

The Meaning of Project-Based Learning among B'Laan High School Students: A Phenomenological Study

Cherry Mae F. Tiburcio¹, Lyndon A. Quines², Eugenio S. Guhao, Jr.³

¹&³University of Mindanao, Professional Schools, Davao City, Philippines

²Department of Education, Davao del Sur, Philippines

¹chermaintiburcio@gmail.com

²lyndon.quines@umindanao.edu.ph

³eugene_guhao@gmail.com

Abstract-*The purpose of this phenomenological study was to investigate the realities behind the Project-Based Learning in the perspective of Blaen High School students, their coping mechanisms to address the challenges in the project-based learning, and their insights that were shared to their peers and to the academe in general. This qualitative phenomenological study was participated by 17 students from Pongoleel Integrated School in the Division of Sarangani for School Year 2015-2016. There were in-depth interview and focused group discussions conducted. The result of the interview generated themes that were transcribed, translated, coded, and described. As regards to the meaning of project-based learning, the themes that were generated were as follows: offshoot of learning, grade augmentation, added financial burden and time demand. While for the coping mechanism of students, the themes that were generated: prioritization, resourcefulness and creativity, teamwork and collaboration, parental support, industry and perseverance. As to their insights, the themes included: give it ample time, give it considerate effort, make it affordable, make it relevant and give distinct guidelines.*

Keywords- *educational management; project-based learning, B'laan high school students; phenomenological study, Philippines*

1. INTRODUCTION

B'laan students face countless challenges in their lives. In the area where I taught, many of them struggle in their educational journey. Unfortunately, some of them lost interest to study and tend to work for a living. As their teacher, there are suggested strategies that could help them achieve and learn more. Aside from the truth that they belong to the Philippines' indigenous people, project-based learning set by the Department of Education may impact their perception on learning and encourage them to actually engage in skills for global competitiveness reflected in the current K-12 curriculum (Gardner, 2007[23]; Reimers, 2009[49]; Stewart, 2007)[54].

Nowadays, B'laan students as well as other Filipino students tend to drop-out in school and enter into early marriage or simply lose interest in their studies. It was revealed in a study that low achievement, student boredom, and high dropout rates have been associated with student disengagement. The 21st century skills are commonly related to project-based learning. These will allow students to experience meaningful and more appropriate methods of learning and to develop better skills and maximize student engagement (Bell, 2010[2]; Bradford, 2005[7]; Fredricks&McColskey, 2011)[22].

In some parts of the world, Nigerian elementary schools reported that classes with limited group activities and projects, the students experienced boredom and

detachment from the learning. Thus, implementing project-based learning involves a vivid transition from traditional way of teaching to a more skills-oriented and inclusive modes of teaching and learning (Bender, 2012[3]; Mora, 2011)[42].

Moreover, there is a study in the Philippines that indicates that Project Based Learning (PBL) is an effective approach to enhance more the student learning. This project gives them many outcomes and improves their skills. This gives a fascinating background to make their minds active (Dasig, Gatpandan, &Gatpandan, 2014)[18]. However, in a study that deals with B'laan students, many of them have difficulty in understanding what is taught in class that cause them lose interest and avoid learning. Most of them faced academic challenges that lead them to early marriages. They experienced difficulty in understanding different subject matters such as English, Science, Math, Technology and Livelihood Education, Social Studies, etc., resulting to failing grades and the decision to drop from school because of their attitude towards learning (Albona, 2015)[1].

Hence, project-based learning (PBL) is quite relevant because it requires students to take a dynamic role in determining the concepts and contents, and improve their 21st century skills in demonstrating their perseverance in learning. They apply what they learn and PBL helps them decide on what career they select, technology to apply, their participation, community services and significance

of content (Blumenfeld et al; 1991[6]; Buck Institute for Education, 2012)[11].

As a matter of fact, no qualitative and phenomenological research is done specifically on project-based learning among B'laan high school students. This study is maybe an opportunity to deepen the understanding on what is project-based learning. Further, this study may provide an overview for educators in the context of project-based learning. Giving significance to the experience of B'laan students, their ideas and aspirations may give a background on the significance of project-based learning in teaching. These ideas may provide points of view on the concept they have and how they could improve this strategy to be more effective and efficient in the field of teaching.

1.1 Purpose of the Study

The purpose of this qualitative phenomenological study was to describe the experiences with Project-Based Learning in the perspective of B'laan high school students, their coping mechanisms to address the challenges in the project-based learning and uncover insights that were shared with their peers and the academe in general. It focuses on the experiences of participants that may affect their academic performance. This study is gauged with the intent of gaining a clearer understanding between projects-based learning and the experiences of students in the classroom.

Specifically, this phenomenological study aimed to document the engagement in school activities and community affairs of the participants, their desires and ambitions in life, and the coping mechanisms that they employed in accomplishing their tasks and responsibilities. It was also the intention of the study to listen and gain insights from the stories of participants as they share their experiences particularly on how they were able to cope with their projects.

1.2 Theoretical Lens

This study is viewed from the lens of Dewey (1902)[19] as he concluded that PBL focused on experience. This was grounded on two principles which were continuity and interaction. Continuity implies that all experiences affect the future while interaction deals with internal circumstances of an experience. These principles should be imparted through activities and practical experience.

Moreover, this was supported by Kilpatrick (1918)[33] who is recognized as the first to advocate the use of projects in the classroom. He strongly believed in active, experiential learning, and assumed that incorporating student-driven projects was a way to accomplish such learning and recognized the word was new to educational jargon. He concluded that project is the newest form of innovation that opens the door for the concepts in education. He acknowledged the benefits of experimental, student-directed learning and planned various field trips, laboratory investigations and interdisciplinary activities.

Relatively, students play an active and social role in learning. Teacher and student roles are shifted, with teachers working alongside their students to facilitate meaning and construct knowledge through their experiences (Zhou & Brown, 2015)[60]. Through project-based learning, pupils learn to be self-reliant through goal-setting, planning, and organization; they develop collaboration skills through social learning; they also become intrinsically motivated by being encouraged to exercise an element of choice while learning at their own level (Bell, 2010)[2].

Hence, in the United States and across the world, more educators are interested in project-based learning. PBL is a rigorous, relevant, and engaging instructional model that supports authentic inquiry and autonomous learning for students (Buck Institute for Education, 2014)[10].

The above mentioned theories were used in order to better understand the concept of project-based learning. It was anchored on the different models that help us determine the meaning of PBL among learners and teachers who supported PBL.

1.3 Delimitations and Limitations of the Study

The study involved high school students who are in Grade 9 of Pongoleel Integrated School, Sarangani Division, Region XII. The data were gathered from seven students who went through in-depth interviews and ten students through the focused group discussion. The study was dependent on the responses of the informants and participants as they described and expressed their experiences by answering the interview questions. Informants and participants had different perceptions on the project. Since parental permission was necessary to gain access to informants and participants, parents' consent were secured. This might have affected their responses because of the concerns that parents, teachers and the community would find out the inputs they shared in the interviews. To avoid any negative perception that may limit them to give full details in answer to research questions, informants and participants were guaranteed that their responses would be taken with utmost ethical consideration.

The study was based on open-ended questions through one-on-one interviews and focused group discussion. Due to the fact that there were only seven informants for the in-depth interviews and ten participants for the focused group discussion, the results of the investigation may never be generalized in other divisions and regions of the country.

2 REVIEW OF RELATED LITERATURE

This section deals with the literature and readings related to the subject of the study. The sources of information were books, journals and internet articles and studies related to project-based learning.

2.1 Meaning of Project-Based Learning

There are several descriptions of project-based Learning and it can be better understood in many ways. Some of the studies concluded it as a constructivist instructional learning pedagogy. It is deeply embedded in Dewey's (1938) concept of learning by doing. That is when a student-centered and student-driven teacher facilitates approach to learning (Bell, 2010[2]; Hernandez-Ramos & De la Paz, 2009[30]; Mioduser&Betzer, 2007; Ravitz, 2010).

