



THE DEVELOPMENT OF THE ENTREPRENEURSHIP LEARNING DESIGN BASED ON CARING ECONOMICS TO ENHANCE SPIRIT OF ENTREPRENEURSHIP AND ENTREPRENEURIAL INTENTIONS

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ABSTRACT

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This study aims to establish a caring economics-based entrepreneurship learning design in order to enhance students' spirit of entrepreneurship and entrepreneurial intentions at a higher education level. This research and design study referred to design-based research (DBR) and data was gathered by distributing questionnaires and conducting interviews to develop quality recommendations for revising products from validators and trial courses. Respondents were the students of Sanata Dharma University, Indonesia, and the validators were the learning design experts from the State University of Malang, Indonesia. The data was a descriptive elaboration of the validation stage and trials before and after the product prototype revision. Based on factual model analysis, it was found that the recent entrepreneurship learning practice had not yet enhanced the students' spirit of entrepreneurship and entrepreneurial intention. The entrepreneurship learning material had not been linked systematically to the concepts of caring economics, which align with the spirit of mutual cooperation and togetherness. The validation and learning design prototype trials result was very beneficial and is ready to be implemented in the entrepreneurship learning class at a higher education level. The study is expected to contribute to the colleges, especially in entrepreneurship learning based on caring economics that prioritizes social entrepreneurship development, by emphasizing caring aspects for people and the environment.

Contribution/Originality: This study is one of very few that have investigated entrepreneurship learning design development based on caring economics to enhance the students' spirit of entrepreneurship and entrepreneurial intentions in higher education.

1. INTRODUCTION

The number of college graduates in open unemployment in Indonesia in 2005 was 3.2% (356,671 people) of the overall total in open unemployment. This number increased to 10.61% in 2018 (729,113 people). College graduates generally prefer to seek employment rather than start their own businesses. Most entrepreneurship educators are less aware of the students' development of spirit of entrepreneurship and entrepreneurial intention. Entrepreneurship learning at college tends to be set in materialism in order to encourage more people to start their own financially beneficial business. Thus, graduates are not aware of the feasibility of making use of resources for mutual welfare. In this case, an individual acts as a *homo economicus* who is independent, autonomous and rational,

and pursues maximum satisfaction for minimum cost. This is a human concept based on utilitarianism (Van Osch, 2013).

In the free market, this human behavior is considered to efficiently allocate rare goods and services and people are a group of individuals who act rationally. In real life, those people display anti-social behaviors, such as social isolation, lack of emotion, less moral awareness and have no relationships with other people. They focus only on rational decisions for maximum satisfaction based on their own needs for minimum cost and do not consider others' needs and desires (Van Staren, 2001; Witjaksono, 2016).

Entrepreneurship learning at higher education has not yet been linked to the principles of economics management mandated by the Republic of Indonesia's 1945 Constitution, in which articles 33 and 34 are relevant to the characteristics of caring economics. It puts forward a common interest based on altruism and compassion to direct the human relationship with fellow humans and the environment with the final aim of national economic development. It improves welfare and prosperity to sustain quality of life (Witjaksono, 2016).

Neo-liberalism has dominated the world of economics and formed the human behavior of *homo economicus*. As an alternative idea of social economics management, the idea of caring economics has developed recently. Singer and Richard (2015) elaborated on caring economics as an economic science and system that emphasizes the importance of caring. This new economics system and acts offered are based on "*homo economicus as a fundamentally pro-social being*". *Homo economicus* still becomes the fundamental characteristic, yet the orientation is directed toward social well-being and environmental prosperity.

Caring economics is not only about the science, systems and approaches, but also about the practices and alternative economic theories to those of capitalism and socialism. The social economic system and behaviors based on caring for people and the natural environment could be brought together with two principles: change the recent economic segments and studies that only focus on market economy, government economy and illegal economy for a complete economic spectrum, and put aside the social paradigm from a dominant system to a partnership system (Eisler, 2013; Witjaksono, 2016).

Concepts on caring economics also came from Van Osch (2013) who elaborated that caring economics focuses more on the content, form, organizations, institutions and economic policies shifting the neo-liberalism paradigm to care for human beings. Based on this view, the economic way of thinking and acting change from collecting wealth for oneself to prospering together with others and maintaining survival on this planet.

Entrepreneurship has had a profound history since 1732 when an Irish economist, Richard Cantillon, used the word when referring to an individual with the willingness to act with arbitration, which includes financial risks when establishing new a business (Minniti & Lévesque, 2008). Drucker (1985) defined entrepreneurship as an ability to create a new and dissimilar thing. McClelland (1961) defined an entrepreneur as an individual who manages his business and intensifies the productive capacities pushed by a need for achievement. Henderson and Palm (2011) summarized various predominant characteristics of entrepreneurs based on literature: the need for achievement, the need for freedom, creativity tendency, risk taking, and drive and determination.

Entrepreneurial interest is defined as an individual willingness to actualize entrepreneurial behavior, engage in entrepreneurial activities, be an entrepreneur, or establish a new business (Dell, 2008; Dohse & Walter, 2010). According to Bird (1988), entrepreneurial interest refers to individual statements of thought to establish a new business, construct new business concepts and create new values for a company.

