

## Developing a Model for Evaluating Learning Outcomes of an Entrepreneurship Course

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**Abstract.** The research aims to develop an evaluation model of learning outcomes for the entrepreneurship course and to investigate its feasibility level. The research and development method was conducted based on Borg and Gall (1983), which was modified into four development stages. It consists of a preliminary study, product planning, product development, evaluation, and dissemination. The instrument validity was using expert judgment. Subjects who applied in the validity test of the instrument are two reviewers. One of them is an assessment expert, while the other is entrepreneurship expert. There were four entrepreneurship lecturers and 79 students in the field trials. The data were collected through questionnaires and assessments using the draft of instrument assessment products. The data were analyzed using descriptive statistical analysis. It was found that the developed evaluation model has knowledge assessment (written tests), attitude (observation and self-assessment), and skills (performance: weekly meeting, selling skills and product evaluation: product display) instruments. The findings also showed that the feasibility based on expert validation data analysis was 4.42, trial on lecturers was 4.2325, and trial on students was 4.067, which can be classified as an excellent category.

**Keywords:** Evaluation model, learning outcome, an entrepreneurship course.

### 1. Introduction

Several developed countries have proved the role of entrepreneurs in advancing a nation. According to the Ministry of Cooperatives and Small and Medium Enterprises, the number of entrepreneurs in Singapore is (7%) out of 5.4 million population, Malaysia (5%), South Korea (4%), Japan (10%), China (10%), and the

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United States (12%). The number of Indonesian entrepreneurs is only 1.65% to 1.8% of the total population or merely 4.6 million entrepreneurs (Susilo, Djatmika, Mintarti, and Wahyono, 2019). These data indicate that the number of entrepreneurs in the country is less than expected.

Entrepreneurship is an essential contributor to new ventures and helps to create jobs, wealth, and economic growth. Therefore, providing young potential entrepreneurs with the appropriate skills and support is very important because entrepreneurship education is an essential element in building a global competitive advantage (Martin, 2012). European Commission (2004) stated that a review of empirical studies shows that education plays a significant role in inculcating entrepreneurship values and skills (Fulgence, 2015, p. 242).

Lin and Xu (2017, p. 1351-1352) revealed that “over the past three decades, the world has witnessed the rapid development of entrepreneurship education because of government policies.” Blenker et al. (2014, p. 698) stated that “entrepreneurship is important for the process of value and job creation, as well as general economic development.”

Schramm (2006) also revealed that entrepreneurship is the activities or the process in which people undertake economic risks or tend to be a risk-taker to create a new organization, especially in a business that will exploit an innovative and creative process that produces values and benefits. It means that the ability to develop requires continuous creativity and innovation. In another opinion, Fayolle and Gailly (2008, p. 569) say that “entrepreneurship has become an important economic and social phenomenon as well as a popular research subject.” This insight makes it a focus point for scholars and researchers.

Therefore, efforts are needed to increase the number of entrepreneurs, and this can be achieved starting from the universities. It was due to the ease with which entrepreneurship can be learned and widely internalized through the education process. The courage to become an entrepreneur needs a support from lecturers and universities that teach them entrepreneurship (Susilo, Djatmika, Mintarti and Wahyono, 2019). For example, Finland has extensively promoted entrepreneurship education in curricula reforms undertaken in all education levels. For instance, entrepreneurship education has been one of the so-called cross-curricular themes for primary schools since 1994 and for upper secondary schools since 2003 (Leino et al., 2010, p. 117-118).

Apart from Indonesia, Malaysia is another country that has been aggressively developing entrepreneurship through education, and Othman and Hasyim (2012, p. 697-698), confirmed that some of the strategies adopted by the Malaysian Government to establish excellent, resilient, and competitive human capital, were through education and entrepreneurship training. The Higher Education Entrepreneurship Development Policy was established in February 2010, with the primary purpose of generating high-quality human capital, with entrepreneurial thinking, attributes, values, and the secondary goal of producing more graduate entrepreneurs to act as catalysts for economic transformation.

However, it is improper to restrict education to some specific institutions. The government should implement entrepreneurship values from the primary to the tertiary level of education. Nevertheless, there is a need for maximum restructuring of educational institutions that enhance skill development for entrepreneurship (Ahmad, 2013).

