

ACTIVE LEARNING THROUGH IMPROVED INTERACTIVITY

Lectures - Live & Virtual Properties and disadvantages

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Common myths



- **everybody** knows and understands what is lecture
- lecture is the **best teaching method**
 - for everything
- there is **nothing wrong** with lectures

Let's describe what a lecture is

Lectures - definition



An **oral, continuous**,
in most part **one-way** presentation
intended **to teach**
the audience of **multiple** students
who possess **lesser** knowledge of the subject
than the instructor.

- the **oldest** teaching method/technology
- still **dominant**, at all levels of education
– but especially in higher education



Effectiveness of lectures



Comparison of effectiveness of lectures and other teaching methods in **transmitting information** to students

Teaching method	Lectures are less effective	No significant difference	Lectures are more effective
Personalized instructions	20	17	8
Discussion	18	54	22
Reading & independent study	10	21	9
Enquiry (e.g. projects)	6	6	3
Other (audio, TV, CAL)	27	57	20

D. A. Bligh, *What's the use of lectures?* Intellect Books, 1998.



Effectiveness of lectures (2)



Comparison of lectures and other **thought promotion** methods

Teaching method	Lectures are less effective	No significant difference	Lectures are more effective
Discussion	29	1	2
Reading & independent study	1	3	1
Enquiry	5	1	1
Other	12	17	0

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Lectures - definition



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- the **oldest** teaching technology
- still **dominant**, especially in higher education
- likely to **continue to be**
extensively used for **years to come**



Think of a lecture's benefits as a teaching method

Lectures-benefits/drawbacks ... (1)

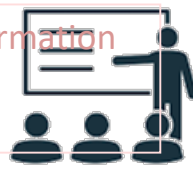


- multimodal information
 - auditory
 - accent, melody, strength, timing, tempo, dynamics...
 - words, sounds, music...
 - visual
 - text, drawings, pictures, film, animations...
 - artifacts, experiments...
 - body language, mimics, signs, clothing...
- **miss-used** multimodality
 - multimodal information should be presented **carefully**
 - often is presented **crowded**
 - due to the lack of time
 - results in **cognitive overload**
 - **diverting** attention
 - **preventing** comprehension
 - **reducing** or disabling learning



Lectures-benefits /drawbacks ... (2)

- multimodal information
- ...



- motivating
 - always conveys emotions
 - emotions, mood, energy
 - transfer of energy
 - contact, activation, influencing
 - changes audience's emotions
 - adds to the content
 - meaning
 - importance
 - personal attitude
 - focus
 - the ambient
 - immerses
 - seduces
 - invites
- to increase motivation
 - requires from **teacher**
 - **capability**
 - subject matter knowledge, skills, experience
 - presentation competence
 - **conditions**
 - health, sufficient rest and strength
 - peace of mind: no worries, problems, conflicts
 - concentration, self-motivation
 - requires from **student**
 - interest
 - (active) learning competencies
 - conditions
 - prerequisite knowledge

Lectures-benefits /drawbacks ... (3)



- interactions

- student <-> **teacher**

- feedback – verbal, non - verbal
 - (re)directs the course of the lecture
 - modulates the dynamics of the lecture
 - defines stress points
 - provokes examples

- student <-> **student**

- discussion
 - reactions
 - atmosphere

- **missed opportunity** for interactions

- due to **limited time**
 - **intimidation**
 - lack of **concentration**
 - lack of **knowledge**
 - cultural **differences**
 - distractions from the **environment**

Lectures-benefits ... (4)



- multimodal information
- motivating
- interactivity
- ...

- directing **attention**
- subjective, personal
 - interpretation
 - meaning
 - shedding the new light – new angle
 - instilling guidelines
 - highlights

Think of a lecture's drawbacks as a teaching method

Lectures-drawbacks ... (5)



- **temporal constraints**
 - forced scheduling for
 - lecturer
 - students
 - limited time for
 - comprehension
 - transfer of knowledge (exercise)
 - asking & answering questions
- **spatial constraints**
 - same time – same space constraint
- **limited capacity**
 - poor scalability
 - best for small audience

- multimodal information
- motivating
- interactivity
- directing attention
- subjective, personal
- ...

Lectures-benefits/drawbacks-conclusion



- multimodal information
- motivating
- interactions
 - student <-> teacher
 - student <-> student
- directing attention
- subjective, personal

- misused multimodality
- poor motivation
- missed opportunity for interactions
- constraints
 - temporal
 - spatial
 - limited capacity

Lectures-drawbacks => conclusion



Intrinsic deficiencies of lecture as a teaching method independent from the **subject** and the **lecturer**

- misused multimodality
- motivation requirements
- missed opportunity for interactions
- constraints
 - temporal
 - spatial
 - limited capacity

The need:

- avoid drawbacks
- compensate drawbacks
- complement lectures

The need



- prepare students for lecture
- provide sufficient additional information
 - to the one being delivered by lecturer
- reduce need to transcribe from blackboard
- activate learning by:
 - asking questions
 - inviting discussion (in pairs, groups ...)
 - giving (short) assignments
- **enable and stimulate interactivity**
 - students ask questions
 - give answers



How are virtual lectures different from live lectures

Virtual lectures



Advantages

- No overhead (travelling ...)
- no need for same time same place
- can be done from any place

- scallable - unlimited audience
- Lecture capturing with little effort

Drawbacks

- Difficult to motivate to really participate
- Lack of physical „feeling” of audience
- Limited audience feedback
- Difficult to follow all members of audience
- Lack of audience’s interaction
- Requires technical skills
- Requires „juggling” with tools
- Technical issues
- high dependence on technology



The conclusion



- lectures are **NOT** the best teaching method
 - for any need
- they have deficiencies
 - that **HAVE** to be compensated
- very important is to facilitate **interaction**
- ICT can significantly aid and improve interaction





Life Long Learning Akademija



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