Entrepreneurial education in the last two decades has significantly grown in most industrialized countries (Matlay & Carey, 2007). Linan (2004) classified four types of entrepreneurial education programs: entrepreneurial awareness education, education for start-up, education for entrepreneurial dynamism, and continuing education for entrepreneurs.

Based on the elaboration above, it is presumably necessary to conduct research and development on entrepreneurship education, which starts by scrutinizing its curriculum, learning tools and learning practices in

higher education based on caring economics and the main constitution for economics management, namely the 1945 Constitution of the Republic of Indonesia.

2. LITERATURE REVIEW

Neo-liberalism has dominated our economic world and formed human behavior of *homo economicus*. As an alternative idea of society economics management, there is caring economics idea to develop lately. Singer and Richard (2015) elaborated caring economics as economics science and system that emphasize on the importance of caring. New economics system and acts offered are based on “*homo economicus as fundamentally pro-social being*”. *Homo economicus* still becomes the fundamental character, yet the orientation is directed to be social well-being and environment prosperity. Altruism and compassion are the basic principles in changing the paradigm from self-interest *homo economicus* to human being and environment-interest *homo economicus*.

Caring economics concerns not only its science, system, and approaches, but also the practices on how the theories of caring *economics* become the alternative of the existing economic theories (capitalist and socialist) (Eisler, 2013). The basic concept of caring economics on this term is to develop the economy and people based on caring for people as well as for natural environment. The system and economic actions that based on caring for people and natural environment can be actualized by having these two principles: (1) expanding the economy studies from the market economy, government economy, and illegal economy to the more intact economy spectrum, and (2) shifting the social system paradigm from domination system to partnership system (Eisler, 2013; Witjaksono, 2016).

The *caring* economics concept also comes from Van Osch (2013) who elaborates that caring economics focuses more on contents, forms, organizations, institutions, or economic policy that shifts the neo-liberalism into caring for human being paradigm. The offered basic concept is to shift the economic thinking paradigm from *homo economicus* to caring for human being. It requires some basic changes on its concepts and theories that are oriented to neo-liberalism economics from amassing own wealth to prospering the society and maintaining survival on the planet.

Entrepreneurship has a profound history since 1732 when an Irish economist, Richard Cantillon, used that word to call an *individual* with the willingness to act of arbitration which included financial risks from establishing new business (Minniti & Lévesque, 2008; Nandram & Samsom, 2006; Zimmerer & Scarborough, 1996). The active form of entrepreneur is *entreprendre*, which is translated as doing or starting something.

Carland, Hoy, Boulton, and Carland (1984) stated that the business unit created by an entrepreneur and the entrepreneurial activities undertaken for profitability and growth are marked by innovative and creative practices (Henderson & Palm, 2011). Kirzner (2009) stated that an entrepreneur always tries to seek out opportunities to create and establish a company. Similar to Kirzner (2009), he stated that entrepreneurship is an effort to intentionally create and change a company's economic and social potential.

Entrepreneurial interest is defined as an individual willingness to actualize entrepreneur's behaviours, engage to entrepreneurship activities, be an entrepreneur or establishes a new business (Dell, 2008; Dohse & Walter, 2010; Ismail et al., 2009; Peng, Lu, & Kang, 2012). According to Bird (1988) entrepreneurial interest referred to individual statement of thought to establish new business, construct new business concepts, and create new values for the company.

Entrepreneurial interest is believed to be a source that forms an entrepreneur and grows entrepreneurship in a country, and the continuous effect of entrepreneurial interest will be a source of economic growth and prosperity. The tendency to avoid risks and achieve financial security often prevents the growth of entrepreneurial interest. External factors that influence the development of entrepreneurial interest include family, peers and education. This is in line with the research result from Agustina and Sularto (2011) who concluded that the need for achievement, self-efficacy and academic achievements are the dominant variables that influence the entrepreneurial interest of Faculty of Economics students.

The number of students enrolled in entrepreneurial training increased tenfold from 1979 to 2001 in the United States of America (Katz, 2008) and the investment in entrepreneurship programs is continually increasing (Bakar, Islam, & Lee, 2015; European Commission, 2008; Ghina, 2014; Gwynne, 2008).

Four types of entrepreneurial education programs that have been classified are entrepreneurial awareness education, which expands knowledge regarding entrepreneurship and influences behaviors and intentions; education for start-up, which is designed for those who have business ideas and need some practical questions answered regarding how to be an entrepreneur; education for entrepreneurial dynamism, which focuses on those who have been entrepreneurs and want to promote dynamic behavior after the start-up phase; continuing education for entrepreneurs, which illustrates a lifelong learning program and focuses more on experienced entrepreneurs (Linan, 2004).

The various types of entrepreneurship education are classified into four research flows, namely focusing on individual and social roles in entrepreneurship programs, relating to the systemization of entrepreneurship programs (e.g., the use of multimedia or curriculum development), studying the content and entrepreneurship delivery programs, and concentrating on the needs of individuals in entrepreneurship programs (Bécharad & Grégoire, 2005; Fayolle, Gailly, & Lassas-Clerc, 2006; Vanevenhoven & Liguori, 2013).

3. METHODOLOGY

This is a qualitative study with a design-based research (DBR) approach. The DBR approach is an educational design that systematically designs, develops and evaluates the education interventions (such as programs, learning strategies, materials, products and systems) as an alternative solution for a complex problem in educational practices. Design-based research procedures were carried out by adapting the four-phase models developed by Reeves (2006) and Herrington, McKenney, Revees, and Oliver (2007).