PBL in classroom setting occurs when students work independently or as a team in order to meet the standard in mastering PBL. They practice hands-on projects to engross students and instill curriculum concepts. With project-based learning, the students discover actual-world problems and encounter a new perspective that involves skills for competency in a constantly evolving curriculum (Edutopia, 2013).

At the outset, PBL's main goal is to lead student in an open-ended authentic project that emphasizes the growth of knowledge and core competency skills like collaboration, creativity, and critical thinking. Relatively, project-based-learning is an instructional method that gives authentic learning tasks that are inclined to the individual interests of learners. However, there are various descriptions of project-based learning and its components that are lashing questions or problems that need intervention and thorough understanding (Larmer, 2014).

In another vein, other definition of Project-Based Learning imparts approaches useful for success in the 21st century compared to the traditional model. Certainly, PBL is distinguished from traditional models, as it drives students in their own learning through inquiry. They work collaboratively to research and produce projects that reflect their knowledge. More than just learning by doing, the students gain skills that equip them to be global members of a productive workforce (Bell, 2010[2]; Barron & Darling-Hammond, 2008; McGrath, 2004).

Indeed, project-based learning includes mostly a diverse perception. Teachers are requested to transfer the emphasis of learning in the obverse of the classroom. Students move from their rows and groups and they are provided with questions and options in doing things to investigate and learn. Project-based learning incorporates applying and determining the lesson. The learners know the information and the important curriculum, and apply it through problem-solving and producing relevant output. They utilize new technologies to achieve a worthy and cooperative outcome. PBL rarely focus on curriculum alone, but also on students' education. It is internationally mandated to promote resiliency, empathy, creativity, drive and passion among students. It can never be learned from books (Bender, 2012[3]; Larmer&Mergendoller, 2010; Markham, Larmer&Ravitz, 2003; & Buck Institute for Education, 2012)[11].

Thus, there is more knowledge gained from PBL instruction compared to traditional method of instruction

after they had compared the pretest and posttest of a group. They found out the relevance of PBL among the students, administrators and teachers that its instruction is effective PBL has a lot of factors such as demonstrating knowledge and skills by output, necessary questioning for learning, time that depends on project, accuracy and corresponding standards, stimulating learners' will, application of learning that develop their knowledge and skills, and daring them to present an excellent and proficient work. PBL is a precise route aiming for learning (Hernandez- Ramos & De La Paz, 2009[30]; Lenz, 2015).

2.2 Coping Mechanisms of Students in Project-Based Learning

The United Nations Declaration on Rights of the Indigenous Peoples (UNDRIP) affirms the indigenous peoples' rights to cultural integrity, education, health, and political participation are protected. The UNDRIP also stands for the recognition of indigenous peoples' rights to their lands and natural resources, and the observation of their treaty rights. The UN Declaration requires countries to consult with indigenous peoples with the goal of obtaining their consent on matters which concern them. The Philippines is one of the signatories of UNDRIP (United Nations, 2007).

The indigenous people (IP) in the Philippines comprise 15% of the total population and majority is in Mindanao which is 61% of all IP. There are 112 ethno-linguistic groups in the country. In the 1987 Philippine constitution, it was promulgated in Section 17, Article XIV that the state shall recognize, respect, and protects the rights of indigenous cultures, traditions, and institutions. It shall consider these rights in the formulation of national plans and policies. Under the Indigenous Peoples Republic Act of 1997 (IPRA), indigenous people is a group of people or homogenous societies identified by self-ascription and ascription by others, who have continuously lived as organized community on communally bounded and defined territory, and who have, under claims of ownership since time immemorial, occupied, possessed and utilized such territories, sharing common bonds of language, customs, traditions and other distinctive cultural traits, or who have, through resistance to political, social and cultural inroads of colonization, non-indigenous religions and cultures, became historically differentiated from the majority of Filipinos (National Commission in Indigenous People, 2012).

In PBL, the child is involved. The learning performances come into diverse part. First, academic achievement is used to measure accomplishment. It follows evaluation, skills building, problem-solving and teacher can also assess the efficiency of project-based learning. Student engagement in the learning process is quite pivotal in acquiring and learning skills. 21st Century Skills include five broad classifications; information, media, and technology skills; learning and innovation skills; life and career skills; global awareness; and financial, health,

civic, and environmental literacy (Burton, Price, & Best, 2014; Thomas, 2000; The Partnership for 21st Century Skills, 2009).

There are lists of possible factors that concern students in PBL. This includes time and finances. Projects often take longer time than exams or quizzes. In addition, there are difficulties that teachers experience in incorporating Project-Based Learning into district guidelines and classroom management. In order for students to work productively, teachers must balance the need to allow students to work on their own with the need to maintain order (Thomas, 2011).

Certainly, they identified that trained facilitators must look into the issue of lack of available resources such as materials, equipment and teaching/project space. In a recent review of PBL in teaching sustainability further resources for supporting group work were needed. Also, PBL instruction should be given an extended period. Students who spend more time on task are more successful with problem-solving, had increased confidence and capacity for self-directed learning and increased retention, comprehension and application skills. It is noted that many interviewees identified PBL as an activity that demands significant amount of time to both design and support the desired output (Brundiers&Wiek, 2013[9]; Graham, 2010[25]; Wirkala& Kuhn, 2011)[58]. Definitely, it is natural to ask your mom or dad for help on a big project. It is fine if they give you advice and encouragement but may be less advisable for them to do the actual work for their child. Family influence can take on many different forms and have varying degrees of strength. Sources of motivation can include parents, grandparents, siblings, and other family members (Dowshen, 2013[20];Levpuscek & Zupancic, 2009)[36].

Students and teachers are inclined into PBL because it has the potential to increase positive attitudes about learning, and lends itself to deeper learning, higher level thinking and increased capacity to apply the knowledge learned. Negative effects include difficulties in implementation. Students also find aspects of PBL as difficult and challenging. Planning, management, and assessment also take time and effort. Evidence of challenges that students face difficulty in time management as well as efficient use of resources is also present in implementation of PBL. Meanwhile, adult learners are often goal-directed and motivated to apply learning in solving real-life problems such as those in their professional contexts (Knowles, Holton & Swanson, 2012).

Typically, learners are more engaged in PBL such as in solving real-life problems that can be a particularly motivating and useful as an instructional method. It encourages and enables knowledge and skill application for adult learners. Graduate students' levels of knowledge construction during asynchronous online discussions with respect to engagement in project-based learning showed that a higher level of knowledge construction activities were more likely to occur during project-based learning

when compared to non-project-based learning (Koh, et al., 2010).

Henceforth, there is a study that apprehended that some students enjoyed their projects than having a test or quiz. Doing things with reward motivated student to work hard in doing projects. Project-based learning has the reputation to increase academic results (Parker et al, 2013[45]; Collier, 2012)[13].

2.3 Project-based Learning as Part of Curriculum

The Project-based Learning as part of the curriculum allows learners to experience fun and learn at the same time without affecting their achievement in school. It also improves them especially in their perception of college. They discover many proponents of collaboration that bring changes in their ability. They confirmed that project-based learning increases self-effectiveness of students (Schaffer, Chen, Zhu & Oakes, 2012).

Learners in PBL are provided with a chance to learn to communicate and express with emphasis in realistic problem. Additionally, they have a chance to react and modify as well as focus in information technology to improve project-based learning. This can increase the learner's inspiration and contentment in processing learning (Bender, 2012; Larmer & Mergendoller, 2010). Besides, PBL approach directs the curriculum and instruction of an entire course and not just appears in a single time or session. Project-based-learning is an instructional method that gives authentic learning tasks that are inclined to the individual interests of learners. However, there are various descriptions of project-based learning and its components that are requiring more effort on the part of both the learner and the teacher (Grant, 2011; Parker et al, 2013).

