Merging English into Sport in Aerobic Exercise Based on Content-Based Instruction

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ABSTRACT

A research on merging English into Sport in Aerobic Exercise based on Content-Based Instruction (CBI) was conducted related to the need of the aerobics instructor who can lead the class in English especially with the present of Asean Economic Market in the end of 2015. The problem being evaluated in this paper was "is there any difference influence between CBI learning model and conventional learning model to the aerobics instructor performance in English? The aim of this research is to evaluate the different influence between CBI learning model and conventional learning model to the aerobics instructor performance in English. 20 students of Semarang State University and Wahid Hasyim University were grouped into 2 groups. One is CBI group and the other ones is conventional group. The treatment was conducted for 6 weeks, 12 meetings. The result showed that the significant score for CBI group is 0,005<0, 05, meaning H1 is accepted. Therefore there is a significant difference between those who have been taught using CBI to those who have been taught using conventional learning for the aerobics instructor performance in English.

Keywords: Aerobics Instructor, English, ESP, CBI

INTRODUCTION

The present of Asean Economic Community (AEC) in 2015 has challenged all sectors to equip their human resources to be able to compete in Asean market (Cahyono, 2016). One of the biggest challenges is in the field of sport, such as in aerobic exercise and fitness. The job market requires not only qualified instructor in the field of aerobics and fitness, but also those who are able to explain aerobics programs in English. The 2015 KKNI also emphasized the importance of scientific applications. Applying English in the scientific field can increase the students' language competence.

Teaching English for a non-English major holds a big challenge either for students or teacher. In Sport Science Department, FIK, UNNES, the portion of English subject is only 2 credits given on the first semester. Within the limitation of time, the subject could not cover scientific-knowledge that the teacher willing to teach. Whereas the demand is to equip the students with some basic's English skills needed in their field, so what can we do to fulfill the demand?

The strategy that can integrate between language and content-knowledge is Content-Based Instruction (*CBI*). Content Based Instruction (CBI) is an instructional approach, which combines language teaching and

teaching of scientific disciplines, simultaneously and proportionately (Hornberger, 2008). In line with Hornberger, Cenoz (2015) emphasizes that CBI is the teaching of academic content using English as the media, with the overall vocabulary used in learning is closely related to the discipline involved. The main element of CBI is the use of foreign language (in this case is English) as a teaching medium for scientific disciplines, the use of authentic material, and the delivery of language in the context of scientific disciplines (Bozdoğan and & Karlıdağ, 2013).

CBI's theoretical assumptions is supported by Krashen, he argued that language is best acquire incidentally through exposure to the extensive and meaningful input. Furthermore, in the theory of second language acquisition it is popular as input hypothesis (Herschensohn & Young-Scholten, 2013). Input hypothesis states that language can be controlled if there is an increase from i (initial language ability) to i + 1 (initial ability plus comprehensible input or understandable input). In this case the development of language skills is supported by the context in which the language is used, our initial knowledge, and our grammatical information.

Stoller in content-based instruction: perspectives on curriculum planning (2004) mention the advantages of CBI compared to traditional methods: 1) CBI is a curriculum taught based on scientific discipline; 2) CBI uses authentic materials; 3) CBI prioritizes learning about new information; and last CBI strongly considers the needs of students both in the language and scientific disciplines. Demirdirek et all in E-documentaries in content-based instruction (CBI) in academic EFL settings (2010) states that in CBI, English is believed to be able to better prepare students in the academic field, because the academic material taught is also discussed and reviewed in English, so unconsciously the students learn the language by using it (Lu, 2014; Davies, 2003).

CBI is best implemented with two lecturers teaching the class, those are the subject lecturer and the English lecturer. It is essential in order to improve the students' understanding to the subject as well as to the English vocabulary being learnt (Davies, 2003; Lu, 2014). Students are expected to use English as the communication tool and as a medium to deliver the content subject-knowledge (Shang, 2006). This is linear to the demand of *KKNI* (2015): students are expected to apply knowledge they gained to their field of study. One of the direct applications is by integrating English subject to the Aerobic Class. In this case, the aerobics class is the pilot project since it is combined choreography and music that are guided by instruction in English language (Dolan, 2009). In addition to that, aerobic also being taught step by step, logical, and need enough repetition (NETA, 2005) in line with the need of language learning which need a lot of repetition.

Aerobic exercise can be classified into 3 categories, namely: 1) low impact 2) mix impact and 3) high impact, (Sudibjo, P. et al., 2000). The composition of an aerobic dance class starts from warming up activity, followed by some flexibility movements, and then continues with the intensity of the exercise which increases from medium to high intensity, finally closed by cooling down activity (Hultquist, 2009). Everyone can do aerobic exercise even though they have no prior knowledge and experience (Dolan, 2009). Therefore, every student can be an aerobic dance instructor.

In aerobic activities, a choreography and music sequence is needed. Aerobics class that has been designed with certain aim, including the movement and direction carried out by the instructor is the keys to the success of an aerobics class. Choreography is defined as the art of arranging or planning a

movement; a form of organization and transfer with composition and preparation. Here students will combine choreography with English, by speaking out loud every movement they demonstrate in English. Language is being taught implicitly by providing a lot of input and opportunities to practice (Davies, 2010).