The operational stages of this design-based research and its implementations were adapted from the four-phase model by Reeves (2006) and Herrington et al. (2007). These four phases are problem analysis, conceptual product creation, product design trial and thorough product development evaluation. The following flow diagram illustrates the research during the development of the entrepreneurship learning design based on caring economics in higher education (see Figure 1).

At the product validation stage, the researcher received input and evaluations from experts in entrepreneurship learning design quality. Based on the feedback, the product was revised and improved and the trial was then conducted. The stages for the evaluation of the learning model design product are briefly explained as follows: 1) validation from learning design experts and material experts, respectively, followed by the data analysis; 2) product revision according to the input from experts; 3) a small group trial followed by the data analysis; 4) product revision according to the input from the small group trial; 5) a large group trial followed by the data analysis; 6) final revision according to the input from the large group trial.

The research data consisted of quantitative and qualitative data. The quantitative data comprised the evaluations regarding the quality of the developed learning model product design from learning material experts, learning design experts and students. Meanwhile, the qualitative data comprised their suggestions for product revision. The research instruments used were questionnaires and interviews. The questionnaires were used to obtain the data on product quality and inputs or suggestions for product revision from the validators and the trial courses.

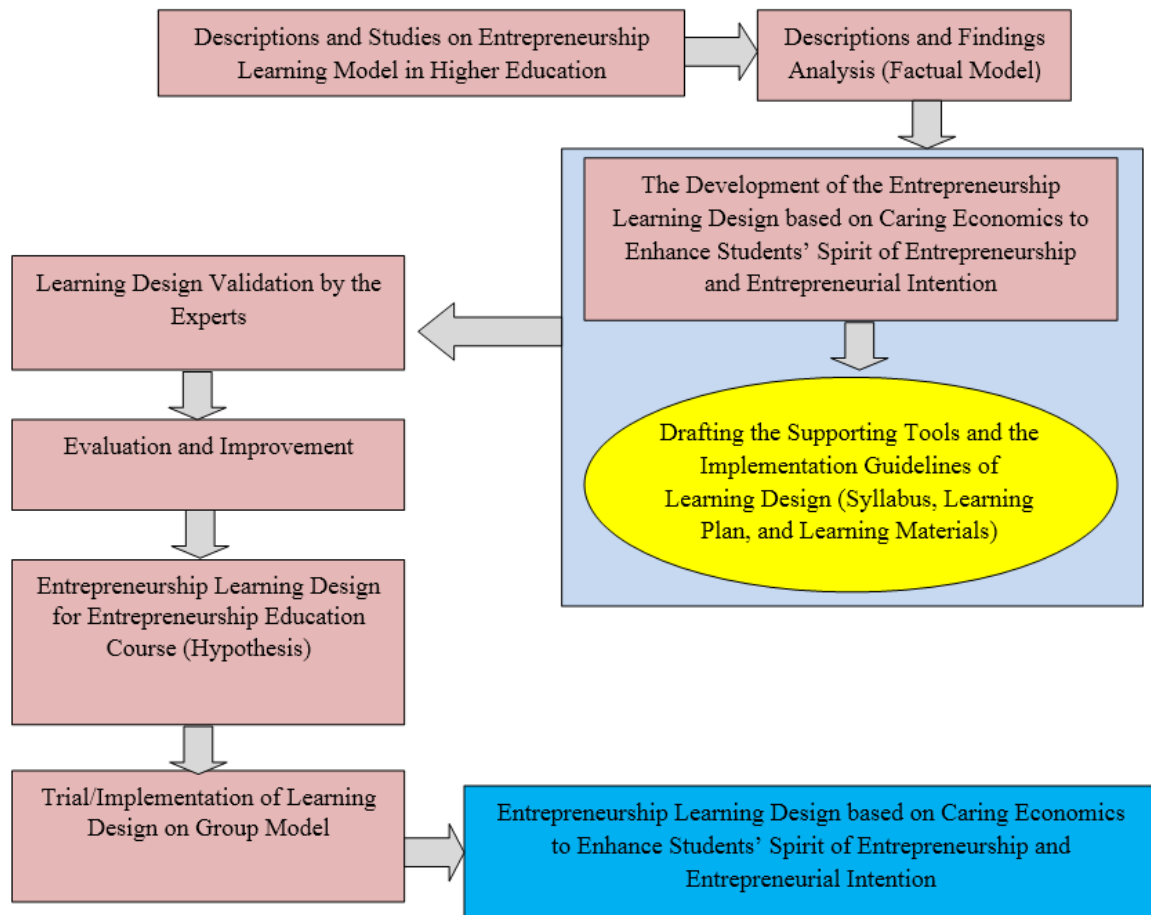


Figure 1. Research flow of the entrepreneurship learning design development.

4. RESULTS

The research was conducted at Sanata Dharma University and the participants were the students of the economics study program in the Faculty of Teacher Training and Education. The questionnaires were completed by 74 respondents. Other participants were the lecturers of the Entrepreneurship education course in the Economics education study program of Sanata Dharma University and also the head of the Economics education study program in Sanata Dharma University. In this section, the research results, data analysis and discussion will be described.

