
The Effect of Design Thinking Method Toward the Motivation of Visual Communication Design Students in Becoming an Entrepreneur

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ABSTRACT

The world of work is a place of intense competition for each college graduate. Students are faced with developing new solutions to these problems/challenges so they need to practice identifying entrepreneurial opportunities so that the problem of the difficulty of competing in the world of work can be resolved with the emergence of new jobs. In the VCD department in the Visual Study subject using design thinking method as a study material in learning material with the aim of students being able to create a visual communication design that answers existing problems, so that ultimately students have a frame of mind in solving problems in running a business or facing client problems. Based on the results of data processing, the results show that there is a positive influence between design thinking methods on entrepreneurial motivation. Therefore, the role of design thinking methods in influencing student motivation to become entrepreneurs deserves further study.

Keywords: Design, Design Thinking, Visual Study, Entrepreneur, Motivation

INTRODUCTION

The appearance and development of entrepreneurship is an important phenomenon in the modern economy. Entrepreneurship is deeply related with small and middle enterprises (UKM), which is the main development strength of a developed market economy. In most developed countries, the number of UKM companies are higher than 95% with 60% of the available labour working in those companies (Schmiemann, 2008). According to the UMKM business profile

published by the Indonesian Banking Development Institution (LPPM, 2015), UMKM in Indonesia has a high labour absorption of about 97% of all national workforce and contributes to PDB by 57%. This means UMKM has an important and strategic role in national economic development, labour absorption as well as distributing developmental results. This makes the impact of entrepreneurship and UMKM development for long term economic growth to be a vital importance.

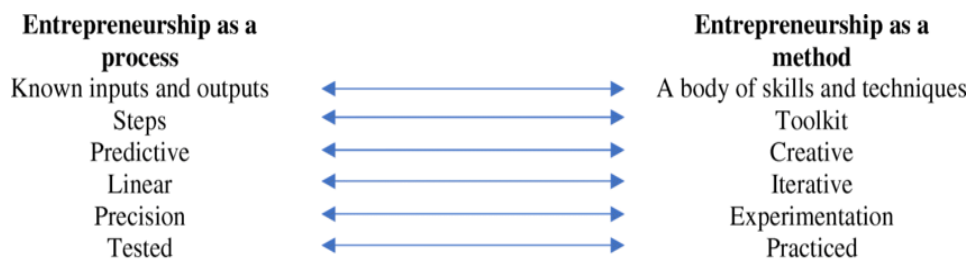
According to Neck dan Greene (2011), entrepreneurship is a complex and non-linear system. Teachers in entrepreneurship have a role to educate the students to have survival skills in a rapidly changing environment. Traditional entrepreneurship knowledge has focused on development of business plan as a planned practice (Honig 2004; Solomon 2007), and there are plenty of knowledge that focuses on discussing what entrepreneurship is instead of how to become an entrepreneur themselves (Pittaway dan Edwards 2012). In addition, there are plenty of research with focus on business planning and prediction (Daniel 2016), that can have a negative impact toward students' willingness to open a business (Carrier 2005; von Graevenitz et al. 2010).

Entrepreneurship education can be taught in various ways, and each institution has their own methods to teach their students. The ideal entrepreneurial process is still hotly debated (Stovang & Nielsen, 2015), but it can be said that an entrepreneurship process is dominated by effectuation logic rather than cause and effect logic (Sarasvathy, 2001). Effectuation shows that entrepreneurs rely on existing means and create a chance together rather than determining the goal at the start (Sarasvathy). Effectuation logic is based on plenty of features in line with the design (Stovang & Nielsen, 2015); whereas cause and effect logic is based on prediction, control, planning, and rational analysis to reach an already determined goal (Sarasvathy 2008).

