



The Conformity of Kolb's Experiential Learning Implementation in Indonesia University's Entrepreneurial Learning

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ABSTRACT

Purpose: Entrepreneurial learning at Higher Education (PT; University) level is allegedly still low. Hence, the implementation of experiential learning (EL) serves as an alternative. This study was conducted with the aim of analyzing the conformity of the implementation of EL in entrepreneurial learning in universities. **Methodology:** This study was conducted using a survey method, on four EL components, namely: concrete experience, reflective observation, abstract conceptualization, and active experimentation. The research sample constituted 310 students from six universities in Indonesia which were identified using stratified accidental sampling. The instrument was developed from four EL components that met validity and reliability requirements. All research data were analyzed using comparative and conformity analysis.

Findings: The results of the study showed that experiential learning process in entrepreneurial learning at universities in Indonesia had not been implemented properly. There was no difference in the quality of EL between accredited universities with superior and good accreditation. There is also no difference in the quality of EL between students from the social science and humanities (i.e., *Soshum*) group and science and technology (i.e., *Saintek*) group. The results of the conformity analysis showed that the EL process had not met the student's expectations. **Implications for Research and Practice:** This study instills hope among students that all aspects of EL can be implemented optimally as an instrument to improve the quality of entrepreneurial learning. This implies that the designing of EL-based entrepreneurial learning is a major concern for the lecturers.

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Introduction

The unemployment rate of university graduates in Indonesia has reached 1,064,681 (BPS, Central Bureau of Statistics, 2021), and continued to increase in the midst of the COVID-19 pandemic. This is despite the fact that universities are among the institutions responsible for preparing graduates with entrepreneurial spirit. The BPS data certainly contradicts the role of universities, which should have been to produce graduates with a degree of innovativeness, encouraging entrepreneurship and developing start-ups businesses (Arthur et al., 2012). It seems that universities are less keen on providing business content and entrepreneurship education that reflects the business world (Tan et al., 2020). Allegedly, this is the cause of many university graduates not becoming job creators, but rather, job seekers (Hartono, 2021). On the other hand, entrepreneurial learning still exhibits one crucial problem. The learning content provided is still shallow; it does not provide the appropriate balance between theoretical knowledge and real-world applications, and it does not emphasize the uniqueness of entrepreneurship, which in turn results in the failure to nurture entrepreneurial competencies such as working in teams and acting creatively (Neck & Corbett, 2018; Buckless et al., 2014). Presumably, this condition has an impact on the low level of attainment for entrepreneurial characters such as responsibility, future orientation, innovation, and taking risks to start a business, as pointed out by Ahmed et al. (2020). Another indication is revealed from the results of the study by Haddad et al. (2021), which states that the quality of entrepreneurship learning has not produced graduates with creativity, so it is only natural that they cannot develop a career as an entrepreneur (Prabhu et al., 2020). These findings provide the data that the quality of entrepreneurship learning is still a classic problem, including in Indonesia. Tendency towards theories and textbooks are still strong for entrepreneurial learning process which should be directed more towards entrepreneurship practices.

Entrepreneurial learning thus becomes a crucial factor in the development of the entrepreneurial spirit. This is because the empirical evidence in several other countries shows that entrepreneurial learning has a positive impact on entrepreneurial attitudes (Pihie & Bagheri, 2010); it improves entrepreneurial intentions and interests (Pittaway & Cope, 2007); it accelerates business start-ups (Menzies & Paradi, 2002); and increases intention to start a business (Sánchez, 2011). These findings prove that when entrepreneurial learning conducted is of a good quality, the impact will also be very good for the attainment of quality graduates. As stated by Neck and Corbett (2018), quality learning always provides independent learning opportunities to gain meaningful knowledge, understanding, attitudes, skills, and experiences. From this meaningful experience, a learner gets creative and innovative thoughts to start a business/enterprise.

Referring back to the theoretical framework and previous findings, the entrepreneurial learning pattern at Indonesia's universities thus needs to change. This change can be done by emphasizing student experience such as entrepreneurship practices and including physical and mental involvement as well as actions in entrepreneurship, as suggested by Bell and Bell (2020). Salas et al. (2009) had also made a similar suggestion of developing experiential learning framework. In this way, it is hoped that students will be more responsible for their own learning and it will become easier for them to adapt it to their needs in the world of work/industrial world.