4.1. Data Description

There were 59 female respondents (80%) and the remaining 15 students were male (20%). The grades achieved for the Entrepreneurship education course were 40% for an A, 57% for a B, and the remaining 3% achieved a C (see Table 1).

Table 1. Respondent characteristics.

Characteristics	Total	Percentage
Gender		
Female	59	80%
Male	15	20%
Grade achieved in the Entrepreneurship education course		
A	29	40%
B	42	57%
C	3	3%

After observation of the students' factual state, it was shown that 61% had a low need for achievement and the remaining 39% of students were in the medium category (see Table 2). No students had a high need for achievement. A need for achievement in the low category means that a person does not prioritize achievements in their lives. They think that achieving entrepreneurial success requires lots of hard work and commitment, and people in this category are usually reluctant to do so. Meanwhile, people in the medium category tend to be interested in trying but they do not put in enough effort to achieve their entrepreneurial dreams.

Regarding the need for autonomy, respondents were spread across the categories with 4% in the high category (3 people), 8% in the medium category (6 people) and 88% in the low category (65 people). A need for autonomy in the low category means that people prefer to be engaged and instructed by others rather than carry the responsibilities of managing a company, while a need for autonomy in the medium category means that people are more likely to be an entrepreneur and manage an organization; they enjoy being workers with entrepreneurial passion and they are willing start their own business full of responsibilities. However, people with a high need for autonomy usually like the freedom, have good self-expression, have good leadership skills, can voice their opinions, are open to new ideas and have strong self-determination.

Table 2. Characteristics of economics students' spirit of entrepreneurship.

Characteristics	Total	
	N	%
Need for Achievement		
High	0	0%
Medium	29	39%
Low	45	61%
Need for Autonomy		
High	3	4%
Medium	6	8%
Low	65	88%
Creative Tendency		
High	0	0%
Medium	25	34%
Low	49	66%
Calculated Risk-Taking		
High	0	0%
Medium	33	45%
Low	41	54%
Locus of Control		
High	0	0%
Medium	25	34%
Low	49	66%
Spirit of Entrepreneurship		
High	0	0%
Medium	36	49%
Low	38	51%

From a creative tendency aspect, 66% of students were in the low category, 34% were in the medium category and no one was in the high category. People with a low creative tendency usually have an interest in entrepreneurial ideas yet they are reluctant to initiate creativity to support and develop a business.

The above results are similar to the calculated risk-taking aspect. There were 54% (41 people) in the low category and 45% (33 people) in the medium category. People with a low risk-taking score do not like taking risks and do not want too many responsibilities in an activity or business. Meanwhile, those who have a medium risk-taking score are relatively satisfied with the idea of taking calculated risks, but do not want to take any bigger risks. From the locus of control aspect, 66% (49 people) were in the low category and 34% (25 people) were in the medium category.

From the above, it could be concluded that the students' spirit of entrepreneurship was 51% (38 people) in the low category and 49% (36 people) in the medium category. However, none of the students showed high spirit of entrepreneurship.

The following table describes the entrepreneurial intentions of students who have taken the Entrepreneurship Education course (see Table 3). Even though they achieved quite good academic scores in this course, it seems that many of them were reluctant to actually become entrepreneurs. Out of all the respondents only 10% (7 people) had high entrepreneurial intentions, 39% (29 people) were in the medium category and 51% (38 people) were in the low category. However, there were some students who had a relatively high interest, which is somewhat contrary to their spirit of entrepreneurship and none of the students was in the high category. This may be due to their view of success in entrepreneurship, but they themselves do not meet the requirements to achieve success.

Table 3. Students' entrepreneurial intention characteristics.

Characteristics	Total	Percentage
High	7	10%
Medium	29	39%
Low	38	51%
Total Respondents	74	100%

4.2. Needs Assessment Analysis

In addition to obtaining information from students who have taken the Entrepreneurship Education course, researchers also extracted information from course lecturers and the head of the Economic Education study program. The information was obtained through conducting interviews on the learning processes of the courses. Meanwhile, the interview with the head of the Economic Education study program was intended to gather information about some of the policies and their implementation related to the Entrepreneurship Education courses.

The data collected from questionnaires and interviews were then analyzed descriptively and qualitatively. Subsequently, a focus group discussion was held with the lecturers who taught Entrepreneurship Education courses and the head of the Economic Education study program to find the root problems in entrepreneurship learning and the needs of developing entrepreneurship learning in the Economic Education study program.

Based on the interview results with two lecturers and the head of the study program, the following results were obtained: the learning process of Entrepreneurship Education in the Economic Education study program was an effort to excel at a national level to produce educators in the field of economics who are professional, intelligent and humanist. This was in line with the vision and mission of the study program and the university. The learning process was designed to train students to be active in seeking and creating opportunities and managing businesses in smart, creative, innovative and transformative manners. Furthermore, the study program gave the lecturers freedom to design the entrepreneurship learning.

Based on the study program policy, the Entrepreneurship Education course is used as an opportunity for students to develop proposals to be submitted in the students' creativity program for entrepreneurship organized by the Directorate of Higher Education, Ministry of Education and Culture of Indonesia. Students were invited to develop business models that are impactful to society. The grant competition program that was held increased the students' enthusiasm to win, however, out of all the proposals that were submitted by students who were participants in this research, no single proposal was successful in receiving grant funding. This was seemingly due to the proposals' lack of creativity, innovation and concern for others and the environment.