In fact, Project work was optional, students volunteered to take part in order to increase their skills, contacts and experience. Creativity is collaborative and includes a balance of participation, recognition, and collaboration. To further express the impact of change he stated, that in the 20th century, we were identified by what we owned and in the 21st century, we are defined by how we shared (Leadbeater, 2009[35];Otake et al., 2009)[44].

Student activity revolves around a complex series of interactions between team members over time and draws on a range of key transferable skills such as communication, planning and team working. The students who worked in collaborative PBL groups learned more than their counterparts who received whole group instruction. This evidence suggests that PBL supports the development of the 21st century skill of collaboration. In doing projects, they appreciated teamwork and collaboration, specifically in group projects (Hanney&Savin- Baden, 2013[29]; Hernandez-Ramos & De La Paz, 2009)[30].

In this view, the teacher is the leader in the education process. A leader is someone who has the vision for the future and a way of convincing others to work towards

this goal. What a good and honest leader needs is not only the vision, but also realistic and rational understanding of what it takes to accomplish) Teachers should have a clear understanding of the strategy being used. They should also consider whether or not resources are available to keep students motivated and within their development stage. A well-designed PBL approach should teach students the important content standards, concepts, and in-depth understandings that are fundamental to school subject areas and academic disciplines. PBL must focus on success skills such as critical thinking, self-regulation, and collaboration (Dakowsa, 2009[17]; Larmer, Mergendoller & Boss, 2015[34]; Robins, 2005)[50].

On the other hand, project-based learning differs from other approach as it seeks to solve central problems through content skills. In fact, project-based learning engages students in skills that are necessary in the modern workplace. These are also called the “habits of mind”. These include skills in project-based learning such as critical thinking, flexibility, ability to work in groups, and creative thinking. The project goals and the standards identify the distinct link between the subject and the project. The skills listed above provide an opportunity to cross disciplines through the project (Bell, 2010[2]; Boss, 2012; Larmer & Mergendoller, 2010; Bender, 2012[3]; Solomon, 2003).

The above literatures discussed in this chapter served as the foundation for this study through the discussion on project-based learning among high school students and its relevance in the curriculum and how project-based learning contributed to the learners of 21st century.

3 METHODOLOGY

3.1 Research Design

In this research study, I applied descriptive qualitative method particularly phenomenology. Phenomenology involves the natural realm and ideas of individual in a situation. It revives the experiences of the B’laan students that describes their thoughts in project-based learning through extensive discussions (Campbell, 2011[12]; Creswell, 2007[15]; Speziale & Carpenter, 2007[53]; Willis, 2007)[57].

Using phenomenological approach which is a fundamental tool helped me attain a vibrant understanding on individual experiences. It deals with their thoughts, actions and insights from project-based learning. Phenomenology provides precise information of their experiences and describes them according to the situation they endured. This has been an ideal tool for this research and discovery-oriented method which led the interviewees to deeply express their feelings and perspective on the subject and understand the social and psychological phenomena from the perspectives of people involved (Blankinship, 2010)[4].

To avoid unfavorable result and maintain precision of my study, I remained vigilant and aware of my own views

and my pre-existing beliefs on the study and learned to set aside my own prior knowledge and experiences to fully capture the experiences being told by the participants with an open mind. This qualitative study made me determine their experiences on how things happened, how they interpreted project-based learning and how they used the significance of PBL in their daily lives.

While conducting the study, I allowed the participants to naturally express and communicate so I would also perceive their experiences and insights in a spontaneous way. Hence, the essence of the phenomena was allowed to surface. The participants’ own words were used to analyze the information and phenomenological description. The method examined and scrutinized the ideas of B’laan high school students on how they viewed themselves and the world around them through PBL as integrated in the curriculum. As a researcher, I separated my own understanding and to give way to the participants’ own experiences and insights.

I utilized a phenomenological approach which is helpful in understanding the concerns of the study. In my study, I allowed the voices of students to be and attempted to expose their assumptions and challenges they faced. It focused on what the informants have in common in their experiences of the phenomenon. My main goal was to identify the theme of my participants and transform these experiences to understand the entire the phenomena and its nature. In understanding this phenomenon, I included the various realities experienced by the participants as well as their perspectives.

My sources of qualitative data comprised interviews, documents, and observations. There are two ways of collecting data: the traditional interview and the written account of the experience that shows the information about the living experience of a phenomenon. Using definite methodologies such as in-depth interviews, focused group discussions and note-taking gave enough information and relevance to the emotion of the participants (Creswell, 2007[15]; Giorgi, 2009[24]; Suter, 2012)[55].

Before hand, I documented the students’ experiences and related the result to what I had observed while having the in-depth interviews and focused group discussions in dealing with descriptive phenomenological approach. The preconceptions, beliefs, and conclusions of the researcher were discovered unambiguously in the research report. I also observed flexibility and openness which were connected with having learned to maintain a fair amount of ambiguity in order to have a useful and positive output. In my study, I focused on the meaning of project-based learning on B’laan High School Students. It focused on what the informants had in common in their experiences of the phenomenon. I used the following procedures such as in-depth interviews, focused group discussions, and note-taking in order to give importance to their information and emotions that led to their own experiences. Nevertheless, sources of qualitative data included interviews, observations and documents

(Creswell, 2007[15]; Giorgi, 2009[24]; Locke, Silverman, & Spirduso, 2013)[38].

Furthermore, I asked the expertise and help of a data analyst to classify themes of the phenomena with seven informants for in-depth interviews and ten participants for focused group discussion. In qualitative research, the researcher had interviewed 5-25 participants interviewed on the subjects which were experienced. I attained the aim of generalizing and representing in a standard method having a lesser number of research informants (Creswell, 2006[14]; Giorgi, 2009)[24]. Nevertheless, 10-15 participants were sufficient to give relevant explanation of the occurrences (Speziale & Carpenter, 2007)[53]. Moreover, eight people were involved in the focused group discussion (Hancock, Ockleford, & Windridge, 2009)[28].

3.2 Role of the Researcher

Project-based learning develops the students' inquisitive skills. The learners are given a chance to exhibit reliable outcome and discover the issue on project. Project-based learning increases the learners' involvement in the curriculum setting. This study is meaningful for me, being a teacher to members of cultural minorities in the region for almost ten years. I personally collected the information and inputs of the study with the help of our Guidance Counselor and my colleagues. I also solicited the help from my friends and an independent reader to analyze the results of focused group discussions and in-depth interviews. I also employed the expertise of an analyst to analyze and interpret the data.

In analyzing the data, I facilitated the seven informants and ten participants for the in-depth interviews and FGD in gathering my data. With the help of my associates, they assisted in taking notes as well as in the reading and analyzing of data. We scrutinized the data we collected in the FGD and audio recordings. I engaged the results gathered from my research to the specialized data specialist for data analysis and interpretation to make our own intuitions.

As a researcher, I identified first the participants of the study and invited them to be part of this professional endeavor. I personally collected the data by having the in-depth interviews with all the seven informants and ten participants for the FGD, which I conducted, with the assistance of a colleague who took notes during the interviews and FGD and served as one of our independent readers and analyst.

3.3 Research Participants

Before I conducted my study, I already identified some of my informants. There were seven informants for in-depth interviews and ten participants for focused group discussion. The identified informants were B'laan High School Students from Grade 9. These students were actively participating in project-based learning. As included in the curriculum, more project-based learning was integrated among high school students especially in music and arts subject. I selected the participants through

purposive sampling. Moreover, they were selected for they had already experienced doing projects in the past school years. Their ages ranged from 15 to 24.

