Multi-modal learning for formwork design and construction

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Learning styles

Sequential
Active
Visual
Inductive
Sensory
Global
Reflective
Verbal
Deductive
Intuitive
TRADITIONAL TEACHING AND LEARNING

Learn via:
- Step-by-step problems
- Seeing the importance of the problem after you solve it
- Lectures and reading
- Watching

UNDERSERVED TEACHING AND LEARNING

Learn via:
- Big-picture problems
- Seeing the importance of the problem before you solve it
- Activities and simulations
- Doing
Learning objectives (6 days)

By the end of this module students should be able to:

• **Design** formwork for concrete walls and elevated slabs
• **Evaluate** the plans for a project, **design** the appropriate formwork system, and **cost-optimize** the system
• **Construct** panelized formwork

Activity 1: Field Trip
Activity 2: Lecture

Activity 3: Model Building during Example Problems
Activity 4: Optimization Design Project

Activity 5: Actual Formwork Construction
Learning styles addressed

Step-by-step problem solving

Seeing an example problem

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Seeing the importance of the example problem once it has been solved

Lecture and reading
Learning styles addressed

Worksheets, model building, formwork build

Thinking about the problem
Learning styles addressed

Field trip, plans, models

See problem first, (field trip), then solve
Learning styles addressed

Formwork build, model build, field trip

Learning styles addressed

Big-picture problem, Cost-optimization in formwork project