Based on the problems, conditions, and demands as discussed above, Kolb's experiential learning (EL) model (1984) hence becomes relevant to be implemented in order to improve the quality of entrepreneurial learning at universities. This is because EL theory does not only cover the cognitive aspects of learning, but also addresses the subjective experience of the learners (Kolb et al., 2000). This model suggests that after a certain experience, the individual conducts a reflection. Through this reflection process, the individual converts the said experience into knowledge, which influences the actions he/she takes (Ferreira, 2020). More specifically, Byrne and Toutain (2012) suggest the use of EL in entrepreneurial learning because it can serve as a lens to understand and reflect on entrepreneurial experiences. Empirical evidences also show that EL is effective for strengthening entrepreneurial intentions, motivation, and competence (Castaldi et al., 2020); the real world of entrepreneurship (Mason & Arshed, 2013); career planning and the possibility of becoming an entrepreneur (potential entrepreneur) (Karia et al., 2015); communication and self-confidence (Knight et al., 2020).

A study by Leal-Rodriguez & Albort-Morant (2019) states that the implementation of EL could affect the attainment of superior performance and entrepreneurial competence of students in private business schools in Spain and can also improve the entrepreneurial competence of students (Sukardi et al., 2018). The theoretical arguments and empirical evidence above provide a strong framework for the quality of a learning that uses EL, especially in the field of entrepreneurship. Graduates becoming entrepreneurs can only be achieved when students learn entrepreneurship by directly practicing, interacting, and working in the world of work and industry.

On this basis, the use of the EL model in entrepreneurial learning in universities is thus very important, especially during the COVID-19 pandemic. However, in order to develop the right EL model, it is necessary to conduct a preliminary evaluation on problems found in EL-based entrepreneurial learning practices. Since entrepreneurship is always related to creative thinking and innovative actions as a hallmark of entrepreneurial characteristics (Macko & Tyszka, 2009), it is necessary to evaluate the gap between students' expectations and the actual reality of the implementation of EL-based entrepreneurial learning at universities. This evaluation is important in order to adjust to students' expectations (Hua & Chen, 2019), especially those regarding entrepreneurship through the implementation of EL. In addition, the complexity of student characteristics needs to be considered in implementing EL. These characteristics include things such as entrepreneurial experience, fields of study, biographical characteristics and others.

The results of several other studies discovered that these variables were the important factors for business success and failure (Coleman, 2000; Lussier & Pfeifer, 2001). Empirical evidence based on the results of the study conducted by Mathews and Moser (1995) shows that men have a higher preference to become entrepreneurs than women. On that basis, Gürol and Atsan (2006) also suggested the importance of referring to the variables in every learning implementation. The study of Sukri et al. (2022) also shows the importance of including these variables since they affect students' knowledge, even in environmental field. Specifically, in Indonesia, there has been no study that specifically examines the implementation of EL with regards to such variables. On this basis, this study was conducted, aiming at analyzing the implementation of the EL components in entrepreneurial learning at the university level in Indonesia.

In addition to the importance of the involvement of these variables in evaluating the implementation of EL in entrepreneurship courses, the gap filled through this research is its implementation during the COVID-19 pandemic. As is known, the COVID-19 pandemic has really affected the learning process at universities, almost all learning processes have changed from face-to-face meeting inside the class to online-based learning (Arizona et.al, 2020). On the other hand, many educators are not ready with online-based learning patterns, because they are less proficient in using information technology (Garad et.al., 2021; Purwanto, et al., 2020). In addition, students' social and emotional pressure caused by the COVID-19 pandemic is certainly also different from that during the normal times. Therefore, in order to produce the appropriate EL model design, an evaluation is thus required. It also serves as the first step to analyze the weaknesses of EL during the COVID-19 pandemic. This way, the design developed will be more comprehensive and effective for improving the quality of entrepreneurial learning.

Thus, the importance of this study is not only about obtaining the appropriate EL design based on the evaluation results, but also based on the fact that students have unstable emotional responses during the COVID-19 pandemic's online learning. On this basis, this study was conducted, aiming at analyzing the implementation of the EL components in entrepreneurial learning at the university level in Indonesia, especially post-COVID 19 pandemic. There hasn't been much research on the implementation of EL in entrepreneurial learning at the university level in Indonesia. Moreover, Indonesia's universities varied in terms of their quality based on their accreditation status. In addition, the students also vary in terms of their fields of study, interests and entrepreneurial characteristics. Not much attention has been paid to these two aspects, so this research can provide a comprehensive analysis for a proper EL design.

