Social and Cognitive Design in Energy Efficiency Training for NYC School Building Operators

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Building Operator Certification Program
Building Operator Certification (BOC) in the NYC Public Schools

- Represent national certification in NYC
- 1,000+ trainees over two years
- 90 hours classroom time (30 weeks)

- EMPLOYER & UNION COMMITMENT
The improvement process
Transformative Goal

Greening the grizzly skeptic
Transformative Goal

- Operators’ new mission
- Competence and pride
- New neural connections
Transformation

It takes

TIME

- 30 week experience
- Progressive development of skills, thought-processes
Preach
Behavior
Use
Resistances

• Show areas where effective autonomy can take hold

• Discuss openly why some things don’t happen
Structure DOING

• Observation
• Data
• PROJECTS
Structured Observation & Schematic Drawing

Instruments

Using Carbon Dioxide to estimate ventilation

Simple Diagram of Boiler Lead-Lag Control

Teaching Tools – 1
What students have to do:
Schematics, Sequences & Schedules
Energy Data in Improvement Projects

2 tables:
- Use by type
- End-use allocation

Spreadsheets
Encourage COMPARISON

Actions & Outcomes
Long-term On-going Process

• Social networks
• Events
  – maintenance of certification “fair”
• Evaluation
  – as longitudinal research
Thank You!

Contact Information

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