

Effectiveness of Entrepreneur Education for Entrepreneurial Intention through Creativity and Entrepreneurial Self Efficacy

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ARSTRACT

Entrepreneurship course is one of the compulsory subjects at Universitas Andalas. However, its effectiveness has not been measured to foster entrepreneurial intention, especially for psychology students. The purpose of this classroom action research is to find out whether entrepreneurial intention can be assessed from differences in creativity and entrepreneurial self-efficacy in students during the period of taking entrepreneurship courses. This study used a one-group pre-test-post-test design. Lectures are given using case discussions and analysing entrepreneurs to be innovated by students as project learning. It was found that there were differences in the Mean value of entrepreneurial self-efficacy and impact of creativity toward entrepreneurship intention after eighth lesson or mid semester, after implementation case based method and project based learning. Thus, the methods can increase student entrepreneurial self-efficacy.

Keywords: Entrepreneurial Self-Efficacy, Creativity, Entrepreneurial Intention, Action Research, Entrepreneurship Course

1. INTRODUCTION

Efforts to increase students intention in entrepreneurship have been carried out by universities through entrepreneurship education. The existence of support from the university environment can encourage positive student attitudes to entrepreneurship [1] and increase career choices to become entrepreneurs [2]. One form of entrepreneurship education that has been carried out by Universitas Andalas is through entrepreneurship course.

In entrepreneurship course, educational assessment perspective and typical set learning outcomes within accreditation and total quality management (TQM) framework have integrated with entrepreneurship cognition theories, social cognitive theory, and goal-setting theory. Using entrepreneurial self-efficacy assessment, it means not only measuring students' demonstrated past performance but also understanding how students' receive this feedback to alter their self-efficacy beliefs which have a powerful influence on future effort, motivation, and performance [3]. By giving a survey to students at the beginning of the

semester, lecturers can identify specific subdomains in which students have the lowest self-efficacy. This will allow lecturers to focus on a specific set of learning outcomes, thereby enabling lecturers to adjust their lesson to each different class, based on the results of the preliminary study [4].

The pedagogical approach to entrepreneurship education supports entrepreneurial learning through experiential activities that simulate the environment that entrepreneurs face [5]. Universitas Andalas has adopted a learning model called project-based learning since 2020, by designing objective-based education (OBE) in the semester learning plan and assessment. However, using direct measures has its own problems given it does not specify what assessment should be used; faculty members may be pressured to improve the scores obtained from direct measures. Researchers and educators need to better understand the relationship between assignments and pedagogy on the one hand and students' beliefs about themselves on the other [4].

Project Based Learning (PjBL) is a learning model that uses projects/activities as a learning process to

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achieve attitude, knowledge, and skill competencies. The use of the PjBL model is very appropriate, because it makes students take an active role in learning and succeed in solving complex problems. Learning is more emphasized on the activities of students to produce products by applying their skills to research, analyse, create, and present their learning products based on experience in the real world [6]. The results of the study show that the application of the PjBL model can increase the activeness and learning outcomes of students' creative and entrepreneurial products [7], as well as increase interest and learning achievement in entrepreneurship likes creativity and entrepreneurial intention [8].

The role of creativity as an antecedent to entrepreneurship intention, but teaching approaches of entrepreneurship education courses and programs, with an emphasis on identifying pedagogical methods are important [9]. So, education that begins with a casebased method (CBM) is an exploration of the impact of different programs on entrepreneurship and innovation in both the short and long term [10].

Hypothesis 1. There is an impact of creativity on entrepreneurial intention after the application of the CBM and PjBL methods which are applied as an outcome based assessment (OBA) in entrepreneurship courses. That means, entrepreneurship education is effective for increasing entrepreneurial intention in students through creativity.

Self-efficacy provides a valid construct that can be used to evaluate the impact of entrepreneurship education [11]. This is because self-efficacy affects motivation and ability to engage in certain activities and is a strong condition, required for creative productivity, and in discovering new knowledge [12]. Creative activities in entrepreneurship for innovation are a student project that focuses primarily on identifying the impact of different types of learning activities on participants' innovation potential. Students will find it difficult to start a business if they do not socialize with their community, especially in the business environment [13].

The tool focuses on entrepreneurial self-efficacy (ESE) in particular and thus measuring creativity and innovation with the context of entrepreneurship [11]. Within the context of entrepreneurial education, ESE is strongly correlated to new venture creation. The entrepreneurship educational support does not impact the entrepreneurial intentions directly, but has an indirect positive effect mediated by ESE [14].

