How does your digital pedagogy transform your students’ learning?

A discussion led by Angie Popova, PhD
American University of Central Asia

AMICAL 2020
Bloom’s Taxonomy

- **Remember**: Recall facts and basic concepts
  - define, duplicate, list, memorize, repeat, state
- **Understand**: Explain ideas or concepts
  - classify, describe, discuss, explain, identify, locate, recognize, report, select, translate
- **Apply**: Use information in new situations
  - execute, implement, solve, use, demonstrate, interpret, operate, schedule, sketch
- **Analyze**: Draw connections among ideas
  - differentiate, organize, relate, compare, contrast, distinguish, examine, experiment, question, test
- **Evaluate**: Justify a stand or decision
  - appraise, argue, defend, judge, select, support, value, critique, weigh
- **Create**: Produce new or original work
  - design, assemble, construct, conjecture, develop, formulate, author, investigate
Survey
“And? Have they learnt anything?”
True or false?

1. Reducing class size is one of the most effective ways to increase learning [evidence]
2. Differentiation and ‘personalised learning’ resources maximise learning [evidence]
3. Generous praise encourages learners and helps them persist with hard tasks [evidence]
4. Technology supports learning by engaging and motivating learners [evidence]
5. The best way to raise attainment is to enhance motivation and interest [evidence]
Poor Proxies for Learning
(Easily observed, but not really about learning)

1. Students are busy: lots of work is done (especially written work)
2. Students are engaged, interested, motivated
3. Students are getting attention: feedback, explanations
4. Classroom is ordered, calm, under control
5. Curriculum has been ‘covered’ (ie presented to students in some form)
6. (At least some) students have supplied correct answers (whether or not they really understood them or could reproduce them independently)
Impact vs cost

Most promising for raising attainment

Feedback
Meta-cognitive
Peer tutoring
Homework (Secondary)
Collaborative
Phonics
Social
Homework (Primary)
Ability grouping
Performance pay
Small group tuition
Individualised learning
ICT
Behaviour
Parental involvement
Summer schools
Mentoring
Aspirations
Teaching assistants
After school
Early Years
Smaller classes
1-1 tuition

Cost per pupil

Effect Size (months gain)

May be worth it

Small effects / high cost

Durham University

www.educationendowmentfoundation.org.uk/toolkit
Central Asia

- Role of industry
- Changes in curriculum
- Self-learning
- General Knowledge
- Language and communication skills
- Experiential learning
- Digital Literacy
- Personal skills/values
- Leadership
- Teachers’ qualification
- Creative thinking
- Critical thinking
- Emotional intelligence
- Career
- Humanities
- Motivation
What will farming look like on Mars?

One of the major difficulties in colonising Mars is the fact that there is no form of life and very little water on the planet. 

Photo credit: Felix Stoklosa
LTEM: Learning-Transfer Evaluation Model

Tier 8: Effects of Transfer
Tier 7: Transfer
Tier 6: Task Competence
Tier 5: Decision-Making Competence
Tier 4: Knowledge
Tier 3: Learner Perceptions
Tier 2: Activity
Tier 1: Attendance

Work

Learning

Developed by Will Thalheimer, PhD with Help from Others