

Continuing competence in the dynamic environmental health profession

Belinda Davies



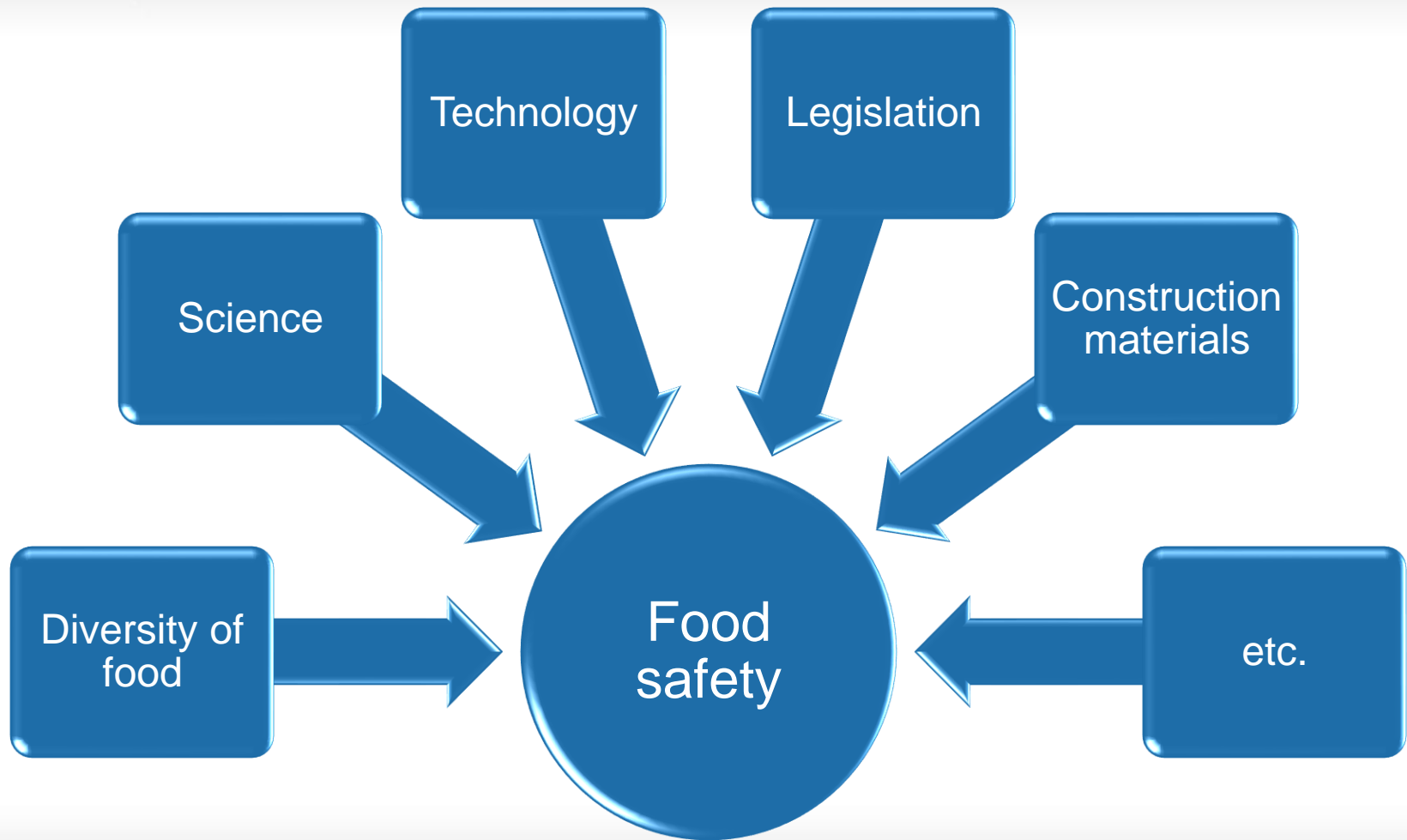


Introduction

- Environmental health professionals (EHPs) can have a 40+ year career
- Diverse work
- Dynamic nature
 - New hazards emerging
 - Technological advancements
 - Legislation and policy
 - Community expectations
 - etc.



