

# A Didactic Approach for Enhancing Creative Thinking in Business Model Teaching

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# A Didactic Approach for Enhancing Creative Thinking in Business Model Teaching

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## Abstract

This paper explores insights on how creativity training can be integrated as an inherent part of any BM innovation curriculum using a specific didactic approach for enhancing creative thinking. Based on experiences from teaching business model innovation in entrepreneurial and business development contexts, a didactic approach is presented and discussed.

**Keywords:** Teaching business models, creative thinking, creativity training.

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## Introduction

Creative thinking is found to be a fundamental competence in developing new business models (Lund *et al.*, 2017; Brøndum *et al.*, 2018). Creative thinking skills such as the ability to continue having ideas even if you are tempted to stick to the first (fluency), the ability to have very different ideas (flexibility), the ability to visualise future scenarios and to imagine what is not yet here, are needed to challenge the old way of thinking and produce novel ideas when doing business (Tang *et al.*, 2018). As such, enhancing students' creative thinking skills and their creative self-efficacy should be part of any curricula dealing with business model (BM) design or BM reconfiguration; the first being connected to inventing something new (businesses or business models), while the latter is related to restructuring and ideation in the realm of existing businesses and BMs (cf. Massa and Tucci, 2013).

Research indicates that training creative skills matters, and everybody can be trained to be better at creative thinking (Tang *et al.* 2018; Byrge and Tang, 2015; Scott *et al.* 2004; Torrence, 1972). This research is aligned with our experiences; students participating in creativity training activities becomes better creative thinkers within the scope of a course. However, it is also our experience that the training of creative thinking should not be taught as another subject "on the side", as illustrated to the left in figure 1. The ability to use the trained creative skills in other study activities becomes higher if the training didactically is built in as an inherent part of the education, e.g. BM innovation (the right side of figure 1).

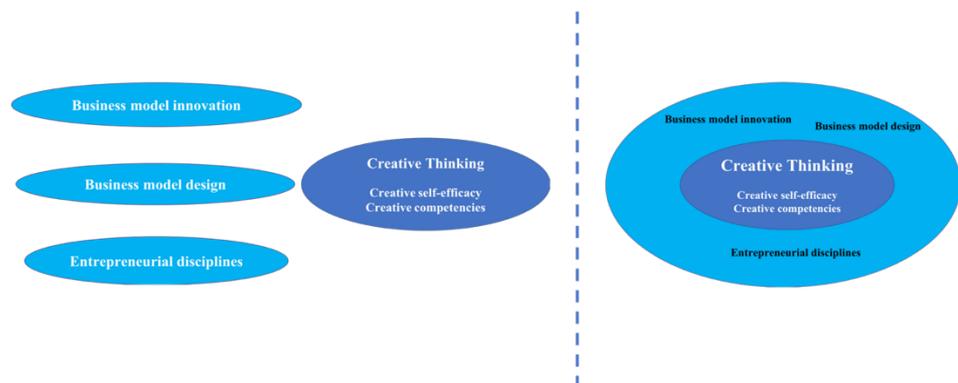
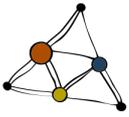


Figure 1: Two ways of integrating Creative Thinking

At bachelor's and master's level, we have experimented with several approaches to enhance students' creative thinking as well as practitioners (business developers and managers) in BM innovation programs. Common for the approaches has been a



separation of the teaching in BM innovation and creative thinking. Often, they are separated in different subjects, taught by different teachers and accessed separately. Sometimes, attempts to integrate creativity teaching in a subject like BM innovation have been organised as a creative process. Even though studies actually have shown that this helps students to become more creative temporarily (de Bono 1985; Paulus and Yang, 2000) it is our experience that unless they are carefully facilitated in using their trained creative thinking skills throughout the whole curricula, students will often “fall back” and continue their old way of (conform) thinking and the established dominant logic when they are outside the creative thinking course (Prahalad and Bettis, 1995). Often, the transfer of creative competencies to the more substantial subject of BM innovation seems to be blocked by one or more of the following reasons: Convergent education practice where lecturers do not expect, nor accept, creative thinking; lecturers and students attitudes and beliefs about creativity; the motivational environment like evaluations focusing on exact answers, and lack of students own creativity related beliefs, often called creative self-efficacy (Beghetto, 2010).

Instead of separating teaching in creative thinking from other subjects in the curriculum, the whole curriculum can be based on a didactic approach aiming specifically at developing students' creative competences and creative self-efficacy. The didactic approach is called the “Creative Platform” (Hansen and Byrge, 2009; Byrge and Hansen, 2009; Byrge and Hansen, 2014).

