SCIENCE OR DEMOCRACY?

KNOWLEDGE, EVALUATION AND JUDGEMENT IN THE KNOWLEDGE SOCIETY

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THE KNOWLEDGE SOCIETY

where knowledge is an economic/productive ‘factor’ in its own right (not mediated by technology, as was the case in the industrial society)

knowledge society as a fact
knowledge society as an ambition

European Union (Lisbon 2000): to make Europe “the most competitive and dynamic knowledge-based economy in the world”

more prominent role for education (production of knowledge workers)  
[and education itself as a commodity to be sold internationally]
more prominent role for research (production of knowledge)

basic – applied
finalisation – functionalisation (Boehme)
evaluation research
THE KNOWLEDGE SOCIETY: ‘KNOWLEDGE ECONOMY’ OR ‘KNOWLEDGE DEMOCRACY’?

What is the role and status of knowledge in the knowledge society? Economic commodity or factor in democratisation? ↓

Science or democracy?

An ‘old’ discussion, but ↓

Currently relevant in relation to calls for transformation of professional practices into evidence based practices (EBP), based on ‘what works’ knowledge, to be provided by (forms of) evaluation research

This presentation: focus on EBP in education but relevant for other professional fields
BACKGROUND: EBP AND ‘WHAT WORKS’ IN EDUCATION

in UK (1990s): criticisms of quality and relevance of educational research
- research is not giving answers to government’s questions
- research is not generating guidance for practitioners

wider issue of the relationship between research and practice in education

a perennial question every since education became an academic discipline/field of study (Germany 1779; England 1873; Scotland 1876)

stereotypical positions:
from practice: “research isn’t providing us with useful knowledge”
from research: “practice isn’t paying attention to our work”

assumptions:
research should produce useful knowledge (but see below)
practice should be informed by/based upon research (but see below)
EVIDENCE BASED PRACTICE IN EDUCATION

call for a double transformation:
of educational practice so that it becomes research-based
of educational research so that it generates useful knowledge

the crude version:
research should (only) generate knowledge about what works
practice should (simply) implement this knowledge

the even cruder version:
- US federal government will only provide funding for this kind of research
- and will not allow schools/teachers to make any decisions that are not
  based on research evidence

… and all this with constant reference to fields that apparently have been
successful in connecting research and practice based on the generation of
‘what works’ knowledge, most notably the field of medicine
EBP: a particular connection between evaluation research, what works knowledge and evidence-based practice

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THIS PRESENTATION:
EXPLORATION OF THREE ASSUMPTIONS
THE KNOWLEDGE SOCIETY OR THE SCIENCE SOCIETY?
THE KNOWLEDGE DEMOCRACY?
CONCLUSIONS

see also:
ASSUMPTION 1: “research needs to generate useful knowledge, and useful knowledge is knowledge that tells us ‘what works’”

the THREE practical roles of educational research (De Vries 1999)

**technical** role: providing means for (pre-defined) ends

*the only practical role acknowledged by the EBP/what works agenda*

**cultural** role: providing different interpretations and understandings of educational practice (e.g., behavioral objectives or LPP)

**critical** role of educational research: generating questions, exposing hidden assumptions (e.g., sociology of knowledge on reproduction of inequality)

**conclusion 1**: We need a broad understanding of how research can benefit educational practice, encompassing means and ends and support and critique
ASSUMPTION 2: “educational practice is like medical practice”

model of professional action in medicine is that of effective interventions → research should provide knowledge about effectiveness of interventions

a causal model of professional action

Does this apply to education? Is teaching the cause of learning?

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No, because education is symbolically mediated interaction
Students need to interpret and make sense of what teachers teach (education as one of the 3 ‘impossible professions’ [Freud])

Teaching provides opportunities for learning, but doesn’t determine it
Even if research were able to identify the most effective ways to do something, there is always the question whether this is also the most desirable thing to do (e.g., impact of family on school success; use of drugs)

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this requires (normative) judgement
(see ‘Effective for what? Effective for whom?)

PLUS

in education there is an internal relationship between means and ends: the means teachers use also teach something
(e.g., punishment; collaborative learning and individual assessment)
conclusion 2: Education cannot be compared to medicine because

(1) education is not causal but symbolically mediated,
(2) effective is not the same as desirable, and
(3) is also not the same as educationally desirable

even in medicine a crude ‘what works’ approach is only possible with a very narrow definition of health and wellbeing

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Is there any profession where this model would apply?
ASSUMPTION 3:
“research can tell us what works, and hence what will work”
“and the best and only research design for generating this knowledge is the randomized control trial” →
[evaluation research as quasi-experimental research]
↓
underlying assumptions about knowledge and the world: the ‘standard view’
→ research can ultimately tell us how the world really is

not very helpful to understand the experimental tradition where we do not simply observe but generate knowledge through intervention
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John Dewey’s ‘practical epistemology’: knowledge is always knowledge of the relationships between our actions and their consequences (and we construct a world out of this, not simply discover it)
↓
	hence research can show us what is possible, not what is certain
(quasi-)experimental research can show us **what has worked** (i.e., how actions and consequences linked up in the research situation), **not** ‘what works’ in the sense of ‘what will work’ (once and for all).

