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#216 (1570589383) : Effectiveness of Project-Based Learning (PjBL)

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Effectiveness of Project-Based Learning (PjBL)

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Keywords

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Abstract

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Effectiveness of Project-Based Learning (PjBL)

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Abstract—This research was aimed at investigating effectiveness of project-based learning toward students' achievement. Two groups of student majoring in accounting were involved in the research. The groups of students who had same English level of ability according to their English lecturer were given a three-session English learning with project-based learning (PjBL) approach. The experiment group was given PjBL model and the control group was given conventional learning model. Upon learning, students of both groups were assigned to make a dialog with members of their group. Their performance in front of class was assessed by using assessment rubric developed in prior. In addition, they were assigned to make written complaint. Assessment result of both group were then analyzed to see difference of both group competence, how much percent was the increase.

Keywords—students' comprehension, project-based learning, EFL, speaking, writing test

I. INTRODUCTION

Conventional teaching model, i.e. the one which has been implemented in Accounting Department Politeknik Negeri Bali (PNB), involves some activities, such as drilling, reading and comprehension, listening dialog through tape, writing, and grammar-test. These types of activity, although not entirely and frequently implemented, have been filling almost the entire learning of the English for Accounting. This research intended to measure if model of Project-Based Learning (PjBL) was visible toward the subject teaching.

Nguyen claimed, PjBL is an innovative learning approach [1]. Besides, it provides students with problem to solve and is carried out in in form of a project [2], [3], [4]. This model requires that students use their prior knowledge so that they can make concept on their own [5]. In its implementation, PjBL can be integrated with task which provides a concrete learning activity [6], [7]. The learning model is considered natural as it make use authentic materials and real life world [8], [9]. In addition, PjBL prioritizes learning experience as students are involved in executing project to reach goal [10]. The activities believed to be meaningful as it requires and involves students' creativity in entire learning activities, such as explore information [11], discussing, writing report, presenting result [12]. Apart from those, students are also invited to activate their communication skill [13], [14] as well as improving their learning skill autonomously [15].

There have been some studies on effectiveness of PjBL model to improve students' English competence. Those studies have been carried out in many parts of the world where learning English has been undertaken either as a second language or foreign language. Imtiaz and Asif [15] stated that PjBL was very effective to improve students' English competence in Pakistan. Involving research participants of university students of English, they found the model effective. Research of same purpose and participants was also undertaken in Thailand [16], in Iraq [17], and in Indonesia [18]. Apart from improving cognitive, such as speaking and writing English text, PjBL was also able to improve other supporting skills, such as enthusiasm, sense of confidence, creativity, ability to collaborate with senior high school students in Bali [19], emotional skill, learning ability, as well as students' comfort [20], students' autonomous learning and integrated curriculum development in Vietnam [21], [22], students' critical thinking [23], and improving students' vocabulary mastery [24]. Apart from these, research on PjBL was visible to contribute to concepts [25], development of students' skill [26], [27], [28], principles of PjBL execution [29], and effectiveness of PjBL to improve students' academic achievement [30].

There are some principles based on which PjBL underlies. One concept which strongly underlies this model is 'pragmatism', which applies knowledge in daily life practically. This model bridges knowledge with its context [31], [32], [33]. Other concept as its basis is 'constructivism' [35] that reflects knowledge in order for students to develop their own concepts. In addition, concept of 'action learning, action science, action research, and community of practice' [34] is also an integral basis to support PjBL. The concepts successfully realized learning goal of the model.

Previous research on PjBL undertaken by scholars claimed some advantages. First, it enabled learners to improve their English language skill, sense of self-confidence, critical thinking, as well as students' positive and analytical attitude [36], [37], [38], [39]. Other advantages were stated that PjBL empowered students' skill on doing research and investigation as well as made the learning more meaningful [40], [41] as they are reinforced to use the knowledge and skill in daily life. PjBL also allowed students chances to learn knowledge autonomously [42]; and working collaboratively to share their different perspective and reflected in a group work [43], [44]. As explained by the 'pragmatism' group in prior, PjBL could provide authentic

activities which connect knowledge with real life situation. This model was found effective and motivating as it implemented a 'progress-based' assessment method, a method which assess students' entire works so that they could completed and did endeavor in every single situation [7]. This model was also found very supportive to teachers' obsession to provide students with soft skill apart from hard skills, such as improving students' learning motivation, increasing willingness and decreasing stress, and attracts students to learn harder [45], [46]; and fasten their 'learning to learn' [47].

