

Teaching without Lectures = Mobile Learning



Teaching without Lectures = mobile learning
Adding technology = mobile learning+

*Challenges for Thailand's rural communities
(75% of the population)
wishing to pursue a university education*



In Thailand what's changed?



- 1. Pilot on Teaching without Lectures*
- 2. Changes in technology*

*Opened up a new and flexible teaching and learning strategy.
Students can decide where, when, and how their learning occurs.*

Teaching without Lectures = Mobile Learning

Pilot Study
Teaching *without Lectures*
Ubon Ratchathani University, Thailand

Semester 1- November, 08 – March, 09

22 courses

1742 students

*Mathematics, Chemistry, Biology, Physics, Computer Science,
Information Technology, and Engineering*



Survey of students in pilot (684/1742)

- 92.86% ...Better appreciation for learning;
- 93.86% ...Found the structure more rewarding than attending lectures;
- 92.86% ...Took more responsibility for their own learning;
- 83.67% ...Were more confident about their abilities to learn;
- 87.52% ...Made better use of their time;
- 93.86% ...Developed more critical thinking and problem-solving abilities;
- 89.29 %... Collaboration with other students proved stimulating and provided a rich learning experience;
- 89.39% ...Better prepared for writing exams;
- 89.29% ...Developed better teamwork and communication skills;
- 96.43% ...Time spent with instructors engaging and rewarding;
- 87.18% ...Course motivating.



Learning outcome

Comparing:

- 9 courses offered in the traditional lecture method (a total of 527 students)
- 9 courses offered with the TwL method (a total of 942 students)

Student enrolled in TwL method showed
an average increase of **20.03%** in their final exam grades.

Teaching without Lectures = Mobile Learning

Instructor



Engagement

- *4 hrs per week*
- 2 – 3 hours a week monitoring
- 1 hour a week guidance

Plus

- **No** Lectures to prepare
- **No** assignments to mark
- Students assessment of their instructor is high

Learner



Engagement

- *3-6 hours per week*
- Challenged by activities and receiving marks for effort

Plus

- Engagement is constant
- Feedback is constant
- Higher scores on final exams

Instructor: “I learned within the traditional lecture method
and so will my students.”

BUT



“My students just don’t get it”



To improve learning outcome

- We reproduce the lecture in print, audio, video = 0 change in learning outcome
- We replicate the lecture online = 0 change in learning outcome
- We introduced learning objects = 0 change in learning outcome
- We reduce class size = 0 change in learning outcome
- Our students switch to distance courses = 0 change in learning outcome
- Our students switch to on-campus courses = 0 change in learning outcome
- We blame the student as being lazy = 0 change in learning outcome



Ubon Ratchathani University, Thailand
Outcome for all programs

The difference between students' entrance and graduation GPA
over a four year period (2005-2008).
- 0.4756



The word on the street

“The GPA is a testament of what you [students who are applying to a university] are capable of” (Jeanette Leach, 2009)



The answer

All universities could guarantee all 'A' graduates by accepting only 'A' students into their programs.



The institution of higher learning

A student entering university with a C-
is only capable of a C- at graduation

Or

Is it what our teaching and learning strategies
are capable of maintaining, and no more?



No surprise

The Organization for Economic Co-operation and Development OECD 2009

“It is no surprise when an entering A+ student walks out the doors as an A+ graduate.

But what about a B student who finishes with an A, his or her programs would have a higher added value than the programs at the top university.”



The plus side

Designing and delivering a quality lecture is challenging, motivating and engaging;
plus it develops exceptional deep thinking
for the instructor.

For students, they evolve deeper into un-natural rote learning.