Apart from going through the learning process in the classroom, the Economic Education study program sought to build a spirit of entrepreneurship and entrepreneurial intention by providing opportunities for field studies to some micro, small and medium enterprises. Furthermore, students were given the opportunity to report their observations and creative ideas that could be developed into businesses, both online and offline. The Economic

Education study program also organized workshops and training for developing creativity programs for entrepreneurial proposals.

The process of compiling and implementing the entrepreneurship education curriculum was related to the syllabus, semester learning plans, teaching materials, learning strategies, learning evaluation and collaborations with other parties. The syllabus and semester learning plans were compiled jointly by the course lecturers at Sanata Dharma University, the semester learning plan was designed in a more integrated manner at a university level preparation workshop, and the teaching materials were developed by lecturers who taught the course by paying attention to the indicators' formulation included in the semester learning plans. The learning strategies may vary according to the class characteristics and the learning outcomes. Learning evaluation was generally in the form of analytical essay questions and case-solving with reference to learning indicators and learning objectives. Collaboration with other parties was also mainly carried out with the owners of micro, small and medium enterprises, so that they would be willing to accept students who studied field courses.

Learning materials have not been explicitly linked to the problem of increasing care for others and the environment. This was because the material still referred to the old syllabus and semester learning plans. In general, the student mindset was only to get good grades and graduate. The enthusiasm and interest in entrepreneurship had not been well formed and there was no strong willingness to become an entrepreneur. In this case, the subject and the learning process were not sufficient to build the students' spirit of entrepreneurship and entrepreneurial intention.

Meanwhile, from the perspective of students who had taken the Entrepreneurship Education courses, it was found that, regarding the availability of learning tools and learning processes, students received a syllabus, teaching materials, learning strategies and learning evaluation. Most of the learning processes contained more knowledge about entrepreneurship but had not yet reached the stage of encouraging students to have more spirit of entrepreneurship and entrepreneurial intentions.

In relation to building more caring economics for people and the environment, the students argued that the systematic learning processes had not included elements on how to build a business that can empower the surrounding community and care about the natural environment. The learning process was focused more on building knowledge on how to become a business entrepreneur who focuses more on achieving profit individually rather than social entrepreneurship that leads to collective profit achievement for society. The awareness that has been built is more towards caring about helping friends who have difficulty in completing lecture assignments and it has not yet reached the stage where students must design a business with potential and empower the surrounding community while still paying attention to the aspects of the natural environment. Based on the findings that revealed the level of students' spirit of entrepreneurship, it was found that most students prefer to have safe jobs with a promising income even though the job would become a routine activity. Most respondents stated that they prefer to work in groups because it is more challenging to express their opinions so that they can be accepted, or to provide the best solution for the realization of goals. Most of the respondents also stated that they would not hesitate to accept other people's opinions or input compared to thinking creatively for themselves to find solutions to the problems they faced.

In the focus group discussion forum with the lecturers and the head of the Economic Education study program, it was found that learning about entrepreneurship should ideally be accompanied by actual entrepreneurial experiences, for example, online business management. On the other hand, the field study experience needs to be intensified for a longer period of time, for example, every Saturday and Sunday students work in a particular business for one semester as practical entrepreneurial work experience is believed to increase motivation and entrepreneurial intentions. In addition, it is also necessary to design learning that is systematically able to develop the spirit of entrepreneurship and entrepreneurial intentions based on the spirit of togetherness and mutual cooperation as mandated by the Indonesian constitution.

4.3 Expert Validation Data and Data Validation Analysis

After obtaining factual data based on the analysis of needs development, a learning design prototype was compiled consisting of a syllabus, semester learning plan and teaching materials. The prototype was then validated by experts. The product prototype validation in this study was obtained from a learning design expert and a material expert from the State University of Malang. The learning design expert evaluated the aspects of learning and the material expert conducted product evaluations, especially those related to the content of the learning materials. Data obtained from the experts was used to revise the initial product, and after the product was revised it was tested on a target group of students. The learning design was assessed on several aspects, including completeness of learning components, suitability between learning components, clarity of learning outcomes and indicator formulation, suitability of teaching materials with learning outcomes, systematic material presentation, clarity of material presentation, suitability of evaluation with learning outcomes, and accuracy of evaluation types. The score of the assessment by the learning design expert was 4.50, which was placed in the very good category, and they also noted that some improvements to sentence structure were needed in the teaching materials. Moreover, it was also necessary to add some reflective self-assessment aspects to the learning evaluation. The researcher then revised the design according to this feedback. The learning materials were assessed on several aspects, including completeness, suitability with the syllabus, suitability with the semester learning plan, suitability of illustrations within the materials, sentence effectiveness, language clarity, and the correlation between learning materials and caring economics. The score of the assessment by the learning design expert was 4.63, which was also in the very good category. The expert noted that some improvements to the sentence structure were needed in the compiled teaching materials. In addition, researchers were also deemed necessary to complete the learning materials so that they fit with the prepared syllabus and the semester learning plan. The illustrations needed some improvements and some relevant case studies were added. The researchers then revised the materials based on the feedback.