Those, the problem being studied in this research was; "is there any difference influence between CBI learning model and conventional learning model to the aerobics instructor performance in English?" The purpose of this study was to evaluate difference influence between CBI learning model and conventional learning model to the aerobics instructor performance in English. The study was conducted to strengthen the argumentative reason on the importance of merging English to any subject knowledge.

METHODHOLOGY

A two-group experimental research design was implemented to 20 university students. 10 students of Semarang State University were taught using CBI method (experiment group) and 10 students of Wahid Hasyim University were taught using conventional method (control group). Both of the groups never got Aerobic Dance class before. The treatment was conducted for 6 weeks, twice a week, from 5 September 2016 to 10 October 2016 with the duration of 2 x 60 minutes per meeting.

The independent variables are CBI method and conventional method; whereas the dependent variable is students' performance as an aerobics instructor in English. It was expected that there is significant difference in the students' performance as an aerobics instructor between those who were being taught using CBI method compare to those being taught using conventional method.

The research instruments were Paper Based TOEFL test (PBT) and a post-test analytical rubric. The PBT were used to determine that both of the groups are in the same level of English proficiency. The PBT consisted of three tests namely listening, structure and reading. There were 50 questions for listening in 35 minutes, 40 questions for structure in 25 minutes and 50 questions for reading in 55 minutes and the total pre-test time was 115 minutes (Pyle and Page, 2005). There were 4 score level: 310 – 420 = basic; 420 – 480 = low intermediate; 480 – 520 = high intermediate; 525 – 677 = advance (Geniustoefl, 2016). The pre-test data showed that all students were in the same level of English proficiency, which was in the basic level on a range from 317 to 380.

The data to measure the students' ability as an aerobics instructor in English were collected through post-test using a post-test analytical rubric. The instruction for post-test was "Please perform as an aerobic dance instructor, within 5- 10 minutes in length, starting from introduction, warming up, dance steps & cooling down." The students performance in the post test were graded using an analytical rubric. The analytical rubric were divided into five criteria: 1) The ability in giving introduction 2) The ability to explain the dance steps 3) The ability in giving correct instruction 4) The ability to prepared and organized the dance 5) the coherence on cueing, tempo and music. Those five criteria are graded in four score categories: need improvements, developing, sufficient, above average.

The data were analyzed using two-way anova on $\alpha = 5\%$. If the F value obtained (FO) is significant then the analysis is continued with the Tukey test. To meet the assumptions in the anova technique, normality tests were performed by the Lilliefors test and the homogeneity of the variance was tested by Levene's test.

RESULTS AND DISCUSSION

First of all, all of the students score were tested using the Lilliefors test to see the

normality and homogeneity of data. Below   are the result.

Table 1. Normality Test

	Teaching Method	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Students performance	CBI	.181	10	.200[*]	.924	10	.391
	Conventional	.230	10	.145	.934	10	.491
*. This is a lower bound of the true significance							
a. Lilliefors Significance Correction							

The table showed the result of normality test on aerobics instructor performance based on the teaching method. According to the normality test using Kolmogorov-Smirnov method, the significance score for aerobics instructor who were being taught using CBI method was $0.200 > 0.05$ and according to Shapiro-Wilk test the significance score was $0.391 > 0.05$. On the other hand, in the conventional teaching method, the students' performance according to normality test of Kolmogorov-Smirnov the significance score was $0.145 > 0.05$ and according to normality test of Shapiro-Wilk the significance score was $0.491 > 0.05$. Because all of the significance scores are > 0.05; those, that can be concluded that the students' performance data according to the teaching method has a normal distribution.

Tabel 2. Levene's Test of Equality of Error Variances[a]

Dependent Variable: Performance as Aerobic instructor			
F	df1	df2	Sig.
1.861	3	16	.177

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

Design: Intercept + Model + Ability + Model * Ability

The above table was the homogeneity variance test using Levene's Test method. The significance score was $0.177 > 0.05$ there could be concluded that the varian data group were homogen.

Tabel 3. Tests of Between-Subjects Effects

Dependent Variable: Performance as Aerobics Instructor					
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	194.200[a]	3	64.733	4.021	.026
Intercept	21912.200	1	21912.200	1361.006	.000
Method	168.200	1	168.200	10.447	.005
Ability	24.200	1	24.200	1.503	.238
Method*Ability	1.800	1	1.800	.112	.742
Error	257.600	16	16.100		
Total	22364.000	20			
Corrected Total	451.800	19			
R Squared = ,430 (Adjusted R Squared = ,323)					

Students' Performance based on Learning Method

The hypothesis of the research are:

Ho: There are no differences between CBI method and conventional method to the students' performance as aerobics instructor in English

H1: There are differences between CBI method and conventional method to the students' performance as aerobics instructor in English

The testing criteria are:

Significance score > 0.05, therefore Ho is accepted

Significance score < 0.05, therefore H1 is accepted

According to table 3 test of between subject effects, the significance score in teaching learning method is 0.005 < 0.05, therefore H1 is accepted. There that can be concluded that there is a significant difference between CBI method and conventional method to the performance of aerobics instructor in English.