Hypothesis 2. There is a Mean difference on ESE after taking entrepreneurship courses. This means that ESE is

higher after students take entrepreneurship courses with CBM and PjBL method.

1.1 Entrepreneurial Intention

Entrepreneurial intention defines as individual beliefs in starting entrepreneurship. The entrepreneurial intention consists of three antecedents, namely attitude toward start-up (personal attitude), subjective norm, and perceived behavioural control [15]. Intention itself according to Ajzen (2005) is a belief about doing something behavior. Based on the factors that influence entrepreneurial intentions, creativity is one of the most important characteristics for entrepreneurs [16].

1.2. Creativity

Getting a business idea is a major challenge for someone who will start an entrepreneur, so it takes creativity to see opportunities and turn them into business idea [17]. In other words, creativity is related to the strategy of looking for opportunities to generate business ideas [18]. According to Amabile (1983), the definition of creativity is the ability to generate new and useful ideas. The main components of creativity are domain-relevant skills, creativity-relevant skills, and task motivation. Creativity for students concerns the thought processes involved in the creation of new ideas or products [19] that are needed in an entrepreneur.

1.3. Entrepreneurial Self Efficacy

Bandura defines self-efficacy as an individual's belief in his ability to exercise some form of control over motivation, cognition, affection in the person's own social environment and is the belief that he is able to carry out tasks, achieve goals and overcome obstacles. This self-efficacy measurement can determine the achievement of learning objectives [3]. The initial theory was on social cognitive, explaining that students who have completed entrepreneurship courses/education have more confidence that they will succeed in that career field [4]. Self-efficacy can improve career decision making over time, also by providing career course interventions [20].

Entrepreneurial self-efficacy (ESE) is the development of adaptation of self-confidence and skills such as technological readiness, at the time of awareness of academic success and entrepreneurial careers [21]. Self-efficacy plays an important role in individual career decision making. Taylor and Betz published an article on the application of self-efficacy in career psychology [22]. The concept of ESE is not about the content or style of individual decision-making but refers to the individual's confidence in his ability to make career



decisions in the field of entrepreneurship appropriately. These ESE measurement [3], [23] in relation to entrepreneurial activity in a more mainstream organizational context (outside of new venture settings), and in the context of entrepreneurial career management (i.e., whether one feels confident managing their careers in an uncertain and risky environment).

2. METHOD

This action research with pre-test and post-test design was delivered online questionnaire consists of EI scale, Creativity scale, and ESE scale. The three of scales was constructed refer to past studies [11], [12], [15]. This study was divided into a preliminary study as confirmatory test for constructs validation and the second study as a follow-up hypothesis test.

3. RESULT AND DISCUSSION

Our respondents are students of entrepreneurship course at psychology department in Universitas Andalas which consist of three classroom amount of 95 students, with 85% female and 15% male. Using the approach of structural equation modeling adopting PLS-SEM software, as represented by Figure 1, we test the measurement model with its original factors.

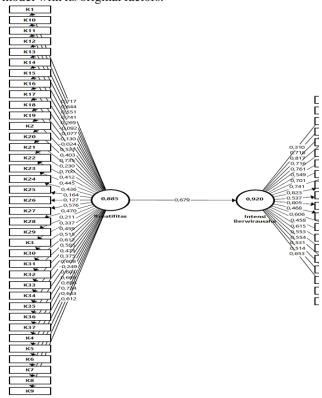


Figure 1 Path Diagram Measurement

The convergent validity was performed to confirm the dimensionality of the measurement model as represented by Table 1. Those statistics will help test how good the measurement model fits to collected data.

Construct	item	outer loading	CR	Cronbach	AVE
Entrepreneurial					
Intention	IB11	0,837	0,930	0,918	0,492
	IB12	0,752			
	IB13	0,767			
	IB14	0,500			
	IB15	0,716			
	IB16	0,774			
	IB17	0,848			
	IB18	0,506			
	IB19	0,818			
	IB20	0,630			
	IB4	0,577			
	IB5	0,530			
	IB9	0,686			
Creativity	K1	0,745	0,929	0,918	0,424
	K10	0,643			
	K11	0,519			
	K12	0,741			
	K18	0,545			
	K2	0,767			
	K21	0,682			
	K27	0,560			
	K31	0,539			
	K32	0,610			
	K33	0,579			
	K36	0,601			
	K4	0,647			
	K5	0,689			
	K6	0,735			
	K7	0,762			
	K8	0,649			
	K9	0,621			
ESE	ESE1	,789	0,885	0,848	0,527
	ESE2	,600			
	ESE3	,753			
	ESE4	,811			
	ESE5	,654			



ESE6 ,700

ESE7 ,751

Table 1 Confirmatory Factor Analyzes

Data above showed the three of scales used in this study was reliable and valid. So, this data useful as preliminary study and could continue for measurement impact of creativity toward EI after taking entrepreneurship course eight times.

