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BMBM5020– Changemakers; creativity and value creation

Trawsnewid Addysg, Trawsnewid Bywydau
Transforming Education, Transforming Lives

Week 2: Think Differently

Divergent and Convergent Creativity



Learning outcomes for today



Explain divergent and convergent thinking



Apply Wallas' model of the creative process and SCAMPER



Understand creativity as combinational and associative



Use structured ideation techniques



Critically evaluate brainstorming



Where do good ideas come from?

- The best way to get a good idea is to think of a really good idea.

What if creativity has less to do with waiting for inspiration and more to do with **generating possibilities, making unusual connections and knowing when to evaluate them?**

Idea generation – idea evaluation

- Problem → inspiration → brilliant idea
- Explore → associate → generate → recombine → incubate → evaluate → develop

Guilford: Divergent and Convergent Thinking

Guilford's theory of divergent and convergent thinking is a theory about how people think when solving problems, especially when being creative. He argued that **intelligence is not just about finding the one correct answer**; people can also think creatively by producing many different possible answers.

He therefore distinguished between two types of thinking:

- **Divergent thinking: One problem → many possible responses.** What could we do? How many alternatives exist? What if the normal rules disappeared? How else could this problem be understood?
- **Convergent thinking: Many possibilities → one or several defensible choices.** Which idea best addresses the problem? Which creates the most value? Which is feasible? Which should we develop?

Divergent Thinking vs Convergent Thinking

- Divergent: You move away from one starting point and generate many possible **ideas or solutions**; you are **not immediately judging the ideas**, you are trying to produce **different possibilities**.
- Convergent: Works in the **opposite direction**. After generating lots of possibilities, you **evaluate them and narrow them down to an appropriate solution**.

Guilford's theory says that creative thinking involves the ability to move beyond one obvious answer and explore multiple possibilities, while also being able to evaluate those possibilities and arrive at an appropriate solution.

Dimensions used in Divergent thinking:

- Fluency: How many ideas can you generate?
- Flexibility: How many different categories of idea can you generate?
- Originality: How unusual or statistically uncommon is the response?
- Elaboration: How extensively is an initial idea developed?

Does creative thinking happen in one moment?

Graham Wallas proposed a famous **four-stage model of the creative process** in his 1926 book *The Art of Thought*. The theory explains **how a creative idea develops**, rather than simply describing what creativity is.

1. Preparation
2. Incubation
3. Illumination
4. Verification

Components explained

Preparation:

- You **collect information and understand the problem**.
- You research, learn about the situation, identify the problem and think about possible approaches.

Example:

A company wants to create a new product, so employees research customers, competitors and market trends.

Incubation

- You **stop consciously working on the problem** and let your mind process the information.
- You might do something completely different, such as going for a walk or sleeping; it challenges the assumption that constantly forcing attention onto a problem is always productive.
- The important idea is that the problem continues to be processed **unconsciously**.

Example:

After researching the product, the team leaves the problem for a few days and works on something else.

Components explained

Illumination

- A new idea or solution suddenly comes to you.

Example: Why don't we create a reusable version of this product?

Verification

- You **test and evaluate the idea** to see whether it actually works.
- You check whether it is practical, useful, realistic and appropriate.

Example:

The company tests the new product with customers and discovers what needs to be changed.

Where do new ideas come from?

Can you think of something that is completely new, drawing on absolutely nothing that existed previously?

Many creative ideas involve:

- Combining existing concepts
- Transferring principles between domains
- Reorganising existing knowledge
- Creating unexpected associations

Smartphone: telephone + computer + camera + internet + GPS + music player + touchscreen + software ecosystem

Not necessarily one isolated invention, but a combination of previously developing capabilities

Scamper

SCAMPER is a **creative thinking technique** used to generate new ideas by taking an existing product, service, process or idea and asking questions about how it could be changed.

- Substitute; What could we replace?
- Combine; What could we bring together?
- Adapt; What could we borrow from somewhere else?
- Modify; What could we increase/ reduce or alter?
- Put to another use; Could an existing resource create different value?
- Eliminate; What could disappear entirely?
- Reverse/Rearrange; What happens if the process is inverted?

Associative thinking..

What connections could exist between these concepts?

Sometimes creativity occurs because previously unrelated knowledge structures are brought into contact.



Coffee



Netflix



Membership



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Activity

Independent coffee shops face intense competition for customers: redesign the coffee-shop experience. During initial idea generation, do not consider feasibility.

- **Round 1: Conventional brainstorming, 5 minutes**
- **Round 2: SCAMPER, 10 minutes**
- **Round 3: Forced analogy; Netflix, IKEA, Spotify; What would a coffee shop look like if it behaved like this organisation? 10 minutes**

The safest idea? The most feasible idea? The most radical idea? The idea you would invest in?

Break



Changemaker challenge

- Return to the problems you identified in week 1
- Choose **three problems**
- For each problem, generate **at least ten possible responses:**
 - at least 2 deliberately unconventional ideas
 - at least 1 SCAMPER-generated idea
 - at least 1 analogy-derived idea
 - at least 1 idea you initially think is unrealistic

Reflection: At what point during ideation did I start censoring myself, and why?

What might have happened if I had allowed the idea to develop for another five minutes before judging it?

Assessment 1: Reflective portfolio, 2000 words

- A reflective account of your development as a changemaker, using **Gibbs' Reflective Cycle (1988)** as a guiding framework
- Create a portfolio documenting and critically reflecting upon your development as a changemaker. Drawing on selected learning activities, challenges and experiences undertaken during the module, you should demonstrate how your understanding and practice of creativity, innovation and value creation have developed. Your reflections should integrate relevant academic theories and concepts and critically consider what you have learned about your own approaches to creativity, collaboration, problem-solving and creating value.

Assessment 2: Report, 2000 words

- The problem-solving challenge: **Identify and investigate a significant problem or opportunity faced by an organisation, industry or community.** Using creativity, innovation and value-creation theories introduced during the module, develop and justify an innovative and feasible solution.

Assessment 2

1. Understand the problem: What is actually happening? Investigate the organisation/context
2. Define the problem: What is the underlying problem they are attempting to solve?
3. Generate alternatives
4. Evaluate alternatives
5. Develop the solution
6. Demonstrate value creation

Report

- **Suggested report structure:** Your report should include an introduction and context; analysis of the identified challenge or opportunity; application of relevant creativity, innovation and value creation theories; development and justification of your proposed solution or course of action; consideration of implementation, feasibility and potential limitations; and a conclusion with clear recommendations. You should select and critically apply theories that are most relevant to your chosen context. Appropriate academic and industry evidence should be used throughout to support your analysis and recommendations.

Any questions?



Reference List

- Eberle, B. (1996) *SCAMPER: Games for Imagination Development*. Waco, TX: Prufrock Press.
- Guilford, J.P. (1967) *The Nature of Human Intelligence*. New York: McGraw-Hill.
- Mednick, S.A. (1962) 'The associative basis of the creative process', *Psychological Review*, 69(3), pp. 220–232.
- Osborn, A.F. (1953) *Applied Imagination: Principles and Procedures of Creative Thinking*. New York: Charles Scribner's Sons.
- Wallas, G. (1926) *The Art of Thought*. London: Jonathan Cape