

Teaching or Learning?

It is an *absurdity* that
the science of behavior

is not using
the science of behavior

to teach and promote
the science of behavior

Welcome!

**Get yourself a good seat up front
You dont wanna miss out on this**

Teaching or Learning?

Applied

Behavioral

Analytic

Technological

Systematic

Effective

General

Teaching or Learning?

A_{pp}lied

B_{ehav}ioral

A_{nal}ytic

T_{echno}logical

S_{yste}matic

E_{ffect}ive

G_{ener}al

Teaching or Learning?

A

B

A

T

S

E

G

Teaching or Learning?

Teaching or Learning?

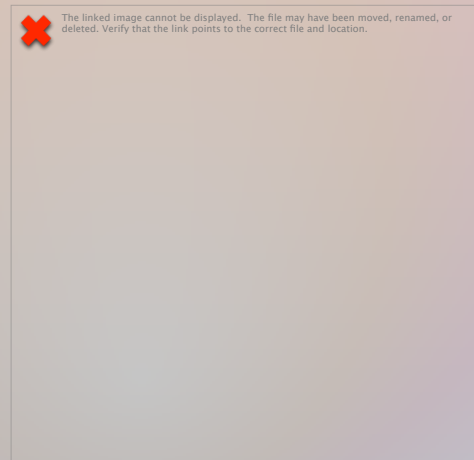
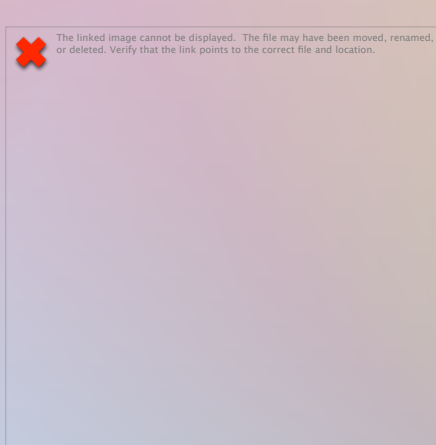
Despite heavy empirical data to its lack of efficiency, lectures and papers are still the norm for presenting material, both among teachers, scholars and researchers, and also within the ranks of applied behavior analysts. The consensus seems to be that the more you bore your audience, the more “scientific” you are.

This “lecture” aims to change the behavior of the attending participants (hopefully teachers, scholars and professors at all levels), by arranging different learning situations using empirically evidenced methods. The difference between teaching and learning is illustrated both theoretically and practically, and should inspire to a more REAL scientific approach of how to present material and arrange for learning, whether in a classroom or at a conference.

It is a big problem that slides often hold too much text, or that the text is broken up by (fictional reference: Nilsen, 2014) references. Often there will be sentences of extreme length, with a lot of commas and inserted comments (or parentheses to elaborate on the meaning of the inserted sentences), and if the text in addition is of a small fontsize (to get room for all the inserted sentences with commas, and the elaborating parentheses), it can be really hard for a student (or a participant at a conference, or any other person that is presented to the presentation) to figure out what is actually the message of the text.

Teaching or Learning?

Some lecturers use less text than others, and bigger fonts and some have found that they can enliven and brighten their presentation by presenting the text bit by bit! Some will put in flowers or other nice pictures or color **important** words.



Teaching or Learning?

As if all this would not be sufficient to prevent the average student from attending lectures, in addition to these slides with too much text, endless sentences, inserted parentheses and annoying references, the presenter often reads out his slides. At his very own pace and possibly in a mesmerizing voice. And with small, clever improvisations over discrete words in the text, something that will confuse the participants to a large extent: Are they supposed to read or to listen*; or both, at the same time?

*Skinner, B. F. (1989). The behavior of the listener. I: S. C. Hayes (Ed.), *Rule-governed Behavior: Cognition, Contingencies and Instructional Control*, p. 85-96. New York: Plenum Press.

Teaching or Learning?

- Aims for this lecture -

- You can claim that teaching is not learning (and why!)
- You will have had a little hands-on-experience as a student in an arranged learning situation (maybe got a few ideas?)
- You will know where to get help with arranging learning situations (should you ever need it)

- (You will also be able to shout 10:80:10)

Theoretical part

The first big question:

- **What is Teaching?**

Theoretical part

- Teaching -

To **give** instruction or training

(Oxford Student's Dictionary)

To **cause** or **help** someone to learn

(Merriam-Webster)

To **impart** knowledge or skill

(Dictionary.com)

Theoretical part

- Teaching -

To give i

To cause

To impa



dent's Dictionary)

learn
Merriam-Webster)

(Dictionary.com)

Theoretical part

- Teaching -

To give i

To cause

To impa



dent's Dictionary)

learn

Merriam-Webster)

(Dictionary.com)

Its all done by the teacher!