We analyzed statistically the second study using software PLS-SEM. The structure equation modeling supported our hypothesis, as show in table 2.

 Path
 Std.Beta
 Std. Error
 t- value
 p- value

 Creativity -> EI
 0,247
 0,064
 9,840
 0,0000

Table 2 SEM

Note: P < 0.005 (1 tailed); t > 1.645

 $R^2 = 0,488 \longrightarrow 48,8$ % of variance in EI determine by exogenous variables like Creativity. F^2 value of 0,953 means high categorization of that impact.

Mean comparison of ESE between preliminary study with the second study were 3,46 and 4,05 that means there is difference ESE after taking entrepreneurship course with CBM and PjBL. In preliminary study, as many as 76.7% do not have an idea what business they want to start. However, in the second study, as many as 62.2% of students plan to have a career in entrepreneurship after graduating from university.

Taking entrepreneurship courses can moderate the influence of individual creativity on entrepreneurial intentions [12]. Through project assignments, students can see the perspectives of entrepreneurship stakeholders and entrepreneurship education as a holistic process, an enhanced analysis of how the response mechanisms for resilience and business innovation can be carried out. This allows a way to view the COVID-19 crisis as an opportunity to pay more attention to the importance of entrepreneurship education for society [24].

AUTHOR'S CONTRIBUTIONS

Author as lecturer did action research in entrepreneurship course at Universitas Andalas since three years. The experiences of author in research and community service has produced a lot of publication about SME' Enterprise and web application in entrepreneurial career planning for students.

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REFERENCES

- [1] G. H. S. M. de Moraes, E. S. Iizuka, and M. Pedro, "Effects of Entrepreneurial Characteristics and University Environment on Entrepreneurial Intention," *Rev. Adm. Contemp.*, vol. 22, no. 2, pp. 226–248, 2018, doi: 10.1590/1982-7849rac2018170133.
- [2] D. Turker and S. S. Selcuk, "Which factors affect entrepreneurial intention of university students?," *J. Eur. Ind. Train.*, vol. 33, no. 2, pp. 142–159, 2009, doi: 10.1108/03090590910939049.
- [3] S. A. Gedeon and D. Valliere, "Closing the Loop: Measuring Entrepreneurial Self-Efficacy to Assess Student Learning Outcomes," 2018, doi: 10.1177/2515127418795308.
- [4] N. A. Mozahem and R. O. Adlouni, "The International Journal of Management Education Using Entrepreneurial Self-Efficacy as an Indirect Measure of Entrepreneurial Education," *Int. J. Manag. Educ.*, vol. 19, no. 1, p. 100385, 2021, doi: 10.1016/j.ijme.2020.100385.
- [5] H. Peschl, C. Deng, and N. Larson, "The International Journal of Management Education Entrepreneurial thinking: A signature pedagogy for an uncertain 21st century," *Int. J. Manag. Educ.*, no. xxxx, p. 100427, 2020, doi: 10.1016/j.ijme.2020.100427.
- [6] S. Suharti and R. R. Amalia, "Entrepeneurship Education Through Project Based Learning for 3Rd Grade Student of Kareng Kidul Elementary School Probolinggo," *J. Pendidik. Dasar Nusant.*, vol. 4, no. 1, p. 78, 2018, doi: 10.29407/jpdn.v4i1.12203.
- [7] Y. Khairat, "Penerapan Model Project Based Learning Dalam Meningkatkan Aktifitas Dan Hasil Belajar Peserta Didik Pada Mata Pelajaran Produk Kreatif Dan Kewirausahaan," *J. Teknol. Pendidik.*, vol. 9, no. 2, 2020.
- [8] W. B. Lestari, "Metode project-based learning untuk meningkatkan minat dan prestasi belajar berwirausaha pada pembelajaran prakarya kewirausahaan," *Wiyata Dharma J. Penelit. dan Eval. Pendidik.*, vol. 7, no. 1, pp. 107–119, 2019, doi: 10.30738/wd.v7i1.3766.
- [9] M. Tantawy, K. Herbert, J. J. McNally, T. Mengel, P. Piperopoulos, and D. Foord, "Bringing creativity back to entrepreneurship education: Creative self-efficacy, creative



