

# Resource-Based View Experiential Learning Model Design: Towards Strengthening Vocational High School Students' Entrepreneurial Competencies

Sukardi<sup>1</sup>, Wildan<sup>2</sup>, Armin Subhani<sup>3</sup>

{sukardi@unram.ac.id<sup>1</sup>}

The Faculty of Teacher Training and Education & Postgraduate, University of Mataram, Mataram, Indonesia<sup>1,2</sup>, University of Hamzanwadi, Selong, Indonesia<sup>3</sup>

**Abstract.** Students who graduate from Vocational High Schools (VHS) continuously face high unemployment, a lack of enthusiasm to become an entrepreneur and a lack of entrepreneurial competencies. It is assumed that entrepreneurship learning has not been experience-based yet and that the content developed has not been based on the leading competitive economic sector. Therefore, this study aimed to obtain a Resource-Based View (RBV) Design Model Design Experiential Learning (EL) to strengthen the entrepreneurial competencies of Vocational High School Students. This study used design-based research (DBR), including analysis of practical problems, of RBV-based EL model and design development, an interactive cycle of testing and refinement, reflection of testing, and refinement to produce design principles. This study focused on the second stage in the form of developing the design, which used interviews, focus group discussions (FGD), and questionnaires. Questionnaires were used to test the feasibility of the designs by involving economists, educators, and practitioners. All data were analyzed qualitatively. The components of the RBV-based EL model design include objective, audience, content, procedure, and evaluation. The resulting design products include learning outcomes, development of basic competencies and indicators of competency achievement, learning implementation plans, learning guides for teachers, teaching materials for students, and project-based assessment guides. Expert analytical test results showed that the overall design and product model produced belong to the very good category.

**Keywords:** Experiential Learning Design Model, Entrepreneurial Competencies, Validation Phase.

## 1 Introduction

The results of the study by Sukardi, Wildan, and Fahrurrozi [1] showed that entrepreneurship learning in vocational high school (VHS) had not applied any entrepreneurship experiences and its content was not based on the regional economic advantages. As a result, the skills and competencies prepared did not facilitate the graduates to be competitive, for instance, as

entrepreneurs. This condition also confirms the cause of the less competence and competitiveness of the graduates of Vocational High School [2], [3]. Entrepreneurial competencies and moreover entrepreneurial intentions and acts have not been fully shown in graduates of Vocational High School. Under these circumstances, it could be relevant to conduct Experiential Learning (EL) as an instrument to improve the quality of entrepreneurial learning in realizing competitive graduates. Experiential learning is an option because it reflects quality learning, such as business curriculum-related [4].

Empirical evidence also showed that EL was effective on students' ability to communicate [5], students' ability to analyze complex environments [6]. Other studies also showed that EL could strengthen students' self-confidence [7]. Self-confidence is the main characteristic needed by an entrepreneur, in addition to the tendency to take risks, the need for independence, achievement, and most importantly, innovation [8].

EL can be implemented successfully in entrepreneurial learning when a supportive business and entrepreneurial environment exists, such as an entrepreneurial school [9]. The entrepreneurial school environment integrates vocational education with available resources [10]. VHS capitalizes on knowledge to generate economic added value in this context, especially the regional economy [11]. One of the indicators of a vocational school in an entrepreneurial school is developing and empowering regional economic advantages, including the local community's industry (The Resource-Based View/RBV). Thus, if experiential learning is integrated with RBV, then the knowledge of entrepreneur learning will take advantage of opportunities and collaboration with local excellence industries/business world. RBV becomes a strategic resource in developing knowledge in order to generate added economic and social value [9].

The development of RBV-based EL learning in the entrepreneurial school environment at the VHS level has not been widely carried out, except for the Higher Education (PT) level. Stanford University is an example of the application of an entrepreneurial university/school [9], which has resulted in many innovations. Charney and Libecap [12] reported that the institution produced 64% of competitive graduates, especially developing their own business. The theory of social reconstruction [13], [14] also supports this thesis that education/learning must be sourced from the environment/resources around students. On this basis, this study was conducted to obtain and test the design of an experiential learning (EL) model based on a resource-based view (RBV) to strengthen the entrepreneurial competencies of VHS students.

## **2 Research methods**

### **2.1 Types of research**

This research applied research and development of the Design-Based Research (DBR) model from Reeves [15]. The advantages of this model are interventionist, iterative, involvement of practitioners, process-oriented, utility-oriented, and theory-oriented [16]. This study model combined constructivist-oriented study design principles, such as collaboration, open-ended and flexible models [17]. The stages of this research include analysis of practical problems, development of RBV-based EL model and device design using an inverted design [18], an interactive cycle of model testing and refinement, reflection of testing, and refinement to

produce design principles. This present study focused on the second phase of developing the RBV-based EL model design and device.

