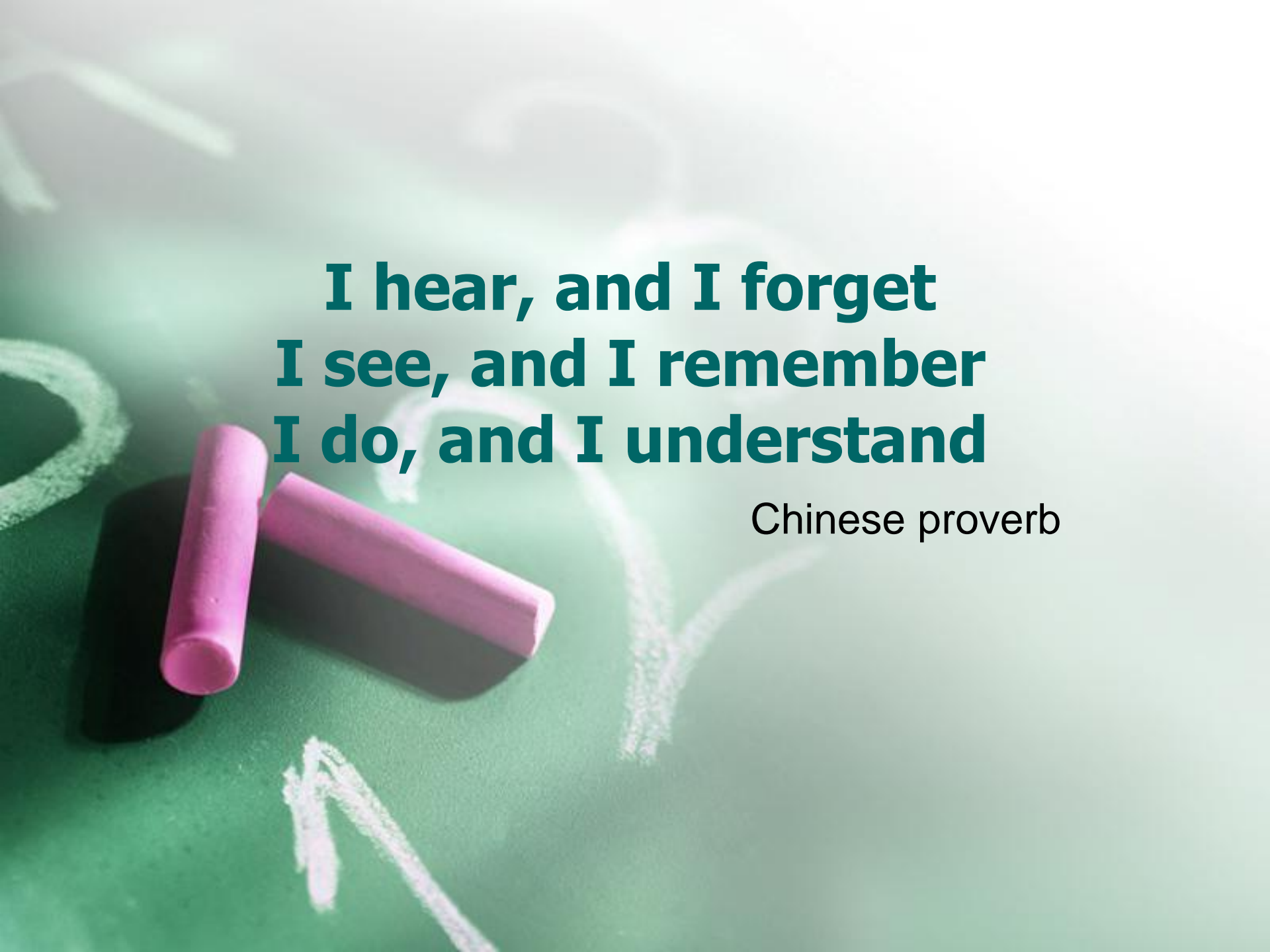


# Blended Learning

A new model for ITI Training

A Rarhi





**I hear, and I forget  
I see, and I remember  
I do, and I understand**

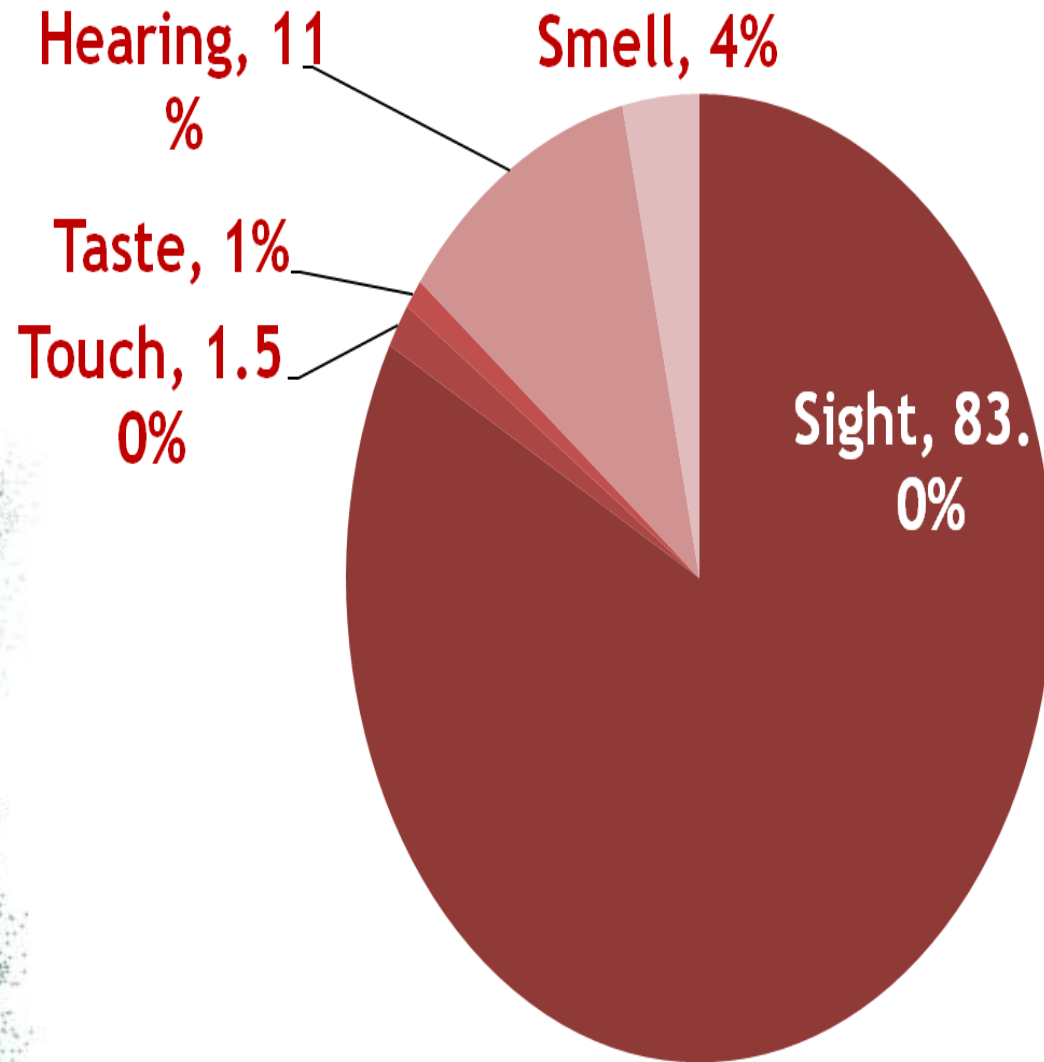
Chinese proverb

# What is learning?

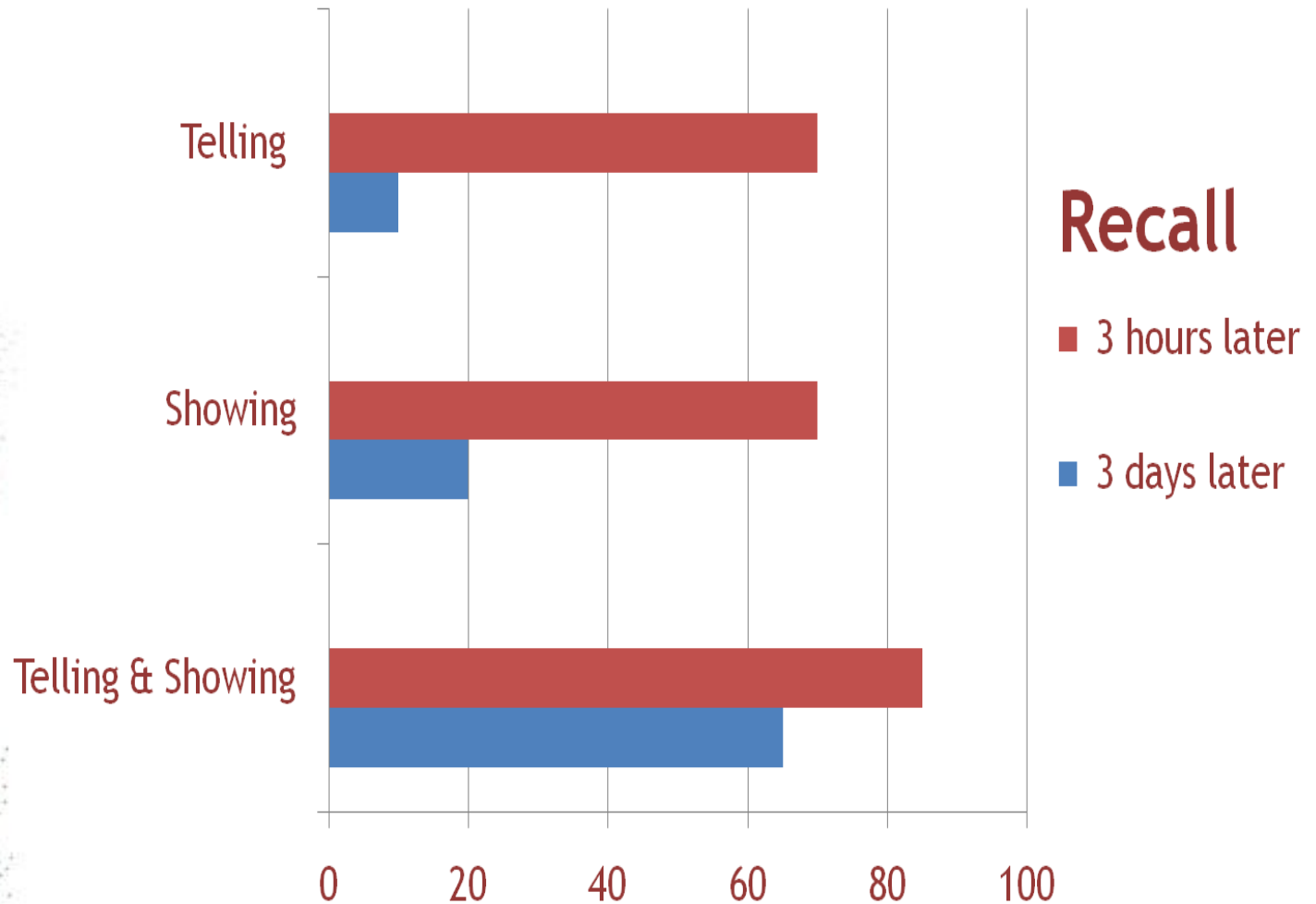
- Learning is “a *process* that leads to *change*, which occurs as a result of *experience* and increases the potential for improved performance and future learning”
- Learning is not something done *to students*, but rather something students themselves do. It is the direct result of how students interpret and respond to their experiences.



# Learning through the Senses



# Method & Recall



# Learners retain.....

**10%**

**of what they read**

**20%**

**of what they hear**

**30%**

**of what they see**

**50%**

**of what they see & hear**

**70%**

**of what they say as they  
talk**

**90%**

**of what they say as they  
do a thing**



# Edgar Dale Cone Experience

People generally remember...  
(learning activities)

People are able to...  
(learning outcomes)

10% of what they read

Read

Define List  
Describe Explain

20% of what they hear

Hear

30% of what they see

View Images

Watch Videos

Demonstrate  
Apply  
Practice

50% of what they see and hear

Attend Exhibits/Sites

Watch a Demonstration

70% of what they say and write

Participate in Hands-On-Workshops

Design Collaborative Lessons

Analyze  
Define  
Create  
Evaluate

90% of what they do.