Neck dan Greene (2011) argues that entrepreneurship is a discipline that is applied but rarely taught as knowledge or theory. They argue that entrepreneur and designer have plenty of similarities. Entrepreneur "thinks and to a certain extent as a designer" (pg. 65). Conventionally, entrepreneurship education assumes *fix problem* can be solved through a linear problem-solving process. Students are also often forced to have a business idea quickly at the start of the semester and later conduct planning and prediction activity with the aim of

showing economic feasibility at the end of the semester (Daniel 2016).

Students are often graded based on course result, business plan, rather than skill learning process and entrepreneurial mindset. There's a shift from traditional subject that is more in the type of "what" and "for" but contain a planning approach toward a more holistic approach, where the final result of study (for example, business plan) is not the main focus, but that it's more important for students to develop entrepreneurial skill and behaviour (Fayolle et al. 2006). There's also plenty that argues that an entrepreneurship education must be moved from an education that is focused on the teacher to an education focused on the students (Daniel 2016; Robinson et al. 2016). Neck dan Greene (2011) states that entrepreneurship has to be taught as a method rather than a process (see figure 2). It is also debated that the Design Thinking method is possibly the future of entrepreneurship education (Val et al. 2017) as it fits together well.



Process vs. Method approaches to teaching entrepreneurship based on Neck and Greene (2011)

Figure 2 Process vs. Method approaches of teaching entrepreneurship

Source: Neck & Greene, 201

Design Thinking (DT) is a creative problem-solving method that is based on user needs. This is what encourages organizations to create innovation that is more user focused; so that the product, service, as well as internal process can be made better. When a solution is needed for a need, the first question that comes to mind is who are the people in need of this. The DT method combines what is desired from a human point of view with what is feasible both from an economic and technological side. This is also possible for people that don't have the background as designer to do a creative method in undertaking various challenges. The DT process starts with taking action and understanding the appropriate question, appreciating simple change in mindset and dealing with

problems from a new point of view.

The DT method has been used since the 1950–1960s, but started to be popularized and adapted for business goals from 1990 by David M. Kelley, founder of design consultant IDEO. In 1992, Richard Buchanan wrote an article with a title of “*Wicked Problems in Design Thinking*” that discloses a wider view of DT as a method that can solve difficult human problems through design. The Hasso Plattner Institute of Design, Stanford, which is often called by d.school; describe DT as a 5 step process. It is important to know that these steps aren’t always linear or sequential and designer can do steps in parallel, randomly or to repeat the process based on the need and situation. Steps in DT is illustrated in figure 1.3.



Figure 3 Illustration of *Design Thinking* Steps
Source: Author

Universitas Ciputra (UC) is the pioneer university that focuses on entrepreneurship education; regardless of whatever major is chosen, all students will undergo entrepreneurship-based education. Since 2006, UC has committed that every available study program/concentration will have the same goal to prepare students to become entrepreneurs based on their respective expertise. According to UC prospectus data in 2018, from 870 alumni there are only 42%

that become an entrepreneur and successor of a business. Not all students are able to become entrepreneurs due to several factors, such as differences in culture or family conditions that don't come from an entrepreneur background which makes it difficult for them to follow entrepreneur education in UC.

In UC, in particular in the *Visual Communication Design* (VCD) major, they apply the DT method in study curriculum because the DT process is the interaction that happens between inspiration, idea, and implementation (Brown dan Katz 2009) fits very well with VCD learning aim. The professionals in the design sector conventionally work by shaping, arranging, designing, re-designing, and building artifacts, but for the last few years, the design process has become relevant for a wider use (Stovang dan Nielsen 2015) such as business, innovation, and *entrepreneurship*. Creativity and mindset that is innovative is a central thing for design students (Koh et al. 2015). DT method is taught to be able to continually challenge new ideas and think up solutions that fit user needs.

