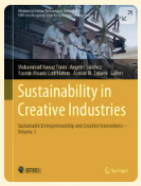

Sustainability in Creative Industries

Sustainable Entrepreneurship and Creative Innovations—Volume 1

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Overview

Editors: Muhammad Nawaz Tunio, Angeles Sánchez, Yasmin Moanis Latif Hatem, Ayman M. Zakaria

- Reimagines sustainable entrepreneurship amid COVID-19, challenging norms
- Innovates creative design education through VR and upcycling strategies
- Melds academia and industry for cultural preservation and innovation

Part of the book series: Advances in Science, Technology & Innovation (ASTI)

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SCI: International Conference on Sustainability in Creative Industries

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About this book

This book discusses a compelling array of topics at the intersection of entrepreneurship, education, and technological innovation within the creative industries. It delves into a captivating exploration of sustainable entrepreneurship in Part 1, where key characteristics of sustainable entrepreneurs and factors influencing entrepreneurial intention are dissected. By unearthing the nexus between entrepreneurial alertness, networking capability, and venture performance, it provides intriguing insights into sustaining traditional crafts and brands amid the COVID-19 pandemic. The following parts not only unveil current innovative pedagogical strategies in creative design education but propels you into the future, exploring the harmonious fusion of academia and industry in sustainability-driven programs.

Designed for educators, students, researchers, and practitioners in entrepreneurship, design, and technology fields, this book offers a transformative journey into sustainable practices, innovative pedagogies, and cutting-edge advancements. Engaging, informative, and thought-provoking, it is a must-read for those seeking to shape the future of creative industries through entrepreneurship, education, and innovation.

Keywords

Sustainable Entrepreneurship | Entrepreneurial Intention | Networking Capability | Creative Design Education | Virtual Reality | COVID-19 | Connectivist Learning Environment | Indonesian Design Students | Project-Based Learning | Upcycling | Academia-Industry Collaboration | Sustainability-Based Programs | Sound Visualization | Deep Learning Technique | Cultural Heritage Preservation | Technological Advancements | Automotive Modelmaking | Creative Industries

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Abstract

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Upcycling the Abandoned Students Artwork with Bateson's Type of Learning in Entrepreneurship Course

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Upcycling the Abandoned Students Artwork with Bateson's Type of Learning in Entrepreneurship Course

Monica Hartanti, Elizabeth Wianto, and Miki Tjandra

Abstract

Many final artworks were ignored among many design courses offered in higher education. Each final state of the assignment can be spelled out through the design process, thereby placing valuable thoughts from the insights of students and teachers. Unfortunately, the end state stops developing once the final point was set, and students started from scratch to come up with new ideas all the time. This study recruits junior students from the Entrepreneurship course, majoring in visual communication design at a private university in West Java, Indonesia. They reuse and recycle previous assets from their colleagues or themselves and explore the possibility of making them suitable for certain targets using Gutman's Means-End theory. The educational method used is the Bateson Learning type. This research will determine whether the educational process can be understood by students or they are just learning to pass. It's a shame that even though the design students are working on it, upcycling the abandoned design art to make it more valuable and have a selling value has not been maximized, it is still affected by the effectiveness of the assignment, so the products being sold have not yet reached the 'desirable of existence'. Working in groups in the Entrepreneurship course has weaknesses, namely the understanding of the material is uneven and not comprehensive for each group member, especially for students who do not try to learn this material; it can be said that the stereotype of students belonging to Bateson's Learning type 0. Entrepreneurship courses at the undergraduate level for visual communication design students have not made them interested in becoming new entrepreneurs. The real project-based course in this learning is only limited to providing new experiences in learning things related to entrepreneurship, this applies to stereotypes of students belonging to Bateson's Learning type 0–2.

Keywords

Entrepreneurship course · Real project-based · Student's artwork · Upcycling

1 Introduction

As a vocational education, design in higher education is more practical than theoretical, resulting in various artworks and design. The work has gone through a process with assistance between students and lecturers (Ellmers, 2015). Those artworks and designs are overwhelming, and eventually become piled up and worthless. This is very unfortunate, especially in the field of art and design, which is one of the subsector for nation's creative economy. Recognizing the significant contribution of the creative economy sector to Indonesia's Gross Domestic Product (GDP) as highlighted in the 2019 Opus Creative Economy Outlook, thus the government actively supports its development, placing Indonesia in the third position globally. With such a substantial impact, the creative economy is projected to play a crucial role in driving Indonesia's economic growth by 2025 (Kemenparekraf, 2021). In correlation with above statement, Zamzami and Hastuti (2018) mentioned

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six advantages of entrusting the fields of art and design as the cornerstone of the progress of the creative economy in Indonesia are as follows: (1) Economic contribution capacity; (2) Creating a positive business environment; (3) Building national image and identity; (4) Developing an economy based on renewable resources; (5) Fostering competitive innovation and creativity; and (6) Providing social impact that stimulates the birth of new ideas.