Contention

Lecture-centred instruction (and an instructors passion for replicating content)
interferes with a students' ability
to advance beyond their university entrance GPA



The thinking behind Teaching without Lectures are Instructional Challenges

- Students don't come to class prepared
- Students don't come to class
- Difficulty in giving feedback
- Difficulty in motivating students
- Difficult concepts to teach/learn
- Large class sizes
- Diversity of the student population in the class
- Students do poorly on tests/assignments/final



Ministry of Education (Thailand) 5 Domains of Learning

- 1. Ethical and moral development**
- 2. Knowledge**
- 3. Cognitive skills**
- 4. Analytical and communication skills**
- 5. Inter-personal and responsibility skills**

Mapping the 5 Domains

Program Curriculum Team:

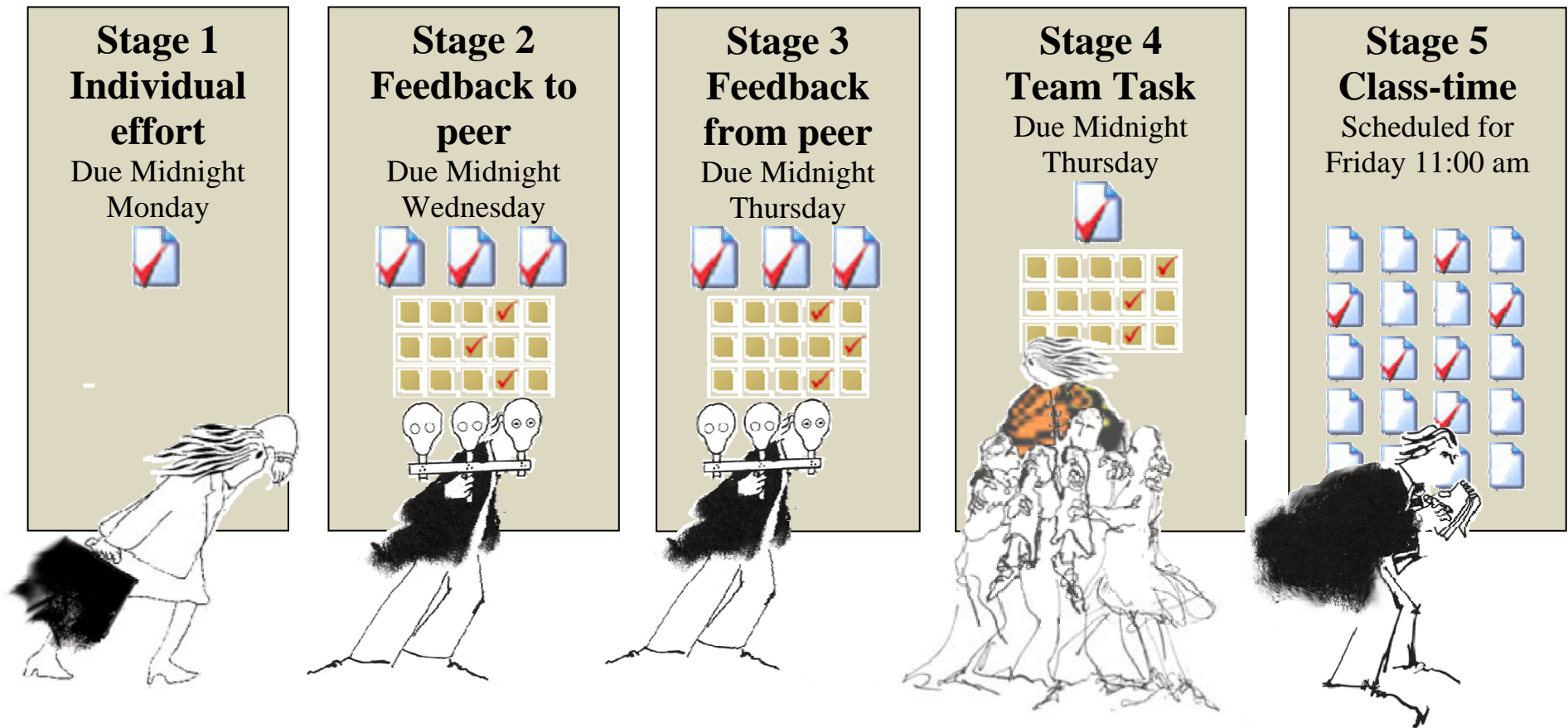
1. Maps learning outcomes of program
2. Match program learning outcomes to courses

Course Instructor:

- 3: Map course learning outcomes to required program outcomes
4. Define weekly learning activities



A weeks learning activity (5 stages)



Learning Activity Stage 1 of 5

Individual effort

Task: Thailand's history is preserved in many historical sites. For each of the six regions of Thailand, identify two historical sites and describe their origins and role each site played in society at that time in history.