The students are faced with new solution development for problems/challenges so that the DT method is used. In the VCD department, the Visual Study subject uses DT as study material in class. The visual study subject aims to facilitate students to be able to explore ideas in creative content making based on the principle of scientific problem solving. DT method has been taught since the start of visual study class so that students are able to create visual communication design that can answer various problems that exist, so that in the end students have a learning structure in solving problems in either running a business or dealing with clients' problems. In the second meeting in the first week of class, the creative communication material is taught by using DT method, this is meant so that students can think creatively and independently as they already have the thinking framework in creating ideas

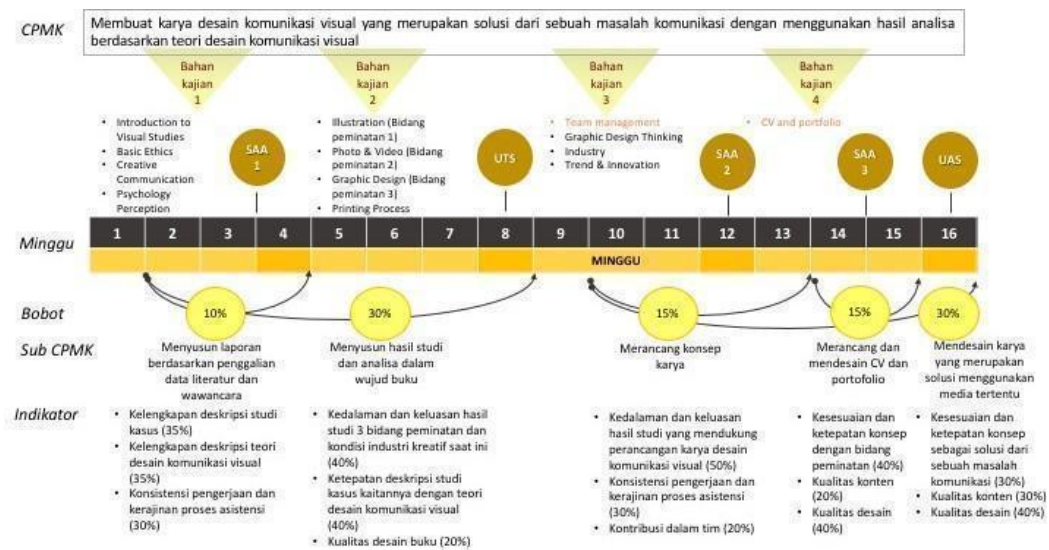


Figure 4 Overview Visual Study
Source: RPS Visual Study – VCD UC 2019

Students' motivation in becoming an entrepreneur become a benchmark of success for UC so that entrepreneur education is continually updated for its curriculum so that it fits better with a dynamic situation. According to Robert Kreitner (2014), motivation is a psychological process that causes stimulation, instructions and persistence in dealing with an activity that is done voluntarily and aimed toward a goal.

According to MC Clelland (1961), an individual can have motivation if they themselves have the will to achieve better than others. According to Maslow's theory (1943), motivation can be interpreted as a power or energy of someone that can cause a level of persistence and enthusiasm in doing an activity, either the ones based from the individual itself (intrinsic motivation) or outside the individual (extrinsic motivation).

From the description above, the reason UC and in particular VCD major is chosen in particular is because UC has already applied DT method in its teaching, as well as having entrepreneur education as a core study in its curriculum. Although DT method has been introduced and used in UC, however until now there has never been any data that shows whether the DT method used is fit and effective in growing students' motivation to become an *entrepreneur*, in

particular VCD students. How far the DT method affects the *Visual Communication Design* students in Universitas Ciputra to become an *entrepreneur* is something that needs to be researched further.

RESEARCH METHOD

This research is correlation research, which is research that aims to know whether there exist or not a relation or effect between two or more variables. There are two types of correlation which is parallel correlation or cause and effect correlation, where in the parallel correlation is the situation where there is no cause-and-effect relation between the first and second variable, but the reason why a relation between the two is predicted is to be researched. On the other hand, the cause-and-effect correlation are where the first variable has an effect on the second variable. This correlation is also called effect research. This research uses the cause-and-effect correlation research by using the simple linear regression formula (Arikunto, 2006). The object of this research is the VCD students in the third semester who are registered in the visual study class, in total there are 60 people who are given questionnaires with open and closed questions.