## 2.2 Research subject

This research was conducted in seven regencies/cities in West Nusa Tenggara Province. For each district, three samples of VHS were taken by cluster sampling (within the city, suburbs, and remote areas). Subjects involved in each school were principals, entrepreneurship teachers, school committees, students, local governments, business worlds or working fields, education councils, and other stakeholders.

## 2.3 Research instruments

The design test and the resulting product were carried out through expert and practitioner analytical tests. The analytical test involved economists, economic education, linguists, and practitioners, such as industry and the working world. The instrument for analytical testing used a questionnaire adapted from indicators developed by the Directorate of High School Development [19], [20]. Analytical test instruments by practitioners were captured using Focus Group Discussion (FGD) guidelines.

## 2.4 Data analysis

The feasibility of the development results was measured by the accuracy of the RBV-based EL design with entrepreneurial competence, entrepreneurial behavior, and intrapreneurial. The feasibility of the product prototype was measured by its accuracy with the resulting design. The results of the expert analytical test were analyzed descriptively and quantitatively. The assessment score was in the 1-5 interval, so the assessment criteria are: Average score  $> 4$  (Very good);  $3 < \text{to } 4$  (Good);  $2 < \text{to } 3$  (Enough);  $1 < \text{to } 2$  (Less); and  $= 1$  (Very less).

# 3 Result and discussion

## 3.1 Results

As previously mentioned, the design development used an inverted design by Gagne, Briggs, and Walter [18]. Thus, the graduates became productive entrepreneurs based on Resource-Based View (RBV). Based on this circumstance, the expected learning outcomes of entrepreneurship learning using the Experiential Learning (EL) model of RBV were students' entrepreneur competence, having entrepreneurial and intrapreneurial behavior in developing RBV-based products and services, both in terms of production, management, and marketing. Based on these outputs, the main components of this RBV-based EL model include [21]: determining objectives, audiences, content, procedures, and evaluations (Table 1).

**Table 1.** Description of RBV-based EL model design.

No	Component	Explanation
1	Objective	The formulation of objectives contains entrepreneurial competencies, <i>entrepreneurial</i> and <i>intrapreneurial</i> behavior in developing products and services in whole dimensions of

No	Component	Explanation
2	Audience	<p>production, management, and marketing strategies. The goal formulation should be developed in a procedural approach. The formulation of objectives consists of the main competencies and indicators of competency achievement. All objective formulations use operational verbs that lead to entrepreneurial competencies, entrepreneurial skills, and intrapreneurial vocational students.</p> <p>The students involved were X (Ten) year students of Vocational High School. The students were divided into two, students who had experience / from families who were entrepreneurs and those who did not. In addition, entrepreneurial intentions and academic achievement were also considered in determining those experimental students.</p>
3	Content	<p>The scope of development includes: creating and or developing products and services; management or business governance (structure, finance, human resources, and others); and marketing strategy through the marketing mix (product, place, price, and promotion).</p>
4	Procedure	<p><b>Material Organizing</b></p> <p>The organization of the material was concerned with structuring the material, presenting basic competencies and indicators, designing text and images, summarizing, evaluating, assignments/exercises, bibliography, and glossary. The order of material used a prerequisite procedural approach that showed the sequences in displaying the steps of the entrepreneurial procedure. More content was displayed in the form of practice of creating and developing products, marketing, and entrepreneurial management.</p> <p><b>Submission of Material</b></p> <p>Learning was carried out interactively and direct practicing. Implementation: (a) learning in study groups with a clear structure and division of tasks; (b) the first face-to-face was conducted to review the material in addition to the preparation of entrepreneurial practices and the second face-to-face was carried out in the form of presenting results; and (c) assignments outside the classroom for entrepreneurial practices with Business World or Working Field.</p> <p><b>Learning Management</b></p> <p>The stages of implementation were: concrete experience, reflective observation, concrete experience, abstract conceptualization, and reflective observation</p>
5	Evaluation	<p>Aspects evaluated include: (a) inputs: profile accuracy, learning outcomes, product models; (b) process: appropriateness of RBV-based EL learning; and (c) output: achievement of entrepreneurial competence; (d) outcome: achievement of entrepreneurial and intrapreneur behavior. Instruments for competency and behavior using project-based assessment (planning, implementation, results/products, and reporting).</p>

The above design constructed a prototype product model in learning outcomes, development of basic competencies and indicators of competency achievement, learning implementation plans, learning guides for teachers, teaching materials for students, and project-based assessment guides.

