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Research paper

The Effectiveness of Applying E-Book in Teaching Indonesian to Speakers of Other Languages (TISOL) in Supporting Foreign Students' Self-Learning in Indonesia

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Abstract

The study aims to test the effectiveness of TISOL E-book in supporting foreign students' self-learning in Indonesian higher education in Java Island. It employed experimental method. The result of effectiveness test concludes that foreign students' language proficiency with using TISOL e-book is better than using conventional textbook. The result of applying TISOL e-book shows that Indonesian language proficiency is measured with three component: language proficiency, writing scientific paper and scientific presentation. The result shows that there are differences of pretest-posttest among experiment and control groups in higher education implementing TISOL in Indonesia. F-test results as much as 9,775 with statistical significance of 0.000 < 0.05. Therefore, Ho is rejected and data among groups have the significant differences.

Keywords: *effectiveness, e-book, TISOL, self-learning, foreign students*

1. Introduction

Teaching Indonesian to Speakers of Other Languages (TISOL) in Indonesia gets increasingly developed with reference to Darmasiswa program (a scholarship program offered to all foreign students to study Indonesian language, art and culture) which accepts 755 foreign students from 96 countries in 2017/2018. This implies that Indonesia, especially Indonesian culture, gets highly interest from other countries. This is reflected by TISOL program implemented in some higher education in Indonesia [1].

In TISOL program, there are some aspects which have to pay attention, including lesson plan, teaching and learning process, teaching and learning evaluation, learning source, learning media, and teaching method. However, the important one is learning source. Learning source has to give description to foreign speakers about environmental condition, social condition, cultural condition and custom in Indonesia. Consequently, foreign students will be more interested in Indonesia and fast in learning Indonesian language. Besides, an appropriate and interesting learning source can affect foreign speakers' success to achieve goal in learning Indonesian. This is in line with some previous studies from Suyitno [2], Susanto [3], and Nurwicaksono [4] who investigated learning source for foreign speakers.

However, the huge interest of foreign speakers to learn Indonesian language is not supported by an appropriate textbook [5], [6]. This is indicated by the small amount of TISOL books. Consequently, there is a need of standard TISOL book to balance foreign speakers' interest. Besides, TISOL book which is appropriate with TISOL program has a great benefit for TISOL program because TISOL book contains Indonesian identity, character, and culture.

In his study, Mustakim argued that not all TISOL books contain materials or information about social and cultural aspects of Indonesian society [7]. This is reflected by only 24 of 43 TISOL books (56%) which contain social and cultural aspects of Indonesian society, but the rest (44%) didn't contain it. In line with Mustakim, Subektiningsih [8] also analyzed TISOL book entitled *Lentera Indonesia* from Book Centre. The result showed that the exercises containing in TISOL book are not enough to train foreign speakers' communication ability because the integration of speaking and listening skills has been done with comprehension level. Besides, all exercises introduction use English.

The need of Indonesian language learning for foreign speakers gets significantly increased [9]. However, there is no curriculum and standardized textbooks. Besides, TISOL textbooks used is not integrated with culture introduction. Consequently, teacher needs

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time to introduce culture separated from materials provided in TISOL textbooks [10]. Moreover, when students visited tourist areas or other historical places, they cannot understand tour guide's explanation. They tend to be passive and unable to communicate actively due to the lack of vocabulary mastery and cultural knowledge [11]

The aim of this study is generally to develop interactive TISOL e-book in supporting foreign students' self-learning in Indonesia. Besides, it specifically aims to describe e-book condition used in TISOL institution in Indonesia, to investigate the need of e-book development integrated with cultural knowledge for foreign students in TISOL institution in Indonesia and to implement TISOL e-book used by TISOL students in TISOL institution in Indonesia.

This study is very important to conduct for increasing Indonesia competitiveness internationally. TISOL program is a soft diplomatic for multilateral relationship [12]. If Indonesia compete in technology field, Indonesia is absolutely unable to win over developed countries like America, Germany, Japan, etc. However, with various cultural heritage, Indonesia is able to compete other countries and to be cultural reference in the world. This result expectedly can give contribution in TISOL learning development which affects tourism based culture and economic sector. In cultural development, this study is expectedly able to become a pillar for Indonesian culture conservation because there are many people who learn and develop it.