Simulate, Model, or Experience a Lesson

Design/Perform a Presentation - "Do the Real Thing"



# What is Blended Learning

Human



- Motivation
- Personalization
- Feedback
- Fluency & Listening
- Relevance
- Discipline

**BLENDED**



Technology

- Mobility
- Structure
- Tracking & Control
- Self-Study
- Reduced Costs
- Global Reach



# Models for learning

- Classroom learning
  - *Traditional teaching*
  - *Face to face*
  - *Teacher - students*
  - *Large group – small group*



# Models for learning

- E-learning
  - *Learning using computer technologies*
    - Online tutorials
    - Simulations
    - Games
    - Online testing
    - Audience response systems
    - Digital Learning Environments
  - *Online presence, not in classroom*



# Models for learning

- Blended Learning
  - *Combination of face to face learning, E-learning and mobile learning*
    - Delivery formats
    - Different forms of communication
    - Didactic models



# E-learning

Is E-learning better than face to face?

- Equally effective
  - *Knowledge*
  - *Skills*
  - *Behavior*
- More effective (used blended)
  - *Explaining*
  - *Procedures*

# E-learning

## Advantages

- Images and sounds
- Motion
- Dynamic simulation
- Efficiency: attribute - content





**How to use Blended Learning in different teaching philosophies?**

# Teaching philosophies

## Behaviorism

- Content > exercise > test
- “drill and practice”

## Blending options:

- Online training & test, followed by skillslab



# Teaching philosophies

## Cognitivism

- Students obtain knowledge

## Blending options:

- Multimedia presentation of content, concept maps, hyperlinks, simulation cases





# Teaching philosophies

## Constructivism

- Students constructs knowledge

## Blending options:

- Communication, weblog, wiki



# Teaching philosophies

## Connectivism

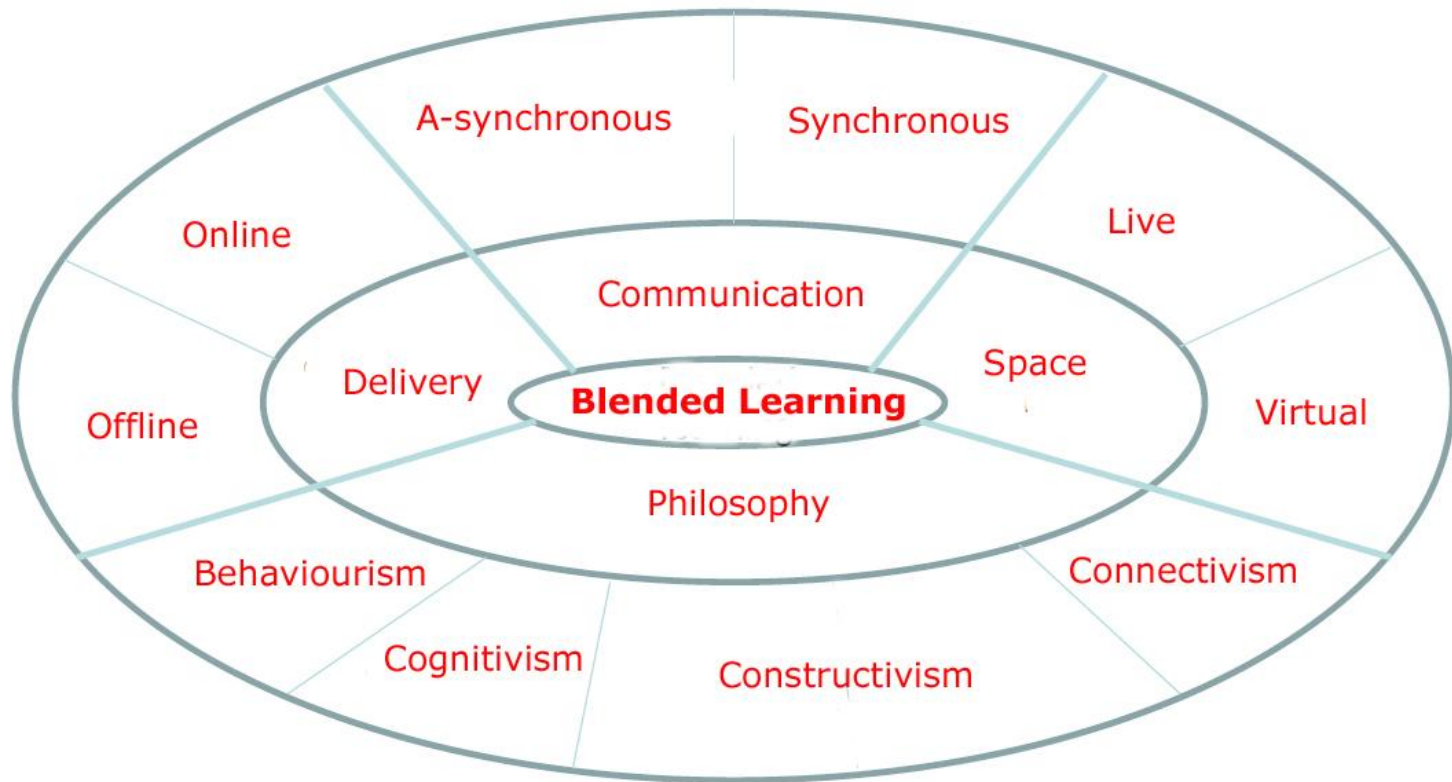
- Students creates connections and develops a network