Resources

Ancient Capitals of Thailand 1990 (chapter II)

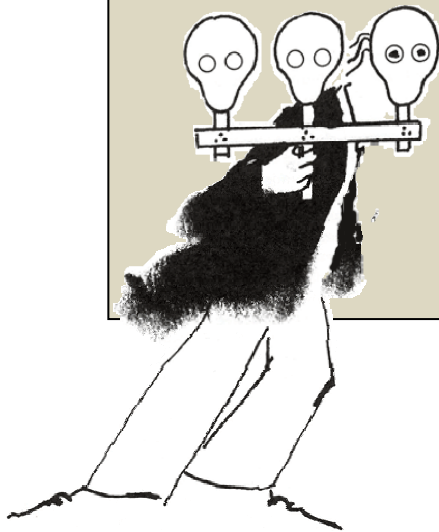


Learning Activity Stage 2 of 5

Feedback to your peer

Task

1. Review peer submission
2. Provide constructive feedback to peer.
2. Assess the effort peer made.

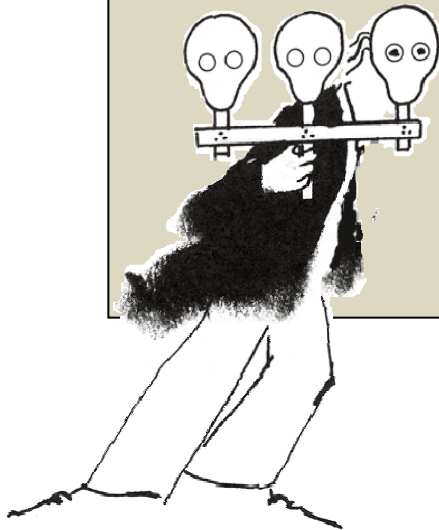


Learning Activity Stage 3 of 5

Feedback from your peer

Task

1. Review feedback peer gave you.
2. Assess effort peer made in giving you feedback.



Learning Activity Stage 4 of 5

Team effort

Task

1. As a team, agree on an historical site that's had the biggest impact to change for Thailand; plus its effect on present day Thailand.
2. Assess the effort each of your team members made in team task.

