



Creativity: an employability attribute of Engineering research higher degree graduates

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Study approach

- Semi-structured interviews (1-3 hours)
- 22 employers of EHDR graduates
- 25-2000 employees
- Range of engineering work
- Various administrative roles
- Varied backgrounds
- Grounded theory analysis

Key influence on views of E PhDs in the workplace:

- Employers use commonplace theories of creativity.
- Use is consistent across contexts:
 - organisational size, type or aim
 - employer qualifications
- Valued and feared

Elements of creative problem-solving

- Product
 - Original, useful, correct, valuable
- Process
 - Heuristic, not algorithmic
- Person
 - A person able to engage in the creative process to produce the original product

‘Just from the image of them...’
Inference and Gut Feeling

EHDRG image → **EHDRG in workplace** → **Weeding**

Intelligent +
Broad/ narrow
Socially isolated
Academically
affected

Impact inferred

- Business
- Clients
- Workers

Sensing
•‘vibes’
Testing

Element 1: EHDRG as creator of product

Visionary innovator

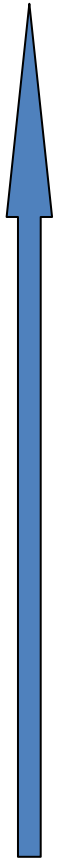
Imagining potentialities
Future scenario planning

Niche Innovator

Producing new to world
product/outcome

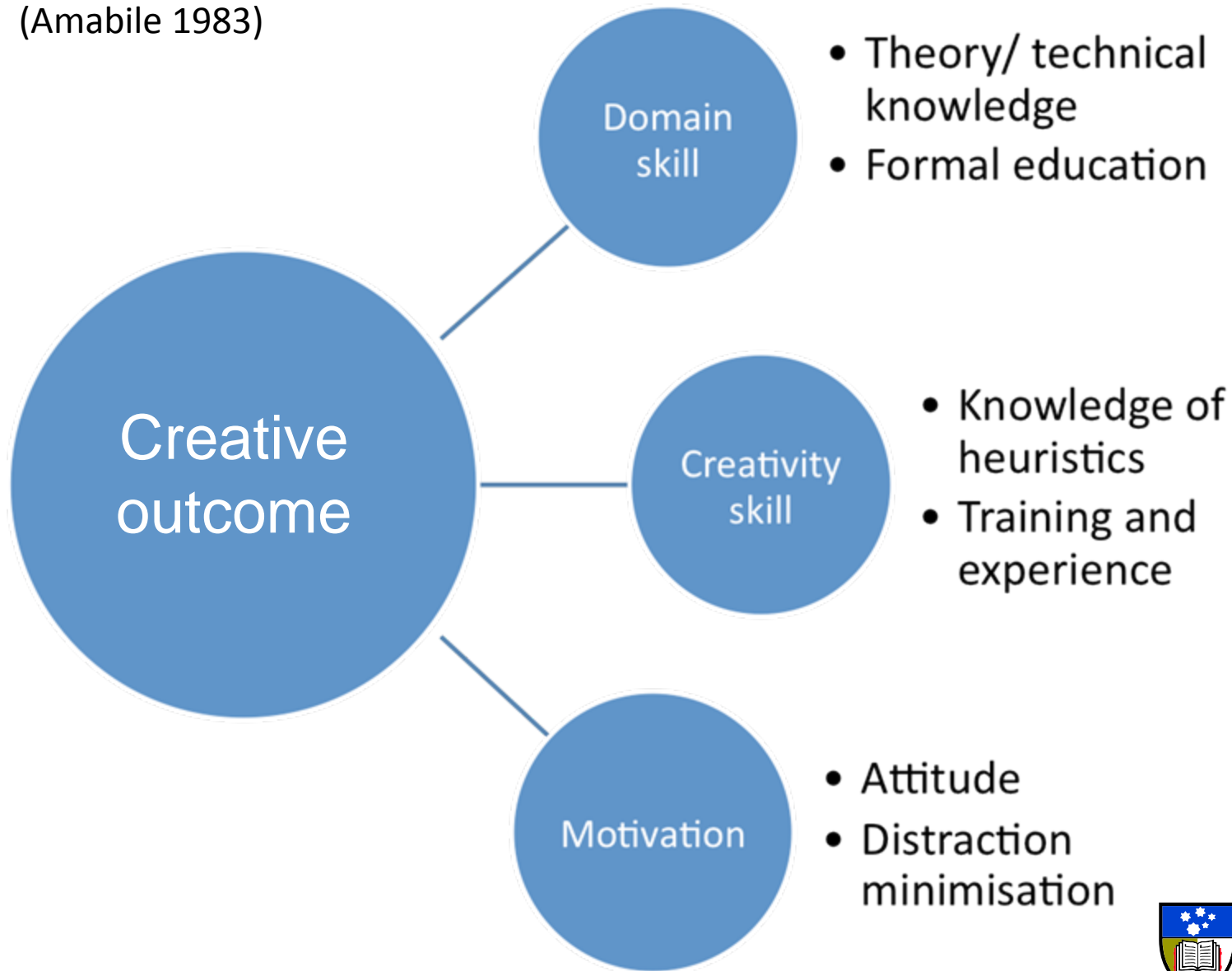
Innovative adapter

Sourcing and adapting existing
product



Elements 2 & 3: Person and process

(Amabile 1983)



Adams et al. ISEE 2010

Employers' theories of creativity

- Ability we all have
 - Only needs encouragement
- Creativity is a mysterious quality
 - Flash of insight
 - Inspiration
- Notions of creative genius
 - Associated with social difficulties
 - Obsessiveness
 - Eccentricity
 - Disinterest in people
 - Not in the 'real world'
 - Madness: 'a bit autistic'



(Becker 1992; Rickards 1999)

Recommended- but improvements?

- Pre-candidature industry work experience
- Industry relevant research topics
- Joint university/industry projects
- Shared academic/industry supervision
- Industry-based professional development for engineering academics

References

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