Focused groups were considered to work well with approximately eight people (Hancock et al., 2009)[28]. I believed that this was already a considerable number of participants, adequate to give credible information and significant results and findings. Congruently, Creswell (2006)[14] recommended that researchers could invite 5-25 individuals who had experienced the same phenomenon for in-depth interviews. In qualitative research, the researcher pursues knowledge by deeply penetrating to the core of the experience, to seek the essence of a phenomenon, not how many people who have experienced such phenomena (Giorgi, 2009[24]; Englander, 2012)[21].

Students who have experienced project-based learning are included in my study. When embarking in qualitative interview, the researcher must be aware of the situation and culture in which the respondent is located, to be polite, display courtesy and facilitate talk without judgment or critical opinion in order to establish trust (Silverman, 2006)[51]. I pointed out to the participants that we might encounter challenges along the way but the outcome of the study would be very significant in understanding the relevance of project-based learning in their education and to their culture as member of indigenous people.

3.4 Data Collection

I needed to collect the data appropriately as I underwent these processes namely: interviewing in-depth with the study-informants, conducting focused group discussion with the participants, and note-taking.

Before conducting the actual in-depth interviews and focused group discussions with the study participants, I made sure that ethical considerations were properly observed. I applied the key principles of ethical issues (Bloom & Crabtree, 2006)[5] that should be considered in any research study which were getting consent and ensuring confidentiality.

Rapport is also an essential component of an interview. I arranged a meeting with them and explained the details of the study and made them understand that everything would be done with disclosure. After our meeting, I asked them to sign a written consent. Essentially, rapport involves trust and respect for the interviewees and the information they would share. It is very important to provide them a safe and comfortable environment in sharing their personal experiences (Bloom & Crabtree, 2006). A comfortable, secured and private room would be convenient for the conduct of the interview. Thus, I facilitated the interview inside our Guidance Office with the consent of our School Principal.

In the process of in-depth interviews and focused group discussions, I asked the help of a fellow teacher to do the note-taking while I conducted the interviews. During the interviews, there might have been instances that certain

details were inadequately expressed or even missed out because the informants were less articulate in communicating with people. To solve this, I have always repeated the question, if necessary (Bloom & Crabtree, 2006) [5] and confirmed with my informants their answers to the questions, to ensure that the information they provided were completely recorded. To ensure that all information were documented thoroughly and no important detail was missed, note-taking was applied (Mack et al, 2005 [39]; Penner & McClement, 2008) [47]. Data were collected through audio recordings of interviews since audio or video recording improves the accuracy of the content shared in the focused group or in-depth interview, as well as the speaker's intonations (InSites, 2007) [31]. These audio recordings of the interview were transcribed and listened by the participants to secure correctness. Confidentiality was observed in all sessions and with all informants. The use of pseudonym was also applied. To have a continuous flow during the in-depth interview, an open-ended research questions were used with an interview guide.

3.5 Data Analysis

Analysis of data in a research study involves summarizing the mass of data collected and presenting the results in a way that communicates the most important features (Hancock et al, 2009) [28]. Data were analyzed using a method which included data reduction, data display, conclusion drawing and verification (Zhang & Wildemuth, 2007) [59].

Data reduction is the abstraction of data from the transcriptions, deleting data which are unimportant and transforming it into a comprehensible material, easily understood by many (Namey, Guest, Thairu, & Johnson 2007 [43]; Paul, 2006 [46]; Suter, 2012) [55]. This pairing and sieving of data is often termed as thematic analysis, a form of sorting and categorizing. With data reduction, I employed the expertise of a professional data analyst for data analysis. The data came out consolidated and manageable after being sorted and categorized.

Data display on the other hand is the organization of data and showing it in the form of graphic organizers such as: matrices, charts, graphs, that would enable the viewer to draw his conclusion (Suter, 2012) [55]. It is one step beyond data reduction, showing the data in an arranged and orderly manner, clearly showing the interrelationships of bits of information, readily available to the viewer. At this stage, other higher order categories could come out that would be beyond those discovered during the first step of data reduction (Namey et al, 2007 [43]; Paul, 2006 [46]; Sitko, 2013) [52].

Conclusion drawing and verification is the last step of qualitative analysis. It involves going back to consider what the analyzed data mean and to assess their aftermaths for the questions at hand while verification, integrally linked to conclusion drawing, required revisiting the data as many times as necessary to cross-check or verify these emergent conclusions. In making an

interpretation of the report, I took into account the data that needed to be included and those that would be disposed. The way interpretation was written is clear and precise, properly identified which of the information is factual description or plain personal view of the researcher. An interesting and readable report that offers adequate description to allow the reader to understand the basis for an interpretation, and enough interpretation to allow the reader to understand the description (Griffiths & McLeod, 2008 [27]; Paul, 2006 [46]; Zhang & Wildemuth, 2007) [59].

3.6 Trustworthiness

In establishing the trustworthiness of the study, I observed its four components. These are the following: credibility, conformability, transferability and dependability (Lincoln & Guba, 2013) [37].

Establishing the *credibility* of my study, I made sure that no relevant data were excluded and no irrelevant data would be included. I brought with me my colleagues in the field to do the note-taking during the interviews. The three of us read and analyzed the same data and compared our independent analyses with one another. Suter (2012) [55] tells that credibility refers to the confidence of the believability of the findings which is enhanced by evidence such as confirming evaluation of conclusions by research participants, convergence of multiple sources of evidence such as interview transcripts, and reflective field notes are used which strengthened the study.

Addressing the *conformability* of my study, I set aside my personal opinions, assumptions and judgments in order to guard against distortion of data. The use of audio-taped interviews, note-taking and journals were kept throughout the study to ensure conformability. This is substantiated by Ramsey (2010) [48] that conformability refers to how well the results are confirmed by others. Corroborating this statement is Suter (2012) [55] stressing that it is the application of objectivity (neutrality) and the control of researcher bias in a research study.

Addressing *transferability*, I described in detail the research context and the assumptions that are central to the research and showed all data as transparent as possible. Ramsey (2010) confirmed that transferability refers to how well the findings apply to other school settings and depends upon the similarities between the two compared settings.

Establishing the *dependability* of my study, I ensured consistency during the data collection and analysis by doing the code-recode system during data reduction and applied the peer examination. Dependability is a criterion which is considered equivalent to reliability and similarly concerned with the stability of the results over time (Ramsey, 2010 [48]; Sinkovics, Penz, & Ghauri, 2008).

3.7 Ethical Considerations

In this study, I ensured that my study was guided by ethical principles as described by Mack et al (2005), namely: respect for persons, beneficence, justice, consent, and confidentiality.

Respect for persons requires a commitment to ensure the autonomy of research participants and where autonomy may be decreased, to protect people from exploitation of their weakness. Prior to conducting a study, I secured the permission from the Division Heads and Superintendents of the college or school where it belongs for the data collection involved in the study and permissions to gather data from school heads of research participants, were obtained at an early stage in the research (Creswell, 2012)[13].

Beneficence requires a commitment to minimizing the risks associated with research, including psychological and social risks, and maximizing the benefits that are due to research participants (Mack et al, 2005). To minimize the risks or harm that may come to the participants, anonymity of the interviewee in relation to the information shared was maintained (Bloom & Crabtree, 2006)[5]. Participants were protected at all times so data or files of information were never left lying around in notebooks or un-protected computer files (Bricki& Green, 2007)[8].

Justice requires a commitment to ensuring a fair distribution of the risks and benefits resulting from research. It is important to build into the research plan a method of acknowledging the contributions that participants make to the success of the research process and to reimburse them in various ways for their efforts (Bloom & Crabtree, 2006)[5]. They were also given tokens of appreciation for their efforts, and their contributions would be a legacy because it is through them that people especially teachers' benefit from the study and somehow, it would free the participants from the shadow of their dark past. They elaborated that research should enrich the freedom of the participants more than it improves the author's career.