4.4. Trial Data and Trial Data Analysis

After the product prototype was revised according to the input at the validation stage, it was tested on small and large groups. Small group trials were carried out on five students from the Economic Education study program in Sanata Dharma University. The assessment of the learning process at this trial stage was based on several assessment indicators, including completeness of the materials, order of presentation of the materials, clarity of the activity instructions, clarity of the case study illustrations, language clarity, suitability of the activities in learning, difficulty level of tasks, suitability of learning evaluation, level of learning evaluation difficulty, and materials related to caring economics. The score of the assessment results at this trial stage was 4.30 and categorized in the very good category.

Comments and suggestions given by the students in the small group trial were analyzed and used as the basis for revising entrepreneurial learning designs, which consisted of a syllabus, semester learning plans and teaching materials. However, not all suggestions and comments were used as a basis for making sudden revisions to the product prototype. After a revision was made based on the results of the small group trial, the product prototype was tried out in the large group. The large group trials were carried out on 25 students from the Economic Education study program in Sanata Dharma University. The indicators assessed at this stage were the same as in the previous trial stage. The score of the assessment at the trial stage of this large group was 4.26 and categorized in the very good category. Comments and suggestions given by the students in the large group trials were then analyzed and used as a basis for revising entrepreneurial learning designs, which consisted of a syllabus, semester learning plans and teaching materials. However, not all suggestions and comments were used as a basis for making sudden revisions to the product prototype. In general, revisions were carried out in the following sections: improving sentence structure to make it clearer, adjusting relevant case studies to the materials and clarifying

instructions for carrying out the assignments that must be completed by the students. The entrepreneurship learning design based on caring economics to develop aspects of the spirit of entrepreneurship and entrepreneurial intentions was compiled through a series of research and development activities. The product development process was carried out using a design-based research approach. After that, an expert judgment or product validation was conducted by a learning design expert and a material expert. The validation results indicated that the learning design quality was categorized as very good and it was concluded that this product was appropriate for field trials. Validated products were then tried out on students through small group trials and continued with large group trials. The data obtained from the trials was used to improve the product so that a learning design product was created and ready to be implemented in entrepreneurship learning in higher education.

5. DISCUSSION

Entrepreneurship learning based on caring economics was designed systematically to develop students' spirit of entrepreneurship. During the learning process, it can also be accompanied by the formation of an enthusiasm for social entrepreneurship with full concern for people and the environment. Entrepreneurs do not only act as *homo economicus*, but also take into account the needs and desires of other parties in running their business (Hattab, 2014; Matlay, 2008; Pimpa, 2019). Students can better understand that the role of entrepreneurs in economic activities should also adhere to the principle of caring for human beings. The basic concept is to shift the paradigm of economic thinking from *homo economicus* to caring for human beings, which is easier for students to understand. Students start to accept the paradigm shift in thinking about only accumulating wealth for themselves to working toward prosperity for everyone and maintaining survival on this planet, which is in line with Van Osch (2013) and his idea of caring economics. The spirit of entrepreneurship that students develop is placed in a new economic system and actions based on *homo economicus* as a fundamentally pro-social being. In this case, the basic characteristic is still economically driven, but in the end they always orient towards achieving prosperity for their community and its environment (Singer & Richard, 2015). Students have also begun to accept the importance of shifting the social system paradigm from a dominating system to a partnership system (Eisler, 2013; Witjaksono, 2016). Entrepreneurship education is proven to develop students' entrepreneurial intentions. The learning process should be designed specifically to facilitate young people to develop their potential in entrepreneurship. This is based on the belief that entrepreneurship is actually an art that can be learned and developed (Barba-Sánchez & Atienza-Sahuquillo, 2018; Fayolle, 2007; Fayolle & Gailly, 2015; Khalifa & Dhiaf, 2016). The German experience in entrepreneurship education has shown positive results. The entire curriculum framework for vocational education and training (VET) was designed by the *Kultusministerkonferenz*, which is the assembly of ministers of education of the German states, and requires all vocational schools to provide insights into various types of work including entrepreneurship in order to support careers and entrepreneurial planning (European Commission., 2009). These results support the opinion that entrepreneurial interests and abilities can be taught and an entrepreneur can emerge through education and training (European Union, 2015). The development of entrepreneurship learning has been proven to increase students' interest in entrepreneurship. The students found it very helpful to be able to discover their potential and grow their enthusiasm for entrepreneurship, especially social entrepreneurship. This is also in line with the findings of previous research by Darmawan and Suetjipto (2016). Entrepreneurial intentions are continuously believed to be a source of entrepreneurial formation and growth in a country and the impact of growing interest in entrepreneurship will be a continual source of economic growth and community welfare. The desire to become an entrepreneur from an early age has not been popular in many countries and the tendency of having a risk-averse mentality and seeking financial security often hinders the growth of interest in entrepreneurship. Meanwhile, external factors that can influence the growth of interest in entrepreneurship include the family environment, peers and education. This is in line with the research results of Agustina and Sularto (2011) who concluded that the need for achievement, self-efficacy and academic achievement are the dominant variables in

influencing students' entrepreneurial interest in the Faculty of Economics, and the educational factors designed are proven to increase entrepreneurial intentions in many places (Rani, Krishnan, Saidun, & Ahmad, 2019; Tentama, Mulasari, Subardjo, & Widiyari, 2019). The product of entrepreneurial learning design based on caring economics developed in this study has several advantages, namely (a) students can develop a spirit of entrepreneurship more systematically, (b) the learning design allows students to develop a spirit of entrepreneurship as well as become more caring people who show concern for their community and surrounding environment, and (c) students can gain valuable experience that will help them to develop entrepreneurial intentions in everyday life.

