

ENTREPRENEURSHIP EDUCATION TO IMPROVE ENTREPRENEURSHIP INTENTION

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Abstract

Purpose: This research aims at finding out the effect of entrepreneurship education on people's entrepreneurship intention.

Methodology: The subject of the research includes 18 persons of Wedomartani village, Sleman regency, Yogyakarta with the characteristics of having no jobs, having been married, and male or female incapable of handling waste for entrepreneurship. The sampling technique uses purposive sampling. The data analysis technique uses a Wilcoxon test.

Results: The result of the analysis is $Z = -2.102$ and $p = 0.018$ (1-tailed), with $p < 0.05$, which means there is a significant difference between the people's entrepreneurship intention before and after entrepreneurship education. So entrepreneurship education is effective in improving the people's entrepreneurship intention.

Implications: People's intention to convert waste into marketable goods is still low so that the waste spoils the environment. Therefore, entrepreneurship education is needed to rouse their intention in doing it.

Keywords: Education, Entrepreneurship, Intention, Handling Waste, Data Analysis

INTRODUCTION

The issue of entrepreneurship is an important issue in an economy of developing country like Indonesia. Indonesia's open unemployment in February 2016 reached 7.02 million people (<https://www.bps.go.id>). Improving the people's entrepreneurship intention becomes a solution to reduce the level of unemployment for the people are expected to educate entrepreneurs, who can manage their own business. They need encouraging and motivating for entrepreneurship intention. Entrepreneurship is an important element in running business, i.e., the ability to see business opportunities and take advantages of it. The existence of abundant waste, which spoils the environment is a problem to solve and an opportunity for the people to handle it to make it marketable products. Nevertheless, if there is no intention of the people to do it, they will not realize it. An intention is one's desire to carry out a business, and it is a result of his awareness and judgment of his behavior. (S. C. Parker, 2004) Intention is related to how hard one tries to understand a thing, how well one plans a program, and how great one tries an effort. (R. D. Hisrich, M. P. Peters, and D. A. Shepherd, 2005)

Entrepreneurship intention is a preliminary and long-term process in carrying out a business. (S. H. Lee, and P. K. Wong, 2004) It is the entrepreneurship intention, which initiates the running of a business. (A. M. Rasli and S. U. R. Khan, S. Malekifar, and S. Jabeen, 2013) Entrepreneurship intention as individual's desire to run a business by creating a new product for business and individuals risk-taking is determined by the individual himself. (T. Ramayah and Z. Harun, 2005) According to Krueger (1993) entrepreneurship, intention reflects the commitment to begin running a new business, and it is a central issue to understand an entrepreneurship process for running a business. Entrepreneurship intention shows one's desire to run a business. (N. F. Krueger, M. D. Reilly and A. L. Casrud., 2000) The understanding of entrepreneurship intention may reflect one's tendency to run a real business. (M. Jenkins and G. Johnson, 1997) Entrepreneurship intention is very important to implement in the people to catch opportunities and to run the business. That is why there are researches in this field such as done by (C. Gerry, C. Susana, and F. Nogueira, 2008), (DALIR et al., 2014), (L. Galloway, S. Kelly and W. Keogh, 2006; H. S. Rasheed, 2000)

Observation and interview results show that the people's entrepreneurship intention to start running a business in the waste converting into charcoal briquettes, liquid organic fertilizers and plant growing media was low. There should be efforts to improve the entrepreneurship intention to run the business one of them is through entrepreneurship education. Entrepreneurship education is an entrepreneurship competence transfer, which is done structurally and formally to improve an individual's skills, concept, and awareness in entrepreneurship. (F. Alberti, S. Sciascia, and A. Poli., 2004) Entrepreneurship education is an important factor to rouse and develops one's entrepreneurship, and the spirit of

business.(M. L. Kourilsky and W. B. Walstad, 1998) Entrepreneurship education can affect entrepreneurship spirit and behavior.

Previous researches on entrepreneurship education include those done by (B. Frazier and L .S. Niehm, 2008; Muyambiri and Chabaefe, 2018), (R. Shinnar, M. Pruett, and B. Toney, 2009) (V. Souitaris, S. Zerbinati, and A. Al-Laham, 2007)conclude that entrepreneurship education can develop an entrepreneurship spirit. The entrepreneurship education in this research is meant the knowledge and skill given to the people to convert organic and non-organic waste into charcoal briquettes, liquid organic fertilizers, and plant growing media. The entrepreneurship education falls into different steps, the first step is motivation and problem solving, the second step is implementation of entrepreneurship characters and values, the third step is leadership, the fourth step is the practice of waste handling, the fifth step is making use of waste handling products, and the sixth step is entrepreneurship management. The program is expected to influence the people, i.e., the improvement of their entrepreneurship intention to enter a long-term entrepreneurship business in making use of waste into marketable products such as charcoal briquettes, liquid organic fertilizers, and plant-growing media to overcome environmental problems caused by waste. The research aims to know the effect of entrepreneurship education on the people's intention to carry out entrepreneurship.

