

## **Building The Students of 21<sup>st</sup> learning Century Skill Using PBL on Millennial Generation**

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### **Abstract**

Project-based learning (PBL) was a well-known method and technique to enhance and support the program of 21<sup>st</sup> learning century in curriculum 2013. Therefore, competences, goals and skills are in line with the main purpose of the application of curriculum 2013 which implementation in Indonesia was agreed by Indonesia Ministry of Education. The concept of making a poster and classification of “Save Indonesia” as the theme of the poster was used to pose a problem to Secondary School students in Indonesia. Though, the topic was important to relate the standard competences of curriculum 2013 to the use of the PBL in learning. Qualitative data instruments such as observation, open-ended questions, in-depth interview and field notes are used to collect data from participants in their natural settings. The students were put in some groups and given a project to solve by solving the problem using appropriate language used based on the indicator of the competences.

**Keywords:** 21<sup>st</sup> learning century skill, low-achieving pupils, PBL (project-based learning), millennial generation

### **INTRODUCTION**

Project-based learning (PBL) is a well-known method for imparting thinking competencies and creating flexible learning environments. Barak, (2002) states that educational system usually directs talented pupils to extra-curricular programs in order to foster learning and develop thinking competencies. To invite the students to have a good critical thinking skill, the methodology and technique of teaching should be equal. As the National Curriculum had stated that the teacher

should be able to create classroom that is ready to face challenges in the competitive era in the future. There are scores of thinking skills that the students are asked to be able to; Collaborative, Communicative, Critical Thinker and Connection.

Curriculum 2013 has two major of learning goals. There are character building and intellectual. It is stated by Anies Baswedan as the Ministry of Education (2017) that “The students at the moment should have the ability to adapt and face the challenges and they also have to be ready to keep up their challenges in their future”. It defines that the challenges of the students’ era in the future should be prepared and the teacher as the facilitator should know it. The 21<sup>st</sup> learning century is core major of the basic skill of education in all over the world. “This is a story about ... whether an entire generation of kids will fail to Make the grade in the global economy because they can’t think their way through abstract problems, work in teams, distinguish good information from bad, or speak a language other than [their own].” Curriculum 2013 has the same thought and ideology in preparing the students to be ready to face the challenges and acquire the new skills. From that issue, the researcher is interested to conduct a research on PBL learning as the method and technique in 2013 Curriculum.

According to Mc Coog (2008) that century learners must possess both self-direction and an ability to collaborate with individuals, groups, and machines. The ability to adapt quickly and being able compete with others are required for the students in the 21<sup>st</sup> century. It shows from how the students are expected to be communicative, proactive and being a leader that is able to solve the problems and offer the solution. Those skills are supposed to be a part of the classroom learning process. Therefore, the teachers need to prepare the students’ skills and abilities to keep up in their era.

The students in the 21<sup>st</sup> century have grown up in a fast-paced digital world, and easily tune out of the traditional lecture based classroom. Researching, communicating and even online job application across the world via computer or cell phone is a snap for them. It was stated by Burke (2009) that Social networking sites (SNS) are only as good as the content their users share. The teachers’ mindset of teaching methodology also needs to change from how they are taught. The

students from millennial era have very different generation. The way they act and react to the situation and surrounding is totally different. They have unique characteristics whereas the teacher should adapt and update to their changing and interest. As the result, the teacher teaching methodology and the students' character should be balanced.

This challenge schools to transform and form new ideas in ways that will enable and offer the students to acquire the creative thinking, flexible problem solving, collaboration and innovative skills they will need to be successful in work and life. The curriculum of the school should cover the students' need in the future. Therefore, Olivia (2009) stated that "Curriculum both reflects and is a product of its time. The curriculum responds to, and is changed by, factors such as social forces, philosophical positions, psychological principles, accumulating knowledge, and educational leadership at its moment in history." 2013 Curriculum and basic competence of 21<sup>st</sup> learning century are a part of unity so that its implementation on the Millennial Generation cannot be separated. These are the Four "Cs" of the basic teaching and planning to be implemented:

C1 Problem Solving Skill, Haller, et al. (2007) believed that The students will understand and do reflecting what they have learned in classroom as these processes lead to higher order thinking in solving the problems as depicted in the model of critical thinking and problem solving. It means that the ability of the students in analyzing the information and determining the relevance references are included in the process of critical thinking skill.

C2 Critical Thinking, thinking out of the box of the students are required at the moment. The students have to think different like other people think. It is stated that Creative thinking is the ability to think differently. De Bono (2007) found that the creative problem-solving exercise can improve creative thinking skills. Creative thinker of the students will create a great problem solver.

C3 Communicative, The researcher believed that successful teaching and learning is coming from well preparation teacher from building a good communication among teacher and students and students with other students. It is added by Tortor (2006) that communication Skills is the foundation of language learning from which effective speaking, writing and reading emerge and it is the bedrock of human language learning.

C4 Creativity, Torrance (1981) stated creativity as the process to become sensitive to problems, deices and lacks of knowledge, searching for solutions, making previsions, and formulating hypothesis to respond to those deices; testing and retesting hypothesis and, finally, the communication of the results accomplished. To sense sensitivity is important to the students.