Example





“Due to the dynamic nature of the profession, environmental health professionals (EHPs) cannot rely purely on their initial qualifications or training. EHPs need to continually build on the foundations developed during their university study (or equivalent) so they maintain the skills, knowledge and expertise needed to tackle current and emerging environmental health challenges, including those posed by environmental changes, technological and social change, community expectations and government policy directions.”

(Environmental Health Australia, 2013)



Research questions

Primary:

- What factors influence the continuing competence of Queensland Environmental Health Officers (EHOs)?

Secondary:

- What competences do EHOs need so they can effectively manage existing and emerging environmental health hazards?
- What influences professional development among Queensland EHOs?



Research questions

Secondary cont.

- What roles do various parties (e.g. the EHOs themselves, their employer, professional associations, universities) play in the continuing competence of EHOs?
- How can an effective and sustainable professional development framework be developed that will support the continuing competence of Queensland EHOs by maintaining the competences needed to effectively manage existing and emerging environmental health hazards?



EHO workforce

Continuing
competence

Continuing
competence in
the dynamic
environmental
health profession



EHO workforce



Historical challenges

- Workforce shortages
- Periods of significant change (technology, legislation, policy, etc.)
- Insufficient resources
- Reduced organisational priority
(Environmental Health Sub-Committee of the Local Government Career Taskforce (Qld), 2008)
- Relatively small workforce
- Geographically dispersed workforce
- All of these issues impact on professional development



EHO workforce reports

- **Recruitment and retention**

(enHealth, 2009; Environmental Health Sub-Committee of the Local Government Career Taskforce (Qld), 2008; Resnick et al., 2007; Resnick et al., 2009)

- **Workforce size, demographics and diversity**

(Environmental Health Sub-Committee of the Local Government Career Taskforce (Qld), 2008; Harper, 2007; Walker & Spann, 2008)

- **Workforce planning**

(Environmental Health Sub-Committee of the Local Government Career Taskforce (Qld), 2008; Resnick et al., 2007; Resnick et al., 2009; Sexton & Perlin, 1990)

- **Workforce capacity**

(enHealth, 2009; Gleeson, Legge, & Neill, 2009; Resnick et al., 2007; Resnick et al., 2009)

- **Graduate and new environmental health employee competencies**

(Davies, Murray, & Roiko, 2013; enHealth, 2009; Studyvin & Struzick, 2010)



Historical focus of workforce reports and projects

- Indigenous environmental health
- Solutions to address workforce shortages
 - Recruitment into the profession
 - Retention
 - Cadetships
 - Becoming an 'employer of choice'
- EHA associations (e.g. Qld) focused on developing professional development opportunities to meet the needs of EHOs



Professional identity

- ‘Lack of recognition’ and ‘poor image of profession’ is a cause of people leaving a profession (not just EH) (Environmental Health Sub-Committee of the Local Government Career Taskforce (Qld), 2008; Wilcke 2007)



Professional development

- Historically it has been acknowledged that professional development for EHOs has been:
 - **generally lacking** (enHealth, 2009; MacVarish, Moultrup, & Ward, 2010; Resnick et al., 2007)
 - **evolved on an ad hoc basis** (enHealth, 2009)
 - **may not have met the practitioners' needs** (Resnick et al., 2007)



Professional development

- A critical lack of environmental health capacity noted by the USA Pew Environmental Health Commission.

“This lack of EPH capacity was evident in our nation’s inability to adequately protect the public during Hurricane Katrina and the recent foodborne outbreaks”.