- process engagement, and entrepreneurial intentions," *J. Bus. Ventur. Insights*, vol. 15, no. March, p. e00239, 2021, doi: 10.1016/j.jbvi.2021.e00239.
- [10] Kadunci, T. Herawati, and T. Hartati, "Penggunaan Strategi Pembelajaran Berbasis Masalah (SPBM) Untuk Meningkatkan Aktivitas Mahasiswa Pada Mata Kuliah Dasar Penyelengaraan Konvensi," *Sosialita*, pp. 143–150, 2010, [Online]. Available: http://jurnal.ubl.ac.id/index.php/JIA/article/view/352
- [11] S. Barakat, M. Boddington, and S. Vyakarnam, "Measuring entrepreneurial self-efficacy to understand the impact of creative activities for learning innovation," *Int. J. Manag. Educ.*, vol. 12, no. 3, pp. 456–468, 2014, doi: 10.1016/j.ijme.2014.05.007.
- [12] L. A. Zampetakis, M. Gotsi, C. Andriopoulos, and V. Moustakis, "Creativity and Entrepreneurial Intention in Young People," *Int. J. Entrep. Innov.*, vol. 12, no. 3, pp. 189–199, 2011, doi: 10.5367/ijei.2011.0037.
- [13] A. Peña-ayala and H. G. Villegas-berumen, "The International Journal of Evaluation of the influence that higher education boosts on students' entrepreneurial proclivity: Evidence from Mexico and Spain," *Int. J. Manag. Educ.*, vol. 18, no. 3, p. 100404, 2020, doi: 10.1016/j.ijme.2020.100404.
- [14] G. Maheshwari and K. L. Kha, "Investigating the relationship between educational support and entrepreneurial intention in Vietnam: The mediating role of entrepreneurial self-efficacy in the theory of planned behavior," *Int. J. Manag. Educ.*, p. 100553, 2021, doi: https://doi.org/10.1016/j.ijme.2021.100553.
- [15] F. Liñán and Y.-W. Chen, "Development and Cross-Cultural Application of a Specific Instrument to Measure Entrepreneurial Intentions," in *ENTREPRENEURSHIP THEORY and PRACTICE*, no. May, Baylor University, 2009, pp. 593–617.
- [16] M. Laužikas, R. Mokšeckienė, M. Laužikas, and R. Mokšeckienė, "The role of creativity in sustainable business To cite this version: HAL Id: hal-01694334," vol. 1, no. 1, pp. 10–22, 2018.
- [17] R.S.Kanchana, J.V.Divya, and A. A. Beegom, "Challenges faced by new entrepreneurs," *Int. J. Curr. Res. Acad. Rev.*, vol. 1, no. 3, pp. 71–78, 2013.
- [18] J. Heinonen, U. Hytti, and P. Stenholm, "The role of creativity in opportunity search and business idea creation," *Educ.* + *Train.*, vol. 53,

- no. 8–9, pp. 659–672, 2011, doi: 10.1108/004009111111185008.
- [19] E. Papaleontiou- Louca, D. Varnava-Marouchou, S. Mihai, and E. Konis, "Teaching for Creativity in Universities," *J. Educ. Hum. Dev.*, vol. 3, no. 4, pp. 131–154, 2014, doi: 10.15640/jehd.v3n4a13.
- [20] M. Lam and A. Santos, "The Impact of a College Career Intervention Program on Career Decision Self-Efficacy, Career Indecision, and Decision-Making Difficulties," pp. 1–20, 2017, doi: 10.1177/1069072717714539.
- [21] G. Cadenas, E. A. Cantú, N. Lynn, T. Spence, and A. Ruth, "A programmatic intervention to promote entrepreneurial self- efficacy, critical behavior, and technology readiness among underrepresented college students," *J. Vocat. Behav.*, p. 103350, 2019, doi: 10.1016/j.jvb.2019.103350.
- [22] D. Widyaningrum and T. D. Hastjarjo, "Pengaruh Bimbingan Karier terhadap Efikasi Diri dalam Pengambilan Keputusan Karier pada Siswa," vol. 2, no. 2, 2016.
- [23] A. Newman, M. Obschonka, S. Schwarz, M. Cohen, and I. Nielsen, "Entrepreneurial self-e ffi cacy: A systematic review of the literature on its theoretical foundations, measurement, antecedents, and outcomes, and an agenda for future research," *J. Vocat. Behav.*, vol. 110, no. October 2017, pp. 403–419, 2019, doi: 10.1016/j.jvb.2018.05.012.
- [24] V. Ratten and P. Jones, "Covid-19 and entrepreneurship education: Implications for advancing research and practice," *Int. J. Manag. Educ.*, p. 100432, 2020, doi: 10.1016/j.ijme.2020.100432.