Furthermore, an analytical test was carried out by involving economists/entrepreneurs, education experts, language experts, industry, and working world practitioners. More specifically, the analytical test involved 1 (one) economic expert, 1 (one) education expert, as well as 1 (one) language expert, and a total of 15 people conducted content validity through FGD. The results of the economist's test are summarized in Table 2 below.

**Table 2.** Analytical test results from economic aspect.

No	Aspect	Average Rating	Rating Category
1	RBV-based Products/ Services	4.3	Very Good
2	Product/service diversification	4.4	Very Good
3	Business management	4.2	Very Good
4	Competitive Strategy	3.7	Good
5	Marketing strategy	4.3	Very Good
6	Partnership	4.2	Very Good
Average		4.24	Very Good

Sources: Primary Data Tabulation

Furthermore, the results of the feasibility test and presentation by education experts are presented in Table 3 below.

**Table 3.** Feasibility validation test results and product presentation of EL model based on RBV.

No	Product Model	Average Rating	Rating Category
1	Learning Outcomes	4.39	Very Good
2	Basic competencies and indicators of competency achievement	4.43	Very Good
3	Learning guide for teachers	3.56	Good
4	Learning guide for students	4.25	Very Good
5	Lesson plan	3.48	Good
6	Project Assessment Guide	4.22	Very Good
Average		4.06	Very Good

Sumber: Primary Data Tabulation

**Table 4.** Results of validation of language usage accuracy on RBV-based EL model products.

No	Aspect	Score	Rating Category
1	Readability	5	Very Good
2	Clarity of content or information	4	Good

No	Aspect	Score	Rating Category
3	Clarity of sentence structure	4	Good
4	Correct use of language	4	Good
5	Simplicity of language	4	Good
6	Punctuation	5	Very Good
7	Clarity of relationship between sentences	5	Very Good
8	Font size and type accuracy	4	Good
9	Spacing and spacing accuracy	5	Very Good
10	Accurate use of illustrations/pictures	5	Very Good
Average		4.5	Very Good

Sumber: Primary Data Tabulation

Regarding the substance of the product/service developed as entrepreneurial content, the results of the assessment of FGD participants from the industry world and working world elements showed that the substance was correct (Table 5).

**Table 5.** Test results validation of the contents of product substance truth.

No	Aspect Evaluation	Score	Rating Category
1	Conformity with learning outcomes	5	Very Good
2	Basic competencies and indicators of competency achievement	5	Good
3	Material coverage	5	Very Good
4	Material depth	5	Very Good
5	Order truth	5	Good
6	Material usefulness	4	Good
Average		4.83	Very Good

Sumber: Primary Data Tabulation

Observing the results of the analytical tests as shown in Tables 2, 3, 4, and 5 above, the overall design of the RBV-based EL model gained has met the criteria in terms of economy, education, language, and Business World or Working Field practitioners. As seen in Table 2 to Table 5, the content validity scores from all experts range from 3. to 4. This is because each aspect that the experts assess encompassed several components. From the economic side, for example, the development of entrepreneurial content is in accordance with the competitive advantage of the region. In Central Lombok Regency, for example, entrepreneurship development is directed at tourism and agriculture. Likewise, the Regencies of North Lombok and West Lombok also lead to the tourism sector. In West Sumbawa Regency, entrepreneurship development is directed at the mining sector in accordance with the advantages of the West Sumbawa region.

## 4 Discussion

Two necessary things related to the resulting model design were the model substance and model components. In terms of substance, the resulting design model was the competitive

advantage of the economy of each region so that students learned entrepreneurship in accordance with their own advantages. Thus, graduates were expected to create their own business by taking advantage of the regional economic advantages. Graduates will not depend on job availability anymore, but rather than they become job creators. If an area is based on the tourism sector as an advantage, students are prepared to create jobs in products/services, such as: developing souvenir products, providing transportation and water sports services, regional culinary products, cleaning services, handicrafts, and other products/services. Thus, the capitalization of entrepreneurial knowledge creates innovations by exploiting the potential competitive advantage of the region [22]. If the problem of unemployment becomes the main issue for graduates of Vocational High School, the substance of entrepreneurship should be directed at the issue of competitive economic advantage in question [9]. Learning experiences are also as supporting impact because they are directly practiced in their environment as in Kolb's [23] experiential learning theory. This model is also the main thesis of the theory of social reconstruction, which places education must be based on the competitive advantage of the regional economy [24], [25].