Theoretical Overview

In order to generate graduates who are innovative in creating business start-ups, the use of experiential learning based on Kolb's (1984) theory is thus relevant for said entrepreneurial characteristics. Kolb (1984) defined experiential learning as "a process through which knowledge is created by the transformation of experience.....experiential learning allows students to test what they learn in new and more complex situations, thus engaging their higher brain functions". EL does not only encompass cognitive dimension, but also represent affective and behavioral in learning (Kolb & Kolb, 2005). From this definition, there are obtained at least two keywords, namely "participation/practical experience" and "interaction with the environment" – both of which are relevant to the purpose of this research.

Kolb's EL model has four main elements namely: concrete experience, reflective observation, abstract conceptualization, and active experimentation (Kolb, 1984). According to Kolb (1984) and Svinicki and Dixon (1987), concrete experience is the manifestation of learners thoroughly involving themselves (physically, socially, and mentally), which is the basis for making reflective observations (reflecting). This experience will give students space to think about abstract conceptualization that can help students draw conclusions (Morris, 2020). It is these conclusions that are incorporated in active experimentation (such as making judgments, making decisions, conducting trials) (Kolb & Kolb, 2012). In entrepreneurship, the element of concrete experience, for example, is very much needed by students because it is very relevant to future careers/jobs (Chiang et al.,

2021) and therefore incorporating concrete experiences into teaching will help learners understand and apply new learning critically. The findings of Chiang et al (2021) state that the element of abstract conceptualization in learning auditing (company management system) and understanding risk-based data is the most challenging step that students must face. This may explain why some students feel challenged when they enter the workforce.

The results of the study by Radović et al (2021a) revealed that four cycles in EL were equally important, without any significant differences between the cycles. Although reflective observation positively affected learning outcomes and academic performance, it did not affect the ratings of the EL cycles. In line with this, Pherson-Geyser et al (2020) explained that these four components of EL formed a learning unit between practices done outside the classroom and theory taught in the classroom. Learners go through the four EL cycles, which impact their career choices, job roles, and educational specializations (Kolb & Kolb, 2005).

According to Rauch and Hulsink (2015), the components in this EL model aim to develop students' entrepreneurship practices in universities and form students' competence in designing a business or a new enterprise and in modifying old products following various current trends. This view reinforces the need to include EL in educational programs at universities designed to train students in entrepreneurial practices, business support and networking (Edelman et al., 2008). This entrepreneurial practice has graduated more than 500 students at Chalmers College in 2015 with entrepreneurial competencies and has combined more than 75 businesses with a survival rate of 73% (Middleton et al., 2020).

Based on the theoretical framework and the results of these studies, the application of EL in entrepreneurial learning in universities referred to in this study is thus a portrait of its implementation for all four components. The implementation is in the form of student experiences describing their learning experiences in finding entrepreneurial practices (concrete experience), reflecting on said experiences (reflective observation), analyzing said experiences based on entrepreneurial concepts or theories in order to produce new concepts (abstract conceptualization), and testing the new concepts in new situations or doing entrepreneurial practices (active experimentation)

Methods

- *Research design*

This study is a part of the research and development phase of Reeves' (2006) Design Based Research (DBR) model. One of the stages includes a practical analysis of entrepreneurial learning in universities with reference to the components of Kolb's EL (Svinicki & Dixon, 1987; Frontczak, 1998; Ferguson et al., 2016). For this purpose and referring back to the research objectives, this research thus uses a quantitative approach with ServQual method from Parasuraman et al. (1994). This method is used to conduct evaluation and assessments of EL implementation services in entrepreneurial learning in universities (Parasuraman et al., 1988). This method is used to conceptualize the quality of the learning services through the disconfirmation model of service-expectations-and-performance/achievement gap (Parasuraman et al., 1994). In this study, the focus is on the four components of EL, namely: concrete experience, reflective observation, abstract conceptualization, and active experimentation (Ferguson et al., 2016; Kolb, 1984).