One of the efforts made by the university to ensure creative economy development was by making Entrepreneurship courses as a mandatory courses. This course has become a major area of interest in public policy, industry, society, and education. Entrepreneurship is also believed to be the key to success in developing job creation and economic growth (Mawardi & Sahputri, 2022), and introduced by university to broaden student knowledge as well as to expanding their perspective of work opportunities (Anjum et al., 2018). In addition, increasing the ratio of entrepreneurs to Indonesia's total population is essential to enhance competitiveness and compete with other countries. For instance, Singapore has 7.2% entrepreneurs, Malaysia 2.1%, Thailand 4.1%, South Korea 4.0%, and the United States 11.5% entrepreneurs in relation to their respective populations. Encouraging entrepreneurship offers an alternative solution to societal challenges, including poverty, social inequality, unemployment among the productive age group, and diminishing energy resources, necessitating creative and innovative approaches (Marti'ah, 2017).

The Entrepreneurship course introduces one application of visual communication design results in the form of entrepreneurial project planning through a simulation of the establishment of small and medium businesses in the creative field which is still being pioneered and can be developed further. It can be said as a start-up company that is still in the development or research phase to continue to find markets and develop products (Nugraha & Wahyuhastuti, 2017). Based on real projects, the completion of assignments in this course is carried out in groups of three people and the final result is a business project book with five generic components equipped with STP (segmentation, targeting, positioning) analysis, artworks product development and design using a means-end theory approach, business canvas model and sales activity recap carried out.

Means-end chain model theory, is one of the classical theories proposed by Gutman (1982) with the aim of assigning value to objects or activities, thus reaching the stage of "desirable of existence". With a special theme to upcycle previous products that have been produced in the courses that have been taken previously, each group of participants is trained to assess the potential for developing works that are tailored to their chosen target.

Technological developments provide convenience in the creation of entrepreneurs today (Susan & Novianti, 2019). Those without formal business knowledge can also self-taught trying to sell online on platforms that have provided the infrastructure (Finkle & Olsen, 2019). This is because the Internet, social media, mobile applications, and other digital communications have become part of the daily lives of billions of people around the world (Meyen et al., 2010). According to Statista (2020), 4.54 billion people are active internet users, accounting for 59% of the global. The self-taught process of selling online can be found out easily, and put into practice immediately. Moreover, the capital required is not large. The utilization of the Internet and social media has revolutionized consumer behavior and transformed business operations (Yogesh et al., 2021), driven by technological innovations and widespread adoption of handheld devices. This has significantly impacted the way consumers engage in social commerce, influencing their decision-making process and online shopping habits. Moreover, the growing prevalence of digital marketing and social media has had a positive influence on consumer attitudes towards online shopping, resulting in a rising market share for e-Commerce-focused organizations (Abou-Elgheit, 2018; Alam et al., 2019; Komodromos et al., 2018). The online phenomenon has merged with the daily lives of most people in this world, buying and selling interactions are also included in it. By taking advantage of this phenomenon, art and design products can be promoted and sold online as well. In the end of this course, students were required to try selling their products online.

Referring to the Oxford Languages dictionary: "upcycling means reusing discarded objects or material in such a way as to create a product of higher quality or value than the original". The original value of the original state which of "product" has been gone; therefore, it consider as "trash". However, the state of "trash" in this beginning stage of upcycling material which has been abandoned and worthless eventually will be "shifted". Together with online phenomena that are closely related to technological developments and Entrepreneurship learning materials are the three main things that are discussed in this scientific article.

During the first semester, students are given learning materials to project a business from art and design products, seek to reuse artwork and design and recycle previous assets from the work of their colleagues or themselves and explore the possibility of making it suitable for certain targets using Gutman's Means-End theory. The final goal of this study is to find out the stereotype of zero-hypercomplexity learning students based on the educational process that has been carried out for one semester and what factors influence the formation of these stereotypes. Do students who attend and complete this Entrepreneurship course just want to graduate or simply get rewarded by getting good grades or do they want to understand how to be an entrepreneur and are even interested in becoming a new

entrepreneur? The level of complexity is also added by the need for coordination between group members so that it is not only in the form of completing the final task, but the soft skills of negotiation between students can be further discussed related to attitudes that may arise from the initial selection of works to the willingness to complete this real project-based course.