In this approach, creative competencies like originality, fluency, flexibility, visualising future scenarios (imagination), elaboration and persuasion are trained and facilitated as the “mode of operation” in all subjects throughout the curriculum. All exercises and tasks throughout a program are solved using the same creative methods and processes, which also must be asked for during assessment. This way, the students get a strong signal that creative thinking is valued, which helps them to build a robust creative self-efficacy. The creative self-efficacy is crucial for student's future ability to do creative thinking outside training programs. When we encourage creative thinking as *the* way of thinking throughout an entire BM course, students gain a high level of creative self-efficacy, which in turn amplify the transfer of creative thinking to BM innovation practices (Beghetto, 2010; Bandura 1997). Using the Creative Platform as a didactic approach has proven to significantly enhance students creative thinking in various teaching settings (Byrge and Hansen, 2013).

## Approach

In the following, we show an example of using the Creative Platform as a didactic approach to enhance students creative thinking within the scope of BM innovation. Figure 2 illustrates a generic process that can be used as part of any BM innovation program. The processual flow, descriptions of the individual steps as well as examples of implementation are described in the following.

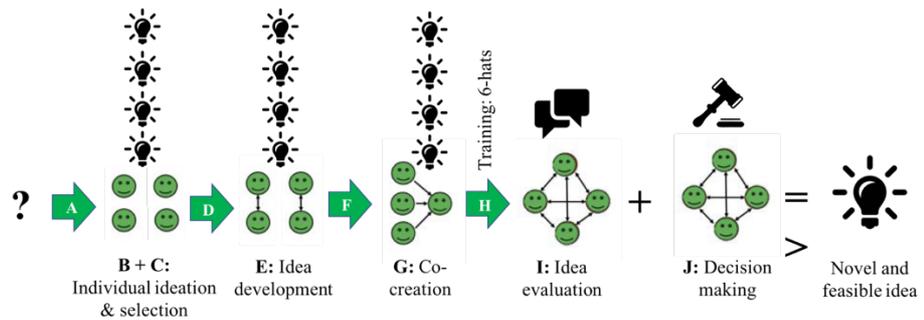
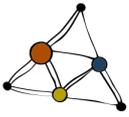


Figure 2: Figure 2: Enhancing creative thinking in business model innovation using the didactic approach of the Creative Platform.

## The processual flow

The process in figure 2 starts with a problem. In an entrepreneurial setting, where BM design of new businesses (and BMs) is the goal, the problem could be identified in the market. In university-industry activities, where BM reconfiguration is the goal in the realm of existing businesses, the problem is usually something the company (or entire industry) is facing. In the rest of the process, the students' creative thinking is facilitated by introducing small training exercises dealing with a specific competence needed for the following activity.

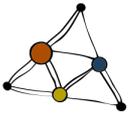
During the process, many ideas about how to handle the problem will be generated and elaborated in parallel by the team members. In the first part of the process, each team member is responsible for elaborating an idea that he/she finds most promising. The other team members, external gatekeepers, and stakeholders will participate in co-developing each idea without judging. In the last part of the process, the team will evaluate the BM ideas and decide on the most promising one. One way to evaluate the BM ideas could be to use the criteria suggested by Brøndum *et al.* (2018) regarding novelty and feasibility. Another technique is to evaluate each BM idea on a scale from 1-10 on the following criteria: strategic fit (between the new BM and the company in question), whether the new BM is generating new revenues, how well it



leverages the company's assets, the degree of upfront investment, level of risk, and how hard the BM is to copy.

### ***Step by step description of the process***

- A. The team members are trained in doing individual ideation. As ideas represent knowledge and possibilities, it is essential to have many *different* ideas (flexibility). Furthermore, research suggests that a team produce both more ideas (fluency) and more different ideas (flexibility) when they work individually instead of as a group (Mullen *et al.* 1991). To enhance both fluency and flexibility the ideation can be facilitated using stimuli cards with random words, (de Bono 1992) or person analogies (Gordon 1961).
- B. Individual ideation: The team go through the initial "problem" and starts an individual ideation process of how to solve it, using the same ideation method they trained a few minutes ago in step A. For example, if the assignment is about identifying a potential customer segment for an entrepreneurial opportunity derived from a problem in the market, the ideation could explore whom each team member believes to be the potential first customer for this product/service.
- C. Individual selection: After the ideation, each team member presents their ideas to each other. When all ideas for the first potential customer have been presented (with no judgement allowed), each team member picks the one they like best – following their heart. To increase the amount of knowledge used throughout the process and to maximise the team's perspectives on the task, every team member will work on different ideas at this stage. This will also allow each team member to follow their own interest without judgment, which enhances the level of intrinsic motivation, which is known to be one of the critical ingredients in creative thinking (Amabile, 1998) and in entrepreneurial endeavours (Aulet, 2013).
- D. The team members are trained in further developing an idea in pairs. The reason why they work in pairs is that it is much easier to say "yes" and avoid judgement compared to being in a larger group of people. Another reason is that the more people participating in the same ideation, the more likely they are to follow the same patterns of thought (Marsh *et al.* 1996). The creative competencies trained are idea development (based on saying "yes, and..." to any idea) and to use it as a steppingstone to an emerging idea that would otherwise remain hidden to the team members.
- E. Team members help each other developing their ideas even further in pairs using the competencies they just trained.