- *Population and Sample*

The university students in Indonesia constituted the population of the study. Considering the number of university students in Indonesia, ServQual took students from 6 universities as its sample, using stratified accidental sampling. The term *stratified* refers to the choosing of students based on the accreditation status of their universities, that is, superior (A) and good (B) accreditation—for both the public and private universities. In addition to this, the location/position of the area was also considered in sampling. The location included western, central, and eastern Indonesia. Based on this procedure, students from three universities with superior (A) accreditation (2 state/public and 1 private) and three universities with good (B) accreditation (2 state/public and 1 private) were sampled. The A-accredited universities encompassed Syah Kuala University of Banda Aceh Province (state/public), Tanjung Pura University of West Kalimantan (state/public), and Sanata Darma University of Yogyakarta Special Region Province (private). Meanwhile, the B-accredited universities included University of Mataram, University of West Nusa Tenggara Province (state/public), Manado State University (state/public), and Hamzanwadi University of West Nusa Tenggara Province (private). In each university, a minimum of 30 students were taken from social sciences and humanities group/departments and another 20 (also minimum) from science and technology group/departments. Here, the students were sampled using accidental sampling, and had all received entrepreneurship lectures. In this study, a total of 310 students were obtained, and thus all of them were used as units of analysis.

- *Research Instrument*

Data on the EL process in entrepreneurial learning in universities were collected using a questionnaire developed from implementation indicators of EL (Svinicki & Dixon, 1987; Ferguson et al., 2016) as also adapted by Sukardi et al (2022a) for the Vocational High School (SMK) level. Here, the EL components encompassed concrete experience, reflective observation, abstract conceptualization, and active experimentation (See Table 1). The questionnaire was formulated in the form of a 5-point Likert scale (1 = very bad to 5 = very good). Each statement/item was presented in two forms, namely aspects of reality and aspects of expectations. If the EL process obtained met expectations, it was concluded that the EL process in entrepreneurship learning in universities was good/appropriate, and vice versa.

Table 1

Kolb's EL Implementation Instruments in Entrepreneurship Course

No	Components and Statements
A Concrete Experience	
A1	Students learn to describe the results of their observations on entrepreneurial opportunities
A2	Students learn to identify business products and/or services through a certain innovation
A3	Students identify new products and/or services for existing/new markets
A4	Students learn to identify a cheap raw material into business products/services

No	Components and Statements
B Reflective Observation	
B1	Students gain experience in conducting field studies on best practices for entrepreneurship (e.g., going to markets, malls and surrounding environment, reading articles/news/journals, and others)
B2	Students gain experience in describing their feelings and obtaining reactions from the surrounding environment on entrepreneurial practices
B3	Students gain experience in describing commitments in the entrepreneurial process
C Abstract Conceptualization	
C1	In entrepreneurial learning, students study business models or entrepreneurial practices in groups
C2	Students discuss their wants, needs, problems, or challenges in doing business in groups
C3	In entrepreneurial learning, students discuss entrepreneurial opportunities in groups
C4	Students make business/entrepreneurial model designs based on regional advantages in groups
D Active Experimentation	
D1	Students are asked to pilot a new business/entrepreneurial model design
D2	Students try out prototype designs for new business/entrepreneur products in a limited scope.

- *Data Analysis*

The data was analyzed using comparative and conformity analysis preceded by analysis requirement tests. Conformity analysis is done by analyzing the gap between expectations and reality. The highest conformity level is obtained if the reality is above expectations, that is, when the EL process gets a maximum score of (5) (i.e., the minimum expectation is (1), and hence the difference is $5-1 = 4$). Conversely, a low score is obtained if the reality of the EL process is far from expectations. That is, when the EL process is given a minimum score of (1) (i.e., the maximum expectation is (5), and hence the difference is $1-5 = -4$). With a range of -4 to 4, the equation used to determine the criteria (Djunaidi, et al., 2006, as also quoted by Sukardi et al., 2022a), is as follows: Interval: (highest score-lowest score)/number of groups = $(4 - (-4))/5 = 1.6$. With this equation, the following criteria were developed: Interval -4 to -2.4 (Highly not Appropriate); -2.4 to -0.8 (Not Appropriate); - 8 to 0.8 (Adequately Appropriate); 0.8 to 2.4 (Appropriate); and 2.4 to 4 (Highly Appropriate).

Results

The description of the findings begins with a presentation on the instrument validity and reliability test results, followed by a description about the conformity of the implementation of EL and the students' experience in its implementation, based on the accreditation status of the university and the department/group/fields of study of the students.

