

www.doczero.nl

**Difference in retention of BLS and AED skills between younger (15-22 years) and older (>35 years) lifeguards?**

Wiebe de Vries  
Joost Bierens

28 Sept 2007 – 16.30-16.50

Wiebe de Vries

www.doczero.nl

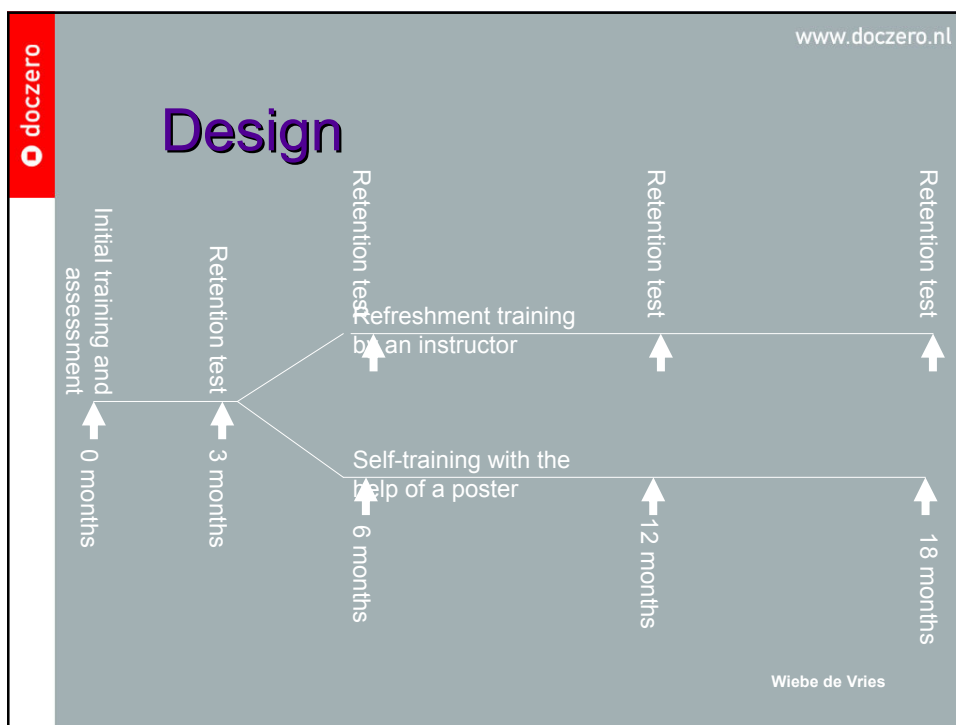
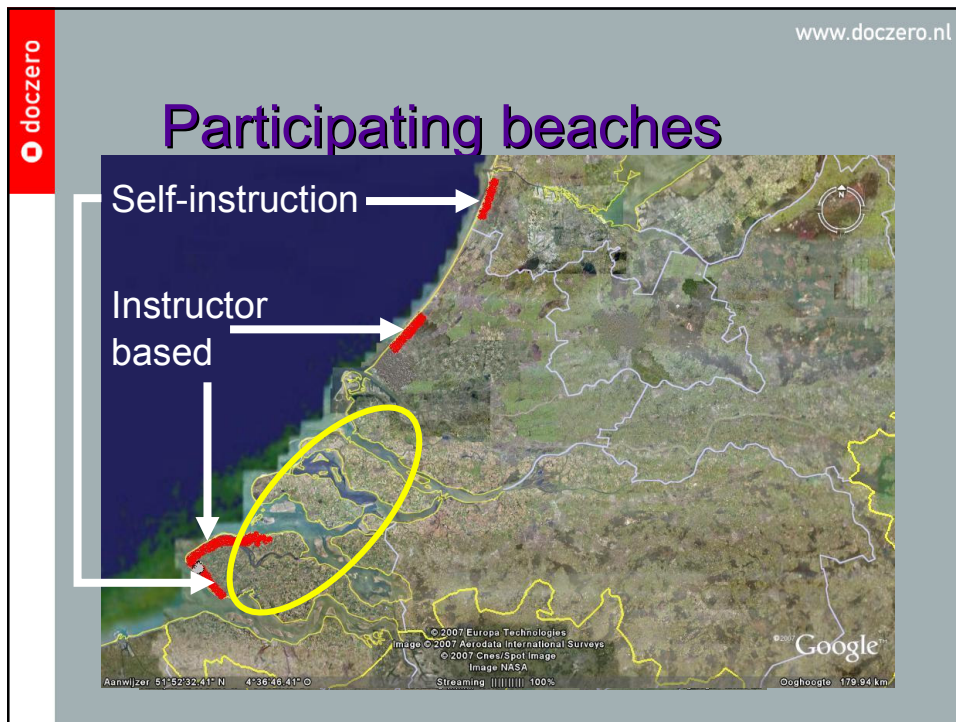
**Female**  
To learn take more time  
Like short courses  
More difficult to remember