Informed and voluntary consent is a mechanism for ensuring that people understand what it means to participate in a particular research study so that they can decide in a conscious, deliberate way whether they want to participate. Informed consent is one of the most important instruments for ensuring respect for persons during research (Mack et al, 2005). Before I conducted the in-depth interviews and focused group discussions, I explained verbally and in writing about the objectives and purpose of this research study and made clear that the proceedings would be audio-taped. After getting their approval, I asked each of them to sign a written consent. The informants were also informed of the findings and results of the study since I believed that they have the right to know because they were the ones involved in the first place and to give them due recognition as well.

Confidentiality of the findings and protection of the identities of the informants by using a coding system to

hide their true identities, were explained to them (Maree and Van der Westhuizen, 2007)[40]. Further, teachers were informed that the entire database (i.e. digital voice recorders, typed transcripts, field notes, and other related materials) would be destroyed upon completion of the analysis.

4 RESULTS AND DISCUSSION

4.1 Core Ideas on the Meaning of Project-based Learning to B'laan High School Students

From the data collected on the experiences of the study participants, four main themes emerged as presented in Table 1. These themes helped me determine which core ideas to report. These themes are: *Offshoot of Learning; Grade Augmentation; Added Financial Burden; and Time Constraints.*

4.1.1 Offshoot of Learning

The results of the study presented that the students gained knowledge, skills, values and experience. They learned from making their own projects. Hence, this finding is in consonance with the study of Hernandez- Ramos and De La Paz (2009) that there is more knowledge gained from PBL instruction compared to traditional method of instruction. They found out the relevance of PBL among the students, administrators and teachers that its instruction is effective.

Students who were interviewed realized the significance of PBL in their lives. As they were doing their projects, they learned its worth and related it to the topics they had encountered. They learned not only the knowledge in the subject areas but also the values they gained in doing their projects. In the case of Mara she positively shared that project-based learning helped her learn many things and added to her experience in making things better and creative. The same response was provided by Ton. He learned to draw, lay-out, get along with others. He learned many values that help him becoming a good person.

4.1.2 Grade Augmentation

Students worked well for the rewards they received in doing projects which is good grade. Most of the participants expected that if they have projects, their grades would increase. Doing things with reward motivated student to work hard in doing projects. They are determined that good projects can help them achieve better grades. This result is parallel with the idea of Collier (2012) that project-based learning has the reputation to increase academic results. As in the experience shared by Yan and Babes, project-based learning helped them attain higher grades. They are highly motivated to make projects because these increase their creativity and at the same time they comply with their subject requirements.

4.1.3 Added Financial Burden

Students had difficulty in gathering the materials and had no enough money to provide for their projects. Most of

them came from low income families. Thus, students found ways in order to get rid of these, such as having part time jobs or asking help from parents. Like in the case of Taina as she sadly shared that when she was in need to spend for her projects, she asked from her parents and relatives just to comply with the project. The same statement was given by King, adding that it is very difficult to complete a project that needs materials to be purchased.

During weekends, Ton looked for extra work to earn money for his project. He helped in their farm. These difficulties are what Graham (2010)[25] identified that trained facilitators must look into the issue of lack of available resources such as materials, equipment and teaching/project space. The word of Brundiers and Wiek (2013)[9] also described PBL as a teaching strategy and need to achieve sustainability.

4.1.4 Time Constraints

The lack of time can hinder the students to be motivated in accomplishing a project. Some of the participants were busy helping their parents at home and in their farm. This finding reflected what Joyce et al, (2013)[32] emphasized that there is a need for extra time and must be considered by teachers. The limited time may cause the students' failure to submit their projects.

The finding also supports the idea of Wirkala and Kuhn (2011)[58] that PBL instruction should be given an extended period. Students who spend more time on task are more successful with problem-solving, had increased confidence and capacity for self-directed learning and increased retention, comprehension and application skills. It is noted that many interviewees identified PBL as an activity that demands significant amount of time to both design and support the desired output.

Table 1: Themes and Core Ideas on the Meaning of Project-based Learning among B'laan High School Students

Major Themes	Core Ideas
Offshoot of Learning	It is an application of my learning.
	To learn more about the lesson.
	It teaches us to be creative.
	I learned how to design and make something nice.
	I learned how to write a poem and I became creative.
	One learns a lot in doing the project.
Grade Augmentation	It is an indication that a student is able to learn well.
	I need to do it to get good grades.
	It is to reinforce my grade.
	It is to improve a student's grade.
	So that one will not fail there should be a project.
	Because of the project, your talent is exposed and gradeimproved.
Added Financial Burden	The student will no longer fail.
	You have to spend for it.
	I have problem in buying the materials needed.
	There are no funds to purchase materials.
	No materials because my parents have no money.
	I have no resources to work with.
	Insufficient budget
	Lack of money
Time Constraints	No money to buy materials needed.
	Doing project requires a lot of time and patience.
	As long as I give it ample time, I have no problem.
	Have no time because of house chores.
	Lack of time to work on the project.
	Sometimes I have no chance.
	It means exhaustion, fatigue, and sleeplessness.
I learned that it is important to pass the projects on time.	
Submit it on time, within deadline.	

4.2 Core Ideas on How B'laan High School Students Cope with Their Project-Based Learning

There were five essential themes that emerged as responses to the second research question. As indicated in Table 2 the following themes are *Make it priority; Resourcefulness and creativity; Teamwork and Collaboration; Parental support; and Industry and perseverance.*

4.2.1 Make it Priority

Comparing the results of this study, the participants concluded that if they prioritize something, they can finish their project on time. Students must manage their time wisely. Princess reiterated that she gave priority in making her projects. Win also emphasized that he must give importance in passing his project on time.

4.2.2 Resourcefulness and Creativity

Students love to show their talents and skills in doing their projects creatively. This case supports the observation of Otake et al. (2009) that where project work was optional, students volunteered to take part in order to increase their skills, contacts and experience. This study also confirmed the idea of Leadbeater (2009) [35] who believed that creativity is collaborative and includes a balance of participation, recognition, and collaboration. To further express the impact of change he stated, that in the 20th century, we were identified by what we owned and in the 21st century, we are defined by how we shared. As they made their project, they developed the skills of resourcefulness and creativity. Katy described her experience as she learned resourcefulness and creativity in PBL. Lee also added that he recycled materials to save money and applied his imagination in making designs in doing well-made project.

4.2.3 Teamwork and Collaboration

The participants expressed that their project would be better if they helped one another. This is parallel to the concept of Hanney and Savin- Baden (2013)[29] who explained that student activity revolves around a complex series of interactions between team members over time and draws on a range of key transferable skills such as communication, planning and team working. Bentot stated that collaboration would help them finish the project immediately. He realized that if they work hand in hand they will have a better output for they can think of many strategies to improve their work.

Students with teamwork and collaboration produced a better output than individual project. They exchanged ideas and work hand in hand to finish it on time and come up with a good result. This result conforms to what Hernandez-Ramos and De La Paz (2009) stated that students who worked in collaborative PBL groups learned more than their counterparts who received whole group instruction. This evidence suggests that PBL supports the development of the 21st century skill of collaboration. In doing projects, they appreciated teamwork and collaboration, specifically in group projects.

They engaged in a group to finish it on time and had a good result. If there is no teamwork and collaboration the said project will fail. This trend also suggests that PBL in a group may be more effective than in an individual effort. The task was accomplished easily with the help of one another. Each group member has a role. Working as a team is more conducive for learning and more fun. One can gain friends as well as enjoy doing it as a team.

4.2.4 Parental Support

It came to facade from the responses of the study participants that students asked help to their parents to buy materials and requested advice to make their project more eloquent. This finding supports the idea of Dowshen (2013)[20] that explained that it is natural to ask your mom or dad for help on a big project. It is fine if they give you advice and encouragement but may be less advisable for them to do the actual work for their child. Janly and Sol admitted that their parents gave them money for their projects and that they can lean on their parents whenever they ask for assistance in doing school projects.