- *Instrument Validity and Reliability*

In the trial of the EL implementation instrument for Vocational High School level, the instrument had been proven valid and reliable (Sukardi et al., 2022a). However, due to the

different respondents, number of samples, and changes in the formulation of the instrument, this study conducted another validity and reliability test for the instrument. The trial of the EL implementation instrument for the entrepreneurship course in universities involved 37 students outside the sample. In this study, the instrument validity analysis used Pearson correlation, while the reliability analysis used Cronbach's alpha test. The results of the correlation analysis showed that the correlation coefficients for all instrument items, both for the "reality" and "expectations" aspects, were above the r-table at a significance of 5%. Thus, all items of the EL implementation instrument for the entrepreneurship course in universities met the validity requirements. Furthermore, the results of Cronbach's alpha test obtained a value above 0.700. In reference to Nunnally's (1978) criteria, all instrument items met the reliability requirement, as is visualized in Table 2.

Table 2

Summary of Instrument Reliability Analysis Results

Experiential Learning Components in Universities' Entrepreneurial Learning	Number of Statements	Cronbach α	
		Reality	Expectation
Concrete Experience	4	.940	.951
Reflective Observation	3	.936	.950
Abstract Conceptualization	4	.957	.962
Active Experimentation	2	.870	.906

Source: Primary Data Processing

- *EL Implementation Compliance*

Prior to the conformity or compliance test, an analysis requirements test was conducted, which was data homogeneity test. The homogeneity test in this study used Levene's test for equivalence of variances (Table 3). The F-test results show that the significance values for all EL components are all above 0.05 (Table 3). Due to these results, it is concluded that the data variance for both the "reality" and "expectation" aspects of EL implementation in entrepreneurship courses are homogeneous.

Table 3

Data Homogeneity Test Results

Experiential Learning Component	Levene's Test for Equality of Variances		Conclusion
	F-test	Sig.	
Concrete Experience	.464	.496	Homogeneous
Reflective Observation	2.048	.153	Homogeneous
Abstract Conceptualization	.799	.372	Homogeneous
Active Experimentation	.188	.665	Homogeneous

Source: Primary Data Processing

In view of the results of the homogeneity test, a comparative test through parametric statistical tests was used. The first test was a comparison between students' expectation and the actual reality of the implementation of Kolb's EL in entrepreneurship courses. The data from the results of the analysis are summarized in Table 4.

Table 4*Summary of Comparative Test Results for Kolb's EL Implementation's Reality and Expectations*

Experiential Learning Component	Dimension/ Group	N	Mean	SD	t value	Sig.
Concrete Experience	Reality	310	14.825	3.700	-3.739	.000
	Expectations	310	15.961	3.858		
Reflective Observation	Reality	310	10.841	3.082	-3.754	.000
	Expectations	310	11.761	3.015		
Abstract Conceptualization	Reality	310	15.109	3.915	-3.478	.001
	Expectations	310	16.200	3.891		
Active Experimentation	Reality	310	7.071	1.887	-4.748	.000
	Expectations	310	7.796	1.919		

Source: Primary Data Processing

The results of the analysis in Table 4 illustrate that there is a difference between the expectations and reality of the implementation of EL in entrepreneurship courses. Considering that the mean for the expectation aspect is higher, it can be concluded that Kolb's EL model has not been fully implemented in entrepreneurship lectures/learning. Entrepreneurship courses have not been directed towards strengthening students to become entrepreneurs. The core aspects of entrepreneurship such as: thinking creatively and acting innovatively in creating start-up businesses have not been regarded much. Students have developed certain products, but they have low innovation, limited marketing, and inadequate business management. Findings at the University of Mataram, for example, discovered that students produced snack products (such as snacks from cassava and *jajan pasar*) which certainly did not have a very wide market opportunity. At Tanjung Pura University students produced plaits but they mostly adopted existing products. Marketing was also still limited, and hence the turnover was limited. Therefore, it seems that practice-based learning as expected by EL had not been implemented well. The lecturer's education background seems to be one of the contributing factors besides the competence in using the EL model.

The statistical analysis results above show that EL in entrepreneurship learning has not been well-implemented. This finding was also confirmed based on the results of the conformity analysis between expectations and reality (Table 5).