2 Research Method

Real projects were given in the Entrepreneurship course in visual communication design at one private university in Bandung with the purpose to introduce how to curate the product value to initiate the student to familiarize the online shopping platform. For this reason, the entire population of 48 students taking Entrepreneurship courses (24 males and 24 females) was instructed to form groups independently, so 16 groups were formed.

To determine the effectiveness of giving courses that end with an offer to open a new business, this study evaluates the final score given by the lecturer and sets the final grades obtained into three groups as follows: (1) Group A is for those who get C and C+ grades; (2) Group B is for those who get B, B+ and A grades; while (3) Group C is for those who also get B, B+ and A grades, but express their concern about the unfavorable condition of the group and the uneven contribution made by their group members during the assignment period. The grouping carried out will be validated in this study, with the assumption that in the stages or levels of learning based on Bateson, even though they receive the same method and treatment, in the end, they learn things and matter for different purposes. Group A was assumed to be stereotyping those who followed the process but had no changes in abilities and attitudes afterward (Learning Type 0). Group B was assumed to be stereotyping those who follow the process and are serious about learning to gain an understanding of the new ability or knowledge itself (Learning Type 1). Group C was assumed to be stereotyping those who follow the process, seeking to gain new understanding or abilities, but more concerned with the value obtained as a reward in the higher education learning system (Learning Type 2). To examine in depth whether the type of learning is relevant to the results obtained and the process of undergoing it, semi-structured interviews were conducted, with the grouping of questions arranged per cluster, as written in Table 12.1.

Semi-structured interviews were proposed to students who stated their willingness to be interviewed, using purposive sampling method, each representing the evaluation group, so that the factors explored could then be compared between each student included in the three types of learning. The category of structured questions is divided into the four questions above (i–iv).

Students who have expressed their willingness, based on the evaluation group they represent, will each be faced with the following structured question:

- Sample from Group A (assumption learning type 0): question cluster i, if participants could answer question i, proceed to questions ii, iii, however, if participants could not answers, then stop and be classified into the learning type 0 category.
- Sample from Group B (assumption learning type 1): question cluster i, ii, iii, however, if participants could not answers question in cluster i, then validate as type 0 learning type, and if able to answer satisfactory, fall to type 1 learning type.
- Sample from Group C (assumption learning type 1): question cluster i, continue to question ii and iii, however, if participants could not answers question in cluster i, then validate as type 0 learning type, or if able to answers satisfactory, fall to type 2 learning type because they commented about unequal workload.

Furthermore, the results of collected answers that have been grouped will be coded in stages, and after reaching saturation, it is declared that the expected sampling has been achieved. Finally, related to the Guttman Means-End Theory, it will also be sought whether students' motivation to understand the material is affected by the initial selection of products to be sold.

3 Results

This section contains a summary of in-depth interview data on group representatives belonging to the category levels 0, 1 and 2 according to Bateson learning. In the end, there is a discussion and analysis of the data collected.

1. **The first part, questions related to Learning Motivation and Product Development**

Students who are assumed to be in the level 0 category because their grades are C or C+, and their product development analysis is not carried out correctly. They do not master the learning material provided. Students can briefly describe what they learned in Entrepreneurship class, but most do not remember it in detail. All good students who finally validated the learning type category 0–2 can remember where the selection of artwork came from as the product chosen. However, most category 0 types admit that

Table 12.1 Cluster grouping

Cluster	Group A Indicated as: Learning tipe 0 Grades C, C+	Group B Indicated as: Learning tipe 1 Grades B, B+, A	Group C Indicated as: Learning tipe 2 Grades B, B+, A (Students who complain that their members are not doing well)
(i) Related to learning motivation dan product development	Who and where did the artwork selection come from for the products used in this course? Remember what you have learned in this entrepreneurship class?		
(ii) Related to course material	Which is the most recent part that you can fill in the BP (Business Plan) book that has been done for 1 semester, besides the recap? Why the reason? Common questions for which there are not in the learning materials: Why are business projections necessary for investors? Why should you try to promote and sell online? Why is the organizational structure within BP that you have suggested to be as lean as possible? When deciding which products to sell, what do you need to think about? Questions in the learning materials: Why should depreciation expense be taken into account when making BP? Mention the 3 most important roles in this business created What is Break Even Point?		
(iii) Related to optimizing the opportunity to continue the project	Is it possible to continue this effort? What's the reason? If you were permitted by your parents to do business online while studying, would you be interested? Will you continue this planned effort? Is the product attractive enough to sell? Or is there something else?		
(iv) Related to simulation in the complexity of group work	–	Imagine that you are grouped into one course with self-selected members. Everyone will get tasks that support each other, but at the time of implementation not all members work with the same load. Do you think the grades obtained should be averaged? What is the reason? What if the workload of the group is not evenly distributed because one of the members has a misfortune? Should the final grade be averaged? In your opinion, what are the causes of the unbalanced workload in a group?	