Higher Education is the final education stage before an individual enters the workplace. This fact makes it a proper place to impart an entrepreneurial mentality for preparing entrepreneur graduates, apart from the fact that they have been developed to be experts in their respective fields. The introduction of the Entrepreneurship Course helps students to create and use their creativity, take initiatives, be responsible, and foster the courage to take risks. The course should not be examined from the perspective of educating students on how to run a business only but also as a way of building an entrepreneurship character/mindset and behavior in them.

Most of the entrepreneurship courses in Indonesia are still dominated by the implementation of learning outcomes assessments that measure cognitive aspects, while the measurement of affective and psychomotor aspects is always neglected. Furthermore, the indicators of educational outcomes associated with students' entrepreneurial behaviors have not been developed extensively. The learning assessment still carried out an outcome-based rather than process-based learning.

It is crucial to research how to improve the quality of assessment in entrepreneurial learning by developing an evaluation model for the projected outcomes. Thus, a standard evaluation containing theory and practice could be developed to have cohesion between different faculties in the university. It is found on the course review conducted by Henry (2015, p. 818-819) who stated that "So, just as the academy acknowledges that the evaluation of entrepreneurship education is both important and necessary, there is also a consensus that entrepreneurship education evaluation is not easy. Hence, several different approaches exist."

In line with this, entrepreneurship education is being implemented in various forms in Malaysia, as stated by Othman, Hasyim, and Wahid (2012) that: Extra-curricular activities have also been practiced in the higher education institutions (HEIs), particularly within student associations, clubs, and so forth. Some universities have also established centres of excellence in entrepreneurship and business, which are operated primarily by students.

These activities demonstrate the development of entrepreneurship education in HEIs, in line with the government's aspiration to create a distinctive commercial and industrial community in Malaysia (Othman, Hasyim, and Wahid, 2012, p. 698)

Furthermore, it is imperative to make entrepreneurship courses compulsory in HEIs. It is necessary because each department and faculty in the school is responsible for producing the professionals. The course will help in building a mental attitude, practicing communication skills, building networks and developing a profit-oriented business plan.

It is essential to point out that evaluation plays a vital role in measuring the success of learning. It is an integral part of the whole process and must be suited to the curriculum as well as the students' needs. With regard to this issue, Tereseviene, Gedviliene, and Volungeviciene (2010, p. 85) revealed that "Besides the fact that quality evaluation and assurance should be represented in all phases of curriculum design, external factors may play apart, such as meeting the learner needs and ensuring accessibility to learning."

## **2. Literature Review**

### **2.1 Entrepreneurship education**

In the global era, world faces a situation where various changes will occur quickly in all aspects of human life. In essence, all changes will bring a trend that each individual gets the opportunity to actualize himself creatively and optimally through competition towards perfection. The tendency of the quality of human independence will be verified as the impact of these changes. The development of national policies and culture involves the formation of entrepreneurship opportunities for social reform and economic improvement (Stadler and Smith, 2017). Entrepreneurship driven by the social change could be used to contest the inequities (Waghid and Oliver, 2017).

The inculcation of the entrepreneurship for the younger generation needs to be improved through entrepreneurship education because it will increase entrepreneurial intention (Baidi and Suyatno, 2018). Collaboration in providing opportunities for entrepreneurial conditions, information services, training, and entrepreneurial assistance must be reinforced by governments, universities, and companies (Wang and Huang, 2019). An entrepreneurial attitude is one critical effort in facing the industrial revolution 4.0 (Susilo, Djatmika, Mintarti, and Wahyono, 2019). The concept of entrepreneurship education in anti-trafficking space deserves attention as an emerging strategy to face global challenges (Bain, 2017).

Historically, the Indonesian people had a feudal attitude inherited from Dutch colonists who might shape scholarly orientation. Most community members expect scholars to be employees, because in their view, employees (especially civil servants) are *prijajis* (the term in Javanese culture for the highest social class in the aristocracy) who have a relatively high social status and are respected by citizens.

Educators, educational institutions, as well as the community generally have the same perception of the expectations of scholarly output.

This condition is different from the state in developed countries, for example,

the United States. In the United States, since 1983, vocational education has been considered necessary (Schrag and Poland, 1987). Vocational education was directed to improve America's position in economic and military competition. Vocational training, especially about business education, can be carried out at every level of education, be it in the elementary, secondary, and tertiary levels. Business education in America includes office worker education, distribution and marketing, and economics.

Furthermore, Scharg and Poland (1987) say that "business education prepares students to enter business jobs proficiently, which is as important as preparing students to lead the business competition they have." From these limitations it can be concluded that business education in America is intended to (1) prepare students to be capable workers in business; (2) prepare students to be reliable business people; (3) prepare students as rational consumers; and (4) encourage students to master business economics. These purposes focus on developing students as business people, which is in line with creating entrepreneurs.