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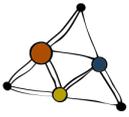
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- F. The team members are then trained in co-creating their ideas together with the whole team. Different methods can be trained here, e.g. prototyping techniques or different ways of doing a creative collaboration. The creative competencies trained is prototyping and creative collaboration in a team.
- G. Co-creation: The co-creation can take place among the team members internally, with customers and domain-experts through co-creating interviews, or prototyping involving gatekeepers and stakeholders. If participants outside the team are invited, it will enhance domain-relevant knowledge and even horizontal knowledge from other domains usually not considered relevant to the problem at hand (Brøndum *et al.* 2018). In entrepreneurial settings, it might even be a requirement to involve a number of interviews with potential customers to do market validation, e.g. the Lean LaunchPad (Blank *et al.*, 2014).
- H. The team members are trained in parallel thinking, using the method “6 thinking hats” (de Bono, 1985). Parallel thinking is an open-minded approach allowing team members to avoid positioning and discussion. Instead, evaluation is done by listing facts, positive and negative consequences, and by looking for alternative solutions. Based on these lists, the team chose one (or more) idea(s) they want to continue working on in the following. The creative competencies trained is the method “6 thinking hats” or similar to train parallel thinking.
- I. Idea evaluation: So far, the team members helped each other to work on their ideas without judging them individually. Now it is time to prepare for judgement. The six thinking hats are used as a tool to stimulate parallel thinking and keep the discussion task-oriented, not people-oriented (Byrge & Hansen 2014) as well as maintaining a creative working environment. The idea evaluation prepares the team for decision making.
- J. Decision-making: The team decides which idea they should focus the continuous work on, based on the idea evaluation. Instead of working on individually ideas, the team from now on focus on just one idea which, because of the process, is more likely to be both novel and feasible (Brøndum *et al.*, 2018). If the team cannot pick only one idea, they are allowed to keep two or more ideas alive for further co-creating interviews before moving on to the next BM challenge – e.g. how to design a compelling value proposition.





### ***Examples of implementation of the process when teaching BM***

The presented model can be implemented in various educational settings with different time frames:

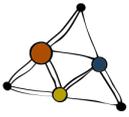
- It could be the guiding facilitation process in a one-day workshop or Solution Camp, where business developers and managers together with students work on a specific problem with the intention of developing new BM ideas. Here, the participants will go through phase A to J once or twice and the event would typically correspond to 1 ECTS for students.
- It could be a plug-and-play workshop facilitated as only one part of a 5 ECTS BM innovation course, where real-life cases are brought into the classroom for students work on company-specific problems with BM reconfiguration as the goal. Here, the students might only go through phases A to J once during the program
- It could also be the guiding facilitation process in longer-lasting programs, where participants go through phase A to J several times either on a daily, weekly or biweekly basis. An example could be entrepreneurial programs such as Lean LaunchPad (for students) or I-Corps™ (for companies) (Blank *et al.*, 2014), where the participants go through each building block of Osterwalder and Pigneur's (2010) business model canvas (BMC) to develop repeatable and scalable BMs.

### **Key Insights**

The following key insights are based on action research in developing and using the didactic approach the Creative Platform for teaching creative thinking as an inherent part of any university curriculum. The Creative Platform has been used in a variety of courses and programs within entrepreneurial and BM teaching. Over the years, multiple student reports, interviews, and tests (Byrge & Hansen 2013) have revealed that the participant's creative competencies together with their creative self-efficacy have been significantly enhanced.

### ***The Creative Platform eliminates creative blocks and promotes training***

Cropley (2011) divide methods for fostering creativity in those that aim at eliminating blocks and those actively promoting creativity through training and facilitation. The Creative Platform uses both.