RESEARCH METHOD

Research Subject

The subject of the research is 18 people. The selection of research subjects is done using non-randomized with purposive sampling, i.e., the subjects were chosen based on their certain characteristics determined before. The characteristics of the subjects were the people coming from Wedomartani, Sleman, Yogyakarta, having no jobs or unemployed, having married of either male or female, and they were incapable of handling waste for entrepreneurship.

Measurement Instrument

The scale used to measure entrepreneurship intention refers to entrepreneurship intention aspects proposed by Ramayah and Harun, which include preferring carrying out a business to working for others, choosing entrepreneurship as a career and planning to begin a business.

Validity and Reliability of Measurement Instrument

The trial scale of entrepreneurship intention consists of 30 subjects. The items of the scale were selected on corrected item-total correlation (r_{xy}) basis and resulted in 18 valid items with the lowest correlation coefficient of 0.311 and the highest correlation coefficient of 0.657. The reliability test on entrepreneurship intention scale used the formula (α) from Cronbach and only valid items were included. The entrepreneurship intention scale showed a coefficient of 0.836, which indicated that it was reliable and could be used to collect data in the research.

Experimental Research Design

This research belonged to a quasi experimental research. The experimental design used One-Group Pretest-Posttest Design, i.e., an experimental design, which uses an experimental group only accompanied by giving pretest and posttest for the group. The mean difference between pretest and posttest results of the group were compared to know the level of entrepreneurship intention of the people so that the effect of entrepreneurship education in improving the people's entrepreneurship intention was known.

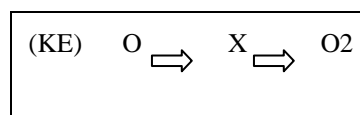


Figure 1. Research Design

Note:KE= Experimental Group, O1 = Pretest, X = Entrepreneurship Education, O2= Posttest

Procedure of Experiment

The research was done in three phases namely research preparation, execution, and research report. The first phase, the preparation, was done by making a field survey, analyzing the situation, observing and interviewing the people, studying related references, and making a research proposal. Before carrying out the research, their searchers devised the research measurement instrument, i.e., the scale of entrepreneurship intention and carried out a trial of the instrument. The scale of the trial result was then used as research measurement instrument. The last phase of the research preparation was proposing a research permit, coordinating with the research subjects about the procedure and doing the research.

The phase of research carrying out was done through the try-out of entrepreneurship intention scale test to find out the valid and reliable research scale. The trial scale of entrepreneurship intention consisted of 18 items and was given to 30 persons as the subject of the research scale trial. The result was then analyzed using SPSS 17.0. Furthermore, the 18 selected subjects based on the characteristics were determined as an experimental group. This group was given an entrepreneurship education.

The implementation of the research started with the distribution of prepared research scale (pretest) for the experimental group. Before the distribution, the subjects were instructed how to fill in the scale by the researchers. Whereas the whole entrepreneurship education given to the experimental group included:

First phase: Giving motivation and problem solving

Second phase: Implementing entrepreneurship values and characters

Third phase: Leadership

Fourth phase: Practice of waste handling entrepreneurship

Fifth phase: Making use of waste handling products

Sixth phase: Entrepreneurship management

Data Analysis

The method to analyze the data used a non-parametric method. The analysis technique used Wilcoxon test to know if there was a difference of means between the level of entrepreneurship motivation before and after the training. The whole data computation was done using IBM SPSS Statistics 20.0 program.