Bygrave (1996) said that "an entrepreneur is an individual who gets the opportunity and creates an organization to pursue it (the pursuit of opportunity)." Therefore, it can be implied that an entrepreneur is a person who loves changes because opportunities always exist in every change. Entrepreneurs will continuously pursue these opportunities by establishing an organization. Therefore, if education has a mission to promote entrepreneurial culture, then it is appropriate for the curriculum, learning strategies, and assessment systems to change and adjust. Therefore, it seems very difficult to shape entrepreneurs if learning and assessment process still employs a conventional approach.

According to Scharg and Poland (1987), entrepreneurship is the result of learning and education, although entrepreneurial spirit may be gained as a given talent. However, if it is not honed through learning and motivated in the learning process, it might be fossilized. Efforts to sharpen the interests and abilities of entrepreneurs need to be cultivated through the process of teaching and learning. If the learning process is set to foster an entrepreneurial spirit, then an insightful evaluation model of entrepreneurship must also be arranged.

Todaro (1997, p. 113) in his theory of economic growth said that "since the beginning of the 19th century, in addition to the stock of capital and technology, entrepreneurs have also played an important role in economic growth." He argued that pioneers of economic growth who had expertise and creativity could increase economic growth. Many world-class entrepreneurs are emerging and can make changes to the world economic order. However, he argues that it generally lacks entrepreneurship in developing countries (Jinghan, 1999; Todaro 1997).

## **2.2 Assessment**

Before describing the nature of the assessment, several key terms are explained, namely assessment, measurement, and evaluation. In the glossary of Educational Assessment Terms, Nitko (1996) defines evaluation as the process of

gathering information used to make decisions about education policy, quality of education programs, curriculum quality, and teaching excellence or to the extent which knowledge has been obtained by a student. Continuous assessment is defined as a running process every day that the lecturer uses to gather information about skills, learning abilities, and students' learning motivation.

Assessment includes all the methods used to assess individual or group performances. The assessment process involves gathering evidence about student achievement. This evidence is not always obtained through tests, but can also be monitored through observation and self-report. To find out how far the targeted competencies were achieved through the learning process, the lecturer must develop a students' assessment, including designing the assessment system. Thus, the lecturer will be able to assess the success of students according to the competencies of the targeted subjects.

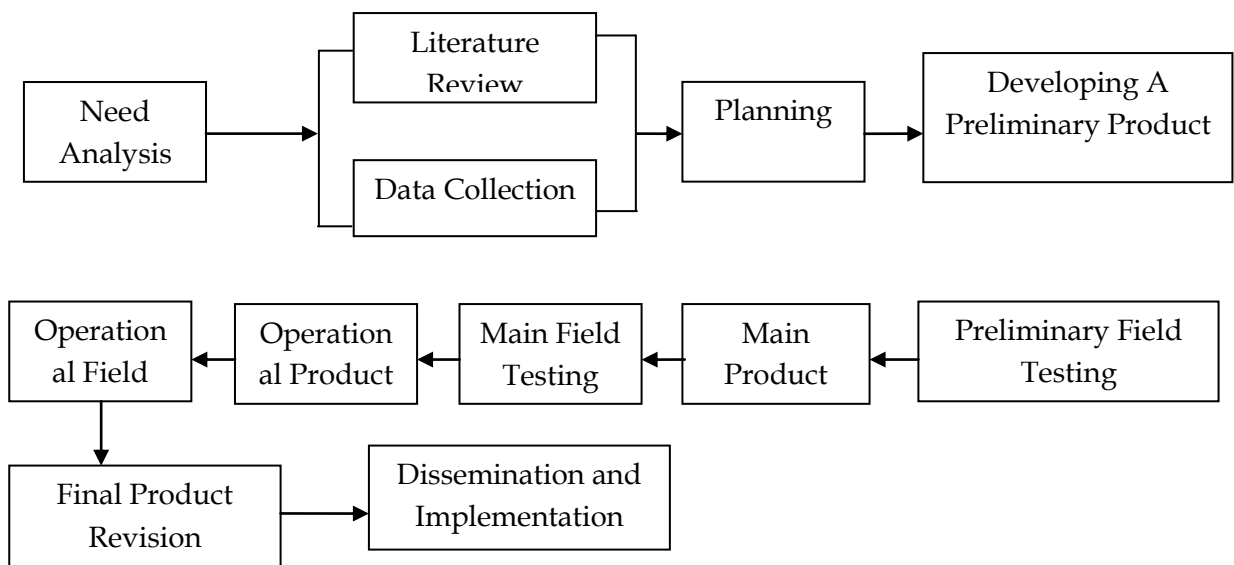
Assessment is carried out to answer the question of how is the student's achievement after he finished participating in learning activities. Assessment includes all methods used to assess students both individually and collectively. Evaluation in this sense is not only on a technique or traditional test method (written test, oral test) that exclusively relies on the knowledge mastery but also the affective and psychomotor aspects of students' performance in practical activities. Assessment refers to a variety of sources of evidence that involve several aspects of students' knowledge, skills, and attitudes related to specific instruments used. Appraisal instruments can be in forms of devices about methods and procedures, both formal and informal, to obtain information on student achievement, for example, written test paper, interview schedules, assignments on measurement using equipment, quizzes, and so on.

