Notes on teaching

Workshop for professionals and future teachers
WP2/2.3
Uzice (Zlatibor)
November 2013

SCENTEC
DEVELOPMENT & IMPLEMENTATION
OF COURSES FOR THEATRE
TECHNICIANS & STAGE MANAGERS
Tempus

What / who this course is meant for

- Practical training
- Teached
  - By practitioners
  - For practitioners

At the end we should be able to

- Understand our target groups and how they learn
- Explain competence principles and implement them in course structures
- Develop course material

Who we are

- Practical skills / practice experience
- Fields (sound, light or stage)
- How do we define the fields

Schedule Day 1

- Morning (3h)
  - A bit of training history (including reflections on assignment nr 3)
  - Competence
  - (including reflections on assignment nr 4)
  - (including evaluation of own competence list)

- Exercise on writing competence

Schedule day 1

- Afternoon (2h)
  - Evaluation competences written
  - How do we learn

- Evening / open session
  - Overview of past projects

Schedule day 2

- Morning (3h)
  - How do we deal with information? (including reflections on assignment nr 2)
  - Developing teaching materials
  - Exercise developing teaching materials
  - (based on assignment nr 2)

Schedule day 2

- Afternoon (2h)
  - Presentation of exercises
  - Discussion
  - Assignment for future

- Evening / open session
  - A view on H,S&S

A bit of training history

How have we been trained
in the past

A bit of training history

- Theatres exist over 2000 years
- Training exists max. 50 years

- How have we been trained before?
- What has changed?
- How can we learn from that?

?

- How have you been trained?
- How did you develop your skills?
- What was missing?
- How did this affect your skills?

How have we been trained in the past?

Father to son

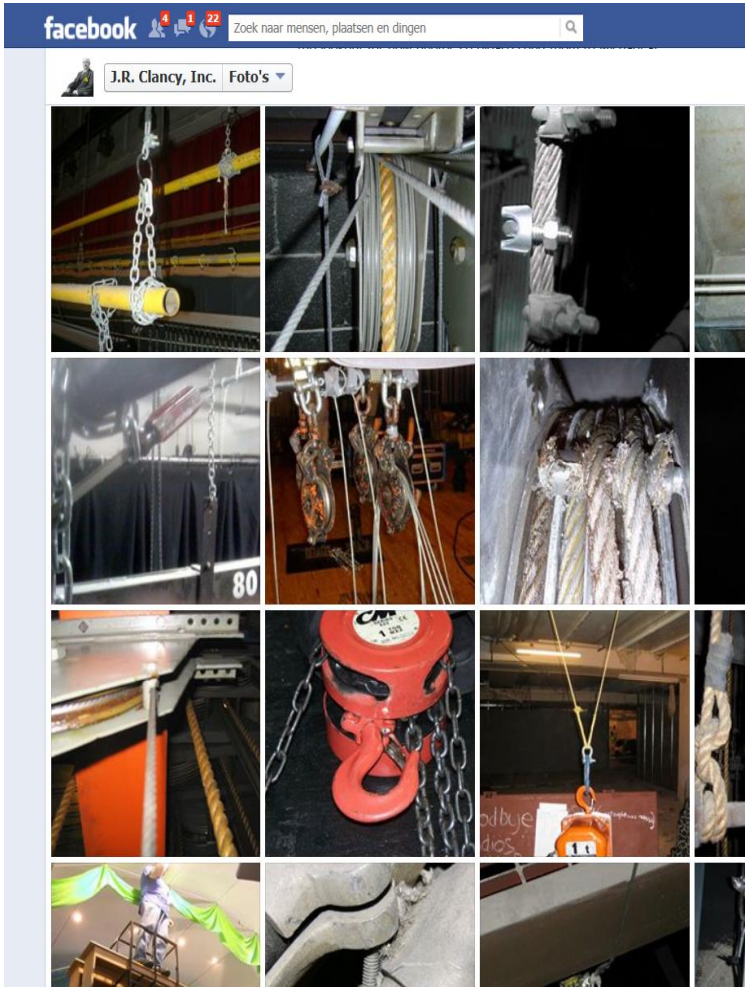
- Father to son
- Master – apprentice

- Hands on
- Step by step initiation

- Limited to one place, one system
- Risk for teacher

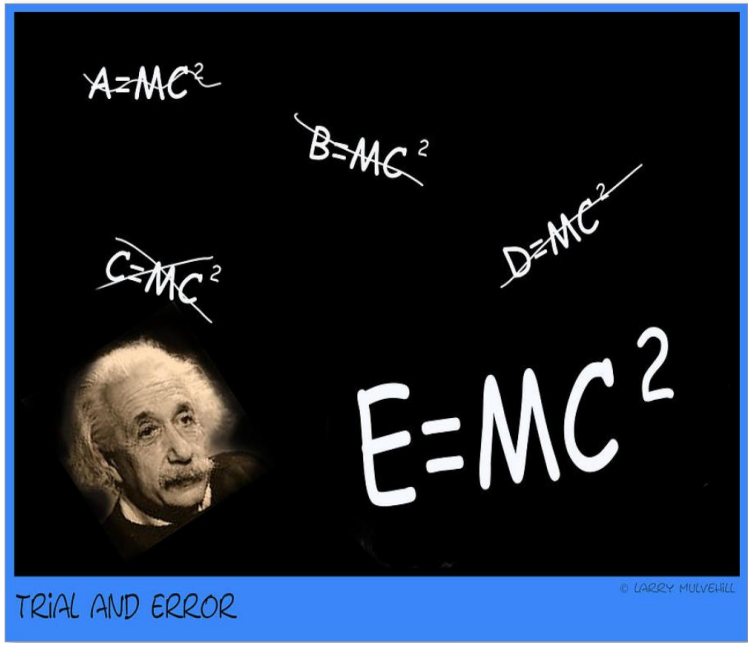
Cowboy stories

- Oral tradition
  - Accidents
  - Performance problems
- Modern version:
  - Forums
  - Facebook



Trial and error

- RTFM
- Who reads the manual?
- Follow instinct
- Follow logic



Traveling

- “Stealing with your eyes”
- Confrontation with other methods, cultures, countries, houses, …
- Question your practice
- Knowledge travels, we call it “good practice”

Input from other sectors

- Sailing industry > ropes and fly systems, Fresnell
- Military > wireless, PA, lighting
- Industry > chain hoists
- Building industry > layer and scaff

Example

- I have a problem
- What is the essence?
- Who else could have this problem?
- How did they solve it?
- Can I adapt this solution to my situation?
- What is missing?