(Resnick et al. 2009, p.S44)



Outstanding actions

- Identify critical skills and knowledge needed to maintain competence and to identify training that targets these areas (enHealth, 2010)
- It was suggested that Australian government agencies should be provided with guidelines on appropriate training for environmental health professionals (enHealth, 2009)



Ongoing and current issues

- Viability of training courses / workshops
 - Relatively small workforce
 - Geographically dispersed
- There are no registration or CPD requirements for EHOs
- Reduced government support for professional development
- EHO workloads
- EHOs regularly need to learn new and ‘unlearn’ outdated skills and knowledge
- Understanding of the role and capabilities of EHOs
- Organisational priority
- Attractiveness of the profession (recruitment and retention issues)
- Workforce shortage vs. ‘employer’s market’



Continuing competence



Competence

Competence refers to the combination of the essential knowledge, technical and soft skills, abilities, personal attributes and values essential for competent practice.



Skills

- Technical skills
- ‘Soft skills’
 - “non-technical and not reliant on abstract reasoning, involving interpersonal and intrapersonal abilities to facilitate mastered performance in particular contexts”

(Hurrell, Scholarios, & Thompson, 2013, p. 162)



Competence frameworks

Most frameworks recognise three categories of competences:

- Personal or intrapersonal competences;
 - e.g. ethics, self-management, perseverance, achievement orientation, accuracy, perceptual objectivity, etc.
- Interpersonal competences;
 - e.g. impact and influence, relationship building, negotiating skills, translation capacity, visioning, etc.



Competence frameworks

- Cognitive or functional competences:
 - e.g. technical expertise, analytical thinking, critical reasoning, planning, etc.



Conceptual framework

Factors that hinder lifelong learning

Factors that facilitate lifelong learning

Lifelong learning including continuing professional development (CPD) and other opportunities to develop / maintain:

- Cognitive competences
- Interpersonal competences
- Personal competences

+

Unlearning

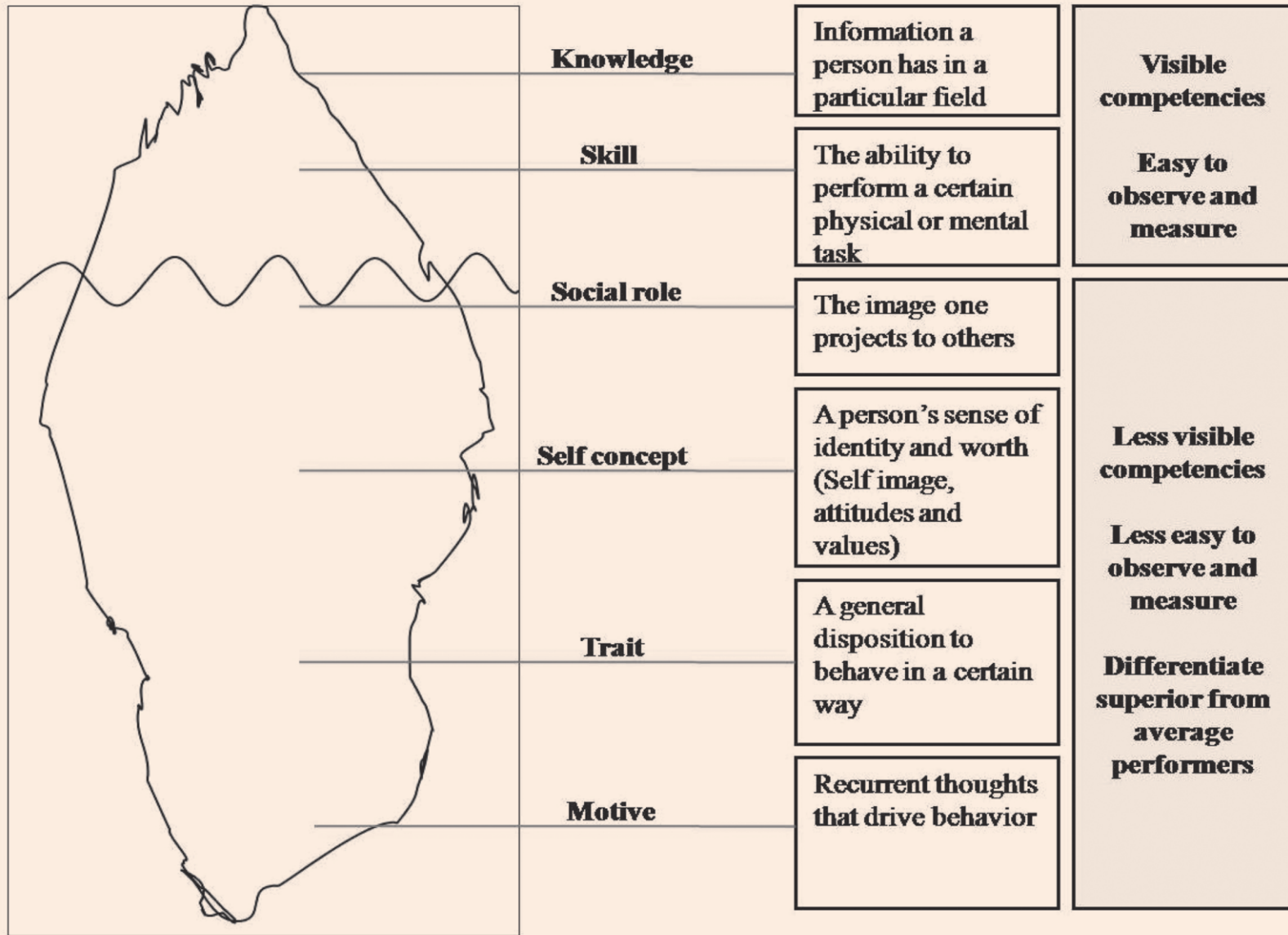
Commitment to lifelong learning

More visible

Less visible

Continuing competence

Iceberg Model of Competencies



(Source: Daud et al. 2010, p.40)

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Personal competences

- Commitment to lifelong learning
- Identification as part an EH professional
 - e.g. research found that nurses who recognise the importance of their profession and their work reflect on their role and maintain competence, compared to nurses who carry out their work routinely (Brekelmans et al. 2013)



Lifelong learning

“The provision or use of both **formal and informal learning opportunities** throughout people's lives in order to foster the **continuous development and improvement** of the knowledge and skills needed for employment and personal fulfilment.”

(Collins, 2015)



“The greatest danger in times of turbulence is not the turbulence – it is to act with yesterday’s logic.”