Table 5*Summary of the results of Kolb's EL Implementation Conformity Analysis (N: 310)*

No	Reality (Mean)	Expectation (Mean)	Σ Gap	Category
A1	3.68	3.96	-0.28	Adequately Appropriate
A2	3.81	4.06	-0.25	Adequately Appropriate
A3	3.43	4.54	-1.11	Not Appropriate
A4	3.10	4.00	-0.89	Not Appropriate
B1	3.02	3.99	-0.97	Not Appropriate
B2	3.07	3.97	-0.90	Adequately Appropriate
B3	3.65	4.61	-0.96	Not Appropriate
C1	3.49	4.31	-0.83	Not Appropriate
C2	3.46	4.35	-0.89	Adequately Appropriate
C3	3.49	4.46	-0.97	Adequately Appropriate
C4	3.77	4.07	-0.30	Not Appropriate
D1	3.62	4.79	-1.16	Not Appropriate
D2	3.35	4.61	-1.26	Not Appropriate
Total	3.46	4.29	-0.83	Not Appropriate

Source: Primary Data Processing

The results of the conformity analysis show that all aspects of EL consistently have not been widely practiced in entrepreneurial learning in Indonesian universities. The essence of entrepreneurial learning, especially creativity and innovation, have yet to reach students. Hence, it is only natural that they have not produced competitive graduates. Students are still frail in developing innovative products or services that have a large market share. Students are still fixated on developing products that have low selling points and lack competitiveness. Likewise, marketing is still limited to personal selling. Students are also not much directed to develop a business that takes advantage of the economic advantages of each region, even though each region in Indonesia has regional economic advantages that are full of potentials as the base for the development of innovative business ventures. Students have not been trained much to design prototype models of business/entrepreneurial products, even though product development, business management, competitive strategies, and marketing strategies are vital in entrepreneurship.

- *Students' EL Implementation Experience*

The results of the conformity test (Table 5) indicate that the implementation of EL has not been in accordance with student expectations. The question is whether students from universities with superior (A) accreditation status are better at implementing EL than those from universities with good (B) accreditation. For this question, Table 6 visualizes the summary of the results of the analysis on students' experiences based on their universities' accreditation status.

Table 6.

Summary of the Results of the Comparative Test of Kolb's EL Implementation based on Accreditation Status

Experiential Learning Component	Accreditation Status	N	Mean	SD	t value	Sig.
Concrete Experience	Superior (A)	136	14.757	3.817	-.288	.774
	Good (B)	174	14.879	3.616		
Reflective Observation	Superior (A)	136	10.801	3.124	-.204	.838
	Good (B)	174	10.873	3.057		
Abstract Conceptualization	Superior (A)	136	14.985	3.960	-.494	.622
	Good (B)	174	15.206	3.887		
Active Experimentation	Superior (A)	136	7.095	1.885	.203	.839
	Good (B)	174	7.051	1.893		

Source: Primary Data Processing

The results of the analysis in Table 6 show that there is no difference between students from A-accredited universities and B-accredited universities' experience in the implementation of Kolb's EL in entrepreneurship courses. Students at A-accredited universities are better in the EL process. This seems to be related to the quality of the human resources, campus policies, and the availability of supporting facilities for the entrepreneurial learning. The superior (A) accredited universities in Indonesia reflects a university that has met the standards of a better learning process, but in reality, it also has yet to be realized.

The next question is whether the students of the Science and Technology departments/groups have better experience in the implementation of EL in entrepreneurship courses than those in Social Science and Humanities groups. Table 7 provides a summary of the results of the analysis on student experiences based on their groups of majors/fields of study.

Table 7

Summary of Kolb's EL Implementation Comparative Test Results based on Fields of Study/Department/Group

Experiential Learning Component	Field of Study	N	Mean	Sd	t value	Sig.
Concrete	Science and Technology	119	14.714	3.570		
Experience	Social Science and Humanities	191	14.895	3.786	-.418	.676
Reflective	Science and Technology	119	10.739	3.009		
Observation	Social Science and Humanities	191	10.905	3.132	-.461	.645
Abstract	Science and Technology	119	15.067	3.451		
Conceptualization	Social Science and Humanities	191	15.136	4.186	-.150	.881
Active	Science and Technology	119	3.588	.986		
Experimentation	Social Science and Humanities	191	3.644	1.045	-.466	.641

Source: Primary Data Processing

Considering the fields of study, it seems that there is no difference between student from Science and Technology groups and Social Science and Humanities groups' experience in EL-based learning. Universities in Indonesia have yet to have the standards for the lecturers who specifically teach entrepreneurial learning. The lecturers come from the students' own Study Program. For instance, in Biology Study Program, the lecturers have expertise in the field of biology, and hence may not have experience in entrepreneurship development. For students who are in Chemistry Study Program, they got lecturers who were chemistry lecturers with no entrepreneurship or business as their education backgrounds. This is allegedly the cause of the EL not having been implemented in entrepreneurship courses. Naturally, students do not fully understand how to develop entrepreneurship, market, and manage a business/business.