RESULTS AND DISCUSSION

Results

Table 1. Descriptive Statistics

	N	Mean	Std. Deviation	Minimum
Pretest	18	55.1667	4.50163	46.00
Posttest	18	58.4444	4.56614	49.00

Table 2. Pretest and posttest subject scores

No	Pretest	Posttest	Gain Score
1	71	77	6
2	60	64	4
3	71	64	-7
4	71	77	6
5	75	76	1
6	64	71	7
7	74	76	2
8	68	75	7
9	63	76	13
10	66	68	2
11	73	75	2
12	68	74	6
13	68	72	4
14	70	58	-12
15	64	76	12
16	64	66	2
17	67	64	-3
18	64	75	11

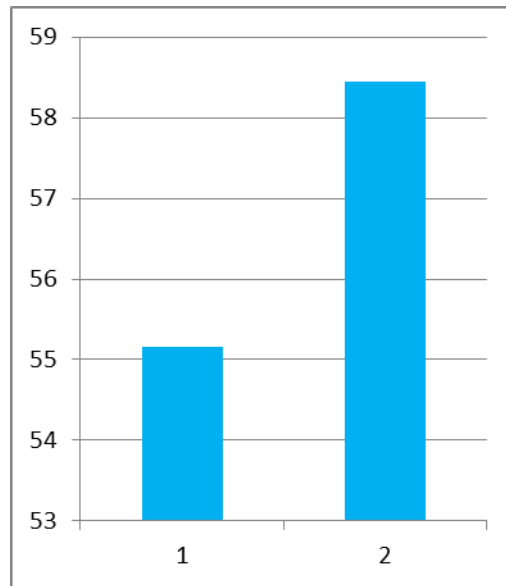


Figure 2. Average Value of Pretest and posttest

Note:

1. The average value of pretest
2. The average value of posttest

Based on the above table, Wilcoxon test showed $Z = -2.102$ and 0.018 (1-tailed) so that $p < 0.05$ was significant and interpreted as the result of analysis of Wilcoxon test is shown in table 1 as the following:

Table 3. Result of Analysis of Wilcoxon Test The Result of Wilcoxon test

Source	Difference of mean	Z	P
Pretest-posttest	3.277	-2.102	0.018 (1-tailed)

There is a significant difference (mean) of the level of entrepreneurship intention before (pretest) and after (posttest) the training of entrepreneurship education. The level of entrepreneurship intention after the training was higher than before the training. Entrepreneurship education is effective in improving entrepreneurship intention of the people.

DISCUSSION

The result of Wilcoxon analysis showed there was a significant difference (mean) of the level of entrepreneurship intention between before (pretest) and after the training (posttest). The level of entrepreneurship intention after the training was higher than before. Entrepreneurship education after the training was higher than before the training. Entrepreneurship education becomes an important factor in growing and developing entrepreneurship spirit and behavior because the education grows and develops their desire, spirit, and behavior to be a successful entrepreneur in the future. (O. Fatoki, 2014) The result of the research is supported by previous researches done by (I. Ekpe and N. Mat, 2012) Gerry, Susana, Nogueira, Souitaris, Zerbinati, Al-Laham, and Frazier and Niehm,¹⁵ which say that entrepreneurship education is related to the entrepreneurship intention.

In this study, entrepreneurship education is knowledge and skills (training) given to the community in utilizing organic and inorganic waste into bioarang briquette, organic liquid fertilizer, and planting media. (N. Indarti and R. Rostiani, 2008) argue that the influence of entrepreneurship education has been considered as one of the important factors to cultivate and develop entrepreneurship intentions, entrepreneurship spirit and entrepreneurship behavior among the young generation. The results show that entrepreneurship education can influence entrepreneurial behavior and entrepreneurial spirit at the young age.

Research Li Wei (2006) found that entrepreneurship education influences the interest of youth to become an entrepreneur and requires an understanding of entrepreneurial interest to nurture entrepreneurial potential during the learning process. Research on the intentions of entrepreneurship involves many contextual factors. Contextual factors that attract researchers attention are the role of entrepreneurship education, and entrepreneurial experience (K. H. Vesper & W. E. McMullan, 1988; G. Gorman, D. Hanlon, & W. King, 1997; M. L. Kourilsky and S. R. Carlson, 1997.) Debriefing entrepreneurship education and entrepreneurial experience in a person from an early age is believed

to increase one's desire and potential for entrepreneurship. Thus a good entrepreneurship education in the form of knowledge and skills are given effectively in improving the intention of entrepreneurship. Also, research by Rasheed¹² that entrepreneurship training and practice in America shows that students who receive entrepreneurship training have a higher motivation for entrepreneurship. Another study conducted by Gerry, Susana, Nogueira found that entrepreneurship training had a significant and positive impact on students' intentions to establish business after they graduated from college.

The existence of the entrepreneurship intention in the community is expected to be the first step to start entrepreneurship. This is by the opinion of Lee and Wong (2004) that entrepreneurship intention as the first step of a business establishment process that is generally long-term. Thus the existence of entrepreneurship education provided to the community and the community have knowledge and skills about entrepreneurship will give impact the emergence of desire or intention in him to start a business.