It creates an environment based on four didactic principles that help to avoid the blocks and, at the same time, create an environment that makes it easier to train creative competencies. The principles, which are inherently facilitated throughout the teaching, are task focus, no experienced judgement, horizontal thinking and parallel thinking (Byrge & Hansen, 2014). “Task Focus” is a principle that help participants focus on the task instead of persons, phones, food, or any alternative (disturbing) focuses. “Parallel Thinking” is a principle that helps participants to focus on the task by dividing a process into small subtasks, in which participants always have the same focus. “No-experienced Judgment” is a principle that helps participants to co-create by saying “yes, and...” to any idea and in that way, helps it emerge. “Horizontal Thinking” is a principle that allows the participants to seek inspiration in other knowledge domains, e.g. by using stimuli cards.

### ***Doing ideation – start individually – when work as a group***

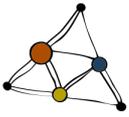
In general, when team members start an ideation process, they should always start individually to increase fluency, flexibility and originality (Mullen et al. 1991). In this way, the feeling of being judged, which makes thinking conform, is reduced. Next step is to have team members co-develop each idea in a creativity-friendly environment with no judgement and where the intense use of saying “yes, and...” helps ideas emerge into something novel and feasible.

### ***Maximising the effect of training creative thinking***

As previously stated, creative thinking is a competence that can be trained. In our experience, the facilitation of the training exercises must take place immediately before it is used; e.g. in the BM design activity of identifying the first potential customer. This will maximise the transfer of creative thinking competencies as well as the team members’ creative self-efficacy. Furthermore, it is our experience that using this didactic approach is much more powerful than teaching creative thinking separately, leaving it to the students to transfer the training to the tasks of BMs.

### ***Decisions are based on more knowledge***

When a team is working with an open mind and take in different ideas, more knowledge is utilised. Thereby, the team will get more possibilities and hence a better knowledge foundation for decision making. Another feature is to avoid any judgement and decision making before it is relevant, e.g. when decisions *have* to be made. This approach is also referred to as the Horizontal Insight Model (Brøndum *et al.*, 2018).

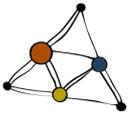


## Discussion and conclusion

A team of students, a company or even an entire industry, can be blocked by a dominant logic that controls their thinking and keeps it within specific patterns. For example, who the primary customers should be or how the firm creates and capture value (Prahalad and Bettis, 1995; Chesbrough, 2003). A culture of creative thinking is needed to escape the controlling patterns and spot new possibilities for the future. Creative thinking will bring more ideas and hence more knowledge and new perspectives to BM innovation. It is also important to realise that creative thinking is not only crucial in the ideation phase, which usually is at the beginning of a process. Instead, creative thinking (new constructions of knowledge and new perspectives that can open up the old patterns of thinking) is needed in every step of the BM innovation process. As such, creative thinking should be the dominating culture in the class or company dealing with BM innovation or other entrepreneurial ventures.

Training and facilitating creative thinking as suggested in this paper might be a significant first step in developing such a creative culture. If students follow a program with the same structure as illustrated in figure 2 for two to three weeks, they will start to develop a creative culture in the classroom based on saying “yes and” to any ideas and an absence of judgement. This is our experience from using the Creative Platform as a didactic approach for a 30 ECTS interdisciplinary program at master’s level. After eight weeks, they also report a high level of creative self-efficacy and around 50% of them master creative thinking in their studies to a significantly higher degree compared to when they entered the program. This tells us that it is possible to gain more creative students in any study program. Nevertheless, even when we use a didactic approach explicitly developed to enhance creative thinking, and we facilitate training of creative competencies throughout the program, it is not every student that will turn into a creative genius.

We know from our experience that basing a BM curriculum on a didactic approach like the Creative Platform can be a demanding task for educators. It requires knowledge, experience, time and effort to restructure an existing BM teaching program to fit another didactic approach. Still, we recommend doing it. Positive feedback from many students has convinced us that more teaching should support creative thinking. For teachers that want to engage in this kind of teaching, the Creative Platform and its effect have been heavily documented (see Hansen and Byrge, 2009; Byrge and Hansen, 2009; Byrge and Hansen, 2014). A set of generic teaching materials have even been published (Byrge &



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Hansen, 2011). The materials are open-source and can be downloaded at [http://vbn.aau.dk/files/56512136/course\\_in\\_new\\_thinking.pdf](http://vbn.aau.dk/files/56512136/course_in_new_thinking.pdf). Further teaching materials supporting the Creative Platform in teaching can be found at [www.uka.aau.dk](http://www.uka.aau.dk).

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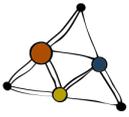
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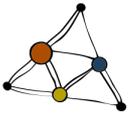
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