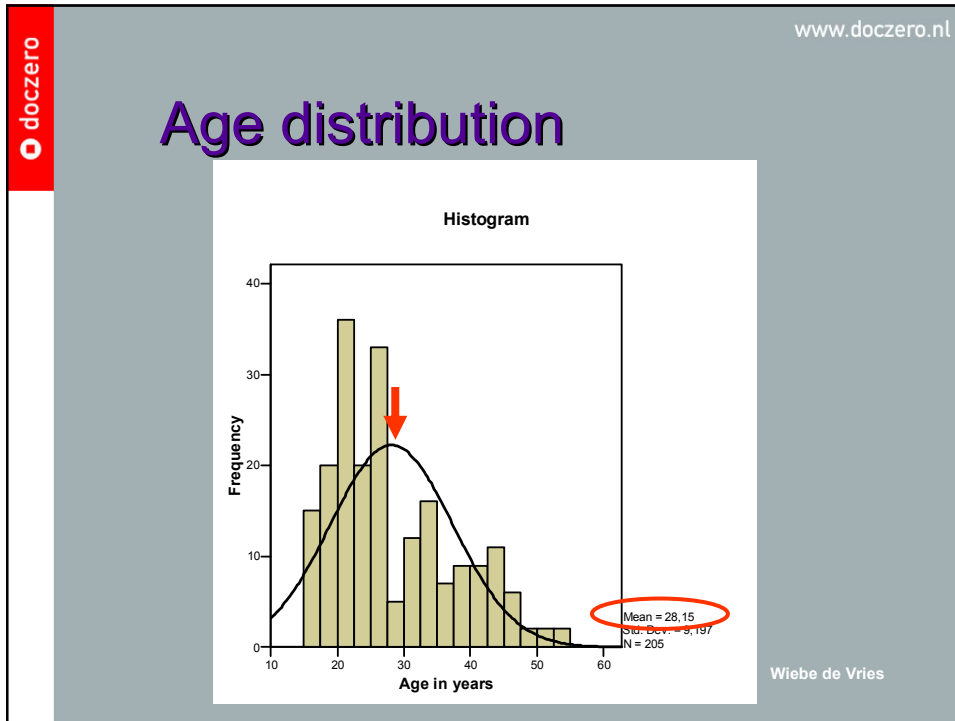
**Male**  
Learn more easy  
Are used to sit in classrooms  
Have strategies to remember

**Older**

**Younger**

Wiebe de Vries





- www.doczero.nl
- doczero
- ## Compared groups
- ◆ 15 and 22 years
  - ◆ older than 35 years
- Wiebe de Vries

www.doczero.nl

**Items of assessment**

- ◆ Safety
- ◆ Workspace
- ◆ Shout and shake
- ◆ Check breathing
- ◆ Raise an alarm
- ◆ Rescue breathing
- ◆ Check for signs of circulation
- ◆ Handposition for chest compression
- ◆ Depth of chest compression
- ◆ Ratio ventilation : compression
- ◆ Rhythm of chest compression
- ◆ AED position
- ◆ CPR integration
- ◆ Position of electrodes
- ◆ Clearing during analysis
- ◆ Clearing before shock
- ◆ Shock delivered in time
- ◆ Check for signs of circulation after shock

Wiebe de Vries

www.doczero.nl

**Significant differences depending of age (p-value)**

	Retention after 3 months	Retention after 6 months	Retention after 12 months
Workspace	None, So there is no indication that <b>learning</b> rendement differs between ages.	.05	
Rescue breathing		So there are indications that <b>retrieval</b> rendement differs between ages.	.01
Depth of chest compression		.04	

Wiebe de Vries

www.doczero.nl

**Percentage competent providers per item**

	Younger	Older
Safety	80	60
Workspace	47	77
Spot and shake	69	64
Spot breathing	85	86
Place air	79	77
Rescue breathing	93	88
Check for signs of circulation	50	38
Handposition for chest compression	39	38
Depth of chest compression	72	53
Ratio ventilation : compression	71	50
Rhythm of chest compression	69	42
AED position	84	84
CPR integration	62	53
Position of electrodes	90	87
Clearing during analysis	96	94
Clearing before shock	46	31
Shock delivered in time	40	38
Check for signs of circulation after shock	50	42

**Non differences were found concerning AED-skills**

Wiebe de Vries

www.doczero.nl

**Differences of more than 10 %**

	Competent on this item (%)	
	Younger	Older
Safety	80	60
Workspace	47	77
Check for signs of circulation	50	38
Ratio ventilation : compression	71	50
Clearing before shock	46	31

Wiebe de Vries

www.doczero.nl

**Differences of more than 20 %**

	Competent on this item (%)	
	Younger	Older
Workspace	47	77
Ratio ventilation : compression	71	50

Wiebe de Vries

www.doczero.nl

**Conclusion**

- ◆ There is a slight retention difference between older and younger lifeguards
- ◆ A higher percentage of younger lifeguards scores competent
- ◆ Older lifeguards take better care for a good working environment

Wiebe de Vries

doczero

www.doczero.nl

## Suggestions

- ◆ It seems that younger lifeguards focus more on the patient, while older lifeguards focus more on the environment, so let them surveillance together
- ◆ Older en younger lifeguards have the same learning benefit, but older lifeguards have a slower or delayed retrieval, so give them the opportunity to refresh their skills regular.

Wiebe de Vries

doczero

www.doczero.nl

# Thank you.

 [www.wiebedevries.eu](http://www.wiebedevries.eu)

Wiebe de Vries