Slide 1

QUIZ TODAY!

"Once I learn how to use Google, isn't that all the education I really need?"

GLASBERGEN

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Teknikens under gör att instruktören går under?
Lärande och lärare i en era med autonomi och mobilitet

Nicklas Dahlström
Trafikflyghögskolan

HFN -kurs
19-20 April
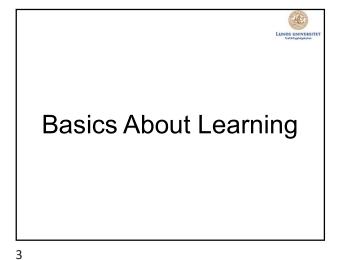Ljungbyhed

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Slide 2

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Content

- Basics about Learning

- Mobility and Autonomy, and Effective Learning
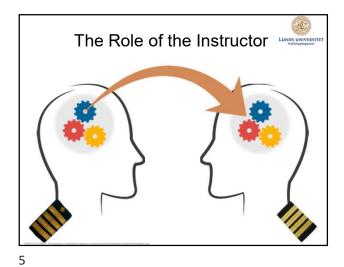
- Moving Forward with Learning in this Era

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Slide 3

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Basics About Learning

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Slide 4

Learning = Change

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Being able to do something you better or do something not possible before

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Slide 5

The Role of the Instructor

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Slide 6

Tried and Tested Method

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Slide 7

Different Levels of Learning

	REMEMBER	Recall facts and basic concepts
		define duplicate, list, memorise, repeat, state

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Slide 8

This will revolutionise learning!

"The motion picture is destined to revolutionize our educational system and that in a few years, it will supplant largely, if not entirely, the use of textbooks."

–Thomas Edison

"The use of video discs in classroom instruction is increasing every year and promises to revolutionize what will happen in the classroom of tomorrow" (Semrau and Boyer, 1994)

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Slide 9

This will revolutionise learning!

Sounds familiar?

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Slide 10

So what is better then?

Animations vs. pictures, video vs. books, distance vs. presence?

Overall, no significant difference in learning results!

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Slide 11

What is the point then?

Learning closely linked to social interaction!

Inspire
Make curious
Motivate
Show usefulness

Make trainee feel accountable for doing the work of learning

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Slide 12

Motivation

N	M	N	O	I	N	U	Y	L	O	H	A	M	I
M	A	M	A	N	A	Y	V	I	D	D	J	A	M
S	N	U	T	R	I	I	A	V	N	H	E	N	I
M	A	A	V	T	A	A	T	O	A	Y	Y	A	H
A	O	M	T	I	J	V	C	A	A	M	A	H	T
Y	A	T	T	A	H	E	E	N	M	M	A	D	R
U	A	M	I	A	S	T	E	D	D	N	N	A	A
R	A	L	N	Y	M	H	A	V	A	A	S	N	V
A	T	N	T	H	N	A	E	P	A	Y	U	N	U
M	D	X	E	T	N	A	R	E	A	T	E	A	J
B	I	T	E	N	N	A	V	A	U	T	M	J	N
S	A	B	H	A	J	A	N	S	P	H	H	A	U
V	I	T	T	A	L	H	A	T	Y	N	P	S	A

"Acknowled...

"...redded"

Stopped wh... the pay rat... reached 15¢

...pped when... pay rate ...reached ...7?¢

Without social interaction – less commitment!

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Mobility and Autonomy, and Effective Learning

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"Simple Simulation" for Training

14

M/S Antwerpen

15

You have changed career, grown a hipster beard and now you are the manager of a supermarket…

Call from the supermarket:

"The automatic temperature control in the cold storage room has failed, you must come and sort out the temperature manually!"

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Cold Store

17

Cold Store

"Phases of Learning"

"Reactive"

"Incremental"

18

Cold Store - Data on Performance

19

Emergency Descent

20

The First Scenario

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From exactly the same starting point…

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Automated Assessment

- **Use "clicks" for tracking**
- **Know where clicked = Know where looked**
- **Translate to competence**
- **Provide as feedback**

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The Second Scenario

24

Other examples

[1] Current state – Pilot

[1] Current state – Engineer

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Other examples

m/s Stockholm

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Mid Fidelity Simulation – The Essence

"Reacting rapidly, Captain Gennotte recalled a television documentary he had seen about a DC-10 crash at Sioux City, Iowa some years before and the techniques employed by Captain Al Haynes and his crew to control their aircraft."

(IFALPA, 2005)
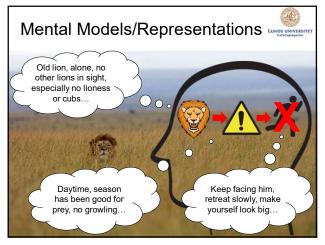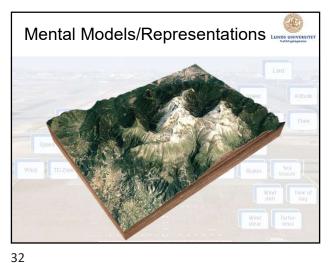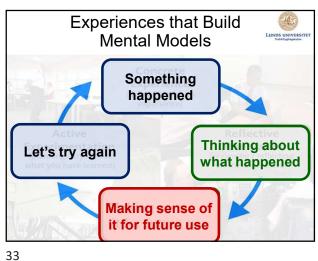
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Moving Forward with Learning in this Era

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Does it make you think?

XLVI

Technology can help but only if used right!

Complementing	Competing
Leaves a supporting structure	Leaves no supporting structure

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Deliberate Practice

Beyond	Specific	Intense	Respond to	Develop
Comfort	Goals	Focus	Feedback	Model

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Accelerated Expertise

Create the context and need for knowledge!

Scenarios + Reflection = Accelerated Expertise
(Supported by an instructor)

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Learning ⇔ Social Interaction

The mind is not a vessel that needs filling, but wood that needs igniting Plutarch

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Summary

· **Learning ⇔ Social Interaction**

· **Examples of simulation for mobile/autonomous learning**

· **Mental models and Expertise**

· **Explanation + Counterfactuals**

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Tack!

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