The novelty in this study is the integration of local culture in TISOL electronic book or e-book with scientific-thematic approach. This study is conducted because some previous research of innovative learning model can directly improve learning process and result [13]. TISOL e-book used as research object also focuses on foreign students in the beginner level. It is assumed that foreign students who learn Indonesian language begins with their interest of Indonesian culture. Therefore, cultural introduction of TISOL program in Indonesia is very appropriate to conduct in beginner level [14].

The breakthrough technology used in this study is to arrange interactive e-book. TISOL textbooks are still in printed version and don't add cultural aspect as a dominant aspect [15]. Innovation of e-book is absolutely new and becomes a breakthrough technology. Moreover, the product of e-book has interactive characteristic [16]. By interactive characteristic, this e-book will encourage foreign students to study TISOL independently and comfortably. Besides, they will be fast in receiving information and materials in TISOL learning.

2. Methodology

This study employed experimental method. It was conducted in four universities in Indonesia including Universitas Sebelas Maret (UNS), Universitas Pendidikan Indonesia (UPI), Universitas Negeri Semarang (UNNES), and Universitas Negeri Surabaya (UNESA). Research objects were divided into two group, including experimental and control groups. Experimental group was Universitas Sebelas Maret, while control groups includeed Universitas Pendidikan Indonesia, Universitas Negeri Semarang, and Universitas Negeri Surabaya. Research subjects were 200 foreign students in which the samples were determined by the employment of purposive sampling technique. Technique of data analysis was one way ANOVA.

3. Results and Discussion

The type of e-book developed in this study is textbook. Textbook is a book which functions as learning source related certain field with fulfilling published and distributed scientific paper standard. Hence, textbook is essentially a learning media for certain field. According to Muslich, textbook is a book containing materials of certain subject or field, arranged systematically and has been selected based on certain goal, students' orientation and students' development [17]. Besides, Saddhono states that book is one of learning sources probably utilized to help lecturer and students in teaching and learning process [18]. Moreover, textbook has a special structure and is adjusted with educational need. Additional, writing textbook has to be done by three ways, self-writing, rewriting information, and editing information [19].

Additionally, Richards says that textbook can either help or disturb learning process. A quality and an appropriate textbook will be useful and help students to cope with problems in learning process [20]. Besides, Tomlinson states that textbook which is inappropriate with curriculum and students' need is not useful for students [18]. Hyland adds that developing learning language textbook must consider the authenticity of texts provided [21]. Tomkins & Hoskisson also argue that in language learning, textbook is a facility for learning of language use procedure, concept, strategy and practice [22].

TISOL e-book is implemented to support foreign students' self-learning in higher education in Java Island.

Table 1: Comparison of Indonesian Language Proficiency Pretest Result

No.	Higher Education	Assessment Component of Indonesian Language Proficiency			Average
		Language Skill	Writing Paper	Scientific Presentation	
1.	UNS	61	60	55	58,7
2.	UPI	60	58	53	57,7
3.	UNNES	60	59	54	57,7
4.	UNESA	61	58	54	57,3

Indonesian language proficiency pretest result of foreign students is accumulated from three components, including language skill, writing paper and scientific presentation [23]. UNS students have average score of 61 for language skill, 60 for writing paper and 55 for scientific presentation. UPI students show 60 for language skill, 58 for writing paper and 53 for scientific presentation. UNNES students indicates average score of 60 for language skill, 59 for writing paper and 54 for scientific presentation. UNESA students' average score is reflected by 61 of language skill, 58 of writing paper and 54 of scientific presentation

Table 2: Comparison of Indonesian Language Proficiency Posttest Result

No.	Higher Education	Assessment Component of Indonesian Language Proficiency			Average
		Language Skill	Writing Paper	Scientific Presentation	
1.	UNS	84	85	84	84,4
2.	UPI	82	79	80	80,3
3.	UNNES	80	78	81	79,7
4.	UNESA	81	82	81	81,3

Score in table 2 shows that there is improvement of posttest average score related to foreign students' Indonesian language proficiencies. This is also accumulated from three components, including language skill, writing paper and scientific presentation. UNS student shows average score of 84 for language skill, 85 for writing paper and 84 for scientific presentation. UPI students have average score of 82 for language skill, 79 for writing paper and 80 for scientific presentation. UNNES students' average score is reflected by 80 of language skill, 78 of writing paper and 81 of scientific presentation. UNESA students' score indicates 81 of language skill, 82 of writing paper and 81 of scientific presentation.

The result of comparison deals with two. Pretest is conducted without implementing TISOL e-book prototype, while posttest is conducted with implementing TISOL e-book prototype.