Peter Drucker



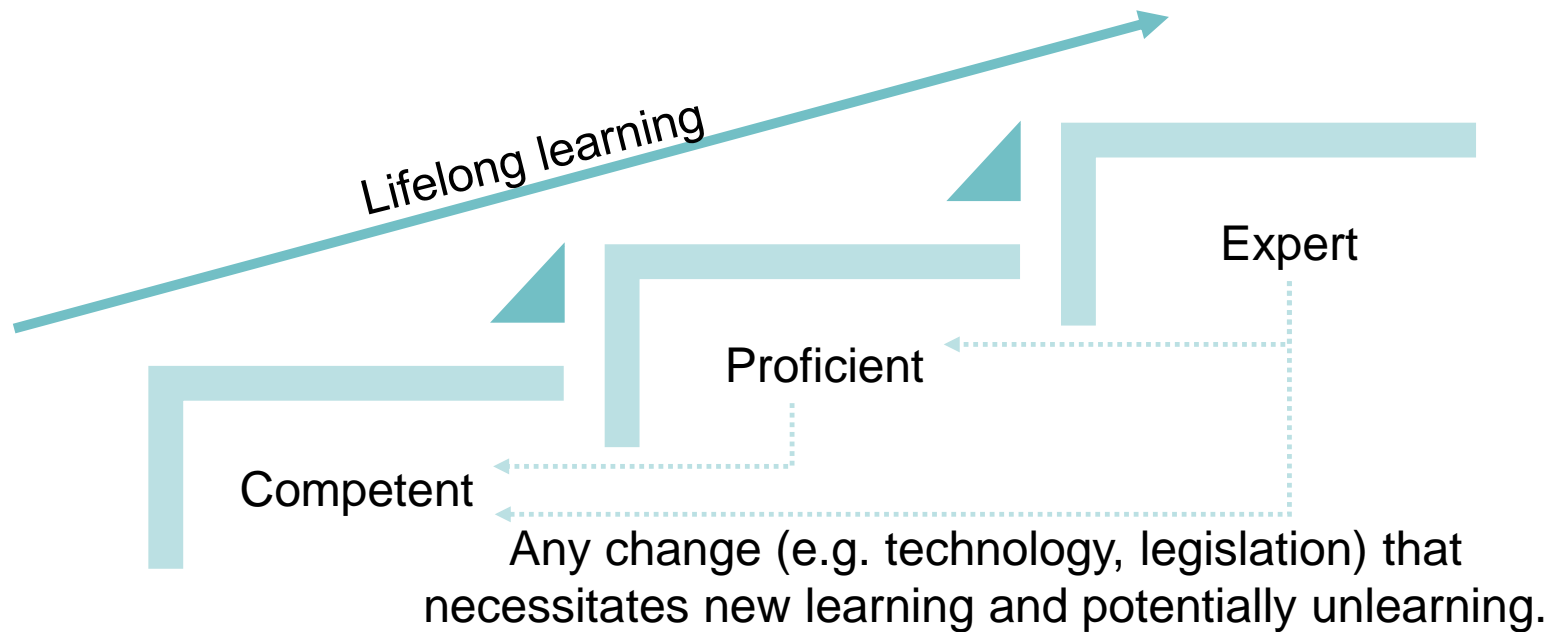
CPD

Continuing professional development (CPD):

- Professional learning and personal growth
- Limitations:
 - Attendance at training does not guarantee learning
 - Training is unlikely to have any effect if a person is not motivated to learn and change

(Brekelmans, Poell and van Kees, 2013)

- CPD activities don't necessarily focus on areas people are deficient in



Potential impact of lifelong learning on stages of career development



Unlearning

‘a **deliberate process** by which individuals acknowledge and **release prior learning** in order to embrace new knowledge, beliefs and practices’

(McKeown, 2012, p. 25)

‘to put aside from knowledge or memory (something learned)’

(Macquarie dictionary, 2002, p. 2053)



Unlearning

‘Unlearning means that you have to release long-established mind-sets and perspectives to open yourself to new paradigms. And that is not easy. If you have done something in a certain way for many years, **it is difficult to break the habit and adopt a new way of doing it**, especially if you cannot immediately see the advantages of the new way.’