Statement		Response score					Mean	Category
		1	2	3	4	5		
1	Able to tolerate and survive uncertainty	2	11	12	26	9	3,43	Agree
2	Able to accept risks of failure	1	1	10	40	8	3,88	Agree
3	Able to understand the behaviour, needs and values of others	0	2	5	40	13	4,06	Agree
4	Able to see and feel from other people point of view	0	2	4	26	28	4,33	Highly Agree
5	Able to provide more than one solution when needed	0	3	9	29	19	4,06	Agree
6	Able to judge a problem as a whole (holistic)	0	0	12	32	16	4,06	Agree
7	Able to work together with others	1	3	9	22	25	4,12	Agree

8	Able to share knowledge with others	1	3	4	28	24	4,18	Agree
9	Able to discuss using visualization tools	0	2	10	30	18	4,06	Agree
10	Able to collaborate with various teams	0	2	9	30	19	4,10	Agree
Total							4,03	Agree

Tabel 1 Average Variable Score of Design Thinking Method

Variable	<i>Cronbach Alpha</i>	Critical Value	Description
Design Thinking Method (X)	0,808	0.6	Reliable
Entrepreneur Motivation (Y)	0,770	0.6	Reliable

Tabel 2. Reliability Test Result

RESULT AND DISCUSSION

Based on the data processing result there is a positive effect between design thinking method with entrepreneur motivation. It is known that the hypothesis test result with t-Test to test the tangible effect of design thinking method toward entrepreneur motivation partially (individual). The method design thinking variable (X) is significant, or in other words H_0 is rejected, this can be seen from the value of t counted for the variable method design thinking (X) has the value of 4,247 which means this value is bigger from the t table value of 1,96 and the significance probability of 0,000, that value is way lower than 0,05 or significance $\leq 0,05$.

Entrepreneurship can benefit from applying DT when moving into a creative problem-solving process, or when looking for new opportunities or challenges. With a deeper understanding of the dynamics and strength of DT,

students can benefit from the integration of entrepreneurial skill in the curriculum. One of the main principles of DT is placed in the Double Diamond working structure, that promotes divergent and convergent thinking.

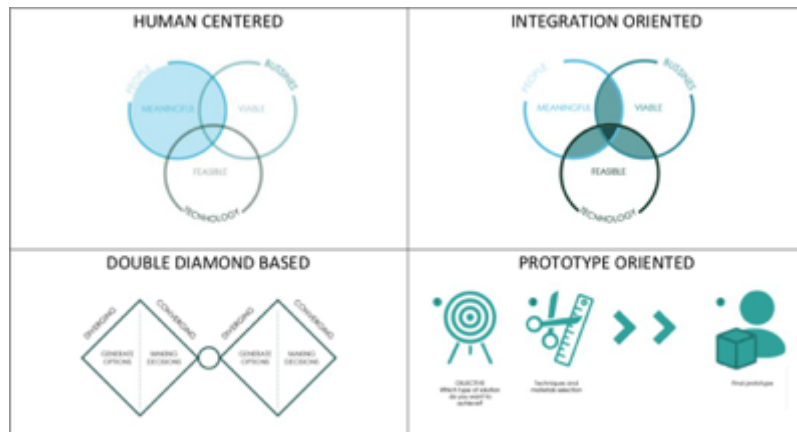


Figure 5. *Overview Design Thinking Principles*
Source: www.designcouncil.org.uk

CONCLUSION

Entrepreneur's motivation emphasizes on *entrepreneurship* that has the main function to build an entrepreneur with 7 *Entrepreneurial Competences*, which are: *Moral Integrity, High sense of achievement, Lifelong learning, Networking, Opportunity creation, Creativity & innovation dan Calculated risk taking*. The presence of entrepreneurial motivation can develop someone's thinking power. The result of this research is supported by research done by Rapp dan Stroup (2016) and Liedtka (2018) that states that design thinking applications can increase entrepreneur motivation.

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