- I need to build a set with a first floor balcony to be able to go on tour
- I need to build a large stable temporary construction to stand on. It has to be compact and build fast
- Building industry needs temporary constructions to work on
- They use scaffolding
- We could use scaffolding
- But it is rough and there are holes that make it not suitable to walk on without watching
- We need to adopt the surface

Asking colleagues

- Who has done this before?
  (who had this problem before?)
- Inspiration, not copy

- Needs
  - Network
  - Openness
  - Sharing information

Books

- Technicians don't read
  They look up things when they need them

- Needs
  - Distribution
  - Available on the spot


PRATICA
DI FABRICAR SCENE,
E MACHINE NE' TEATRI
DI NICOLA SABBATTINI
DA PESARO
Già Architetto del Sereniſſimo Duca Franceſco Maria Feltrio della Rouere
Vltimo Signore di Peſaro.
Riſtampata di nouo coll' Aggiunta del
Secondo Libro.
All' Illuſtriſſ. e Reuerendiſſ. Sig. Monſig.
HONORATO VISCONTI
Arciueſcouo di Lariſſa della Prouincia di Romagna,
& Effarcato di Rauenna Preſidente.
CON PRIVILEGIO.
Libro di mé Caualiere dei
Antonio Fleming
IN RAVENNA, Per Pietro de' Paoli, e Gio. Battiſta Giouannelli
Stampatori Camerali 1638. Con licenza de' Superiori.

Based on real problems

- The need to solve a problem
- The need for an artistic solution

- Needs
  - "nothing is impossible" attitude
  - Engagement
  - Real environment
  - Contact with artists

Formal nonspecific education

- In other fields
- Knowledge and skills of technicians are
  - Wide
  - Not deep
- Deep enough to know what and who to ask

Background knowledge and intuition

- Background limited
- Can be “felt” , common sense and logic

- Math calculation
  vs.
  supported calculated guess

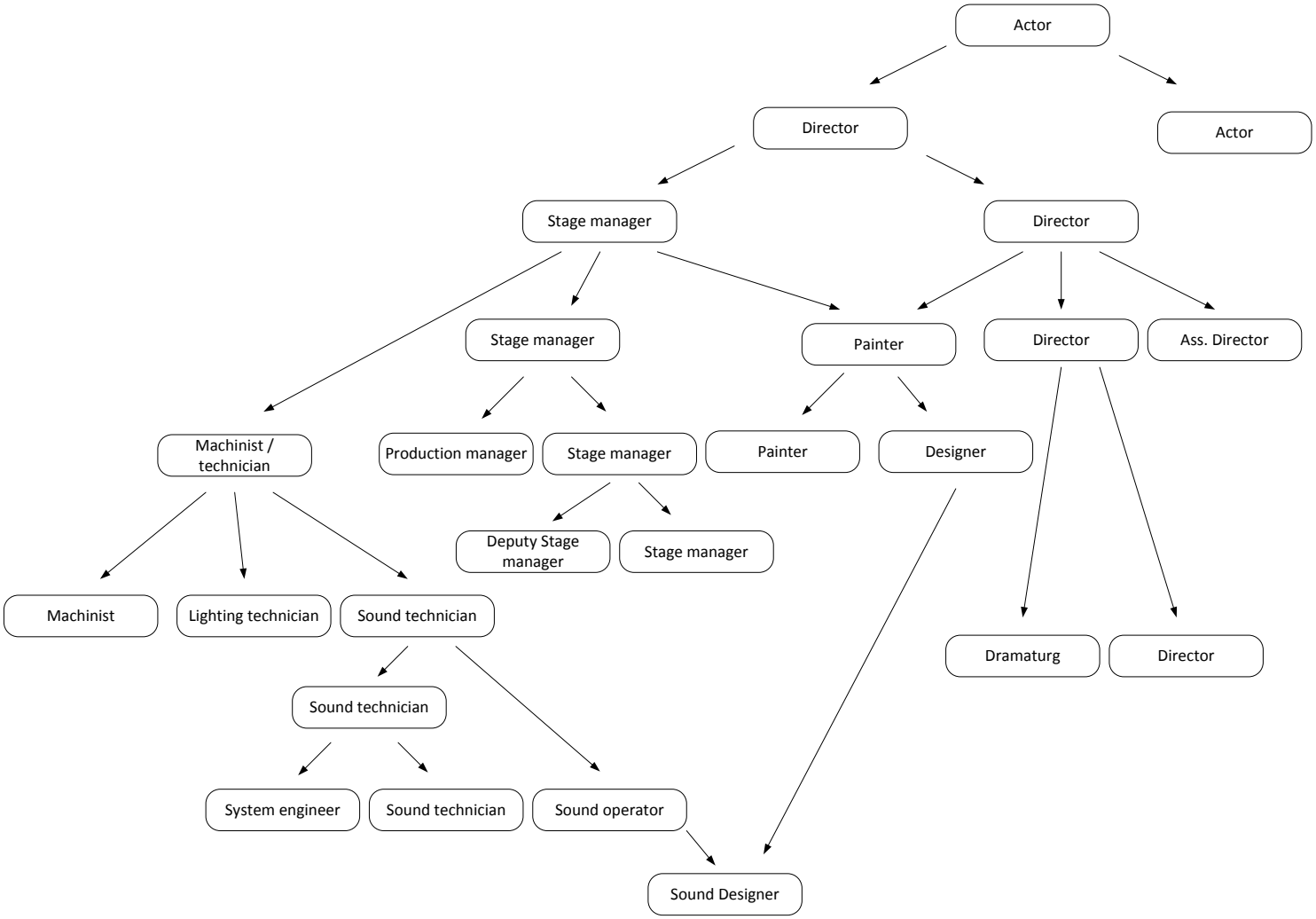
How have we been trained?

- Father to son
- Cowboy stories
- Trial and error
- Traveling
- Input from other sectors
- Asking colleagues
- Books
- Based on real problems
- Formal nonspecific education
- Background knowledge