Discussion

One of the goals of Indonesia's universities is producing graduates who have an entrepreneurial spirit and can create jobs or develop start-up businesses. Thus, in entrepreneurial learning, students should pay attention to how they are able to obtain knowledge and apply it in entrepreneurial actions. Entrepreneurial learning should be directed at entrepreneurial behavior or actions, such as: seizing opportunities, fostering creativity and creating new businesses (start-up businesses) (Rauch & Hulsink, 2015). The duty of the educators is to facilitate entrepreneurial learning content that fosters student interest in entrepreneurship. According to Middleton et al. (2020), students' interest in entrepreneurship is determined when educators create a learning atmosphere that emphasizes student experience. Experience-based learning in entrepreneurship or business education is encouraged through problem-based learning, project-based learning and critical thinking so that learning becomes more meaningful and entrepreneurial mindset can be formed (Kolb & Kolb, 2005; Miller & Maellaro, 2016). This is because graduates with entrepreneurial mindset have been proven able to exist in the business world (Lackeus et al., 2016; Pittaway et al., 2015).

On the contrary, universities have yet to fully provide an entrepreneurial environment (Sukardi, 2017); they are often criticized for failing to embrace experiential learning (Heinrich & Green, 2020; Roberts, 2018) as is discovered through this study's findings. The findings of this

study indicate that experiential learning has not yet become an integral part of entrepreneurship courses. University accreditation status is not in line with the quality of the entrepreneurial learning. Likewise, with regard to the students' field of study, there is no difference between students from both groups' experiences in EL-based entrepreneurial learning. The quality of the service from educational institutions is also suspected to cause the learning not having been of a good quality – as was discovered by Sukardi et al (2022).

As is the case for Vocational High School level (Sukardi et al., 2022b), the conduct of the entrepreneurship lectures at universities has not provided much experience for students to hone their potential in business, exercise developing salable products, practice marketing business products/services through digital-based applications, etc. This is even though EL provides the elements of Innovative learning through a business practice process. Students have yet to be sufficiently trained to: make observations on good entrepreneurial practices, adopt and adapt, develop and create their own creative and innovative products, develop products based on regional economic advantages, and others. This finding further confirms the findings of Sukardi et al. (2022a; 2022b) at the Vocational High School level. This is once again despite the students' really expecting the implementation in EL for entrepreneurship courses to be like what was previously discovered. This expectation is actually the students' demand for a more dynamic, participatory and interesting learning experience (Leal-Rodriguez & Albort-Morant, 2019).

Ideally, universities should be able to understand the positive impact of the EL model, especially if it is implemented in entrepreneurial learning. The EL model can complement the conventional learning approach (Hayden & McIntosh, 2018). Peris-Ortiz et al (2018) say that fostering an experiential learning environment with innovative educational kit (content, procedures, evaluations), technology, and pedagogy is becoming increasingly important for universities, so as not to always focus on the theory, with minimal application. Therefore, evaluation is often an important part of quality assurance in universities (Honig, 2004).

To face this challenge, universities are increasingly focusing on and struggling in preparing future graduates, becoming job creators, and creating new businesses. In line with this, over the past few decades there has been an increasing number of scholars and practitioners recognizing experiential learning as one of the most significant trends in universities (Middleton et al., 2020). A recent review study by Radović et al (2021b) revealed that EL serves as an instructional strategy when supporting the learners, such as by providing real-world learning contexts (including internships, fieldwork, service learning); offering more active learning (e.g., case studies, research projects, and various types of problem-based assignments); developing relevant professional knowledge, skills and competencies in learning contexts that are work-based and business-based; and by involving students in critical thinking, generalization, and reflection activities.

The implementation of EL in entrepreneurial learning is expected to provide a new nuance for entrepreneurial learning at universities. Kolb's (1984) EL and its cycles (i.e., concrete experience (CE), reflective observation (RO), abstract conceptualization (AC), and active experimentation (AE)) do not depend on the accreditation status of the universities and students' fields of study, as was found in the findings. According to Thomsen et al (2021), this indicates that EL cycle focused its teaching as a method by practicing entrepreneurship through start-up activities, competitive strategies, digital marketing, new marketing campaigns, promotions and advertisement. It is important for the students to

follow EL cycles in order to get the opportunity to build knowledge that arises from concrete learning experiences and not only turn them into abstract generalizations (contextualizing knowledge), but also apply this new generic knowledge in other learning experiences (re-contextualizing knowledge) (Radović et al, 2021b).