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Such knowledge can **inform** professional observation, problem analysis and decision making, but **cannot prescribe** or dictate what should happen, also not because the situation of knowledge generation is different from the situation of knowledge use.

(which suggests that the only way to ‘effectively’ close the gap is to transform the situation of knowledge use into the situation of knowledge generation: which is how Bruno Latour explains the ‘success’ of modern techno-science, e.g., in the field of medicine)
If we want an epistemology that is practical enough to understand how knowledge can support practice [such as Dewey’s ‘transactional constructivism’], we have to concede that knowledge can ever only provide us with information about the past, not about the future

requires and opens up a space for professional judgement and decision-making.

**conclusion 3**: research can make professional judgement and decision-making more ‘intelligent’ (Dewey), but it cannot replace such judgement
TO SUM UP

In the discussion about EBP/‘what works’ there are:

- mistaken ideas about educational practice (always requires judgement about particular situations, and normative and educational judgement)

- mistaken ideas about what (quasi-)experimental research can achieve (what has worked, not what will work)

- mistaken ideas about the practical roles of research (only acknowledges the technical role, not the cultural and critical role)

key-problem is the suggestion that knowledge can and should dictate professional action and hence that knowledge can replace professional judgement and normative questions

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the ‘democratic deficit’ of EBP/‘what works’
A CONSIDERED ALTERNATIVE

1. We should continue to improve the communication between research and practice (but not expect that we can resolve it once and for all).
2. We should acknowledge that research can be practical in 3 different ways, including ways that are critical rather than simply useful.
3. The contribution (quasi-)experimental research can make is to reveal what has worked in a particular setting – which can inform but not replace professional judgement.
4. Because education is a normative practice, professional judgement is both about the means and ends of educational practice (the judgements are practical and normative).
5. This is not only something for the ‘lonely professional’: a democratic society should have an ongoing discussion about the purposes of education (and research can support this critically and hermeneutically).

A DIFFERENT KNOWLEDGE SOCIETY
based on different notions of research, knowledge and practice
WILL THIS TRANSFORM THE KNOWLEDGE SOCIETY INTO A KNOWLEDGE DEMOCRACY?

How should we interpret the technological success of modern science?

(a) this proves the quality of the knowledge upon which it is based – and hence proves the superiority of modern science and the Western, scientific worldview (e.g., Gellner)

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the knowledge society as ‘science society’

Can we understand this differently?

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Bruno Latour (The Pasteurization of France)
We should not doubt the success of ‘techno-science’
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things do work

But is the fact that things (‘facts and machines’) work everywhere proof of the superiority of the underlying knowledge and worldview?

How was it possible for Pasteur’s method to become universal, i.e., for his method to work in every corner of France?
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not transporting Pasteur’s method from the laboratory to the wider world but
transforming the wider world into a laboratory so that Pasteur’s method would continue to work
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‘metrology’: the “gigantic enterprise to make of the outside a world inside of which facts and machines can survive” (Latour)
ANOTHER DIFFERENT KNOWLEDGE SOCIETY?

the knowledge society (‘science society’) is not (just) a society based upon a particular kind of (scientific) knowledge

It is a society in which techno-science works because society itself has been transformed → incorporated into the ‘network’ of techno-science

see, e.g., medical techno-science and its ‘outposts’: instructions, surgeries, clinics, hospitals, university hospitals, laboratories

to make medical techno-science work ‘patients’ have to move on this spectrum that brings them closer and closer to the laboratory
CONCLUDING REMARKS

(1) the cynical conclusion:
we should transform educational practices so that they become like the settings in which our ‘what works’ knowledge worked

requires complexity reduction of the educational reality
(note that the school already does this – how far do we want to go?)

(2) the democratic conclusion:
What is at stake is not simply the question of the production and circulation of ‘better’ knowledge – what also is at stake is the question who should control our educational (and other professional) practices

the knowledge democracy not only needs a different understanding of research, knowledge and practice
but also a different understanding of society
THANK YOU

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2003
Rowman & Littlefield

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