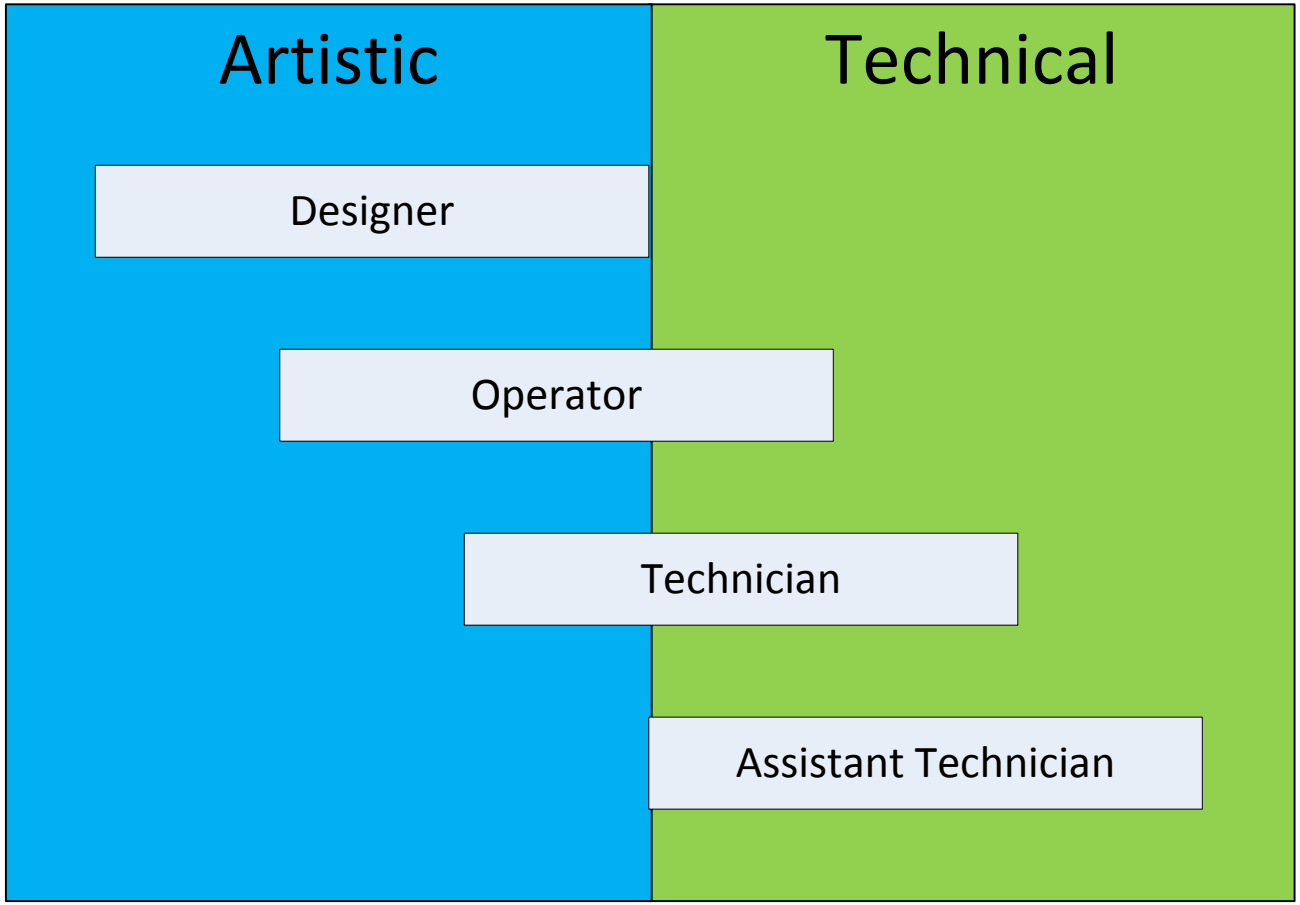
?

Knowledge Formal education	**Knowledge In Field**
Skills Formal education	**Skills In Field**

Development of occupations



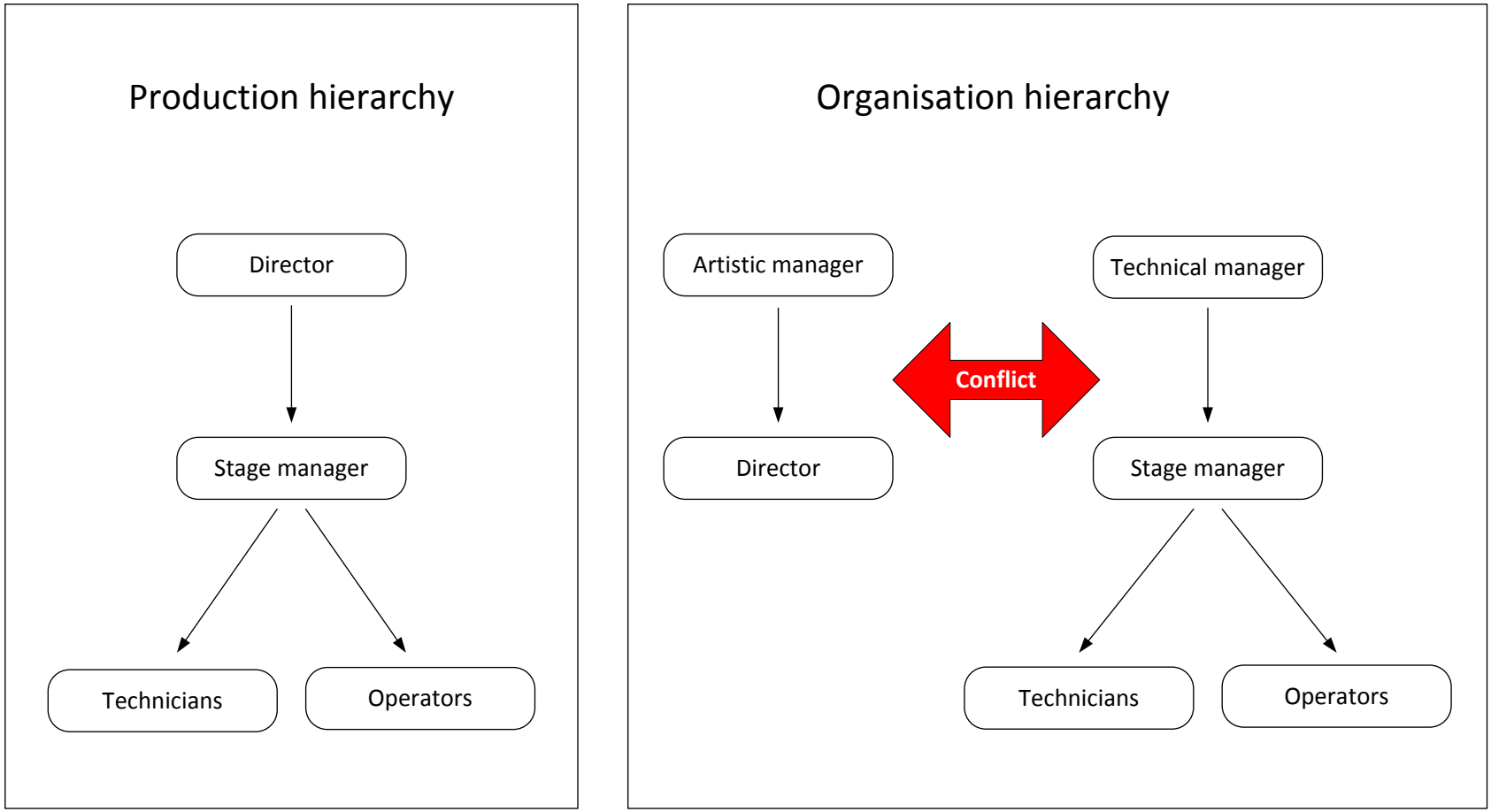
Field swap


Artistic
Technical
Designer
Operator
Technician
Assistant Technician

Change

- Operation becomes more important
  - Better interface
  - Time becomes more important
  - Playing along

Organisational conflicts



What changed?

- Between 1940 and now

More complex technology

- Old
  - Follow a wire, follow a rope
  - Understand
- Electricity
  - Compare with water
  - Still physical connections
- Electronics
  - Still relation with physical connection

More invisible technology

- Electricity
  - Resistance dimmer
- Electronics
  - 1-10 V control
- Digital
  - DMX
- Virtual
  - Network

Generations of technology follow each other faster

- Disk
- Reel to reel
- Audio casette
- DAT
- MD
- CD
- DVD
- Memory stick

Health, safety and sustainability

- Changed insights
- Liability

Smaller crews

- Less competence in house
- Specialities are outsourced
- Less learning opportunities

- Less time to learn
- Less time to train

Fields become wider

- Audio
- Video
- Moving light
- Automated movement
- Interactivity

Jobs become less all-round

- More specific
- From wide to deep
- Example:
  - Stage manager = chose a record
  - Sound technician = splicing reel to reel
  - Now ? (sound operator, wireless specialist, …)

More freelance workers

- No permanent crew around you
- Why invest in their training?