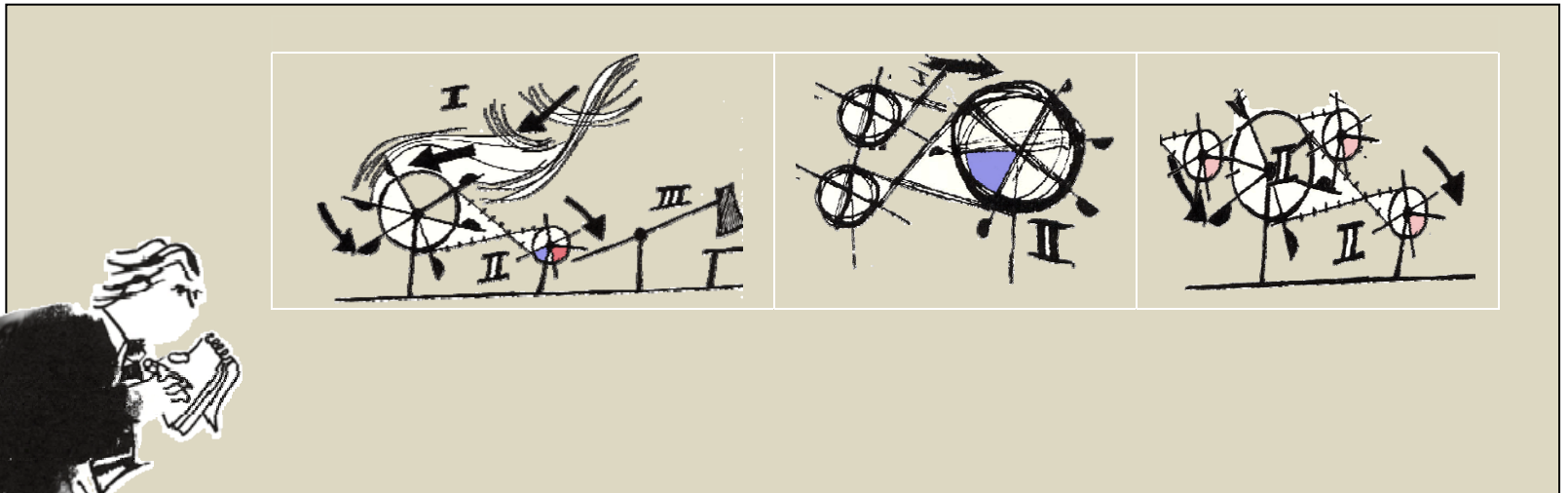


Learning Activity Stage 5 of 5

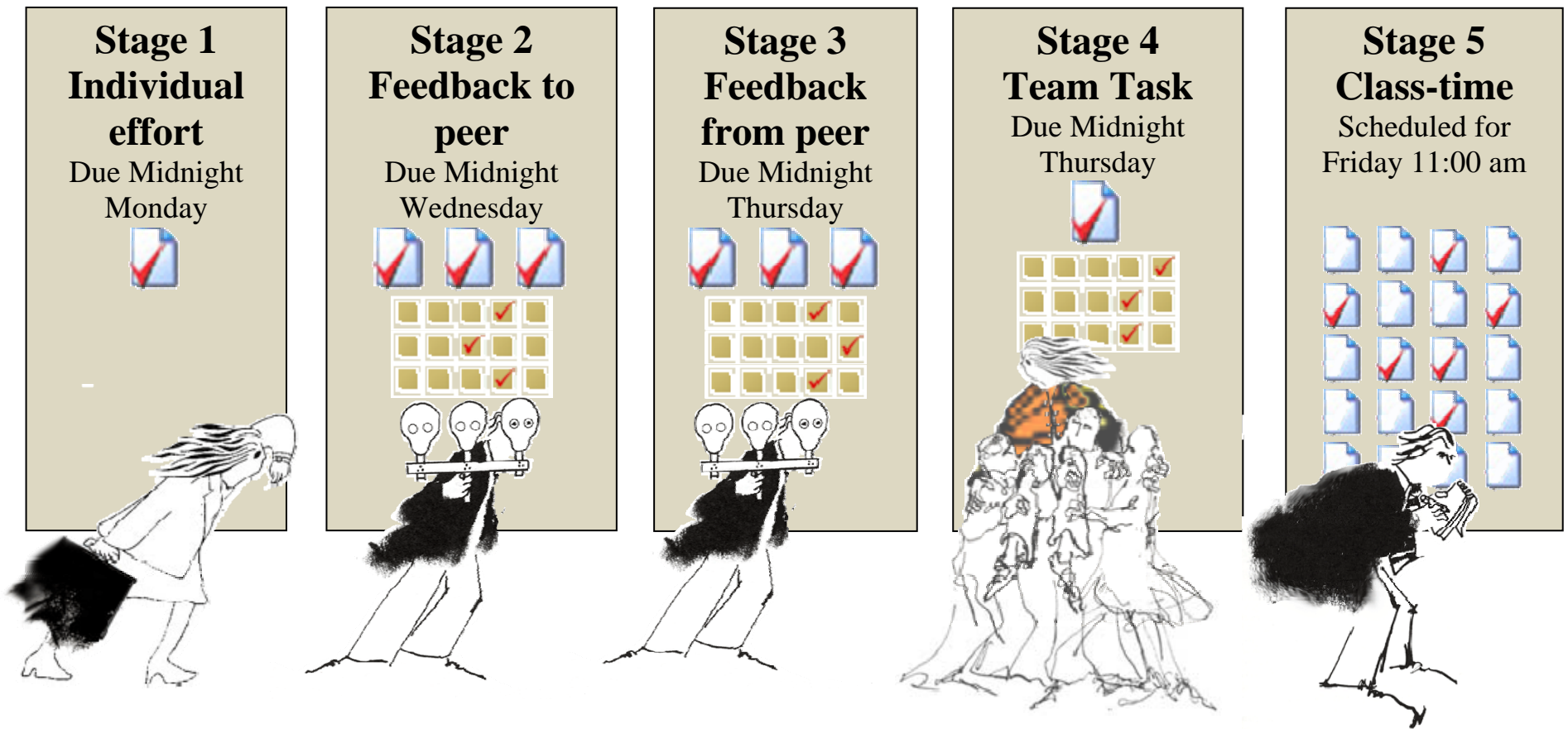
Instructor time

Task

- 1. Review a sample of team submissions*
- 2. Meet face-to-face or virtual or both for 1 hr.*

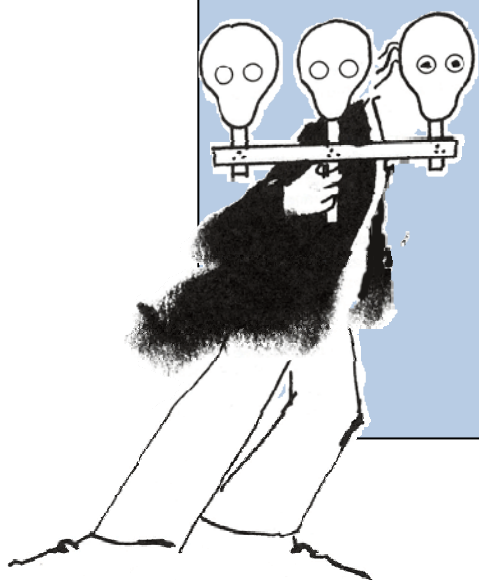