6. CONCLUSION

Based on the results of research and development of entrepreneurial learning design prototypes to develop the spirit of entrepreneurship and entrepreneurial intention, it is feasible to be implemented in the Entrepreneurship Education course for college students. This learning design has been assessed as feasible based on the results of product evaluation at the validation stage by learning design experts, material experts, and two stages of small and large group trials. The learning design developed has included aspects of caring economics systematically and learning scenarios to foster a sense of concern for others and for the environment in the spirit of mutual cooperation. This piece of research on learning implementation has not yet been tested for effectiveness in a class environment, so further research is proposed in order to test the effectiveness of this learning product design. Future researchers can also develop the learning designs in entrepreneurship education, i.e., business ideas and opportunities, business feasibility studies, product designs, marketing design, etc., and as a result, the entrepreneurship learning in higher education will be richer with the research-based learning.

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REFERENCES

- Agustina, C., & Sularto, L. (2011). *Intensi kewirausahaan mahasiswa (Studi perbandingan antara fakultas ekonomi dan fakultas ilmu komputer)*. Paper presented at the Proceeding PESAT (Psikologi, Ekonomi, Sastra, Arsitektur, & Sipil) Universitas Gunadarma, Depok Indonesia, 18-19 October 2011, 4: E.63-E.69.
- Bakar, R., Islam, M. A., & Lee, J. (2015). Entrepreneurship education: Experiences in selected countries. *International Education Studies*, 8(1), 88-99. Available at: <https://dx.doi.org/10.5539/ies.v8n1p88>
- Barba-Sánchez, V., & Atienza-Sahuquillo, C. (2018). Entrepreneurial intention among engineering students: The role of entrepreneurship education. *European Research on Management and Business Economics*, 24(1), 53-61. Available at: <https://dx.doi.org/10.1016/j.iedeen.2017.04.001>
- Béchar, J.-P., & Grégoire, D. (2005). Entrepreneurship education research revisited: The case of higher education. *Academy of Management Learning & Education*, 4(1), 22-43.
- Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review*, 13(3), 442-453. Available at: <https://doi.org/10.5465/amr.1988.4306970>.
- Carland, J. W., Hoy, F., Boulton, W. R., & Carland, J. A. C. (1984). Differentiating entrepreneurs from small business owners: A conceptualization. *Academy of Management Review*, 9(2), 354-359. Available at: <https://www.jstor.org/stable/258448>.
- Darmawan, I., & Suetjipto, B. (2016). The implementation of project-based learning to improve entrepreneurial intention and entrepreneurial learning outcome of economics education students. *IOSR Journal of Business and Management*, 18(10), 98-102. Available at: <https://DOI:10.9780/487X-18100798102>.
- Dell, M. S. (2008). *An investigation of undergraduate student self-employment intention and the impact of entrepreneurship education and previous entrepreneurial experience*. Doctoral Thesis. Doctor of Philosophy, School of Business University The Australia.