The effectiveness of entrepreneurship education in improving people's entrepreneurship intention in Wedomartani village, Sleman regency, Yogyakarta special province was due to some factors such as the availability of raw material, which was abundant and easy to get, where it was collected through waste bank system, the improving pollution problem, which needed an alternative solution to overcome, the availability of entrepreneurship education, which was suitable for the people, who lacked of knowledge and skills in waste handling into charcoal briquettes, liquid organic fertilizers and into plant-growing media, the big number unemployed people so that they were challenged to be independent. Gerba⁽²⁰¹²⁾ adds that entrepreneurship education is a conscious effort done by an individual to widen his perspective in entrepreneurship, which determines his entrepreneurship intention.

The improvement of Wedomatrani people's entrepreneurship intention was stimulated by correct entrepreneurship education in handling waste into marketable charcoal briquettes, liquid organic fertilizers, and plant-growing media. Entrepreneurship education given to the people included developing the spirit of entrepreneurship, implementing entrepreneurship characters and values, implementing leadership, the practice of waste handling, making use of waste handling products, and entrepreneurship management. The entrepreneurship education could improve the people's knowledge, attitude, and skills in waste handling so that the people intended to carry out entrepreneurship in waste handling. The people with knowledge, attitude, and skill for waste handling are expected to be more self-confident, initiative, and more creative than those who get no such education. The knowledge and skills also improve the unemployed people's perspective to take an opportunity of prospective business. Shane, Locke, Collins (2003) says that entrepreneurship can be initiated through education, which can stimulate people to be entrepreneurs.

The intention has become a good predictor for one's entrepreneurship behavior (Romero, Juan Bautista Abello, and Claudio Mancilla. "2018;T. Kautonen, S. Luoto, and E. Tornikoski, 2008) , so that the intention can be considered as an approach to see if there is the desire to carry out entrepreneurship. Entrepreneurship intention is composed of four factors namely desires, preferences, plans and behavior experiences. The desire is something in an individual, which shows his tendency to start a business. The preference is something in an individual, which shows that doing entrepreneurship is a need to fulfill. The plan is a hope for an individual to carry out a business in future. While behavior is a possibility to carry out entrepreneurship followed by the target to start a business.(M. van Gelderen, M. Brand, M. van Praag, W. Bodewes, E. Poutsma, and A. van Gils, 2008)

According to (Tabatabaei, F., Karahroudi, M. M., & Bagheri, M. 2014) the ability to learn is an essential thing in developing entrepreneurship ability because the success of training, skills, knowledge, and capability are needed in developing a business. (Adedeji, T. 2018)emphasize that entrepreneurship is basically a learning process so that in starting entrepreneurship we have to understand entrepreneurship first. Conceptually, an entrepreneurship process is an internal dynamic process from research and training.

The results of interview and discussion with the participants after the training showed that they were enthusiastic and had the strong desire in starting the business. Their knowledge and skills became their capital to start it. They expected that they could start the business in future and they had targets to achieve in developing their business.

This research differs from the previous ones in terms that it uses household waste as a raw material to make charcoal briquettes, liquid organic fertilizers, and plant-growing media. The phases of entrepreneurship education in the research also differs from those in the previous researches. The entrepreneurship education phases are suitable to the aspects proposed by Ramayah and Harun,⁵ which cover: starting a new business rather than working for others, making entrepreneurship as a career, and making a plan to start the business. The weaknesses of the research are limited time, the

follow-up measurement to see the long-term effect of the training cannot be done due to the limited time, and the absence of control group in the research.

CONCLUSION AND SUGGESTIONS

Based on the analysis, it can be concluded that there is a significant difference between the mean of entrepreneurship intention results before (pretest) and after (posttest) the entrepreneurship education. Entrepreneurship education is effective to improve the people's entrepreneurship intention.

Based on the research result, which shows that entrepreneurship education can improve people's entrepreneurship intention, the researchers recommend that entrepreneurship education be one of the alternative ways for people's empowerment in starting the business especially for those, who are unemployed. For other researchers, who are interested in the same field, it is advisable for them to use a control group and to carry out follow up measurement to see the long-term effect of waste handling training.