A weeks learning activity (5 stages)



Assessment of effort

Each week a student is assessed on their effort by 9 different peers



Learners Task 1

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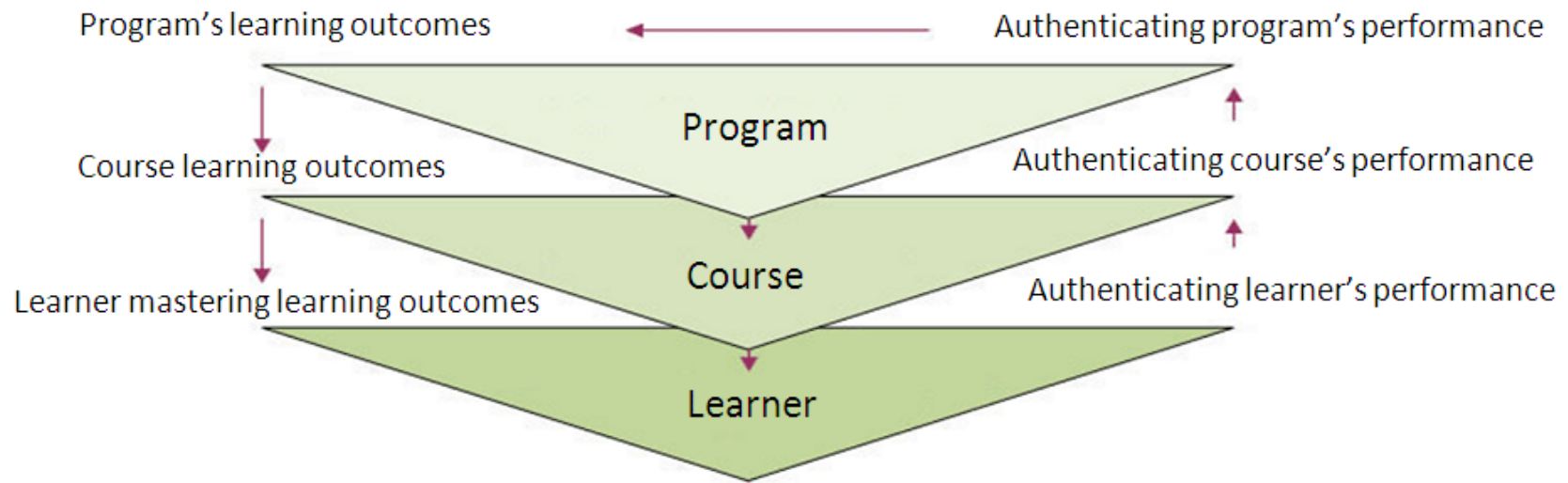
Learners Feedback to their Peers