- Dohse, D., & Walter, S. G. (2010). The role of entrepreneurship education and regional context in forming entrepreneurial intentions. Working Paper Present at Document De Treball de l'IEB, No 2010, 18, IEB, Barcelona.
- Drucker, P. (1985). The discipline of innovation. *Harvard Business Review*, 53(3), 67-72.
- Eisler, R. (2013). Building a caring economy and society: Beyond capitalism, socialism, and other old isms. *Cadmus*, 1(6), 49-65.
- European Commission. (2008). Entrepreneurship in higher education, especially within non-business studies. Final Version March. European Commission: Enterprise and Industry Directorate-General. Retrieved from: http://europa.eu.int/comm/enterprise/entrepreneurship/support_measure/index.htm.
- European Commission. (2009). Entrepreneurship in vocational education and training. Final Version November. European Commission: Enterprise and Industry Directorate-General. Retrieved from: http://europa.eu.int/comm/enterprise/entrepreneurship/support_measure/index.htm.
- European Union. (2015). *Entrepreneurship education: A road to success (a compilation of evidence on the impact of entrepreneurship education strategies and measures)*. Luxembourg: Publications Office of the European Union.
- Fayolle, A., Gailly, B., & Lassas-Clerc, N. (2006). Assessing the impact of entrepreneurship education programmes: a new methodology. *Journal of European Industrial Training*, 30(9), 701-720. Available at: <https://doi.org/10.1108/03090590610715022>.
- Fayolle, A. (2007). *Handbook of research in entrepreneurship education: Contextual perspectives* (Vol. 2). Northampton Massachusetts: Edward Elgar Publishing, Inc.
- Fayolle, A., & Gailly, B. (2015). The impact of entrepreneurship education on entrepreneurial attitudes and intention: Hysteresis and persistence. *Journal of Small Business Management*, 53(1), 75-93. Available at: <https://doi.org/10.1111/jsbm.12065>.
- Ghina, A. (2014). Effectiveness of entrepreneurship education in higher education institutions. *Procedia-Social and Behavioral Sciences*, 115, 332-345. Available at: <https://doi.org/10.1016/j.sbpro.2014.02.440>.
- Gwynne, P. (2008). More schools teaching entrepreneurship. *Research Technology Management*, 51(2), 6-8. Available at: <https://www.jstor.org/stable/24135211>.
- Hattab, H. W. (2014). Impact of entrepreneurship education on entrepreneurial intention of university students in Egypt. *The Journal of Entrepreneurship*, 23(1), 1-18. Available at: <https://doi.org/10.1177/0971355713513346>.
- Henderson, G., & Palm, M. (2011). *Business education and enterprising tendencies – a study of education as a factor in enterprising*. Sweden: Umea School of Business and Economics.
- Herrington, J., McKenney, S., Revees, T., & Oliver, R. (2007). *Design-based research and doctoral students: Guidelines for preparing a dissertation proposal*. Paper presented at the Edith Cowan University. This Conference Proceeding is Posted at Research
- Ismail, M., Khalid, S. A., Othman, M., Jusoff, H. K., Rahman, N. A., Kassim, K. M., & Zain, R. S. (2009). Entrepreneurial intention among Malaysian undergraduates. *International Journal of Business and Management*, 4(10), 54-60. Available at: <https://doi.org/10.5539/ijbm.v4n10p54>.
- Katz, J. A. (2008). Fully mature but not fully legitimate: A different perspective on the state of entrepreneurship education. *Journal of Small Business Management*, 46(4), 550-566. Available at: <https://doi.org/10.1111/j.1540-627X.2008.00256.x>.
- Khalifa, A. H., & Dhiaf, M. M. (2016). The impact of entrepreneurship education on entrepreneurial intention: The UAE context. *Polish Journal of Management Studies*, 14(1), 119-128. Available at: <https://doi.org/10.17512/pjms.2016.14.1.11>.
- Kirzner, I. M. (2009). The alert and creative entrepreneur: A clarification. *Small Business Economics*, 32, 145-152. Available at: <http://doi.org/1007/s11187-008-9153-7>.
- Linan, F. (2004). Intention-based models of entrepreneurship education: University of Seville. *Piccola Impresa/Small Business*, 3(1), 11-35.
- Matlay, H. (2008). The impact of entrepreneurship education on entrepreneurial outcomes. *Journal of Small Business and Enterprise Development*, 15(2), 382-396. Available at: <https://doi.org/10.1108/14626000810871745>.
- Matlay, H., & Carey, C. (2007). Entrepreneurship education in the UK: A critical perspective. *Journal of Small Business and Enterprise Development*, 14(2), 252-263. Available at: <https://doi.org/10.1108/14626000710746682>.
- McClelland, D. (1961). *The achieving society*. Princeton, NJ: Van Nostrand.

- Minniti, M., & Lévesque. (2008). Recent development in the economics of entrepreneurship. *Journal of Business Venturing*, 23 603-612. Available at: <https://doi.org/10.1016/j.jbusvent.2008.01.001>.
- Nandram, S. S., & Samsom, K. J. (2006). *The spirit of entrepreneurship: Exploring the essence of entrepreneurship through personal stories*. Berlin: Springer
- Peng, Z., Lu, G., & Kang, H. (2012). Entrepreneurial intentions and its influencing factors: A Survey of the University Students in Xi'an China. *Creative Education*, 3, 95-100. Available at: <https://doi.org/10.4236/ce.2012.38b021>.
- Pimpa, N. (2019). Entrepreneurship education: The learning conundrum in the transnational context. *Humanities & Social Sciences Reviews*, 7(5), 503-509. Available at: <https://doi.org/10.18510/2019.7557>.
- Rani, N. S. A., Krishnan, K. S., Saidun, Z., & Ahmad, H. (2019). The relationship between entrepreneurship education and entrepreneurial intention of Universiti Kuala Lumpur – Teknoputra Alumni. *Humanities & Social Sciences Reviews*, 7(1), 147-155. Available at: <https://doi.org/10.18510/hssr.2019.7118>.
- Reeves, T. (2006). Design research from technology perspective. In J. Van den Akker, K. Gravemeijer, S. McKenney & N. Nieveen (pp. 52-66). Routledge, UK: Educational Design Research.
- Singer, T., & Richard, M. (2015). *Caring economics: Conversation on altruism and compassion, between scientists, economists, and the Dalai Lama*. New York: Picador.
- Tentama, F., Mulasari, S. A., Subardjo, & Wideasari, S. (2019). Entrepreneurship education to improve entrepreneurship intention. *Humanities & Social Sciences Reviews*, 7(3), 162-168. Available at: <https://doi.org/10.18510/hssr.2019.7325>.
- Van Osch, T. (2013). Toward a caring economic approach. Netherland. May 2013. Retrieved from: <https://oqconsulting.eu/wp-content/uploads/2020/04/The-Economy-of-Care.pdf>.
- Van Staren, I. (2001). *The value of economics: An aristotelian perspective*. London: Routledge-Taylor & Francis Group.
- Vanevenhoven, J., & Liguori, E. (2013). The impact of entrepreneurship education: introducing the entrepreneurship education project. *Journal of Small Business Management*, 51(3), 315-328. Available at: <https://doi.org/10.1111/jsbm.12026>.
- Witjaksono, M. (2016). Critical and pragmatic analysis of caring economics as a new paradigm of economic studies. *Journal of Economics & Development Studies*, 8(2), 117-144.
- Zimmerer, W. T., & Scarborough, N. M. (1996). *Entrepreneurship and the new venture formation*. New Jersey: Prentice Hall International, Inc.

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