The benefits evaluating organizational learning have become recognized. Besides, it can also be applied in evaluating learning outcomes for entrepreneurship courses (Rozalis and Rosenstein, 2005, p. 82). Therefore, based on the background, this article aims to develop an evaluation model of learning outcomes in the entrepreneurship course.

### **3. Research Methods**

#### **3.1 Design and procedures**

This study employed Research and Development (R & D) method. According to Borg and Gall (1983), it is a process that is frequently utilized in developing and validating educational products. The model used in this research was adapted from Borg and Gall (1983), which then was simplified into four development stages, namely preliminary studies, product planning, product development and evaluation, and dissemination. The designs are illustrated as follows.



**Figure 3: Development phases**

Stage 1 (preliminary study): This stage involved students and lecturers to identify students' and lecturers' needs and problems. Questionnaires, interviews, and documentation were employed to explore the needs and practical issues. The results were processed for product planning.

Stage 2 (product planning): This phase involved determining competencies and mapping the assessment techniques. After analyzing the preliminary study, the data results were used as a reference to plan a comprehensive evaluation model of learning outcomes for entrepreneurship courses.

Stage 3 (product development): This phase involved developing a preliminary and leading product, developing a preliminary and main field product testing/validation, revising the main product, and formulating a user's guide (manual). After the model draft finishes, experts' validation was carried out. There were two experts reviewing the model and both of them have expertise in the field of assessment and entrepreneurship.

Based on the results of the review, experts were revised until a good draft model was obtained and was ready to be tested.

Stage 4 (evaluation and dissemination): This phase was carried out as the final product testing, the last revision, and the final product dissemination on the real class. The initial draft was lagged in one of the categories, which were later expanded in all types. Data obtained from the test results were then analyzed descriptively.

### 3.2 Subjects

This study was carried out in a higher institution of education in Yogyakarta Province from May to October 2017. The subjects consisted of lecturers who were experts in the learning evaluation and those teaching entrepreneurship courses as well as students taking the course. The lecturers were selected from

Faculties of Economics and Social Sciences in YSU while the students were majoring in Economic and Accounting Education at the same faculty. Qualitative and quantitative data were analyzed in this study.

### 3.3 Instruments

The instruments used for data collection were questionnaires. "Survey using questionnaires is one of data collection techniques carried out by distributing a set of questions or written statements to the respondents to answer" (Sugiyono, 2011, p. 142). Questionnaires are used to measure the quality of the evaluation model developed. The questionnaire in this study was used to obtain data from the validator as an evaluation material for the model developed. The instrument validity was measured in the stage of expert judgment. The product assessment questionnaire covers several aspects with the indicators. The indicators for each element have different amounts.

**Table 1: Lattice of the research instrument**

No.	Aspect	Item Number
1.	Introduction	2
2.	Language	3
3.	Knowledge	2
4.	Attitude	8
5	Skill	13

### 3.4 Technical analysis

Subjects in the validity test of the instrument are two reviewers. One of them is an assessment expert, while the other is an entrepreneurship expert. In the field trials, there are four entrepreneurship lecturers and 79 students. The instrument feasibility was determined based on the expert judgment and practitioners regarding criteria of practicality using a scale of 5 as adopted by Azwar (2010).