This model was more relevant to entrepreneurship learning, included objectives, audience, content, procedures, and evaluations. On getting the goal, it is guided to be easy in achieving competence to develop RBV-based businesses. The content as it is expected to empower the competitive advantage sectors of the regional economy, such as tourism interest, agriculture, fisheries, mining, trade, and others. The major objectives and content based on regional economic, competitive advantage is the achievement of entrepreneurial competencies, entrepreneurial behavior, and intra-entrepreneurs. An important point in the component of this model is the learning procedure that uses EL. EL has four stages, namely: concrete experience, reflective observation, abstract conceptualization, and active experimentation [26], [27]. In this study, for example, concrete experience is realized by observing the opportunities for product/service development in the competitive advantage sector of the regional economy. Reflective observation, for example, is implemented by conducting an analysis of the observed opportunities, analyzing the market share of the product to be developed, its competitors, and the innovations that will be realized. Entrepreneurial ideas will be matured at this stage. Abstract conceptualization is done by finding theses in the theory that are used as a basis for realizing goals and opportunities. Students are looking for an analytical knife for the possibility of developing a business, especially related to competitive strategy, marketing strategy, business management, finance, and others. The last stage is active experimentation, in the form of actions to realize ideas and opportunities, such as creating products, selling products, and others.

## **5 Conclusion and implication**

The results of RBV-based EL design consist of the following components: objective, audience, content, procedure, and evaluation. This design produced learning outcomes, development of basic competencies and indicators of competency achievement, learning implementation plans, learning guides for teachers, teaching materials for students, and project-based assessment guides. The results of the expert analytical test showed that the RBV-based EL design had got the requirement of economics/entrepreneurship, presentation and feasibility from the educational aspect, the accuracy of language use, and the truth of the

substance. Thus, the whole developing aspects from learning outcomes to project-based assessments were implications of empirical analysis based on this study. However, further trials were needed to ensure the effectiveness of this model design on the achievement of entrepreneurial competencies, entrepreneurial behavior, and intrapreneurial vocational students.

Theoretically, this study contributed to confirming and expanding Kolb's Experiential Learning theory in the field of entrepreneurship learning. However, this study has only focused on expert and practitioner validation, limited in the validity stage only, and only involved experts in justifying the acceptability and the compatibility of RBV Experiential Learning design model. Therefore, it is suggested that further studies must be directed towards implementing this design model with the parameters of competency achievement and entrepreneurial intention, that is, to put this model into trials, restrictedly and broadly, on vocational high school students.

**Acknowledgment.** Thank you to the Ministry of Education and Culture, Research, and Technology for supporting this research. Thank you to the University of Mataram that has facilitated the research up until the completion of this paper.

## References

- [1] S. Sukardi, W. Wildan, and M. Fahrurrozi, "Vocational Education: A Missing Link for the Competitive Graduates?," *Int. Educ. Stud.*, vol. 12, no. 11, 2019, DOI: 10.5539/ies.v12n11p26.
- [2] X. Sala-i-Martin et al., *Reaching Beyond the New Normal: Findings from the Global Competitiveness Index 2015–2016*, vol. 5, no. 5, 2015.
- [3] S. Sukardi and L. A. Wardana, "The Study of Service Quality and Competitiveness of Secondary Education in West Sumbawa," 2016, DOI: 10.2991/icse-15.2016.86.
- [4] J. W. Gentry, "What is experiential learning," *Guide. to Bus. Gaming Exp. Learn.*, 1990.
- [5] L. Murphy, J. Wilson, and S. Greenberg, "Equine-assisted experiential learning in occupational therapy education," *J. Exp. Educ.*, vol. 40, no. 4, 2017, DOI: 10.1177/1053825917712732.
- [6] M. Pallisera, J. Fullana, J. M. Palaudarias, and M. Badosa, "Personal and Professional Development (or Use of Self) in Social Educator Training. An Experience Based on Reflective Learning," *Soc. Work Educ.*, vol. 32, no. 5, 2013, DOI: 10.1080/02615479.2012.701278.
- [7] R. M. Cornell, C. B. Johnson, and W. C. Schwartz, "Enhancing Student Experiential Learning With Structured Interviews," *J. Educ. Bus.*, vol. 88, no. 3, pp. 136–146, 2013, DOI: 10.1080/08832323.2012.659296.
- [8] S. Karimi, H. J. A. Biemans, T. Lans, Z. Arasti, M. Chizari, and M. Mulder, "Application of Structural Equation Modelling to Assess the Effect of Entrepreneurial Characteristics on Students' Entrepreneurial Intentions," *SSRN Electron. J.*, 2012, DOI: 10.2139/ssrn.2152932.
- [9] P. K. Wong, Y. P. Ho, and A. Singh, "Towards an 'Entrepreneurial University' Model to Support Knowledge-Based Economic Development: The Case of the National University of Singapore," *World Dev.*, vol. 35, no. 6, 2007, DOI: 10.1016/j.worlddev.2006.05.007.
- [10] H. Etzkowitz and C. Zhou, "Introduction to special issue< BR>Building the entrepreneurial university: a global perspective," *Sci. Public Policy*, vol. 35, no. 9, 2009, DOI: 10.3152/030234208x363178.