Quality reference of the audience changes

- TV
- Movies
- 3D

- Expectations of image

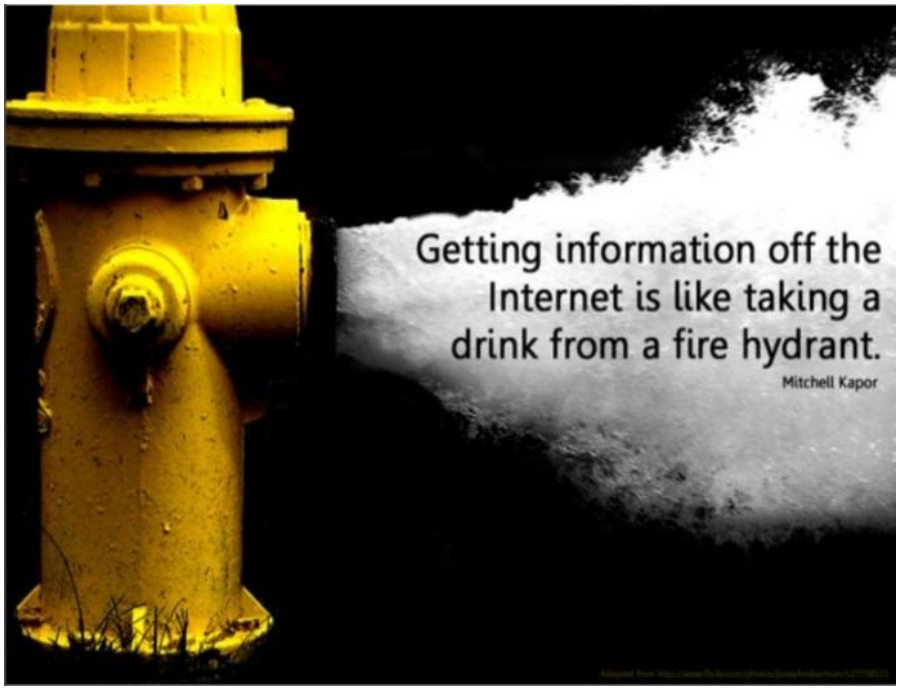
- It becomes harder to fascinate people

Involvement in the artistic product

- If operator wants to play along, to interact with the actors, they need an interface to do so

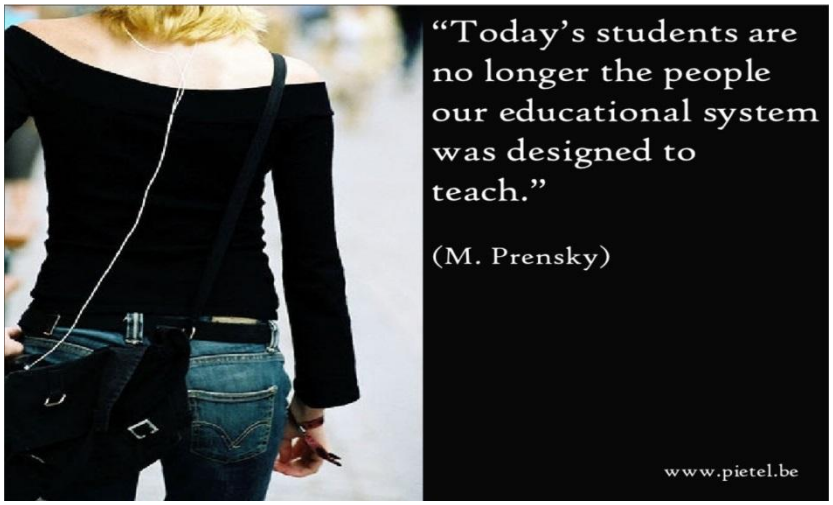
- The better the interface, the more artist skills needed
- From technical to artistechnical

Access to information



The world has changed

- The students of today
- are trained by the teachers of yesterday
- with methods from the day before
- to solve the problems of tomorrow



What has not changed?

- We still produce an artistic product that relates to an audience
- It is still a hands on job
- We still create new things, things that didn't exist before (that is the essence of theatre)

New needs

- External input of knowledge
- Background, to understand, to adopt
- Underpinning knowledge
- Knowledge management

Knowledge management

- The half value time of information is short

- We don’t train to do something
- We train to survive in the future
- We train to understand things that will occur in the future
  (and we don’t know what they are)

Conclusion

- Don’t lose the advantage of the “old system”
- Let’s develop for the future

Competence

- Being able to
  - Skills
  - (underpinning) knowledge
  - Attitude

    (example: driving a car)

Profiles

- A set of competences = occupation
- In a specific context = function
- Every practitioner is unique
  > unique set of competences

Writing competence

- Generic > advantage of flexibility

- For education or assessment
  > we need to know exactly
  - what to be able to,
  - What to know

- Smallest common denominator

Practical example

- What is the job of a stage tech? (occupation)
  - Loads and unloads sets
  - **Builds sets on stage**
  - Lays dance carpet
  - …

Skills

- Actions
- Practical handling
- Dealing with information

Practical example

- How do you recognize a good stage technician? (for building sets)
  - Uses plan
  - Moves sets
  - Lifts sets ergonomically
  - Asks help if things are to heavy
  - Uses work lights in stead of theatre lights
  - …
  - (these are criteria)

Knowledge

- Underpinning

- Can be independent
  - Theoretical background (Is it really needed?)
  - Agreements to understand each other
  - Good practice and rules

- Can be situational
  - Know local habits
  - Know where to switch the lights on
  - Know the rules

Knowledge

- Knowledge on its own has no value, if you are not able to apply it, it is like a closed book
- Knowledge is underpinning, it supports the skills
- “need to know basis”

Practical example

- What does he need to know to do so?
  - Symbols used in plans
  - Set mounting techniques
  - Ergonomic principles
  - …

Attitude

- Attitude makes the difference between a crane driver and a theatre machinist, they both move objects but the way they do it is different
  - the intention
  - the engagement
  - the feeling
- Attitudes can’t be teached, but can be developed

Practical example

- What attitude does he need for this?
  - Collaborative
  - Efficient
  - H&S aware
  - …

Competence

- Skills > training
- (underpinning) Knowledge > teaching
- Attitude > coaching / developing

Competence

- You need the combination to have the competence, to be able to perform a task in a specific context.

- H,S&S is an integral part of this

- Advantage: based on daily reality and individual needs

Talent

Artistic competences

- Can you teach art?
- Same question as what is art ;-)
- You can’t teach, but you can develop it if “it” is there

Artistic competences

- Do technicians need artistic competence?
- And if so, on what level?
- How does this translate in visible competence?

Artistic competences

- How do we describe “it”
- Most descriptions define all surrounding competence, but fail to describe the core

?