**Table 2: Criteria of practicality**

Interval of Mean Score	Category
$(M + 1,5s) < X$	Excellent
$(M + 0,5s) < X \leq (M + 1,5s)$	Good
$(M - 0,5s) < X \leq (M + 0,5s)$	Fair
$(M - 1,5s) < X \leq (M - 0,5s)$	Poor
$X \leq (M - 1,5s)$	Very poor

Note:

M = Mean of excellent score

=  $1/2$  (excellent maximum score + excellent minimum score)

S = Standard deviation of excellent score

=  $1/6$  (excellent maximum score - excellent minimum score)

X = Mean of the total score

Excellent maximum rating =  $\sum$  criteria item x the highest score

Excellent minimum rating =  $\sum$  criteria item x the lowest score



The instruments were declared feasible if the score belongs to the "good" category. The quantitative data were collected by distributing questionnaires, while the qualitative ones were obtained through interviews with the lecturers. A descriptive statistical analysis through the application of qualitative and quantitative approaches was employed to analyze the data.

#### **4. Analysis and Results**

The results of this study are an evaluation model of learning outcomes in the entrepreneurship courses and the development of an evaluation instrument for learning outcomes in entrepreneurship subjects. The results were classified and presented as follow:

##### **4.1 Stage 1 (preliminary study)**

The researcher conducted an initial data collection consisting of competency analysis studies, class observations, and problem identification. The results were then processed and made into the preparation of product planning. Judging from the students' and lecturers needs, the syllabus, and lesson plans, it can be concluded that in general Yogyakarta State University still did not have a standardized evaluation model for learning outcomes for entrepreneurship course. Entrepreneurship education stands alone apart from other subjects so that there is a limit in the scope of entrepreneurial learning with learning different topics. Each lecturer has his or her model of entrepreneurship course evaluation. It causes no general accepted indicators used to assess students' performances in the entrepreneurship course. This condition happened because of the lack of academics and facilities support from the campus officers relevant to the entrepreneurship course.

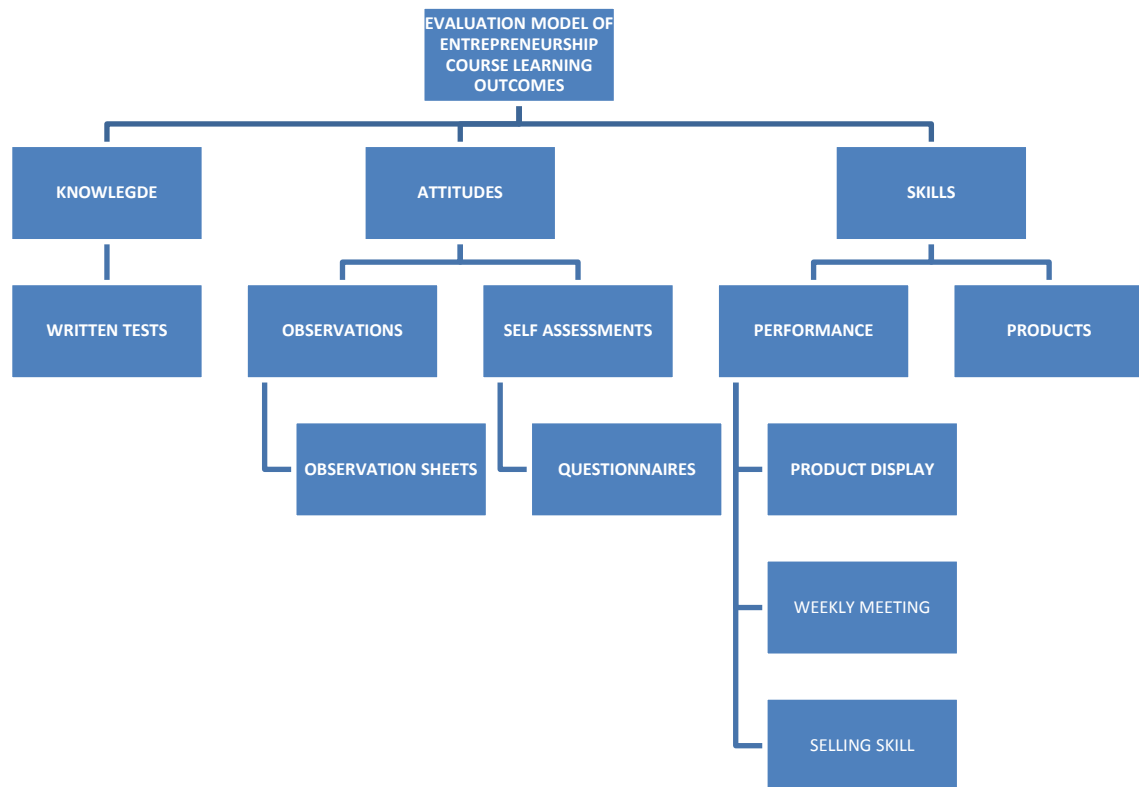
##### **4.2 Stage 2 (product planning)**