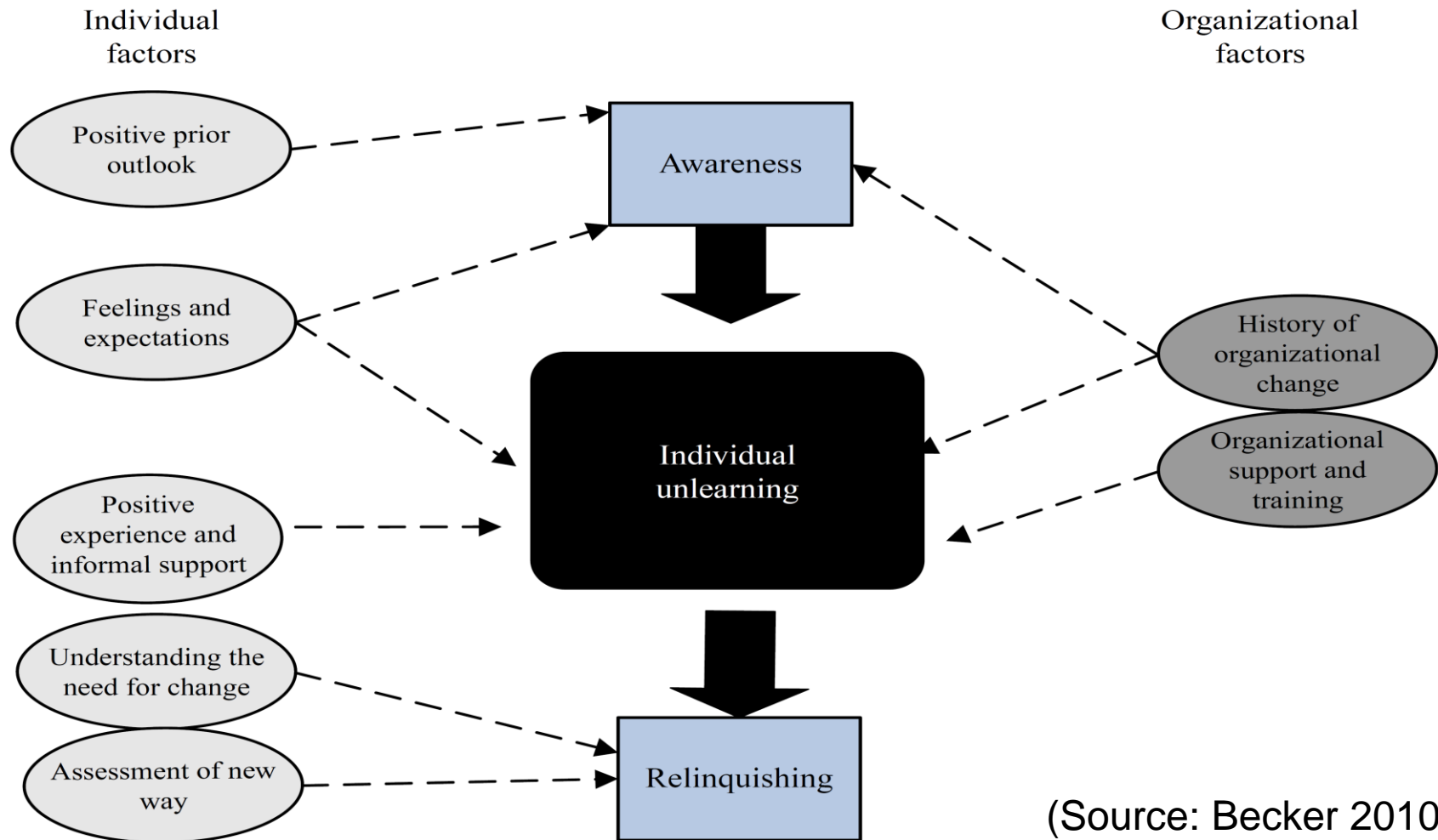
(Marques 2007)



Unlearning

- People often have to replace old knowledge with new knowledge (Jeffrey & Brunton, 2011; Marques, 2007)
- Whilst learning and unlearning are conceptually different, they usually occur simultaneously (McKeown, 2012)

Unlearning



(Source: Becker 2010, p.260)



Unlearning

- Example: moving from traditional to risk-based inspections of food businesses.
- What happens if we don't 'unlearn' the old inspection technique?
- What happens when EHOs have a high workload, are stressed, are on 'auto-pilot', etc.?
- What are the long-term implications if we don't 'unlearn' and learn new ways of doing things?

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Barriers	Facilitators
<p>Organisational arrangements including lack of professional development opportunities, lack of organisational support, nobody able to cover workload while absent, etc. [1, 2, 4, 6, 8, 10, 11]</p>	
<p>Organisational perceptions (e.g. not viewing professional development as a means of workforce preparedness) [5]</p>	<p>Encouragement and / or support from management, peers or a professional association [1, 4]</p>
	<p>Employer's commitment to professional development, professional development planning and whether the line manager is a role model [2]</p>
<p>Lack of funding / finance / cost of courses [1, 4, 5, 6, 8, 10]</p>	<p>Affordability of courses [4]</p>

