
Published version (with publisher's formatting)
Available from Middlesex University's Research Repository at http://eprints.mdx.ac.uk/22318/

Copyright:

Middlesex University Research Repository makes the University's research available electronically. Copyright and moral rights to this thesis/research project are retained by the author and/or other copyright owners. The work is supplied on the understanding that any use for commercial gain is strictly forbidden. A copy may be downloaded for personal, non-commercial, research or study without prior permission and without charge. Any use of the thesis/research project for private study or research must be properly acknowledged with reference to the work's full bibliographic details.

This thesis/research project may not be reproduced in any format or medium, or extensive quotations taken from it, or its content changed in any way, without first obtaining permission in writing from the copyright holder(s).

If you believe that any material held in the repository infringes copyright law, please contact the Repository Team at Middlesex University via the following email address:

eprints@mdx.ac.uk

The item will be removed from the repository while any claim is being investigated.
Over the Horizon – Health and Safety Evolving

Celebrating the Partnership for Innovative Practitioner Engagement in Research (PIPER)

30th November 2016
Maeve O’Loughlin
In 2012, Besnard and Hollnagel challenged stakeholders of health and safety to consider reflection of the paradoxes, assumptions and myths underpinning our practice.

The purpose of this brief seminar is for us to consider the assumptions and myths and to consider the role academic research can have to address these in practice.

Are assumptions are important?

- Visible & Tangible
- Statements
  written or said
- Hidden & taken
  for granted

Are assumptions are important?

Artefacts

Espoused Values

Underlying Assumptions

Schein (1992)
The effect of assumptions

Lag of 11 years in discovery of Antarctic ozone hole

“The news reverberated around the scientific world. Scientists [at NASA] scrambled to check readings on atmospheric ozone made by the Nimbus 7 satellite, measurements that had been taken routinely since 1978. Nimbus 7 had never indicated an ozone hole.

Checking back, NASA scientists found that their computers had been programmed to reject very low ozone readings on the assumption that such low readings must indicate instrument error.”
Are assumptions in health and safety practice based on myth rather than evidence?

“A scientific paradigm suppresses the perception of data inconsistent with the paradigm, making it hard to perceive anomalies that might lead to scientific revolution.”
The paradox of our definition of safety

Safety is a dynamic non-event (Weick, 1991) defined by its absence not its presence.

Look at negatives (occasional) to plan for positives (invisible)

Focus at component level which can ignore the system view and also sources of resilience.

But accident rates are plateauing so are we now safe or have we lost our navigational aids?

What about other positive face of safety?
What this theory related to…

- Insurance claims data – majors as cases reported, minors as first aid cases, no injury as unplanned events
- Unsafe acts of workers identified as principal causes of accidents (88% acts 10% mechanical and unpreventable 2%!)
- No original research data available from Heinrich’s study
This has resulted in assumptions about how to control risk...

- Reducing all minor issues will reduce serious accidents → False sense of security through action and misplaced use of resources bureaucratically.
- Accidents are caused by violation of workers actions from standard practice, rules, procedures → A focus on blame and behaviour as the primary fix. Faith in the system.
- Investigations which fail to recognise management decisions, culture, competing objectives, trade-offs....

“Even in a no-blame culture, everyone wants to know a name”
Have these posed problems to practice?

Do we need more defences or do we do things differently?

Are we focusing on the right things?

Are our systems fit for purpose?

Does ‘more’ mean effective or more bureaucratic means?
The role and treatment of workers is central. Adaptive capacity is critical. Take a systems approach to consider accident causation. Recognise trade-offs and sacrificing decisions required from a strategic perspective. Recognise the gap between work as imagined and work as done.

**Organisational Research can help support investigating how best to do this.**
What is PIPER?

- Partnership between IOSH London Branch and London Universities (Middlesex & Greenwich)
- It aims to support IOSH members address real life issues, challenges or areas of OHS practice.
- Embeds these issues to a research strategy for MSc researchers
- Academically supported by practitioners and senior academic researchers with greater outcomes of success.
How research can help our profession.....

Policy making

Political ideology
Eg. “What I ‘think’ is right”, “what they want”, “what it can get us”

Evidence basis
E.g. “What the results show”, “What can be seen”, “what the experiences are”

Factors leading to rise in use of evidence in policy and practice

• Pressures towards proof of productivity & competitiveness of policy
• Knowledgeable & informed public demanding proof
• Declining trust in the professional expertise
• Greater scrutiny and accountability
In professional practice decision making without evidence can cause problems....

**By **GOBSAT (Good Old Boys Sat Around Tables) – made by biased opinions which could consist of the bad habits & personal experiences of ageing professionals

**By Anecdote** – Decisions are based on personal experience

**By Press cutting** – Decisions are based on single studies without consideration given to the methods or the results of alternative studies

**By Cost minimisation** – Decisions based on cheapest option

Couch et al, 2012 “Evidence, research and publication: a guide for environmental health professionals”
Research is important because...

- OHS is a multidisciplinary & applied practice
- It provides proof and can inform progress
- It helps validate decisions to be taken
- Its aim is to be objective
- It can be repeated to assess conditions over time
- Flexible enquiry methods can be used with rigour approached in various ways

The importance is in building knowledge and helps guide decision making at a given time using an appropriate rigorous method
Success of the PIPER Initiative

• Over 20 projects successfully completed
  – Action Research with hands on support
  – Evaluation style research
  – Benchmarking
  – Application of new theory to inform practice

• Crossrail, Ipsen, BP, Mount Anvil, ISS, TFL and various others across industry sectors
Next Steps

• A new research programme will be kicked off on December 7th 6pm with a workshop

• MSc researchers, tutors and organisations invited to match skills and project ideas.

Victory Services Club – 6pm – 7th December

Come along with some ideas!