A part from those advantages, negative sights seemed to be abundant claimed to this model. Becket [48] observed students' tendency to avoid learning topics. Learning should be focused on the language as it is a language class. As former learning used to be undertaken formally where students had to work individually, PjBL concept of group work was demanding for them [49]. In addition, learning language formally in class which was based on curriculum was intended to introduce many a lot topics or language forms that one unit of lesson was learned in a single session, learning a topic in relatively bigger number of session or longer hours made students bored. Students did not get used to study in class where teachers functioned as a facilitator or coordinator only better than as a teacher [20]. Toward the weakness of PjBL, some research were carried out by scholars and finally proposed a solution to it. Backet and Slatar [50] recommended that the learning shall be realized to be an explicit English language acquisition. Students should be introduced to language learning more than knowledge or topic learning. Students' progress should be frequently observed by using check list or questionnaire [51], thus students should be given assessment rubric to be discussed with teachers prior or during the learning [41]. Moreover, pre-teaching has to be given to improve their English ability prior to doing project [52]. Thus, in order to make PjBL more effective, some factors and principles shall be given attention prior its implementation, such as 'centrality, driving question, constructive investigation, autonomy, and realism' [2]. Other recommendation to achieve its effectiveness was on curriculum adjustment, project duration realization, skill collaboration, context and real world connection, and assessment and class management [1]. Students should also be introduced with some strategies in prior, such as 'decision-making, critical reflection, independent action, multiple skills, process-oriented, problem solving, self-reflection, and collaboration with environment' [36], [50], [42].

The advantages and disadvantages claimed were like a pendulum swing, they were inspiring and attractive to be observed further. Thus, different perspectives should be utilized to find other possibilities of PjBL. The indecisive opinion triggered that this replication research was undertaken. This research was done for a specific purpose that was to recognize factors that could trigger students' comprehension of the project topic.

II. METHOD

The qualitative study tried to investigate effectiveness of PjBL. Two groups of semester-six-student majoring in

Accounting were involved as research participant. Each group contained twenty nine students who had same level of English ability based on their English lecturer. The participants were divided into two groups, one experiment group and one control group. Both groups were given a three-session English learning discussing topic of 'making complaint'. The experiment group was given PjBL approach and the control group was given English learning with conventional method.

PjBL was used on the basis of pragmatism factor, constructivism, and action learning, action science, action research, and community of practice'. These factors were driving students to learn, particularly 'decision-making, critical reflection, independent action, multiple skills, process-oriented, problem solving, self-reflection and critical thinking with group work, collaborative, autonomous learning. There were five stages done in English learning with PjBL model, such as preparation, realization, presentation, and evaluation [23]. In 'preparation' stage, students were invited to select theme, to determine education goal, to select final product, to create general structure of project, to manage a plan, to form team, and to produce final written logical framework. Stage of 'realization' as the second step included gathering information, processing and analyzing information gathered, as well as determining language demand for final activity. Stage of 'presentation' was focusing on how presentation was managed. In this case, students presented their groups' final project result. And the last step was 'evaluation'. In this case, instructor evaluated all groups' oral presentation and written project result. Apart from using performance test, students' work and activities were observed from the beginning until the end of project in form of portfolio. As there were three sessions of the whole learning, preparation was discussed in the first session or meeting, realization stage was done in second session or meeting, presentation phase and evaluation were done in third meeting. As performance test assessed students' English performance, assessment tool used was that which contains two main aspects, accuracy and 'fluency'. Fluency covered three aspect, such as 'fluency', 'pronunciation', and 'comprehension', while 'accuracy' covers 'grammar' and 'complexity' [53]. The assessment tools were used to score students' presentation. In this test, each student was given five aspects of score, they were fluency, pronunciation, comprehension, grammar and complexity. Writing test was also given to participant upon the project realization. The test required them to make written complaint to any company on their own. Students were asked to write how they make appropriate written complaint. Result of both tests were then analyzed. Both test result (result of control and experiment group) were compared and analyzed qualitatively. Result of analysis were mostly reported with formal method in form of narration, even though they were tables used to support the information.

III. RESULT AND DISCUSSION

Test results of both groups are showed beneath. It is clearly drawn that control group's total score was 270. Their each aspect score ranged from 49 to 60. Of the five aspects, fluency with score 60 and comprehension with score 59 were considered to be their best skills. And aspect of pronunciation was their second best skill with score 52. Their