- Write a competence
  - Smallest common denominator
- Define underpinning knowledge
- Define attitudes

Afternoon (2h)

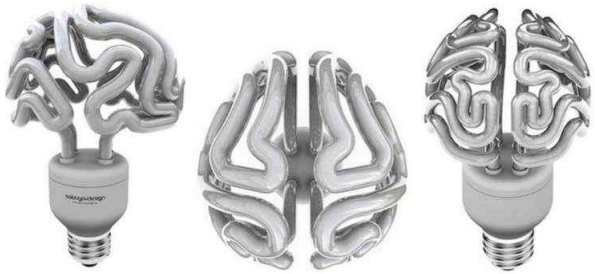
- Evaluation competences written
- How do we learn

Evaluation

?

How do we learn?

- How people learn
- Why they learn (and why not)

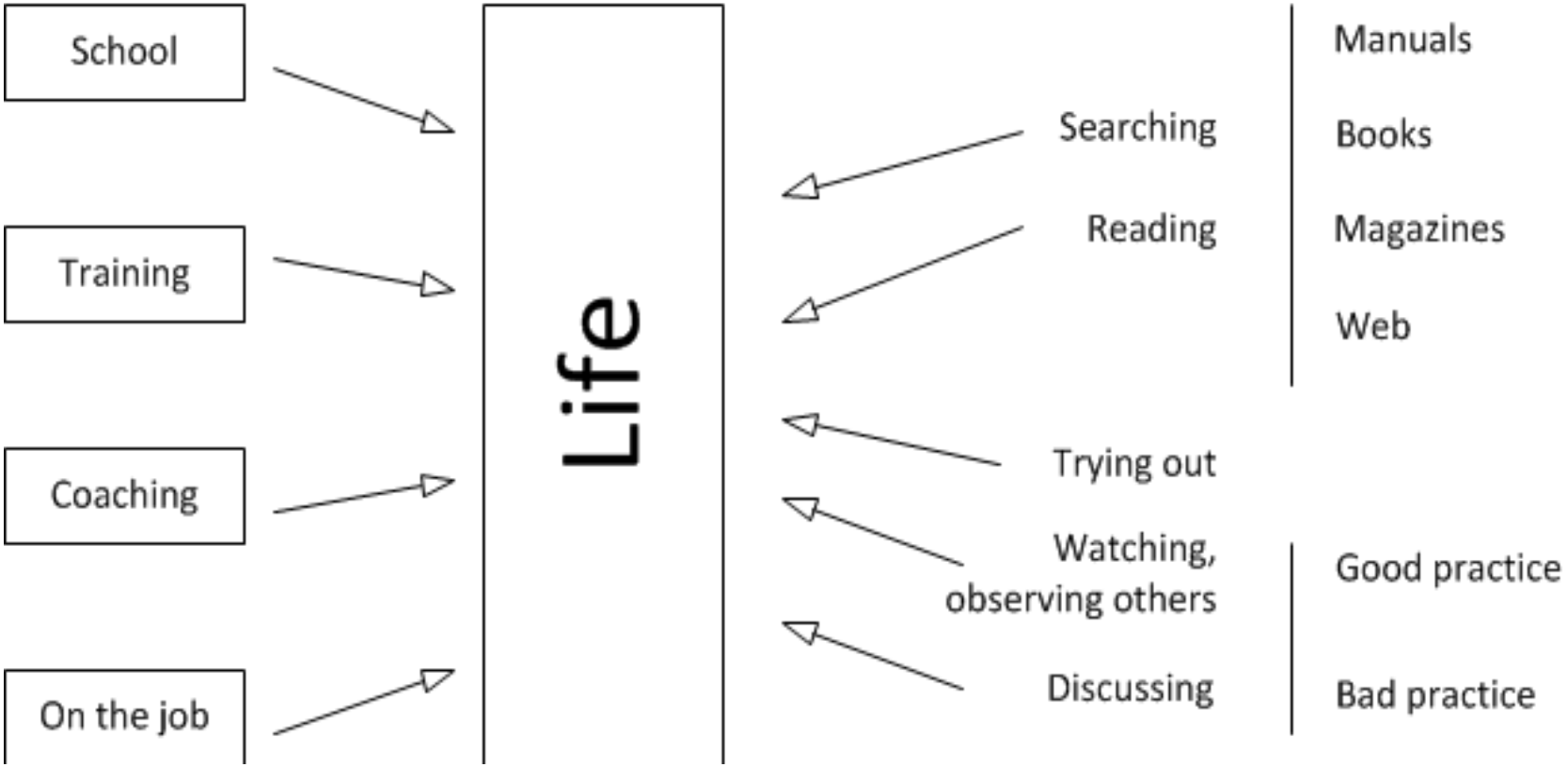


- Differences between different groups / people
- How we can create a better learning culture in an organization or group

Long life learning

- We learn all our life
- Formal education is only a small part of this
- Formal, Informal, non-formal > definitions
- Influenced by our
  - Experiences
  - Hobby's
  - Family, friends
  - Environment

Long life learning



Long life learning

- We absorb all these skills and knowledge
- It makes who we are
- Creates our own unique competence profile

Long life learning

- Every individual has
  - Unique skills
  - A unique background
  - Previous experience
- Use it!

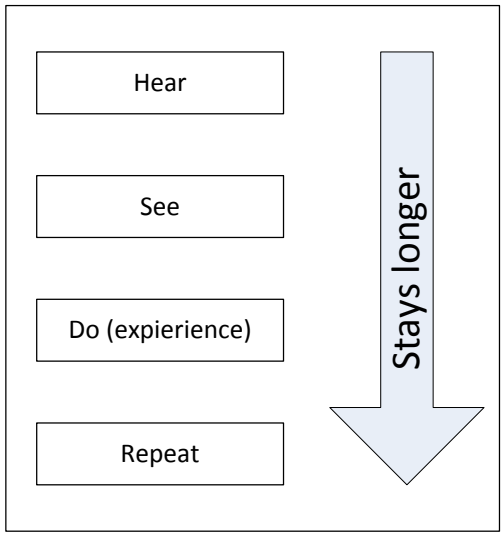
Long life learning

- Most training programs and employers don’t take this in account.

- Pity, we lose a lot of competence in this way (waste)

The learning process

- Problem based
  - (Technicians don't read, they look up things when they need them)
  - Important skill: Check and verify information!
- Teaching is giving challenges, giving obstacles
- Look at the same problem from a different angle



Four levels of learning

- Trial and error
- Toolbox
- Conventional
- Conceptual

Target groups

- Different groups need different approach
  - Needs?
  - Pre-situation
  - Level
  - Knowledge of environment / framework
  - Speed of learning
  - Maturity
  - (external possibility to train / work)