Table 4 Descriptive Statistics

Dependent Variable: Aerobics Instructor Performance

Model		Mean	Std. Deviation	N
CBI	Total	36.0000	4.92161	10
Conventional	Total	30.2000	2.69979	10
	Total	33.1000	4.87637	20

The average performance of the students who are being taught using CBI is higher than those being taught using conventional method. The average score of those taught using CBI is 36.00 which belongs to sufficient grade whereas the average score of those taught using conventional method is 30.20 which is belongs to developing grade.

The CBI model used in this research is the immersion model, adapting Swain and Johnson's immersion models (1997), those are: (1) English serves as a medium of learning instruction, (2) the curriculum taught is the same as the curriculum in regular program; exposure to English is mainly given in class, (3) All students in one class have almost the same level of English, (4) Lecturers who teach are able to teach in two languages, (5) The culture and traditions in the class are local culture . In this program more than 50% of aerobics material taught in English, by two lecturers, namely aerobics exercise lecturers and English lecturers.

Every ESP context has its own needs and characteristics that depend on the needs of its users (Cheng, 2011) and to be able to truly run the ESP program, the first step that has been done was identifying the academic language needed and the content language needed to be an aerobics instructor. Therefore, continues collaboration between content lecturer who is also an aerobic dance instructor and language lecturer run till the end of the program, since the best way of CBI is by taking two lecturers guiding the class: the English (language) lecturer and the aerobic dance (content) lecturer (Davies, 2003; Lo, 2014). Both of the lecturers were collaborating to design the teaching material which fitted students' need by discussion upon the language and materials and compare-contrast the sources of knowledge.

Teaching scientific knowledge in English language hosted some challenges for

both, the lecturers and the students. For the English lecturers who are not familiar with aerobic dance terminology, the lecturer needs extra effort in reading and browsing some authentic materials in order to be able to create the lesson plan and the language material for the students. In the case of the aerobic lecturers who are not familiar to teach the subject in English, the lecturers need to cope with the limitation of vocabulary. Consequently, there were many code-switching during the lesson. However, those challenges in CBI activity strengthen cooperation between content lecturer and language lecturer. The CBI method also improved the awareness of words used in various context (Flawerdew, 1993), in this case the students became aware to choose appropriate word for aerobics instructor, such as using terminologies V-style, lunges, march, etc., which is different to daily language.

Teaching subject-knowledge in English has been proven to be effectively increasing the students' ability either in the content knowledge or in English subject. This is linear to Stoller who argued that CBI priorities the students need in term of subject knowledge and language (Stoller, 2004). Teaching English using material that are related to the content knowledge better prepares the students in their academic field, because the academic material they have learnt in their subject are also discussed in English subject. The students then acquired new language which is more advance to their prior language, which called as comprehensible input (Herschensohn & Young-Scholten, 2013). Therefore the students got the language theory and bring their theories into practice in their subjects. In line with the previous research that argues that merging language into subject knowledge could help increase both performances(Demirdirek, 2010; Huang, 2011; Stoller, 2004; Song, 2006), In this case teaching aerobic based on CBI method were increasing the students'

performance as aerobics instructor as well as their language performance.

Language roles as instructional media in CBI, expose to the language were also emphasized in class especially by the language lecturer. The lecturers in CBI should be those who are competent in subject knowledge as well as in English subject (Swan & Johnson, 1997). Here, the language roles as the media of learning, therefore the basic language skill of students do not influence their performances since the CBI focus to the content and language related to the content. In this case, CBI will help the students to improve the language as well as the content in the same time.

CBI has been widely used in universities throughout Canada, Asia, and Europe, such as in Turkey (Bozdoğan & Karlıdağ, 2012; Demirdirek et. all, 2010; Song, 2006; Bruton, 2011). CBI has also been widely applied in various language programs, ranging from language programs in vocational schools, immersion programs, to ESP programs and their effectiveness has been proven (Demirdirek, 2010; Huang, 2011; Stoller, 2004; Song, 2006). Proving that the research gained a positive result in Indonesian setting; this is the time for Indonesia to run all of the ESP curriculum based on CBI. Moreover, research on the long-term effects of the CBI program by Song (2016) shows that students not only have higher graduation scores in language but also have academic achievements that are much higher than regular program students. Further research need to be conducted to the long-term effect of CBI in ESP setting of Universities in Indonesia, in order to see the trend of improvement in students' achievement in term of language skills and subject-knowledge.

CONCLUSION
The question guiding this research was is there any difference influence between CBI

learning model and conventional learning model to the aerobics instructor performance in English? The result of the research showed that for the students with the same level of English proficiency, there is a significant difference between CBI method and conventional method to the students' performance in Aerobic English. Students who were taught using CBI method showed higher performance compare to those of conventional method. Therefore, teaching English and any subject knowledge using CBI method are highly suggested.

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