## Blending options:

- Use of internet, wiki, instant messages



# Summary



# How to design Blended Learning?



# Implementing Blended Learning

1. Target group?



# Implementing Blended Learning

- Students
- Residents
- Specialists
- PhD students
- ....



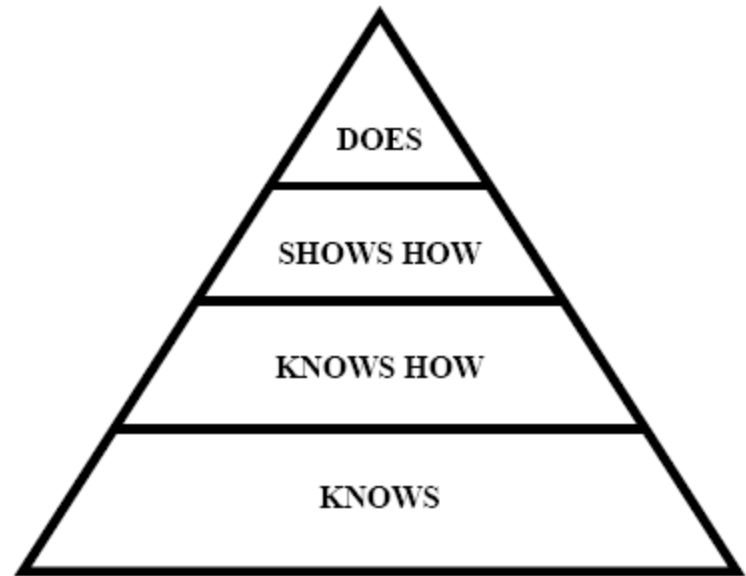
# Implementing Blended Learning

1. Target group?
2. Learning goals of the module?



# Implementing Blended Learning

- Knowledge?
  - *Know*
  - *Knows how*
- Skills?
  - *Shows how*
  - *Does*



Miller's Pyramid



# Implementing Blended Learning

1. Target group?
2. Learning goals of the module?
3. What is the content?



# Implementing Blended Learning

- Topics
- Themes
- Skills
- ....



# Implementing Blended Learning

1. Target group?
2. Learning goals of the module?
3. What is the content?
4. Knowledge or skills needed?



# Implementing Blended Learning

- Knowledge basic sciences
- Basic skills
- ....
- Specific education philosophy?



# Implementing Blended Learning

1. Target group?
2. Learning goals of the module?
3. What is the content?
4. Knowledge or skills needed?
5. Which test method to use?



# Implementing Blended Learning

- Goal of testing
- Content
- Type of test:
  - *Multiple choice*
  - *Oral exam*
  - *Portfolio*
  - *Presentation*
  - *....*



# Implementing Blended Learning

1. Target group?
2. Learning goals of the module?
3. What is the content?
4. Knowledge or skills needed?
5. Which test method to use?
6. Which instructional activities?