it is not their artwork that is chosen. It is often seen that if the choice of artwork comes from them, then students are automatically categorized in learning type 1 or 2. It is alleged that they become more responsible for completing this assignment. There are several reasons students determine product selection. First, some groups have already sold these products before joining Entrepreneurship class; Second, due to the mutual agreement of the entire group; Third, there is also the fact that the product is ready in digital form so it doesn't need to be processed anymore.

2. **Part Two, Question Related to Course Material**

In this section, some questions are general knowledge and some are related to the learning materials that have been given. All students quite understand the function of business projections for investors, but they cannot explain it in detail, only so that investors have an idea of what kind of business this business will develop. The majority of the participants were unable to correctly pronounce terms that did not fall into the category of visual communication design disciplines (i.e., depreciation cost, break-even point), but were still able to describe more or less what the term meant, along with the need for preparation or logically necessary calculations. Of course, students who are categorized as learning type 0, are not too able to state in detail the components compiled in the business plan. In general, groups that divide work separately and do not coordinate, are more likely to not fully understand the components being taught. They were only able to re-describe what they had done during group work.

Students already understand the benefits of promoting and selling online, they understand that online media is relevant today, widely used, and has a very wide reach. The prospect of an online business is better, small capital can be done from home, it is estimated that it will sell better and the way to shop is practical. They also think that the task of selling directly online will give them a hands-on experience. Only some students understand that the business projection they make is a lean start-up business from an organizational perspective. Students already understand the things that need to be considered when deciding which products to sell but from their point of view. They will look for the right STP, product functionality for the community, attractive designs, whether this business is sunset or sunrise, product innovation, selling prices, and promotions. The second part of the question is in the learning material. Students do not understand what depreciation costs are and why they need to be taken into account when making business projections. Most of them also do not understand BEP (Break Even Point), moreover how to calculate it on the grounds of working in groups so that they divide tasks. Students also forget the three most important roles in the structure of a start-up business that is designed.

3. **Part three, Question Related to Optimizing the Opportunity to Continue the Project**

Students have been given learning materials to design business projections for one semester by selling products directly at the end of the lecture. However, they are not yet willing to continue the business they made for several reasons, namely, because the product still needs to be developed, there are still many ongoing lectures, no capital, and team shortage. Some students are interested in trying but according to their expertise as graphic design freelancers. About the attractiveness of the artwork and design products being sold, some think that they are too specific, but some of them think that art and design products have their niche market, especially for art and design lovers.

4. **Part four, Question Related to Simulation in the Complexity of Group Work**

All students agreed that even though the group was chosen by themselves, when the workload was not the same, the results or grades obtained should not be generalized. Except when some obstacles or misfortunes befall the members of the group who are not working, they are willing to help but of course, they need evidence. They realize that the things that cause uneven workloads can be due to lack of coordination, unequal initiative in each group member, and differences in standards of excellence in finished work so that sometimes work results become unused.

4 Discussion

The initial assumption of the research team, related to categorization according to Bateson learning about students' understanding of the learning materials for entrepreneurial business projects that they have completed, is that there are three categories, namely Category level 0 is for groups that get C, C+, level 1 and 2 categories for students who got the grades B, B+, A.

After conducting in-depth interviews with representatives of these categories, it was found that for the students who scored C or C+, it was true that the learning level was 0, they did not understand the Entrepreneurship learning material. At the time of doing the given task, they depend on the handout learning material uploaded on the learning web system provided by the university. All stages in making a business projection book are 70% done, but the content is very shallow and instant. This type of student when interviewed about understanding the material also cannot give the correct answer. However, regarding group collaboration, these students did not experience any problems at all, their tolerance for working in groups was very high, and all group members even though they got C and C+ scores were

willing, it could be said that they just graduated from this course. From the point of view of the supporting lecturer, because this course is given full online, there is tolerance in giving grades, so it only measures the completeness of the contents of the business plan book.