Using in EL model, university students can connect theories of entrepreneurship that they have learned in the classroom with the actual practice in the entrepreneurial world which thus results in innovative business ideas, creativity in creating start-up business, and new business alliances, especially in the digital era (Shiralkar, 2016). Since learning through experience has more positive results (Kang & Chen, 2016), EL also contributes to students becoming wiser, reflective, and critical (Robert, 2018). EL provides two benefits at once, namely flexibility to accommodate the learner's learning style preferences and to challenge them to explore other ways of learning (Siegel et., 1997). Some empirical evidence also proves that EL can provide opportunities to work with professional entrepreneurs and inspirational businesses as well as positive social learning opportunities (Baden & Parkes, 2013). EL can also stimulate students to become future entrepreneurs and help develop entrepreneurial skills (Tete et al., 2014). It can help students with managing risk, entrepreneurial competence, fear of failure, and self-efficacy that are thought to influence decisions (Ferreira, 2020). It can also develop learners' creativity, problem solving, leadership, teamwork, and communication skills coupled with the skills to use technology in the business world (Trongtorsak et al., 2021).

As stated by Bloemen-Bekx et al. (2019), a person's self-efficacy is influenced by learning experiences because EL forms the basis of the resulting changes in one's self-efficacy. An individual's belief that he or she is capable of producing self-efficacy is studied as a determinant of entrepreneurial intention (Kurczewska et al., 2020). Other studies have identified that there is a relation between having high entrepreneurial self-efficacy and deciding to enter entrepreneurship (Zhao et al., 2005; Kurczewska et al., 2020). For example, self-efficacy was able to predict entrepreneurial intentions in private universities in the Kurdistan region of Iraq (Anwar & Abdullah; 2021).

On this basis, designing EL in university entrepreneurship courses in Indonesia is thus a necessity, in order to accelerate the improvement of graduate competitiveness, especially self-efficacy, entrepreneurial intentions, and even entrepreneurial behavior. The results of this evaluation served as the basis for improving the design and implementation of EL in entrepreneurial learning/lectures. Entrepreneurial learning in Indonesia is intended to produce graduates who are competitive, which is characterized by the ability of the graduates to create business start-ups. To make it happen or to realize the intended goal, innovation and quality learning interventions are needed. Based on the previous findings as presented above, Kolb's EL model has strong relevance for the realization of the objectives of entrepreneurial learning. This is because the experiential learning process conducts entrepreneurial practices.

Conclusion, Recommendations and Limitations

The results of this study discovered that student's expectations on the implementation of EL in entrepreneurial learning/lectures at the university level in Indonesia did not match with the actual reality/practice. However, this expectation has not been fully realized in the actual entrepreneurship learning practice at Indonesia's universities. The

learning process has not provided much experience for students to practice entrepreneurship/business, as demanded by Kolb's EL. However, all students as the respondents in this study highly expected Kolb's EL-based learning. This can be seen from the high discrepancy between "reality" and "expectations", where the mean for the "expectation" aspect is higher than that of the average "reality". In terms of accreditation status and majors/groups/fields of study variables, students have the same experience. Both students from superior (A) accreditation and good (B) accreditation universities do not have good experience in learning entrepreneurship using the EL model. Likewise, with regards to their field of study/department/group, there is no difference between the entrepreneurial learning experience of students of Science and Technology group and that of the students from the social science and humanities group.

Universities are then accordingly expected to develop a design and implementation of Kolb's EL in entrepreneurial learning. The design includes all learning components, be it regarding the content, procedures, or evaluation. Theoretically, the construction of Kolb's EL in entrepreneurial learning still refers to the four EL components with an emphasis on entrepreneurial experience, through interaction, collaboration, and entrepreneurial practices. The limitation of this research was that it is still at the survey stage with a limited sample of universities. Therefore, further experimental studies on the implementation of EL in entrepreneurship courses or other courses that can lead to the formation of students' entrepreneurial character are highly recommended. Another suggestion is to conduct a comprehensive study with the expansion of the dimensions of EL and a wider subject area using evaluation research methods.

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