With their support, the students would be inspired to do their projects and able to surpass hardship. These observations are in line with what Levpuscek and Zupancic (2009)[36] found that family influence can take on many different forms and have varying degrees of strength. Sources of motivation can include parents, grandparents, siblings, and other family members.

4.2.5 Industry and Perseverance

Participants work hard to finish their project to pass it on time. They gave a lot of time and do their best to have a good output. This result shows what Trilling and Fadel (2009) revealed that teaching students to produce high quality products comprises of teaching them how to: work positively and ethically; manage time and projects effectively; multitask; participate actively, as well as be reliable and punctual; present oneself professionally and with proper etiquette; collaborate and cooperative effectively with teams; respect and appreciate team diversity, and be accountable for results. As in the case of King and Tsong, they stated that industry is an advantage in doing school tasks. Students gave a greater effort in order for them to accomplish their task. They worked hard and overcome hardship.

4.3 Core Ideas on the insights that B'laan students can share to their colleagues and to the academe in general

From the data collected, there were five main themes which emerged from the responses as shown on Table 3. These were *Give it ample time, Give it considerable effort, Make it affordable, Make it relevant, and Give distinct guidelines.*

4.3.1 Give it Ample Time

Some of the participants stressed that they have insufficient time to accomplish their projects. Janly, in a low voice, said that one must take time to finish a school task but Lee asserted that teachers must also be aware of the time limit of a certain project or activity. The finding

relates to what Parker et al (2013)[45] cited that PBL approach directs the curriculum and instruction of an entire course and not just appear in a single time or session.

4.3.2 Give it Considerable Effort

The participants emphasized that if there is a great effort done, the project is successful. Cheza stated that what makes a difference in the students' output is the effort they exerted. This case corresponds to what Grant (2011)[26] indicated that project-based-learning requires more effort on the part of both the learner and the teacher.

4.3.3 Make it Affordable

Sweet said that she recycled materials to avoid expenses while Bentot stated that he recycled thing so that he could save money on his project. This is what Robins (2005)[50] emphasized that teachers should have a clear understanding of the strategy being used. They should also consider whether or not resources are available to keep students motivated and within their development stage

Table 2: Themes and Core Ideas on How B'laan Students Cope with their experiences in Project-based Learning

Major Themes	Core Ideas
Make it Priority	If there's a project to be done, do it right away.
	Do not postpone; do not procrastinate.
	I really spend time for it.
	Work on the project early and find extra time to do it.
	I give myself enough time to do the project.
	Give it more time; plan what to do and submit on time.
Resourcefulness and Creativity	Recycle materials to be used for the project.
	Look for materials to be used.
	Look for extra income to finance the project.
	Find ways
	I make my project colorful and attractive.
	I try to be creative enough.
Teamwork and Collaboration	I work with my friend, we share ideas and work as a team.
	It is easier to do a project with classmates.
	I do not know how to design so I look for a partner who is good at designing.
	I borrow materials from classmates.
Parental Support	Get help from parents.
	Ask money from parents to buy materials needed.
	I ask help if I don't know how to do it.
Industry and Perseverance	Be hardworking and determined.
	I should not be absent so I will not miss instruction.
	I make my project nice to get a good score.
	I try to submit it on time.
	All I need is hard work and patience.
	I endeavor to finish it on time.
Trv not to lose confidence in yourself.	

4.3.4 *Make it Relevant*

Taina and Princess stated some of their projects are useful in their daily life. Their projects can also be used at home. Aside from they earn points and grade, they also learn. It requires a great impact to make the project possible. This result supports what Larmer, Mergendoller and Boss (2015)[34] stated that a well-designed PBL approach should teach students the important content standards, concepts, and in-depth understandings that are fundamental to school subject areas and academic disciplines. PBL must focus on success skills such as critical thinking, self-regulation, and collaboration.

4.3.5 *Give Distinct Guidelines*

The case of Mara, showed that teachers must provide clear guidelines and instructions so as to avoid difficulty and dilemma among students. Thus, clear directions are ways to attain efficiency in the classroom. This observation relates to what Dakowsa (2009)[17] stated that the teacher is the leader in the education process. A leader is someone who has the vision for the future and a way of convincing others to work towards this goal. What a good and honest leader needs is not only the vision, but also realistic and rational understanding of what it takes to accomplish.

Table 3: Themes and Core Ideas on Insights that B’laan Students can Share to their Peers and to the Academe in General

Major Themes	Core Ideas
Give it ample time	When making a project, it should not be hurriedly done.
	One should give it a lot of time.
	It should be submitted on time.
	If I do it early, I would have no problem.
Give it considerable effort	Hard work and patience is needed.
	It should be neat and clean.
	One cannot afford to be lazy.
	The design should be good and the product is neat.
	Follow the instruction in doing the task.
	Projects should be nice to get good grade.
Make it affordable	Share ideas with others, be creative.
	Teachers should give projects in which materials are easily available from the surroundings.
	Projects should be affordable and within the budget of the students.
Make it relevant	Projects should make use of recycled materials so that it will not be expensive.
	The projects should be related to the subject matter.
	Teachers should be realistic in giving the projects.
Give distinct guidelines	Teachers should consider the capacity of the students in giving projects.
	There must be clear instructions from teachers in giving school projects.
	Directions should be clear on what to do and how to do it.

5 IMPLICATIONS FOR PRACTICE

The following implications for practice are identified for the following themes:

Offshoot of learning. With the use of project based-learning the students construct their own meaning through hands-on activities, become manipulative and adopt learning. Teachers should attend seminars or trainings to develop their skills in project-based learning. Teachers can use technologies to be more effective in teaching and acquisition of knowledge. In every aspect in education, learning is very pivotal. Learning that changes life and improves its quality. Learners gained knowledge from a variety of methods of instructions, but for B’laan students, PBL is perceived as more efficient and timely for their needs as there is more knowledge gained in PBL

instruction compared to traditional method of instruction. PBL also maximizes their use of indigenous materials around them. Thus keeping them creative and at a less costly means of learning.

Grade augmentation. The grading system is one of the most effective factors in motivating learners’ attendance. High grades may encourage students to participate more while low grades discourage them. Project-based learning increases academic results. For instance, some students perform better when included in a project-based learning than the traditional teaching and assessment methods. Teachers may provide tools and strategies that bring out the best from their students. They may also share ways to maximize indigenous materials that can be utilized to promote local industry and bolster livelihood among indigenous people.

Added financial burden. It implies that student makes ways to comply their projects. Majority of indigenous people earn their living from their agricultural products. PBL may bring more financial woes to both students and parents. Teachers and school administrators should already anticipate the financial capability of parents in sending their children to school. And so they can plan for PBL that is budget-friendly and affordable for IP students. At times, there may be some projects and learning methods that students really need to spend, but this spending should be reasonable enough to promote learning and instructional methods should not compromise the quality of learning at the expense of spending. Education is indeed free, but it does not hurt to spend sometimes for valuable and priceless learning.

Time constraints. It hinders the students to make a good project. PBL is rarely an easy task. It needs more time and preparation. Limited time may cause the students failure to submit their projects. Educators may consider the different values and culture of IP students. There are times that B'laan students need to help in farming and other ceremonial activities in their community such as wedding and burial. During these times, the students are expected to spend more time with their family. Giving project-based learning may be related to some traditional and community activities so as not to disrupt learning.

Make it a priority that promotes project to happen. On the part of the students, prioritizing the most relevant task at school can be of help. Learning is a priority. Despite the many roadblocks for B'laan learners and other IP students in the country, prioritizing education paves way for more opportunities. Teachers and parents alike are motivators for students to put learning first. Prioritizing is the most relevant task at school can be of help. Students are encourage to manage their time efficiently so as their teachers. The students may be oriented to help them set goals in making their projects. And focus their attention on making their projects to avoid delay and accomplish it correctly.