- [11] M. Lazzeroni and A. Piccaluga, "Towards the Entrepreneurial University," *Local Economy*, vol. 18, no. 1. 2003, DOI: 10.1080/0269094032000073807.
- [12] G. . Charney, A. & Libecap, "Impact of entrepreneurship education," in *Insights: A Kauffman Research Series (Kauffman Center for Entrepreneurial Leadership)*. (online), 2000.
- [13] A. K. Jha, "Epistemological and Pedagogical Concerns of Constructionism: Relating to the Educational Practices," *Creat. Educ.*, vol. 03, no. 02, 2012, DOI: 10.4236/ce.2012.32027.
- [14] S. . White, "Reconstructionism and interdisciplinary global education: Curricula construction in a teilhardian context," *Int. Educ. J.*, vol. 31, no. 1, pp. 5–23, 2012.
- [15] T. . Reeves, "Design research from a technology perspective," In JVD Akker, K.Gravemeijer, S. McKenney, & N. Nieveen (Eds)," in *Educational design research*, London: Routledge, 2006, pp. 52–66.
- [16] T. Plopp, "Educational design research. an introduction. In T. Plomp & N. Nieveen (Eds)," in *An introduction to educational design research*, Netherlands: Netzdruk, Enschede, 2010, pp. 9–35.
- [17] J. Willis and K. E. Wright, "A General Set of Procedures for Constructivist Instructional Design: The New R2D2 Model.," *Educ. Technol.*, vol. 40, no. 2, 2000.
- [18] W. W. Gagne, R.M., Briggs, L.J. & Walter, *Principles of instructional design*, 4th ed. Fort Worth, TX: HBJ College Publishers, 1992.
- [19] Direktorat Pembinaan SMA, *Panduan umum pengembangan Mulok*. Jakarta: Direktorat Pembinaan SMA Depdiknas, 2007a.
- [20] Direktorat Pembinaan SMA, *Panduan umum pengembangan bahan ajar*. Jakarta: Direktorat Pembinaan SMA Depdiknas, 2007b.
- [21] A. Fayolle and B. Gailly, "From craft to science: Teaching models and learning processes in entrepreneurship education," *J. Eur. Ind. Train.*, vol. 32, no. 7, 2008, DOI: 10.1108/03090590810899838.
- [22] H. Etzkowitz, "The evolution of the entrepreneurial university," *Int. J. Technol. Glob.*, vol. 1, no. 1, 2004, DOI: 10.1504/IJTG.2004.004551.
- [23] D. A. Kolb, *Experiential Learning*. Prentice-Hall, 1984.
- [24] S. Sukardi.-J. C. Pendidikan 2016, "Desain Model Prakarya dan Kewirausahaan Berbasis Ekonomi Kreatif Berdimensi Industri Keunggulan Lokal," *journal.uny.ac.id*, Accessed: Oct. 19, 2021. [Online]. Available: <https://journal.uny.ac.id/index.php/cp/article/view/8381>.
- [25] S. Sukardi, M. Ismail, and N.M.N., Suryanti.-J. C. Pendidikan 2014, "Model Pendidikan Kewirausahaan Berbasis Keterampilan Lokalbagi Anak Putus Sekolah pada Masyarakat Marginal," *scholar.archive.org*, Accessed: Oct. 19, 2021. [Online]. Available: <https://scholar.archive.org/work/xof3xgfhfa45p7ai5246ey3tu/access/wayback/https://journal.uny.ac.id/index.php/cp/article/viewFile/2384/pdf>.
- [26] J. L. Ferguson, S. C. Makarem, and R. E. Jones, "Using a class blog for student experiential learning reflection in business courses," *J. Educ. Bus.*, vol. 91, no. 1, 2016, DOI: 10.1080/08832323.2015.1108279.
- [27] M. D. Svinicki and N. M. Dixon, "The Kolb Model Modified for Classroom Activities," *Coll. Teach.*, vol. 35, no. 4, 1987, DOI: 10.1080/87567555.1987.9925469.