Project Based Learning (PBL), A research had done by Bell (2010) resumed that PBL is a key strategy for creating independent thinkers and learners. Children solve real-world problems by designing their own inquiries, planning their learning, organizing their research, and implementing a multitude of learning strategies. Students flourish under this child driven, motivating approach to learning and gain valuable skills that will build a strong foundation for their future in our global economy. The previous researcher believed that 21<sup>st</sup> learning Century is a skill for future. The students will become independent learner that is capable to solve a real world problem. Project based learning tends to emphasis on a teamwork.

Working collaboratively and communicatively will improve the students' soft skill for the 21<sup>st</sup> learning century. Moreover, Bell 2010 stated that the active learning process of PBL takes students' various learning styles and preferences into account. The students use a range of tools and resources to conduct their research. They also choose individual ways to demonstrate their learning in their final product.

## RESEARCH METHOD

In this research, the researcher created a class project for the students. The project was done in a group. As a big number of the students in the classroom, the methodology of selecting the students into some groups are using the instruments by Bennet and Dunne's key roles:

Table 1: Bennet and Dunne's key roles

<b>Role in co-operative group</b>	<b>Function</b>
Manager	Keeps the group on task, ensure contributions from all and guide discussion or activity
Encourager	Encourages speakers and to promote tolerance within the group

Record keeper/Data gatherer	Takes notes or summarize ideas, clarifies ideas reads aloud from some materials when appropriate
Spokesperson/Reporter	Act as spokesperson when reporting to the class
Secretary	Gathers/distributes resources that the group may need keeps notes on the group process (how well individuals in the
Evaluator	group are working together) to lead any evaluation at the end of the session

The teachers assigned all groups (The students are set in the group that has been arranged by the Benner and Dunne's key roles model in group work by the help of the class teacher) to solve problem of the global warming and pollution in Indonesia. The teacher also offered the groups a question "Can you think the solution to save and help the earth from global warming and pollution in Indonesia?" The project was done in steps:

1. Reading the article of the topic given the teacher about causes and effects of global warming and pollution in Indonesia.
2. Highlighting and eliminating the problems found in the article
3. Discussing problems by supporting theory and sources to solve the problems
4. Arranging problems and solution as the result of group discussion
5. Present the result of a discussion in class by using a carton

The qualitative approach is used in this study. Qualitative data instruments such as observation, open-ended questions, in-depth interview and field notes are used to collect data from participants in their natural settings. Hence, De Vaus (2014) qualitative research approach provides abundant data about real life people and.

The method employed full data descriptions of the phenomenon in natural setting and it will create richer understanding of students' behavior changes. As Helle, at al. (2006) argues project work is a collaborative form of learning as all participants need to contribute to the shared outcome and has elements of experiential learning with active reflection and conscious engagement rather than passive experiences being essential. The researcher formulated a research question "does project based learning (PBL) succeed to build the students with a 21<sup>st</sup> learning century skills?"

The researcher chooses a judgement sampling. It is also known as a purposive sampling as the researcher will select the most effective group of sample to answer the research question. Therefore, the students' character, behaviors and cognitive skill are included in the selection of the sample. The researcher put the sample into six groups. Each of the group has different kind of students' characters and cognitive skill based on Bennet and Dunne's key roles. The students are from SMPN 07 Tangerang from class 7A.

## **RESEARCH AND DISCUSSION**

In the result of the interview and observation, the research found a significant impact to the students using PBL in their learning activities. After the four meeting and sessions in the project based learning, it was found the enthusiasm of learning was successfully presented.

C1 Cognitive skill achievement and problem solving, the researcher found a particular events and behavior directly in the field observations. For example: the students were capable of proposing a new problem solving in the group discussion. Besides, the students received a lot of input and knowledge from surroundings. Resources, data and knowledge were structured into a real life learning experiences. Knowledge was constructed by the students and it bring into a contextual learning achievement.

C2 Critical thinking, the students solved multiple problems presented by the teacher. They connected the problems to the theories and try to find the cause and effect of the problem by relating the real example and causes that happened in the

real world. One of the groups secretary said "We really need to find a valid resource about what had happened to our earth" their curiosity brings the learning into an autonomous learning environment moreover, the students are becoming the students centered learning.

C3 Communicative, one of the students was interviewed by the research just after the discussion done. He said that "The class activities were great; I can play a role in the group as the manager and take a responsibility of the team. It gave me an experience to be responsible of my team." the other students were also

said that "A spokesman is good. I can explore my speaking ability in the presentation session." The explanation gave a clear example that working in a group build effective communication because they have the same vision and mission. It also helps their braveness and confidence during the communication. They are engaged in an active discussion and produce a significant change for their learning experiences.

C4 Creativity, based on the free observation, all group presented a very creative way of delivering a message to fight global warming and air pollution. Some of them are having a little campaign about the effect that might happen to Indonesia if government or people in charge do not stop global warming and air pollution in Indonesia. They also posted some of their article on a social media to have a wider viewer.

## **CONCLUSION**

From the findings, the researcher can draw the following conclusion: These findings answer the research questions that Project Based Learning (PBL) build the students' soft skill (Problem solving, critical thinking, communicative and creativity) in 21<sup>st</sup> learning century. It facilitates the learning into a higher level of learning environment. It also leads to an active learning whereas the students are involved, engaged and well-contributed in the learning process.

The role model of group task was successfully managed and the role model of each group presented that each student was on-task, thoroughly joined in a collaboration of doing a project as well as doing a problem to solve in a team. Moreover, it gave the learning atmosphere into a students centered leaning approach. It also improved academic performance.

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