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Regionalization and Harmonization in TVET

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Regionalization and Harmonization in TVET

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Preface

The 4th UPI International Conference on Technical and Vocational Education and Training was held in Bandung (Indonesia) on 15–16 November 2016. The conference is a biannual event, which has been conducted by the Universitas Pendidikan Indonesia's TVET Research Center and the Faculty of Technology and Vocational Education. Like the three previous conferences, this conference received enthusiastic response from scholars and practitioners of TVET around the world. Participants from Malaysia, India, Timor Leste, and many cities in Indonesia attended this year's conference.

Exploring the theme "Regionalization and Harmonization in TVET," the conference featured Prof. Dr. Numyoot Songthanapitak, the president of the Regional Association for Vocational Teacher Education in Asia and the president of Rajamangala University of Technology Lanna, Thailand; Prof. Dr. HC. Thomas Schröder and Dr. Sven Schulte of the Technical University of Dortmund, Germany; Prof. Dr. Maizam Alias of the Universiti Tun Hussein Onn Malaysia; and Dr. Eng. Agus Setiawan of Universitas Pendidikan Indonesia as keynote speakers. Participants presented their papers, which are categorized under subthemes: Standardization in Regionalization and Harmonization, Skill and Personal Development, Social and Cultural Issues, Teaching Innovations in TVET, and Innovations in Engineering and Education.

There were approximately 200 submissions from various countries to the conference. The committee selected 70 papers to be presented in this year's conference. These papers were then selected to be published in TVET@Asia online, and a conference book, published by Taylor & Francis and submitted for indexation in Scopus and Thomson Reuters.

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Standardization in regionalization and harmonization



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The development of Indonesian textbooks-based collaborative learning to strengthen character education: A case study on vocational education in Sebelas Maret University

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ABSTRACT: This research examines the importance of textbooks to facilitate students in learning Indonesian subjects. The purpose of this research is to develop Indonesian textbooks-based collaborative learning to strengthen character education on vocational education in Universitas Sebelas Maret (UNS). The researchers adopted the theory of Research and Development (R & D) proposed by Gall, Gall, & Borg. The sampling technique was a purposive technique, and the research sample was determined by researchers based on the objectives and considerations that each sample represented the population of university students in UNS. In this preliminary study, a needs analysis was carried out to prepare a prototype model of Indonesian textbooks-based collaborative learning to strengthen character education in higher education. To improve a prototype of Indonesian textbooks, peer debriefing was conducted with experts in the field of textbooks, experts in the field of learning methods and character education. The improved result was tested further on a limited but wider basis in UNS. The result shows that university students' ability to speak Indonesian using Indonesian textbooks-based collaborative learning to strengthen character education at UNS is better than university students who do not use textbooks (using conventional textbooks).

1 INTRODUCTION

The Indonesian course is a course in college that is mandatory for all students of the university, especially in the beginning of their semester in college. Indonesian is one of the subjects at the college which is expected to train students to acquire Indonesian language skills. The implementation of the Indonesian course has been considered to only provide theoretical material in the form of a monotonous lecture. It is supported by the research conducted by Kurniady (2008) which states that lecturers in general divide the Indonesian course into two terms of lectures. The first term is the provision of course materials that discuss aspects of language. Presentation of these materials is considered boring. The second term presents Indonesian materials science, which is focused on writing scientific papers, techniques used in writing scientific papers, and commonly used techniques for writing scientific papers theoretically. Lectures give the material using lecture method.

Based on the background above, this study used the integrated collaborative learning through Indonesian textbooks. The reason for the use of collaborative learning, as seen from the results of field

observations, was that students were not able to work in groups well. In the work group, one or two students tended to do the work, while the other students looked relaxed without taking any responsibility in completing the task. It cannot be separated from the process of teaching and learning.

Based on that phenomena, Vygotsky (in Liu & Matthews, 2005) developed the theory of social constructivism which has the idea that learning for children can be done in the interaction within the social and physical environment. This invention or discovery in learning more easily is obtained in a person's socio-cultural context. Constructivism core according to Vygotsky is the interaction between the internal and external aspects of the emphasis on the social environment in learning.

In addition to the problems described above, the issue of character education was also targeted in this study. Internalized character education is currently a priority in building a generation of the nation's dignity, morals, and good manners. Still seen are low-level characters embedded in students. The development of character education in college can be integrated into education in each course. Educational materials relating to norms or values on each course should be developed explicitly, and

associated with the context of everyday life. Character education values are not only on the cognitive level, but touch on the internalization, and real experience in student life in the community. Character education in college is an attempt to develop the character of students as a continuation-character development at the level of previous education.

Trends in the Indonesian language learning during this time are to learn about the language, and less steeped in learning the language and learning through language. Learning through language means listen to learn, talk to learn, read to learn, and write to learn. Practically all the language skills required politeness as a part of character development (Setyawati, 2013).

According to Hidayatullah (2010), young people (students) and the future were equally the hope of the nation. In conjunction with the duties and obligations of students as the next generation ideals of the nation, then the position of the students will increasingly become an important role, especially those students who prepared a position as an intellectual or scholar and a leader in the future. In fact, public opinion has expectations for mainly the students to develop the nation.