# Implementing Blended Learning

- Lecture
- Small group assignments
- Simulation
- Presentation
- Science project
- ....



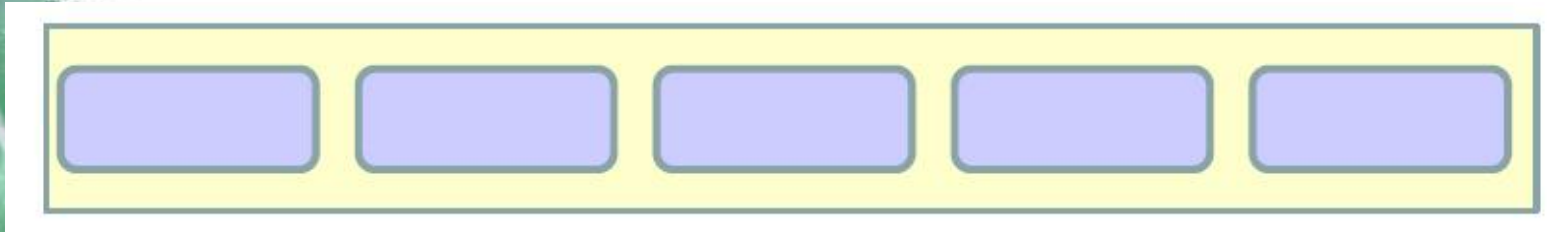


# Implementing Blended Learning

1. Target group?
2. Learning goals of the module?
3. What is the content?
4. Knowledge or skills needed?
5. Which test method to use?
6. Which instructional activities?
7. Plan the activities and the tests



# Implementing Blended Learning

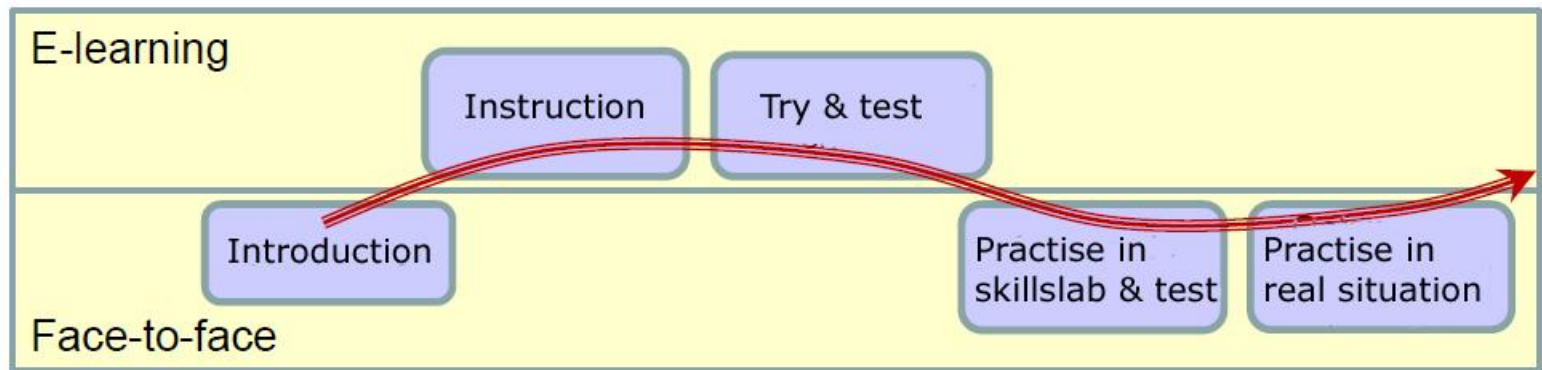


# Implementing Blended Learning

1. Target group?
2. Learning goals of the module?
3. What is the content?
4. Knowledge or skills needed?
5. Which test method to use?
6. Which instructional activities?
7. Plan the activities and the tests
8. Design the 'perfect' mix



# Implementing Blended Learning



# Conclusion

- Blended Learning is a combination of face to face learning, E-learning and mobile learning
- Blended Learning is more effective for:
  - *Explaining*
  - *Procedures*



Thank you for your time!

