Research in medical education

Why and how?

Nynke Scherpbier, Tel Aviv, March 2017
I will be an evidence-based professor
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Research in medical education

Why and how?
Why??

• **We want to base our decisions on evidence:**

• Predictive value of selection procedures?

• What works (and how) in practice based learning?

• Change curriculum?

• How to teach the teacher?
Research in medical education

Why and how?
Methodology

- Exploring
- Measuring
- Mixed methods

Qualitative
Quantitative
<table>
<thead>
<tr>
<th></th>
<th>Quantitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>assumption</td>
<td>Variables can be measured</td>
<td>Variables are complex, intertwined</td>
</tr>
<tr>
<td>purpose</td>
<td>generalisability</td>
<td>contextualisation</td>
</tr>
<tr>
<td>approach</td>
<td>Hypothesis testing</td>
<td>Hypothesis generation</td>
</tr>
<tr>
<td></td>
<td>From theory to data</td>
<td>From data to theory</td>
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</tbody>
</table>
Theory

- Positivism: reality is a truth
- Interpretivism: reality is subjective, social constructivism
- Criticalism: some meanings are overpowered by others
Learning theory, constructivism

• More than one reality:

realities arise from the construction of meaning and understanding, based on the individual’s context, previous experience and knowledge, attitude and beliefs.
Research traditions

- Narrative
- Phenomenology
- Grounded theory
- Ethnography
- Case study
Stay in line!

- Worldview
- Study design
- Data collection
- Analysis
- Conclusion
Indentify a problem
It starts with a question!

Describe
Explain
Explore
Investigate
Predict
Compare