA Challenge Grant

Engineering Information Foundation Grant

Industry Partners (Makita Corporation, John Deere,
and Makerere University)



Allyson Tippie (2003)

- ❖ “..up until this project I was never able to apply my knowledge to anything other than a test. This project has opened my eyes to the opportunities of the real world in which I will be able to apply my knowledge....To me, this priceless and significantly increases the value of my degree.”