Students who get grades B, B+ or A in terms of understanding the material, understand them in general, why it is necessary to carry out the stages in making a business projection book, and what are their uses. However, when asked about the theories, only part of them are still remembered. This category of students is dominant in their group. In terms of group collaboration, they also do more work than their group mates. If there are group members who do not work, they expect the lecturer to give a different assessment as well, but they still strive to get good grades.

This is due to several external factors. When it comes to online learning, entrepreneurship learning materials have quite a lot of processes and stages of work. Every week there is a different new material. This requires students to reread the material that has been given and maybe look for other sources to complement the material so that they can do the assignments given. This cannot be generalized to each student. Those who have good learning facilities, adequate time, and a good internet network will make it easier to do this.

Assignments in this Entrepreneurship Course are intentionally made to have group complexity because in the real world of work the ability to work together in groups is required (Chinoy et al., 2022). In addition, the goals are made per group because there is a lot of work and it trains how to behave from each group member when completing the given task. In designing business projections, it can only be made with a comprehensive understanding of the material. For students who do not try to learn the whole material, then after the learning is completed their understanding is not thorough. So, even though the assignments are given in groups, individually they need to understand the whole material (Colbeck et al., 2000).

Entrepreneurship course is a new material in the context of design. Design students are invited to learn something new outside the field of design. In line with Vogler's research, this interdisciplinary project provides opportunities for students to practice skills that contribute to success outside the field of design, and of course add a new dimension to learning (Vogler et al., 2018).

Design is an applied field of science, so the task of designers is not only to create products. Designers also need to think about their design work being upcycled which reaches the stage of a desirable existence, so that entrepreneurship learning materials from economics also need to be understood by designers. This is because design thinking and entrepreneurship are complementary processes, and by mastering entrepreneurial skills students will be able to seize opportunities to develop commercial businesses after graduation (White & Kennedy, 2022).

5 Conclusions

Stereotypes of student understanding of learning materials can be formed from internal and external factors (AL-Muslimawi & Hamid, 2019). Internal factors are courses, lecture materials, lecture time, and course lecturers. External factors are students who take courses, how to do assignments, environmental conditions when doing assignments, ambitions or student targets to get rewards in the form of grades, and student interest in courses. In this course, there are only two categories of Bateson learning, namely types 0 and 1. The task of designing business projections and selling real upcycling art and design products in the Entrepreneurship course is carried out which is completed for one semester fully online is not easy for students as a whole to directly understand in detail the lecture material that is not designed material. Coupled with the existence of group assignments that have their complexity. Group assignments are perceived negatively by students who not interest to understand the whole lesson. This leads to uneven and incomplete understanding of the subject matter.

Stereotype level type 0, have a low understanding of the material, they choose group members according to their character, do not pursue grades, assignments are done poorly, friendships remain good and the important thing is to pass the course. Type 1 level stereotypes have a fairly good understanding and some are very good, they are looking for group members who have a cooperative rhythm or who they think will be the same. They pursue the value, trying to get the best possible outcome, they are even willing to work individually if the other members do not work with the same portion. However, they were not willing and reported to the lecturer so that the member who did not work would get a lower score. On the positive side, the stereotype of ambitious individuals with a proactive attitude towards success motivates them to make sincere efforts in comprehending the entirety of the learning material, even within a group assignment context. However, on the negative side, the dominance exhibited by the most prominent group members can inhibit and restrict the creative contributions of other members who may be perceived as less equal. However, both groups still passed the course. This needs to be a concern for study programs, especially regarding the lack of knowledge from students about learning materials but still being able to graduate with a C grade. Thus a C grade in higher education cannot be interpreted as sufficient but lacking.

Student have not been optimal or optimized product development. The product development steps with the means-ends theory that have been described in the learning materials are carried out but are not evenly distributed and have not been maximally developed in all groups. Upcycling's efforts to provide value to artworks and designs to make them more valuable and have a selling value are still affected by the effectiveness of the assignment, not yet on the idea of how to turn these abandoned artworks and designs into selling value products, so that the products they sell have not yet reached the stage "desirable of existence". In conclusion, the Entrepreneurship course for undergraduate visual communication design students fails to generate sufficient interest in entrepreneurship as a career option. While the course incorporates project-based learning, it primarily serves as a means of introducing students to entrepreneurship rather than fostering a genuine entrepreneurial inclination.

6 Limitation of the Study

This research discusses findings based on a limited number of participants drawn from regular classroom activities from a private university located on Java Island, Indonesia. Therefore, the opinions generated have limitations and cannot be generalized to the entire population of college students. However, the exploratory nature of this study allows for potential development and adaptation based on the unique cultural context of the local region.

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