Resourcefulness and creativity. One can never go wrong when there is creativity and resourcefulness. Students demonstrated initiative and skills to have a good project. They may be guided properly to apply good design and show their own creativity. Creativity is developed through more learning activities and instructional methods that suit the need of students and their community. Lifelong skills such as weaving, making handicrafts and others can contribute to the resourcefulness and creativity of B'laan students as it is their innate ability in designing project-based learning by simultaneously imprinting their culture and tradition.

Teamwork and collaboration. It helps make appropriate projects. It is quite commendable to teach the students about working as a team at an early age. This attitude of teamwork can be of great help when they engage in actual work or job. Students may be involved in group activities and observe the value of camaraderie. Teachers will give more instruction involving teams to develop cooperation.

Teamwork promotes unity and camaraderie. Tribal wars and disputes are common in IP communities, yet education binds the new generation to embrace the value of peace and collaboration that is directed to prosperity and development.

Parental Support. It is needed by the students which imply support and motivation of parents to their children. Parents and teachers are not only there to guide but as well as to support the child in every way possible. Parents can assist their children on what to do and improve their academic performance. They are the great factor that students can make a great project. It is recognizable that the role of parents in their children's education is inevitable and certain.

Industry and perseverance. It helps students to have better output. Learners can be well-acquainted with the actual definition and application of industry and perseverance to prepare them for a better future. Especially that the Department of Education is now implementing the K-12 curriculum with the aim of making learners to become globally-competitive. Teachers can inspire students to make a quality product for competence and lifelong use of PBL.

Give it ample time that allows students to improve their works. Teachers understand the students' learning phase and how they respond to the time allocated for them to comply and learn PBL. Since PBL is distinguished from traditional method, time is of great importance. Every plan and learning method that aim for quality and positive results must be given sufficient time.

Give it considerable effort which students struggle to have a good project. All efforts may be channelled to comply with PBL, from both the teacher and learner. Students can be reminded to give all their skills and abilities to make a good project. Teachers may monitor the projects of the students if there is progress and facilitate them well. Learners are reminded that PBL is not only for the sake of grades and academic evaluation but as well as for the promotion of their skills that can be used in their future endeavour especially that they belong to IP community.

Make it affordable which students wanted to start positively. In giving project-based learning and activities to B'laan students, financial aspect can be considered. The economic status of students is given emphasis and consideration. PBL that suits their needs and budget can be of great help to their education. It is a prerogative of teachers on how to implement PBL that is affordable and at the same time helpful to their needs as indigenous people.

Make it relevant that projects are given emphasizes. Relevant PBL can help IP students to promote their cultural heritage as well provide them with opportunities to help them achieve more in life. Relevant PBL will enhance the skills of learners. Today, skills are very vital in real-life scenarios. Undeniably, skills are advantageous in workplace. Thus, the more a person is skilled, the more opportunities one can find.

Give distinct guidelines. By providing guidelines and appropriate instructions, PBL is truly attainable. Guidelines can be set clearly for students for uniformity and produce same product. Specific instructions with clear goal can assist the learners achieve the primary purpose of teaching –provide useful and lifelong learning through PBL that can be utilized and applied even outside the corners of the school.

6 IMPLICATIONS FOR FUTURE RESEARCH

Future research on the project-based learning may be done when the study is limitless in number of participants. This study is limited to public secondary school students of Sarangani, the following are recommended for future research:

First, the findings of this study are not generalizable beyond the 17 participants, future research may be conducted among the students in project-based learning to further strengthen and validate the findings of this study. Second, future research may be conducted in other areas of Region XI as well as in other regions in the country to add to the study and gather more data and insights from the students in project-based learning. Third, future research may be done through conducting follow-up interview with some of the participants to find out if their views and insights have not changed over time. Fourth, further research can include the role of school administrators in creating programs and additional inputs on project-based learning. Fifth, a research on the community as regard to needs of society in to be given a solution through project-based learning. The findings of this study were based from the experiences of students in project-based learning. Further research may be conducted to determine the school administrators' and teachers' insights on PBL approach among secondary students to confirm the findings of this study.

7 CONCLUDING REMARKS

Based on the results of the study, I can say that regardless of tribe or race, project-based learning is beneficial to the learners and the community. PBL does not only provide education but as well as the needs of the community especially among indigenous people who need support in terms of their livelihood and cultural preservation. B'laan students are now acquainted to technology and even their language is no longer the B'laan dialect as they shift to Cebuano and Filipino languages. Teachers of IP students may include cultural preservation and indigenous crafts in their project-based learning method.

From the findings of the study, I observed how financial adversities also hinder the performance, motivation and participation of students. The same is true when students live in a community which hardly helps them to develop their optimum potential. Support from family and parents are necessary in the students' quest for educational achievement. The investigation on the experiences of

students in project-based learning made me come up with a conclusion that school heads, teachers and community can do more to develop a holistic child and learner. The contributions of this study lies in the availability of the secondary students in project-based learning, from their experiences and insights were the results of this study. From the views of Dewey (1902), he concluded that PBL focused on experience. It was grounded on two principles: continuity and interaction. Continuity implies that all experiences affect the future while interaction deals with internal circumstances of an experience. These principles should be imparted through activities and practical experience. These views helped me achieve better insights of the experiences of students who are actively participating in project-based learning. It opens the possibilities for future researchers in other areas concerning PBL that have yet been unexplored and could be used by them in order to discuss other significant features of the qualitative research. Though there are other issues that can be explored in this study, I believe that it is contributory to the many researches on project-based learning. This study has been successfully conducted in the Philippines.

8 REFERENCES

- [1] Albona, S.M. (2015). Navigating the learning labyrinth of B'laan students: A phenomenological study. *International Journal of Scientific & Engineering Research*-March-2015 6 (3), <http://www.ijser.org>.
- [2] Bell, S. (2010). Project-based learning for the 21st century: Skills for the future. *The Clearing House*, 83(2), 39-43.
- [3] Bender, W. N. (2012). *Project-based learning: differentiating instruction for the 21st century*. Thousand Oaks, Calif: Corwin Press.
- [4] Blankinship, N. (2010). Making sense of qualitative research: a new series. *Med Educ.*, 39 (5-6).
- [5] Bloom, B., & Crabtree, B. (2006). Making Sense of qualitative research: The *qualitative research interview*. Blackwell Publishing Ltd.
- [6] Blumenfeld, P. C., Soloway, E., Marx, R. W., Krajcik, J. S., Guzdial, M. & Palincsar, A. (1991). Motivating project-based learning: Sustaining the doing, supporting the learning. *Educational Psychologist*, 26(3-4), 369-398.
- [7] Bradford, M. (2005). Motivating Students through Project-Based Service Learning. *T.H.E.Journal*, 32(6), 29.
- [8] Bricki, N., & Green, J. (2007). *A guide to using qualitative research methodology*. London School of Hygiene and Tropical Medicine.
- [9] Brundiers, K., & Wiek, A. (2013) 'Do we teach what we preach? An international comparison of problem- and project-based learning courses in sustainability'. *Sustainability*, 5 (4), 1725-1746.