This stage consists of the competency determination and mapping of assessment techniques. The learning outcomes assessment model developed in this study includes cognitive tests in the form of objective and essay tests. Meanwhile, the process assessment model includes project assignments and students' activities. The instruments for assessing the process and learning the outcomes developed in this study include test assessment instruments, project assignment assessment instruments, students' worksheet assessment instruments, rubric assessment instruments, and assessment instruments for student activity observation sheets. To see whether the assessment model is right or not is seen from the results of expert assessment analysis, test construct, and model implementation. The analysis of the assessment model feasibility was carried out together with the study of the possibility of the learning model. It was conducted because the implementation of the assessment and learning model was carried out along and the assessment instruments became one. The results of the development of a comprehensive assessment model based on entrepreneurship education can be seen in the description of the results of the following analysis.

##### **4.3 Stage 3 (product development)**

There are product preparation, namely, preparation of product usage guidelines, product validation, and revisions. The draft of the **evaluation model of learning**

outcomes in entrepreneurship courses is presented in the following chart.



**Figure 2: The Entrepreneurship Course Evaluation Model**

The entrepreneurship course weighs two credits consisting of theory and practice. Based on the figure above, the model includes three aspects, namely, knowledge, attitudes, and skills. The cognitive element evaluation was meant to assess the students' experience through the use of a series of written tests conducted at the middle and end of the semester. The attitude aspect was evaluated using observation through sheets and self-assessment through questionnaires, which include honesty, discipline, responsibility, hard work, confidence, cooperation, creativity, innovative value, action-oriented acts, and risk-taking.

The evaluation of the skill aspects was conducted based on group performances (Student Company) and products produced. These were evaluated through the implementation of product display, weekly meetings, and selling skills of each group. The learning outcomes of the model were evaluated during and at the end of the entrepreneurship courses, and it aims to explore knowledge, attitudes, and skills in them.

The validation stage is carried out by two experts, namely learning evaluation experts and entrepreneurial learning experts conducted by the lecturers. Validation results are used as materials for the consideration of instruments

revisions for evaluating learning outcomes in entrepreneurship courses following the expert input. Then after the tool was revised, it continued in the fourth stage, namely the trial of the use of tools. Different tools were used in measuring the stated learning outcomes of the course, and they include written tests for knowledge, observation, and self-assessment for attitudes, and performance and product assessment through weekly meetings for skills.

*The feasibility of the evaluation model*

Evaluation is the process of collecting data to make a decision. According to Nezalova (as cited in Kapounova, Majdak, and Novosad, 2013), it is outlined that it is a process of systematic collection and analysis of information for decision making, using given criteria. The evaluation has various meanings, and consists of multiple activities. Troyer (as cited in Dolia, 2013, p. 35) has summarized these in four points and they include: its primary purpose is to improve the learning; it should be done in group rather than individually; it identifies individual strengths and weaknesses of each student, and; the progress is measured based on the unique ability.

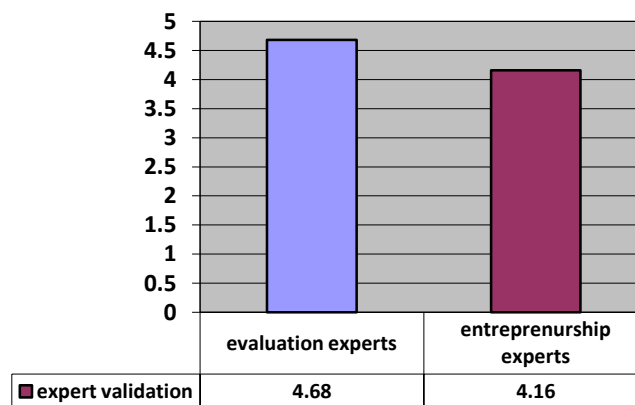
This research results in an evaluation instrument for learning outcomes in entrepreneurship courses, which was validated by two experts. The first is an evaluation expert, while the second is on entrepreneurship subjects. After the validation, it was revised based on their inputs and tested by entrepreneurship lecturers and students. Therefore, the result of feasibility is as presented in Table 3 below.