Theoretical part

- Teaching -

Teaching
is something
done by the
teacher!

Theoretical part

The second big question:

- **What is Learning?**

Theoretical part

- Learning -

- Establishing new behavior
- Changing existing behavior

Theoretical part

- Learning -

- Establishing new behavior ←
- Changing existing behavior ←

Theoretical part

- Learning -

- Establishing new behavior ←
- Changing existing behavior ←

Its all about behavior!

Theoretical part

- Learning -

- Establishing new behavior ←
- Changing existing behavior ←

Its all about behavior

Learning is something
the student does!

Theoretical part

- Learning -

Learning
is something
done by
the student!

Theoretical part

- 1. Summary -

- Teaching is done by **the teacher**
- Learning is done by **the student**



20TH CENTURY

HEROES of SCIENCE

VOLUME III

FAQ: <http://heroesofscience.colonpipe.com/>

ACTION FIGURES

B. F. SKINNER

Born: 1904 Died: 1990

Psychologist, behaviourist, author, inventor, social philosopher

Known for: **Operant conditioning, "Radical" behaviourism, Air crib, Cumulative recorder, Pigeon-guided missile, Verbal summator**

"Education is what survives when what has been learned has been forgotten."

- B. F. Skinner

Created by Russell Gawthorpe

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Its all about behavior!

- Note on mentalism -

Behavior (ie. both teaching and learning) is established, changed and maintained by **reinforcement**

(not by your ego, beliefs, talents, features, self, mind or will!)

Theoretical part

- 10:80:10 -

- Presentation
- Repetition
- Retention

Theoretical part

- 10:80:10 -

- Presentation - 90%
- Repetition - 0%
- Retention - 10%

Theoretical part

- 10:80:10 -

- Presentation - 10%
- Repetition - 80%
- Retention - 10%

Theoretical part

- 2. Summary -

- Teaching is done by **the teacher**
- Learning is done by **the student**
- Presentation, Repetition and Retention
- 10:80:10!

10 : 80 : 10

Practical part

- Empirically evidenced methods -

- Precision Teaching (Ogden R. Lindsley)
- Direct Instruction (Siegfried Engelmann)
- Modelling (Albert Bandura)

Practical part

- Precision Teaching -

TIMINGS CHART

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BOX 3351 KANSAS CITY, KS 66103-3351

Tpmin-3EC

MONTH / DAY _____ YEAR _____
SLICE / LESSON _____
START hr : min _____
STOP hr : min _____

SUCCESSIVE TIMINGS

1 10 1 10

COUNT PER MINUTE

500
100
50
10
5
1
.5
.2

COUNTING FLOORS

TIMES 2
10 TIMINGS

10 sec
15 sec
20 sec
30 sec
1 min
2 min
3 min
5 min

SUPERVISOR _____ ADVISOR _____ MANAGER _____ PERFORMER _____ COUNTED _____
ORGANIZATION _____ DIVISION _____ ROOM _____ TIMER _____ COUNTER _____ CHARTER _____

Practical part

- Precision Teaching -

- Get together in groups of 3 and spread out in the room
- One is Teacher, one is Student, one is Observer
- Start with the paper with the flower names written beneath
- Teacher points at random picture
- Student says the flower name
- Observer keeps score

Practical part
- Precision Teaching -

And go!

Practical part

- Direct Instruction -

Retention of the main 7 points in a basic scientific paper within the field of behavior analysis:

Baer, Wolf & Risley (1968).

Some current dimensions of applied behavior analysis.
Journal of Applied Behavior Analysis, 1, p. 91-97.

Practical part

- Direct Instruction -

A

B

A

T

S

E

G

Practical part - Direct Instruction -

A_{pp}lied

B_{ehav}ioral

A_{nal}ytic

T_{echno}logical

S_{ystematic}

E_{ffect}ive

G_{eneral}

Practical part

- Direct Instruction -

Practical part

- Modelling -



Practical part

- Precision Teaching -

Retention for the flowerpeople



Practical part

- Precision Teaching -



Practical part

- Precision Teaching -



Practical part

- Precision Teaching -



Practical part

- Precision Teaching -



Teaching is done by
the teacher

Learning is done by
the student

Thank you for your attention
- Have a nice day -

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