REFERENCES

- S. C. Parker, *The Economics of self-employment and entrepreneurship* Cambridge Inggris: Cambridge University Press (2004).
- R. D. Hisrich, M. P. Peters, and D. A. Shepherd, *Entrepreneurship* (6th ed), New York: The McGraw-Hill Companies Inc (2005).
- Adedeji, T. (2018). Revitalizing Mathematics Education Preparation in Nigeria for National Development: An Innovative View. *International Electronic Journal of Mathematics Education*, 13(3), 315-320.
- S. H. Lee, and P. K. Wong, *Journal of Business Venturing*, 19, 1 (2004).
- A. M. Rasli and S. U. R. Khan, S. Malekifar, and S. Jabeen, *International Journal of Business and Social Science*, 4, 2 (2013).
- T. Ramayah and Z. Harun, *International Journal of Management and Entrepreneurship*, 1 (2005).
- N. F. Krueger, *Entrepreneurial Theory Practice*, 18, 1 (1993).
- N. F. Krueger, M. D. Reilly and A. L. Casrud., *Journal of Business Venturing*, 15 (2000).
- M. Jenkins and G. Johnson, *Journal Management Studies*, 34 (1997).
- C. Gerry, C. Susana, and F. Nogueira, *International Research Journal Problems and Perspectives in Management*, 6, 4 (2008).
- Tabatabaei, F., Karahroudi, M. M., & Bagheri, M. (2014). Monitoring and zoning sultry phenomena in the southern provinces of Iran, *UCT Journal of Social Sciences and Humanities Research*, 2(3): 1-8.
- Muyambiri, B., and Chabaeffe, N. N. (2018). The Finance – Growth Nexus in Botswana: A Multivariate Causal Linkage. *Dutch Journal of Finance and Management*, 2(2), 03. <https://doi.org/10.20897/djfm/2634>
- Dalir, R. G. F., Ahmadzadeh, Y., & Faal, F. (2014). The cash flow statement's component effect on management performance in firms enlisted in Tehran stock exchange, *UCT Journal of Management and Accounting Studies*, 2(1) 14-21.
- L. Galloway, S. Kelly and W. Keogh, Working Paper, 006, National Council for Graduate Entrepreneurship (2006).
- H. S. Rasheed, Developing entrepreneurial potential in youth: The effects of entrepreneurial education and venture creation <http://USASEB2001proceedings063>, (2000).
- F. Alberti, S. Sciascia, and A. Poli., *Proceedings of the 14th Annual International Entrepreneurship Conference* (2004).
- M. L. Kourilsky and W. B. Walstad, *Journal of Business Venturing*, 13, 1 (1998).
- B. Frazier and L. S. Niehm, *Journal of Family and Consumer Science*, 100, 2 (2008).
- R. Shinnar, M. Pruet, and B. Toney, *Journal of Education for Business*, 84, 3 (2009).
- V. Souitaris, S. Zerbinati, and A. Al-Laham, *Journal of Business Venturing (JBV)*, 22 (2007).
- O. Fatoki, *Mediterranean Journal of Social Sciences*, 5, 7 (2014).



- I. Ekpe and N. Mat, *International Journal of Management Sciences and Business Research*, 1, 4 (2012).
- N. Indarti and R. Rostiani, *Jurnal Ekonomika dan Bisnis Indonesia*, 23, 4 (2008)
- W. Li, *Entrepreneurial Intention Among International Students: Testing A Model*. (2006).
- K. H. Vesper & W. E. McMullan, *Entrepreneurship Theory and Practice*, 13, 1 (1988).
- G. Gorman, D. Hanlon, & W. King, *International Small Business Journal*, 15, 3 (1997).
- M. L. Kourilsky and S. R. Carlson, 1997. *Entrepreneurship Education for Youth: A Curricular Perspective*, in Sexton, D.L. & Sanlow, R.W. (Eds.), *Entrepreneurship*. Chicago: Upstart Publishing. (2000).
- S. H. Lee and P. K. Wong, *Journal of Business Venturing*, 19, 1 (2004).
- D. T. Gerba, *Journal of Economic and Management Studies*, 3, 2 (2012).
- S. Shane, E. Locke and C. Collins, *Human Resource Management Review*, 13 (2003).
- Romero, Juan Bautista Abello, and Claudio Mancilla. "Análisis multi-teórico de los gobiernos corporativos universitarios sobre la divulgación de información." *Opción* 34.86 (2018): 358-392.
- T. Kautonen, S. Luoto, and E. Tornikoski, *Australian Graduate School of Entrepreneurship (AGSE)*, 995-1007 (2008).
- M. van Gelderen, M. Brand, M. van Praag, W. Bodewes, E. Poutsma, and A. van Gils, *Career Development International*, 13, 6 (2008).