**Table 3: Guidelines for determining the category of score**

<b>Interval of Mean Score</b>	<b>Category</b>
$4,005 < X$	Excellent
$3,335 < X \leq 4,005$	Good
$2,665 < X \leq 3,335$	Fair
$1,995 < X \leq 2,665$	Poor
$X \leq 1,995$	Very poor

*Evaluation of experts' validation results*

To help the process of validation, a category system was used to determine its feasibility. The validations were conducted by a lecturer who is an expert in the field of entrepreneurial learning, and the result showed that the instrument is in a good and outstanding/excellent category as shown in the bar diagram below. Therefore, it was declared feasible.

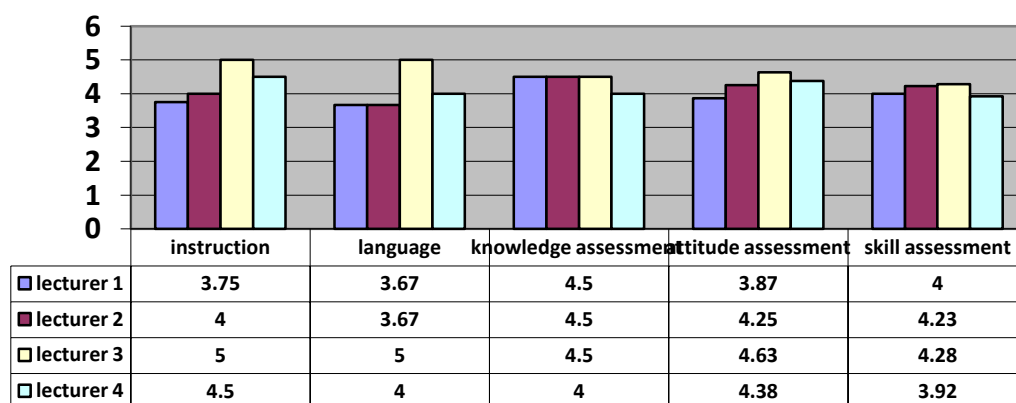


**Figure 3: Expert Validation Score Comparison**

The diagram shows that the Evaluation expert has 4.68 and the entrepreneurship course has 4.16, both of which are in the first category. Therefore, the instrument developed is feasible to be used by lecturers in teaching entrepreneurship courses.

*The results of instrument trials by lecturers*

Four lecturers conducted the trial from the Faculty of Economics and the Faculty of Social Sciences YSU, and the result is as shown below:



**Figure 4: The comparison of Trial Score by the lecturers**

The table shows that the mean score for Lecturer 1 was 3.958, which was in a good category, Lecturer 2 was 4.13, Lecturer 3 was 4.682, and Lecturer 4 was 4.16; all of them are in the excellent category. Therefore, the instrument was declared feasible as an evaluation tool for learning outcomes in entrepreneurship courses.

*The results of trials by students*

The validated instruments were tested on 38 students from the Department of Economic Education and 41 students from Accounting Education, Faculty of Economics, YSU enrolled in an entrepreneurship course. The results amounted

to 4.067, which is classified as an excellent. Therefore, the instrument is feasible as an evaluation instrument for the entrepreneurship course.

#### 4.4 Stage 4 (evaluation and dissemination)

It consists of product testing, final revision, and distribution/outreach. The product testing was carried out by testing the use of products by entrepreneur lecturers (four lecturers as well as 79 students) from two study programs at YSU, namely Economic Education Study Program and Accounting Education Study Program, FE of YSU.

The feasibility category of the three respondents (experts, lecturers, and students) is shown in the following figure:

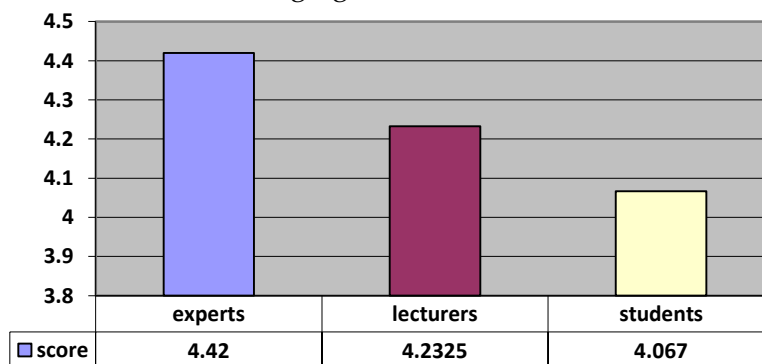


Figure 5: The comparison of Experts, Lecturers, and Students' scores

The figure above shows that the results for the three categories reflect the excellent category. Therefore, it means that the instrument is very feasible.