Table 3: Comparison of Pre-experiment and Post-experiment Results on Learning with Using TISOL E-Book

No.	Higher Education	C		PC		LC		IC	
		Pre	Post	Pre	Post	Pre	Post	Pre	Post
1.	UNS	0 %	58 %	2 %	27 %	76 %	12 %	24 %	4%

2.	UPI	0 %	21 %	0 %	42 %	72 %	28 %	21 %	8%
3.	UNNES	0 %	18 %	5 %	45 %	57 %	25 %	36 %	10 %
4.	UNESA	0 %	27 %	0 %	32 %	75 %	34 %	24 %	7%

From the table
C = consistent
PC = pretty consistent
LC = less consistent
IC = inconsistent

The result of comparing foreign students' self-learning score includes comparing group's score before implementing TISOL e-book prototype and after implementing it in accordance to higher education in Java Island, including UNS, UPI, UNNES and UNESA.

Table 4: Comparison of Pre-Experiment and Post-Experiment Result in Supporting Students' Self-Learning

No.	Higher Education	C		PC		LC		IC	
		Pre	Post	Pre	Post	Pre	Post	Pre	Post
1.	UNS	0 %	45 %	17 %	40 %	52 %	7%	30 %	4%
2.	UPI	0 %	25 %	12 %	35 %	48 %	30 %	38 %	10 %
3.	UNNES	0 %	22 %	11 %	36 %	46 %	33 %	43 %	11 %
4.	UNESA	0 %	28 %	14 %	34 %	48 %	31 %	23 %	7%

The average score of pretest and posttest shows the improvement. This is reflected by (a) foreign students' language skill score average in UNS, improved from 58.7 into 84.3, (b) foreign students' language skill score average in UPI, improved from 57.7 into 80.3, (c) foreign students' language skill score average in UNNES, improved from 57.7 into 79.7, (d) foreign students' language skill score average in UNESA, improved from 57.3 into 81.3.

The evaluation is conducted with the employment of one way ANOVA toward score differences of foreign students' Indonesian language proficiencies in higher education in Java Island. Data related to pretest-posttest score differences of experimental group (UNS) have Kolmogorov-Smirnov test result as much as 0.147 with statistical significance of 0.058 > 0.05. Data related to pretest-posttest score differences of control group 1 (UPI) have Kolmogorov-Smirnov test result of 0.138 with statistical significance of 0.087 > 0.05. Data related to pretest-posttest score differences of control group 2 (UNNES) have Kolmogorov-Smirnov test result of 0.125 with statistical significance 0.117 > 0.05. Data related to pretest-posttest score differences of control group 3 (UNESA) have Kolmogorov-Smirnov test result of 0.138 with significance of 0.064 > 0.05. Consequently, Ho of those are accepted and the data are distributed normally.

Data related to pretest-posttest score differences among experimental, control 1, control 2 and control 3 groups have Levene test result of 0.092 with statistical significance of 0.974 > 0.05. As a result, Ho is accepted and data among group have the balance variation. Paired difference test of pretest-posttest score difference among groups shows F test result as much as 9.782 with statistical significance 0.000 < 0.05. Therefore, Ho is rejected and data among group have significant differences.

Based on the average score of each group, the study indicates that data of control group 1, 2 and 3 is located in one column, while the experiment one is located in different column. This implies that control group has no significant differences one another but experiment group has significant differences with control groups. The result is in line with the implementation of TISOL textbook with using printed book conducted by Saddhono in 2014 and 2018. He concluded that with the innovation in TISOL textbook development, the improvement of TISOL learning quality and process will be achieved.

4. Conclusion

The effectiveness test of TISOL e-book in supporting foreign students' self-learning in higher education in Java Island is conducted by using experimental test toward 45 UNS students, 55 UPI students, 52 UNNES students and 48 UNESA students. The result concludes those foreign students' Indonesian proficiencies with using TISOL e-book in higher education in Java Island is good compared to foreign students who do not use TISOL book or use conventional textbook. The effectiveness are measured in terms of three components: language skill, writing scientific paper and scientific presentation. The result of pretest-posttest score differences among experiment, control 1, control 2 and control 3 groups have F test result of 9.8 with statistical significance of 0.000 < 0.05. Consequently, Ho is rejected and data among groups have the significant differences. Based on average score of each group, data of control 1, 2 and 3 groups are located in one column while average score of experiment group is located in different column because the experiment group has significant differences with three control groups.

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