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Team Task

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Monitoring & authenticating performance of 5 domains at program, course & student level



Program Outcome

Home

Programs



Program Learning outcome
Performance to-date



Learning Performance Outcome

Learning outcome

Program Domain

Filter

Week 5 of 12

Number of Courses 86

Number of Students 234

Performance outcome

View/Edit weight across program

View/Edit weight by course

Learning outcome	Performance outcome	View/Edit weight across program	View/Edit weight by course
Cognitive			
Communication			
Inter-personal			
Ethical and moral			

Course Outcome

Home



Course Learning outcome
Performance to-date
287 students **Mastery** 72%

Learning Performance Outcome			
Outcome by Course Filter	Filter Week 5 of 12 Students 278		
Cognitive	Performance outcome	View/Edit weigh of program requirements	View students
1.1			
1.2			
1.3			
1.4			
Teamwork			
Communication			
Ethics/Moral			

Student Outcome

Home



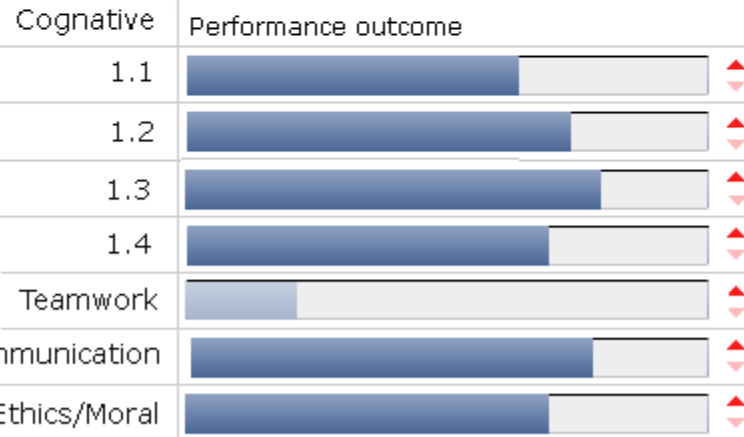
Student Learning outcome
Performance to-date



Learning Performance Outcome

Outcome by
Course

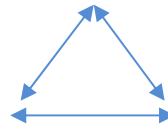
Filter
Week 5 of 12
Course Linear Algebra 223



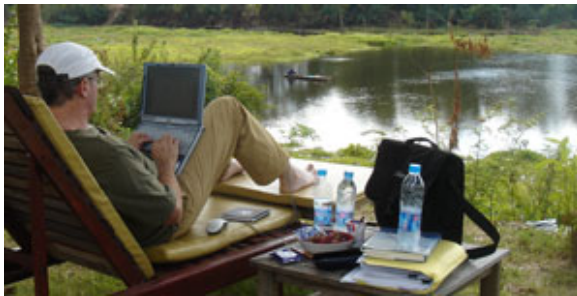
Teaching without Lectures = Mobile Learning

UBU
Mobile Learning
'One course- one instructor'

300 rural



300 on-campus



Potential

UBU has the potential of offering programs that are academically more successful than similar programs offered at the top universities in Thailand.



Teaching without Lectures = Mobile Learning



**Leslie Richards lgrichards@uwaterloo.ca
Phichit Sophakan sphichit@ubu.aci.ac.th**