Target groups

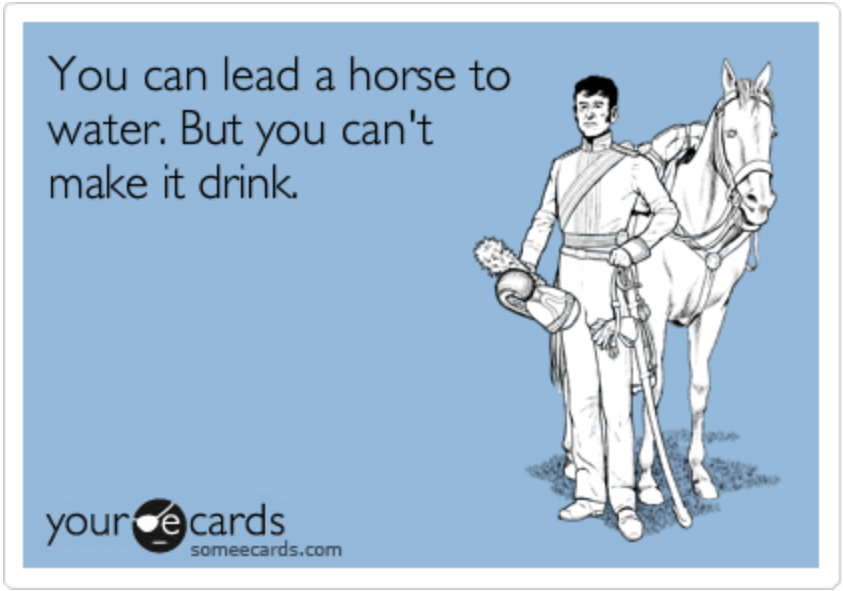
- Adapt your method
- Example:
  - Problem based learning
  - If student is afraid, it won't work

- Step by step

- You need experience

A learning culture

- You can’t force people to learn



- What stops them?
- What triggers them?

- How do we create a learning culture?

What stops you from learning?

- ?

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What stops people from learning?

- Afraid to fail
- Uncertainty
- Lack of self esteem
- Afraid to be less appreciated (to learn you have to show what you can and what you can't)
- Bad school experience
- I don't need education, I know everything
- I can not improve myself

- Not able to
- Personal situation (no time, need a cleared head)
- Don't like the subject, not good at it

- I am good in the position I have
- In the land of the blind, one-eye is king

- If I follow this course, I will have to do all this
- Feels like wanting to become better than the others
- Forced by colleagues not to do it (otherwise they also have to go)

- Don't see the added value

- And what stops people from teaching?
- And what stops people from exchanging information?
- And… from working safe?

What makes them learn?

- Trust
  - Teacher
  - Colleagues
  - Safe environment
- Support
- Good in it
- Want to learn
- See value
- Challenge

- Learning should be fun!
- Focus on talent
- A degree is mainly the proof that you are able to study things you don’t like
  (Jef Staes, we are sheep)

Managing a culture change

Q: How many psychiatrists does it take to change a light bulb ?

A: Only one, but the light bulb must want to change.

A: None; the bulb will change itself when it is ready.

Managing a culture change

- Culture change = whole organisation (not only student)
- A new attitude towards learning
- Who is the smartest boss, the one pretending to know everything or the one asking his personnel?

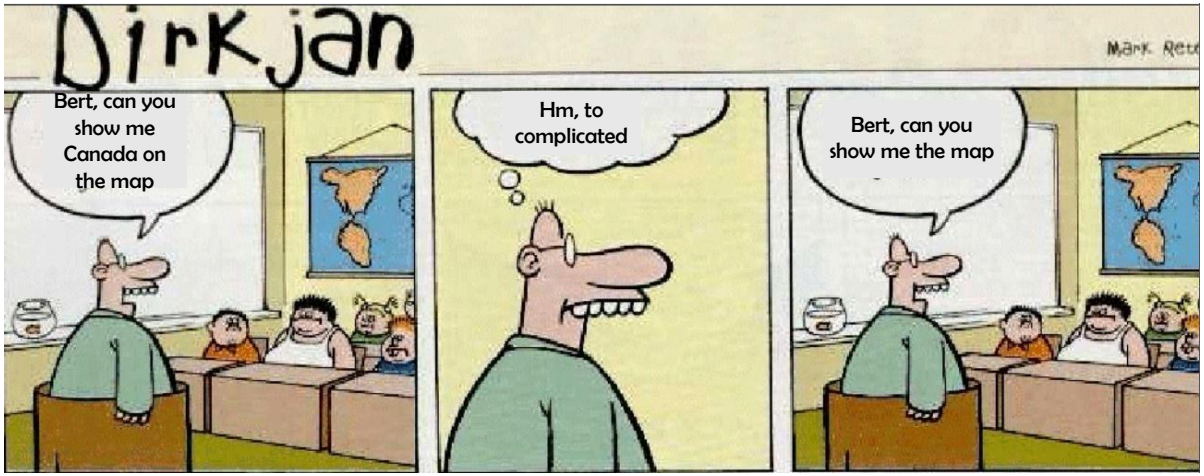
- Avoid link with
  - Employment
  - Promotion
  - Evaluation
  - Etc.
- Create trust
- Challenge
- Support

How do digital natives learn?

generation why

Working towards expected results

- Automatic efficiency reflex (what is in it for me)
- If I get 50% it is OK
- Set standards high enough



Maximum attention span

- Differs between working forms
- 20 min attention (listening)
- 3h attention (practice)

And what about ism's?

Morning (3h)

– How do we deal with information?
(including reflections on assignment nr 2)

– Developing teaching materials

– Exercise developing teaching materials
(based on assignment nr 2)

?

- What did we do yesterday?
- Was it useful?
- What can be improved?

?

- How did you find information?
- Where did you find it?
- How did you verify it?
- How did you organise it?