### 5. Discussions

The results showed that the instrument was in the excellent category so that this instrument could be used to assess the learning outcomes of entrepreneurship courses in three aspects (knowledge, attitudes, and skills). An entrepreneurship course aims to develop the spirit and character of entrepreneurship in students, enhance their understanding of the concept, and facilitate them to practice the skills involved. Maritz and Brown (as cited in Maritz, Jones and Shwetter, 2015) defined Entrepreneurship Education Programs to be any pedagogical program or process of education aimed at improving entrepreneurial attitudes and skills through the development of personal qualities.

It follows the objectives of the programs, such as entrepreneurial self-efficacy and intentionality (Franco, Haase, and Lautenschlager, 2010). Neck and Greene (2011, p. 56) reported that the purpose of the provision of entrepreneurship education includes introducing entrepreneurship to students and motivating students/graduates to be self-employed and thus creating job opportunities. The rationale of the program lies on the notion that "the more people create their employment, the less their dependency on the employment market". Hence, the unemployment rate is assumed to decrease.

Therefore, entrepreneurship education does cover not only the theoretical

aspects but also the elements of imparting and practicing values to ultimately develop entrepreneurial competencies. These values include honesty, discipline, responsibility, hard work, confidence, cooperation, creativity, innovation, action, and risk-taking. The expected long-term impact of these is to possess the ability to see and create opportunities in things that can add values. Universities should organize entrepreneurship competitions and training, rather than limiting conceptual or theoretical understanding, and practice exercises should be provided to foster students' innovative thinking entrepreneurship (Wang and Huang, 2019). With entrepreneurship competition and training will be able to improve the theoretical/intellectual and practical abilities of entrepreneurship. Competition can bring up creative ideas and innovation, which will, then, lead to the advancement in the field of entrepreneurship.

Abduh, Maritz, and Rushworth (2012) revealed that the core of entrepreneurship is the ability to map new businesses by combining some information in the context of uncertainty in facing new business ventures. Entrepreneurship courses contain theories directed at fostering students' cognitive aspects to create an entrepreneurial paradigm in them. These aspects include the concept of entrepreneurship, entrepreneurial characteristics, management of production, HR, marketing, and finance, training communication skills, building networks, and developing a profit-oriented business plan.

These theories are delivered through the use of various methods such as Lecturing, Inquiry, Problem-Solving and Project-Based Learning, and Practice. However, the learning outcomes of the course must be achieved in a balanced manner to determine the relative position of each learner based on the standards that have been determined. It depends on the objectives of the course and how it is being carried out in schools. Abduh, Maritz, and Rushworth (2012) revealed that what is delivered in class is to instill and enhance the ability of creative strategies, innovative tactics, different perceptions of change, and brave leadership when the road ahead is unclear.

The three aspects of the learning outcome (knowledge, attitude, and skills) were assessed together to aid the mastery of the complete competencies of the course by the students. It means that they will have adequate knowledge of entrepreneurship, the attitude of an entrepreneur, and possess entrepreneurial skills. The evaluation performed could be categorized as a process evaluation because it was embedded in the learning process. Moreover, it was carried out during and at the end of entrepreneurial learning. It will reveal the intentions of students after taking the course. According to Naffziger, Hornsby, and Kuratko (1994), entrepreneurial intention is mostly evaluated by using three internal factors, including personality characteristics, personality traits, and context.

## 6. Conclusion

The findings show that:

- An evaluation model for learning outcomes in the entrepreneurship courses was developed based on the model of Borg and Gall, which were simplified into four stages. The research produced evaluation models and instruments for learning outcomes such as knowledge, attitude, and skills. The level of knowledge could be evaluated using written test techniques in the form of questions, attitude through observation and self-assessment techniques, and the skills were assessed through product and performance assessments.
- The results of the feasibility analysis conducted showed that the expert validation score becomes 4.42, lecturers of 4.2325, and students of 4.067, all of them are categorized in the excellent category. This made the instrument developed to be feasible.
- It is, therefore, recommended that the instrument developed should be used by entrepreneurship lecturers in evaluating the learning outcomes of entrepreneurship courses following their teaching. The developed tool contains three aspects, namely, knowledge, attitude, and skills, so that the entrepreneurial competence of students can be measured comprehensively. It also means that entrepreneurship not only can be measured in theoretical mastery but also practically.
- Other studies can also be carried out to test the effectiveness of the learning outcomes evaluation model developed.

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