2 METHOD

The researchers adopted the theory of Research and Development (R & D) proposed by Gall, Gall, & Borg, 1996. The sampling technique was a purposive technique, and the research sample was determined by researchers based on the objectives and considerations that each sample represented the population of university students in UNS.

3 RESULT AND DISCUSSION

The preparation of the Indonesian course textbook started from the preparation of a prototype model. The preparation of this book is based on studies

that have been done before (Saddhono, 2011; Sitepu, 2008; Syamsi et al., 2013). The steps taken were as follows. (a) Analyzing lecturers, students, and stakeholder needs. (b) Developing Indonesian textbook framework. (c) Fixing the Indonesian textbook concept. (d) Asking for consideration and feedback on the expert's judgment. (e) Revising for the improvement. (f) Doing the editing process. The study results of this collaborative learning study are in line with other studies which have been conducted before by different object and media (Elola & Oskoz, 2010; Barkley et al., 2012; Du and Christian, 2011; Kessler, 2009; Lee, 2008).

Effectiveness test was used to analyze the differences between existing teaching materials and newly developed teaching materials. Normality testing was done through two approaches, the namely chart approach (histograms and P-P Plot) or the Kolmogorov-Smirnov test, Chi square, Lilliefors or the Shapiro-Wilk. The normality test in this study used the Kolmogorov-Smirnov test.

Based on Table 1 above, it can be concluded that distribution of the data is normal.

The sample of this study was collected from all vocational programs in Sebelas Maret University with different education, culture, and characteristic. Heterogeneity is expected to be tolerated so that it can be considered as a population unit. Besides, it can also be used as homogeneity assumption fulfillment so that ANOVA test is not bias. The homogeneity test is used to fulfill data variant which is homogenous or heterogeneous based on certain factors. The same applies to normality, and the homogeneity assumption used in some statistic parametric analysis. The homogeneity test in this study was done by using Levene test.

Based on Table 2 above, it can be concluded that the pretest-posttest data difference between the experimental group and the control group had statistically Levene price of 0.091 with a significance of $0.965 > 0.05$. Therefore, H_0 received and stated that the data has variation between groups is balanced.

Table 1. Kolmogorov-Smirnov normality test.

Data	Research group	Kolmogorov-Smirnov(a) statistic	df	Sig.	Conclusion
Balance test data (<i>Pre-test</i>)	Experiment	0.132	42	0.064	Normal
	Control 1	0.121	39	0.155	Normal
	Control 2	0.133	38	0.089	Normal
	Control 3	0.136	39	0.067	Normal
Experiment test data (Difference between <i>Pre-test-Post-test</i>)	Experiment	0.133	42	0.059	Normal
	Control 1	0.132	39	0.083	Normal
	Control 2	0.129	38	0.114	Normal
	Control 3	0.137	39	0.062	Normal

Table 2. Levene homogeneity test.

Data	Levene statistic	df
Experiment test data (the difference between <i>Pretest-Posttest</i>)	1.311	3
Experiment test data (the difference between <i>Pretest-Posttest</i>)	0.091	3

Table 3. One way ANOVA test result.

Data	F	Sig.	Conclusion
Balance test data (Pretest)	1.398	0.245	There is no significant difference
Experiment test data (the difference between Pretest-Posttest)	9.775	0.000	There is significant difference

Based on Table 3 data of balance test on the pretest there was no significant difference. Meanwhile the data between groups has significant differences.

Based on the average price of each group, it showed that the control group data are in one column, while the average of data experimental group are in different columns. This shows that the intergroup controls had no significant difference, while the experimental group was significantly different to the three control groups.

Related to the assessment of character, education essentially is an evaluation of the learning process on individual and group in order to understand role and freedom to live with other people in an academic environment for developing moral integrity as human beings. Character education assessment in this study is not to determine graduation in the field of course, but to determine the growth and development of character education internalization in the form of attitudes, knowledge, and action (Samani & Hariyanto, 2013). Assessment of character education is based on Ki Hajar Dewantara's teachings, in the form of the doctrine (operational guidelines practice) *Tri Nga*: understand (*ngerti*), feel (*ngrasa*), and act (*nglakoni*). The *Tri Nga* in general terms is cognitive (*ngerti*), affective (*ngrasa*), and psychomotor (*nglakoni*). Based on the teachings of Ki Hajar Dewantara the assessment of character education in this study is translated according to the provisions of character education assessment of the National Education Ministry used today. The results showed a positive impact on several aspects of education character. This is in line with the character education raised by experts (Lickona, 2012; Wibowo, 2013).

4 CONCLUSION

Based on the explanation above, it should be reiterated that Indonesian education is directed to achieve some of the goals that should be owned by the students, namely the ability to speak, language gesture, the science of Indonesian knowledge, self-awareness of the importance of literature for self-development, and positive attitude towards literature. The goal of this goal is that students are able to communicate characteristically. The results of this research are the development of the Indonesian textbook based on collaborative learning for strengthening character education in vocational study programs. Universitas Sebelas Maret are having a positive impact in learning Indonesian.

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