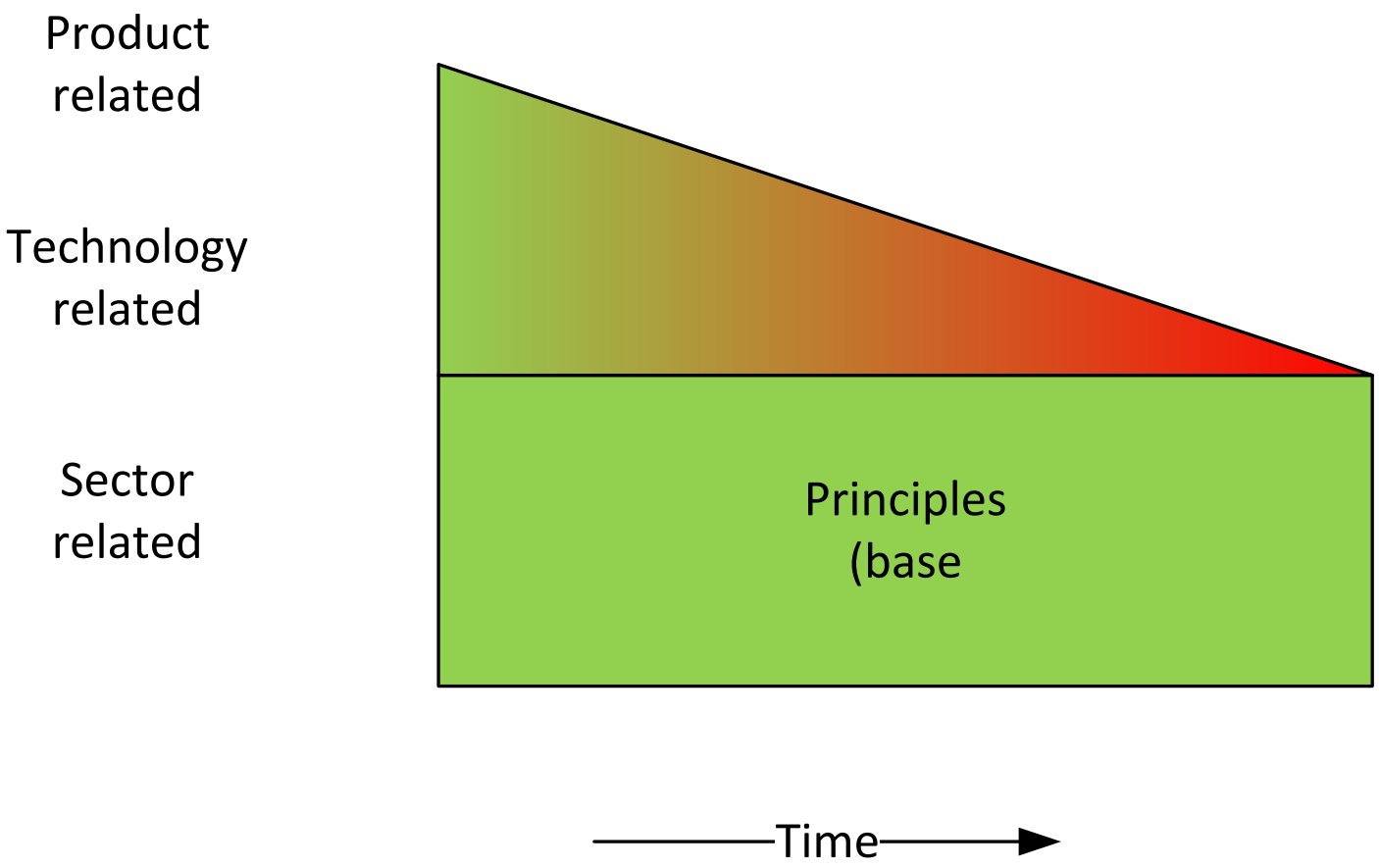
- Is it up to date?

How do we stay up to date?

- What is the half-value time of our information
  - Example scanners > moving lights

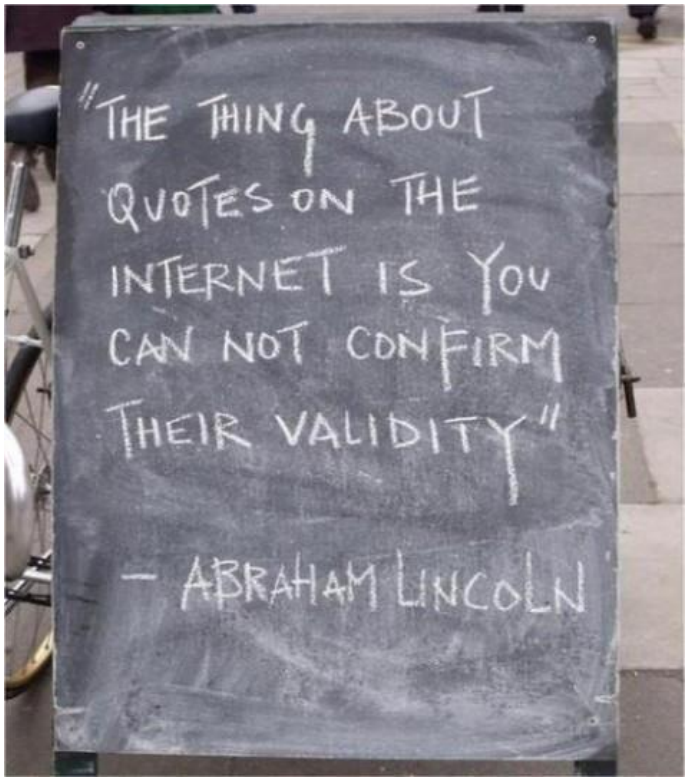
- Picture time line evolution equipment 20th century

Half value time



Information

- Integrity of information
- Where to find info
- Information exchange
- How to manage this information
- How to develop a knowledge base



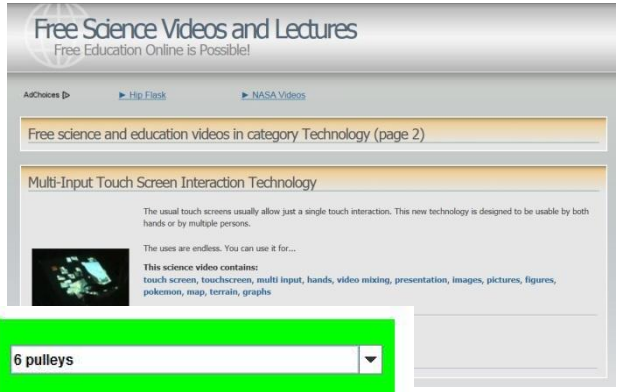
Developing teaching materials

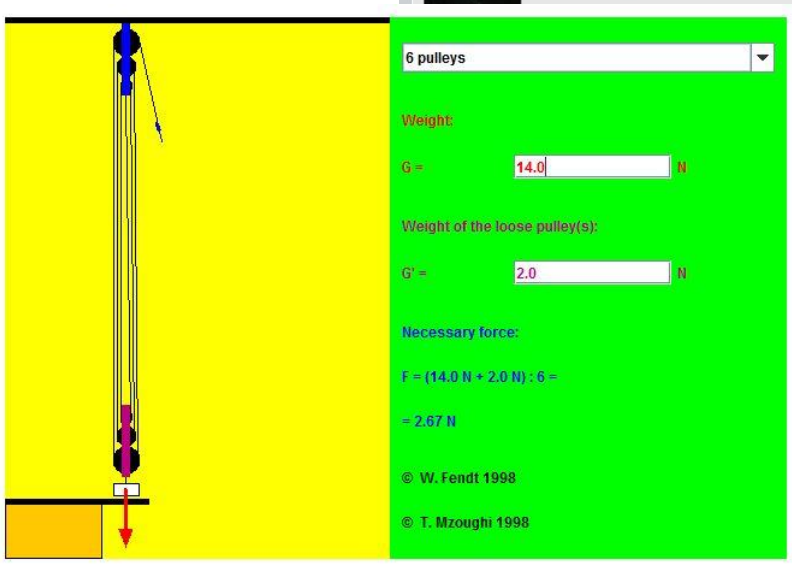
- Supporting the course
  - Before
  - In class
  - Afterwards

- Help to understand, to train

Don’t invent the wheel!