Barriers	Facilitators
Lack of time [1, 2, 3, 6, 8, 9, 10, 11, 12] or insufficient study leave or unable to protect time dedicated to learning [1, 6]	Study leave or protected time dedicated to learning [1]
Lack of information, awareness and understanding of CPD or learning opportunities [2, 4, 8, 10]	Information, awareness and understanding of learning opportunities [4]
Scheduling of courses [4, 10]	Access [4]
Geographical location / remoteness from or the amount of time needed to travel to education/training centres [2, 3, 4, 6, 8]	
Information overload / professional burnout [4, 6]	

Barriers	Facilitators
Lower priority than other activities (e.g. working) ^[1, 4]	Enjoyment of the opportunity to change pace and/or focus ^[4]
	Desire to improve ^[8] or be able to serve clients / community better ^[4]
	Professional networking / exchange of ideas ^[1, 4]
	Concern that knowledge and skills are out of date ^[4]
Lack of confidence or low self-esteem ^[8, 10]	
Low aspiration ^[9]	Intellectual curiosity ^[8] or personal desire to learn / motivation ^[2, 4, 5, 7, 12]
Lack of motivation ^[6, 8, 10]	
Lack of incentives including professional recognition or career advancement ^[4, 5, 12]	Incentives including professional recognition or career advancement with a potential financial reward ^[4]

Barriers	Facilitators
No national framework for certification / credentialing ^[5]	CPD requirements associated with professional licence / registration ^[2, 4]
Lack of consensus about the competences needed, workforce profiling to identify continuing education needs, consistent approach to evaluation, and a cohesive lifelong learning system ^[5]	
Previous negative learning experience / negative attitude to learning ^[4, 8, 10]	Attractiveness of programs ^[2]
Family constraints including child care issues ^[2, 3, 4, 8]	Partner/spouse or family support ^[3, 4]
Poor family culture of learning ^[8]	Professional status and academic achievements of participants' parents may have a positive influence on learning ^[3]



Factors that affect lifelong learning

- The greatest **disincentives** for participation in professional development related to **external factors**, e.g. available time, funding, etc.
- The most significant **incentives** for workforce development are personal / **internal factors**, e.g. 'motivation to self-improve/learn', 'my own assessment of my need to develop my skills in this area', 'personal rewards of further training/awards', etc.

(Hughes, 2004)

- In order to be an effective lifelong learner, a person has to make a conscious choice to lead their own development.

(Teunissen and Dornan 2008)

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lifelong learning

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Continuing competence

“a dynamic and multidimensional process in which the ... [professional] **develop and maintain** the knowledge, performance skills, interpersonal abilities, critical reasoning, and ethical reasoning skills **necessary to perform current and future roles and responsibilities** within the profession”

(Schell et al., 2010, p. S103)



Potential future challenges / opportunities

- Scope of work:
 - Emerging and new issues, e.g. impacts of climate change
 - Specialisation



EHOs need to maintain competence so they are able to effectively protect the community from existing and emerging environmental health hazards.



Conclusion

- EHOs need to maintain competence
- Competence influenced by:
 - Combination of personal, interpersonal and cognitive competences
 - Unlearning redundant skills and knowledge
- Personal factors are important, e.g. commitment to lifelong learning
- Unlearning has possibly been overlooked, but appears to be important for EHOs



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Questions





References

Table: Barriers and facilitators of lifelong learning:

- [1] (Boudioni et al., 2007)
- [2] (Brekelmans et al., 2013)
- [3] (Gopee, 2002)
- [4] (Hanson et al., 2007)
- [5] (Hughes, 2004)
- [6] (Ikenwilo & Skåtun, 2014)
- [7] (Kennedy, 2011)
- [8] (Laal, 2011)
- [9] (Lind, 2007)
- [10] (Norman & Hyland, 2003)
- [11] (Ryan & Bhattacharyya, 2012)
- [12] (Stenfors-Hayes et al., 2010)