- Before making something, have a look at what exists
- Applets
- Recording lectures
- Exercises
- Text books
- …





Developing teaching materials

- Material is never finished

- Developed from needs (someone doesn't understand)
- On the spot (how do I explain differently)
- Input from students, colleagues, even translator

Drawings

- A drawing sais more than a thousand words

  but

  not everyone is used / able to read drawings (cuts / ground plans, …)

Drawings

- See publicity > go to the essence
- Make one drawing and show
  - different views,
  - different details
  - less work, more consistency
- drawing is good reminder in combination with text or talk

PPT and presentations

- Rules of PPT
  - 7 x 7 words max.
  - One idea per slide
  - Don’t read what is on the slide

PPT and presentations

- Can give more triggers
- It is a guideline, a structure > it keeps you on track
- Content can vary > video, animation, …

PPT and presentations

- Handouts (in advance or after?)
- Test presentation on actual equipment

- Alternatives
  - Prezi
  - Photo presentation
  - Pdf

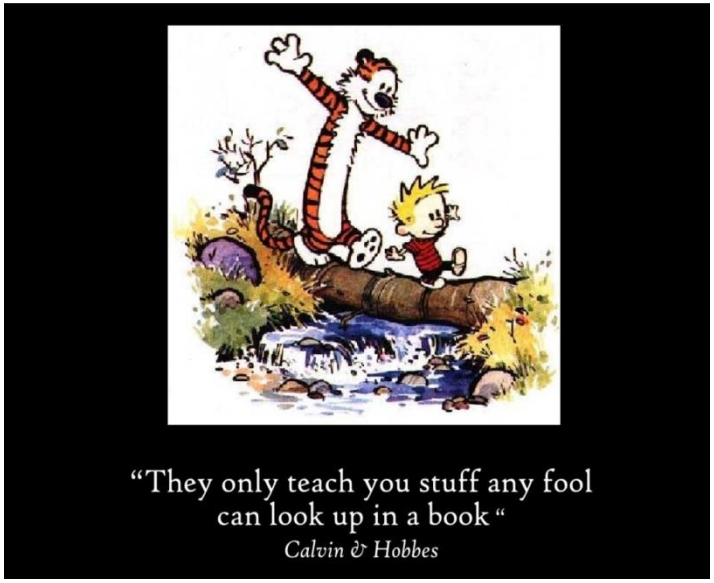
Smart board content

- Interactive presentation
- You can write

- Labor intensive
- Exploring possibilities
- New version of blackboard schemes

Text books

- Takes time to develop
- Start with PPT and test structure, logic, examples, …



- Could be PPT > PPT with notes > text > book
- For design > photo book (made digital, with notes)

The 3 S’es

- Structure, structure, structure (technicians don’t read, they look up things when they need them)
  - So you need structure to find things
  - Look out for grey paper (continuous text without lay out)
  - 50% of our reading is layout!

Web based learning material

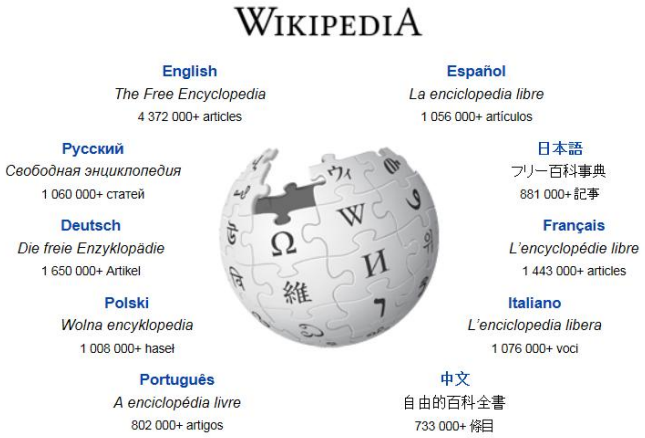
- Is not putting your course on line
- But concept following a complete learning path
  - Course description > Preparation > course material > recordings > extra info > exercises > assessment
  - Start with a knowledge base

Web based learning material

- Be selective with links and sources
  - What is essential?
  - What is extra?

- Links are not permanent

- Tools:
  - Wiki
  - Digital learning platforms
    - Moodle
    - Chamillo
    - Blackboard
  - Hot potatoes



Audio and Video

- Not to relax!
- Must be functional
- Prepare and edit!

- Only if it adds to your story,
  if it tells something,
  if you do something with it afterwards

Instruction videos

- When you can see
- Screen recordings
- Scope recording (oscilloscope)

Animation

- When you can’t record it (ex fly bar system)
- Ex electricity

Audio and Video

- Make them
  - Open source
  - Language independent
  - Mobile phone ready
- Publish them

Course recordings

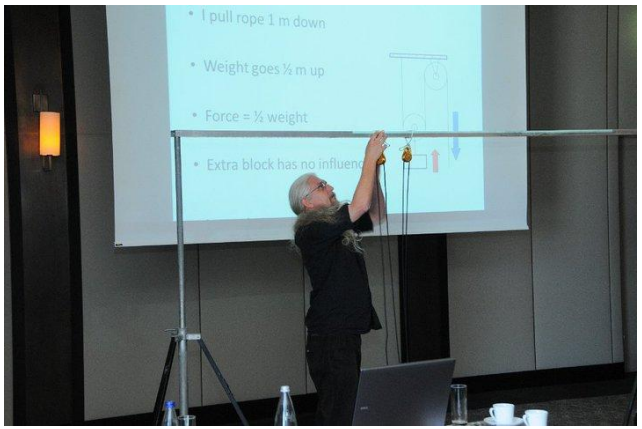
- Video
- Podcast
- Mobile learning

- Students can go back and revisit

- Free pub for the school

Demonstrations

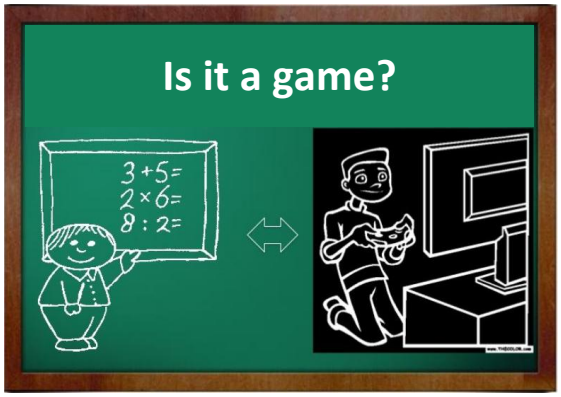
- Presentation of physical materials
- Show in safe environment



- Examples
  - Open profile with smoke machine
  - Lens bank
  - Sound equipment with scope

Games

- Triger
- Challenge
- Set real targets



Case study

- Start from real life info
- Analysis of good and bad practice
- Examples
  - Tour schedule
  - Production documentation

Interviews practitioners

- Oral tradition
- Storytelling
- In depth information about
  - Unwritten procedures
  - Unconcient resources

Role play

- For
  - Interpersonal skills
  - Formal and informal
  - Responsibility

- Let them experience the other site (different roles, different agenda's, …)

Example

- 3 persons
  - Designer (always wanted to design something with LED floors)
  - Director (has seen a great show in London)
  - Technician (Has a big show after the opening night)
- Let them design a show

- In the next step they swop papers between groups
- The groups are now receiving house
- Let them call each other (where is the phone number?)

- Take all paperwork together and drop it (is the production name on each paper?)

Example 2

- Amateur director wants a lighting plot
- The candidate needs to find out what he wants
- After that he has to defend to technical director

Simulation/ lab setups

- Create safe environment
- Relation to reality

Real life exercise

- Documentation of performance
  - Make road book
  - Match with culture centres
  - …

Assignment

- How do we continue?
- How do we work together?
- What result do we want?