- [10] Buck Institute for Education (BIE). (2014). Introduction to project based learning. <http://bie.org/images/uploads/general/20fa7d42c216e2ec171a212e97fd4a9e.pdf>.
- [11] Buck Institute for Education (BIE). (2012). what is PBL?. http://www.bie.org/about/what_is_pbl.
- [12] Campbell, R. (2011). *Qualitative research: Phenomenological method*.
- [13] Collier, C. (2012). Project based learning: Is this new method an effective educational approach to learning? *Studi* 012 R, 7.
- [14] Creswell, J. W. (2006). *Qualitative inquiry & research design*. Sage Publications. Thousand Oaks: London. www.sagepub.com/creswell/qi3e/study/chapter.htm.
- [15] Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: Sage.
- [16] Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Upper Saddle River, NJ: Merrill.
- [17] Dakowsa, M. (2009). *Teaching English as a Foreign Language*. Chennai: Yes Dee Publishing.
- [18] Dasig, D., Gatpandan, M., & Gatpandan, P., (2014). *A study on the adaptation of project-based learning in the development of renewable energy projects and sustainable engineering solutions*. Benguet State University.
- [19] Dewey, J. (1902). *The Child and the curriculum, in the school and society and the child and the curriculum*, 67-77, Digireads.com Publishing.
- [20] Dowshen, S. (2013). What's a teaching hospital? <http://kidshealth.org>.
- [21] Englander, M. (2012). The interview: Data collection in descriptive phenomenological human scientific research. *Journal of Phenomenological Psychology*, 43, 13–25.
- [22] Fredricks, J., & McColsky (2011). *Measuring student engagement in upper elementary through high school: A description of 21 instruments*.
- [23] Gardner, R. C. (2007). Motivation and second language acquisition. *Porta Linguarum*, 8, 9- 20.
- [24] Giorgi, A. (2009). *The descriptive phenomenological method in psychology: A modified Husserlian approach*. Pittsburgh, PA: Duquesne University Press.
- [25] Graham, R. (2010). *UK approaches to engineering project-based learning*. White Paper sponsored by the Bernard M. Gordon/MIT Engineering Leadership Program. <http://web.mit.edu/gordonelp/ukpjblwhitepaper2010.pdf>.
- [26] Grant, M. (2011). Learning, beliefs, and products: Students' perspectives with project-based learning. *Interdisciplinary Journal of Problem-based Learning*, 5(2). <http://docs.lib.purdue.edu/ijpbl/vol5/iss2/6>.
- [27] Griffiths, M., & MacLeod, G. (2008). Personal Narratives and Policy: Never the Twain? *Journal of Philosophy of Education*, 42(Supplement s1), 121-143.
- [28] Hancock, B., Ockleford, E., & Windridge, K., (2009). An introduction to qualitative research, *National Institute for Health Research*, 1-39.
- [29] Hanney, R. & Savin-Baden, M. (2013). The problem of projects: understanding the theoretical underpinnings of project-led PBL'. *London Review of Education*, 11 (1), 7-19.
- [30] Hernandez-Ramos, P., & De La Paz, S. (2009). Learning history in middle school by designing multimedia in a project-based learning experience. *Journal of Research on Technology in Education*, 42, 151-173.
- [31] InSites. (2007). Tips for conducting focus groups. Sites, Module. pp. 1-9. http://www.insites.org/CLIP_v1_site/downloads/PDFs/TipsFocusGrps.4D.8-07.
- [32] Joyce, T., Evans, I., Pallan, W. & Hopkins, C. (2013). A hands-on project-based mechanical engineering design module focusing on sustainability'. *Engineering Education*, 8 (1).
- [33] Kilpatrick, W. (1918). *The project method*. *Teachers College Record*, 19, 319 – 333.
- [34] Larmer, J., Mergendoller, J. R., & Boss, S. (2015). Gold standard PBL: Essential project design elements. http://bie.org/blog/gold_standard_pbl_essential_project_design_elements
- [35] Leadbeater, C. (2009) We-think: Mass innovation, not mass production. *Prometheus*, 27(3), 309-311.
- [36] Levpuscek, M.P. & Zupancic, M. (2009). Math achievement in early adolescence: The role of parental involvement, teachers' behavior, and students' motivational beliefs about math. *The Journal of Early Adolescence*, 29(4), 541- 570.
- [37] Lincoln, Y.S., & Guba, E.G. (2013). *Naturalistic inquiry*. London: Sage.
- [38] Locke, L. F., Silverman, S. J., & Spirduso, W. W. (2013). *Proposals that work: A guide for planning dissertations and grant proposals* (6th ed.). Thousand Oaks, CA: Sage.
- [39] Mack N., Woodsong, C., K., MacQueen, M., Macqueen, K. M., Guest, G., & Namey, E., (2005). Qualitative research methods: A data collector's field guide. *Family Health International*. 1-134
- [40] Maree, K., & Van der Westhuizen, C., (2007). *Planning a Research Proposal*, Pretoria: Van Schaik Publishers, South Africa, 1-15.
- [41] Markham, T., Larmer, J., & Ravitz, J. (2003). *Project-based learning handbook: A guide to standards focused project-based learning for middle and high school teachers*. Novato, CA: Buck Institute for Education.
- [42] Mora, R. (2011). School is so boring: High stakes testing and boredom at an urban Middleschool. *The*

- University of Penn State Urban Education Journal, 9(1), 1-9.
- [43] Namey, E., Guest G., Thairu, L., & Johnson, L. (2007). *Handbook for Team-Based Qualitative Research*. Altamira Press;
- [44] Otake, M., Fukano, R., Sako, S., Sugi, M., Kotani, K., Hayashi, J., Noguchi, H., Yoneda, R., Taura, K., Otsu, N. & Sato, T. (2009) 'Autonomous collaborative environment for project-based learning'. *Robotics and Autonomous Systems*, 57 (2). pp 134-138.
- [45] Parker, W. C., Lo, J., Yeo, A. J., Valencia, S. W., Nguyen, D., Abbott, R. D., Nolen, S. B., Bransford, J. D., & Vye, N. J. (2013). Beyond breadth-speed-test: Toward deeper knowing and engagement in an advanced placement course. *American Educational Research Journal*, 50(6), 1424-1459.
- [46] Paul, K. (2006). *Analyzing qualitative data: Qualitative analysis handout*, ch. 4, 97-153.
- [47] Penner, J., & McClement, S. (2008). Using phenomenology to examine the experiences of family caregivers of patients with advanced head and neck cancer: Reflections of a novice researcher, *International Journal of Qualitative Methods*, 7 (2), 92.
- [48] Ramsey, J. (2010). *Teacher's experiences with student bullying in five rural middle Schools*. Doctoral dissertation, Western Carolina University, N. C. Cullowhee, Ed.
- [49] Reimers, F. (2009). Global competency is imperative for global success. *Chronicle of Higher Education*, 55(21), 29.
- [50] Robins, J. (2005). Beyond the bird unit. *Teacher Librarian*, 33(2), 8.
- [51] Silverman, M. (2006). *Developing cognitive and creative skills through art*. Baltimore: University Park Press.
- [52] Sitko, R. (2013). Graphene as a new sorbent in analytical chemistry. *Trends in Analytical Chemistry*, 51, 33-43.
- [53] Speziale, H. J. S., & Carpenter, D. R. (2007). *Qualitative research in nursing: Advancing the humanistic imperative* (4th ed.). Philadelphia: Lippincott Williams & Wilkins.
- [54] Stewart, V. (2007). Becoming citizens of the world. *Educational Leadership*, 64(7), 8–14.
- [55] Suter, N. (2012). *Introduction to educational research: A critical thinking Approach* (2nd Ed.), NY: Sage Publications, Inc.
- [56] Trilling, B., & Fadel, C. (2009). *21st century skills: Learning for life in our times*. Jossey-Bass, San Francisco, CA.
- [57] Willis, J. (2007). *Foundation of qualitative research: Interpretive and critical approaches*. Thousand Oaks. Sage Publications. Retrieved from www.sagepub.com/textbooks/Book228788.
- [58] Wirkala, C., & Kuhn, D. (2011) Problem-based learning in K–12 education: Is it effective and how does it achieve its effects? *American Education Research Journal*, 48, 1157.
- [59] Zhang, Y., & Wildemuth, B. (2007). *Qualitative analysis of content*. Thousand Oaks, CA: Sage Publications, Inc. 1-12.
- [60] Zhou, M., & Brown, D. (2015) *Educational Learning Theories* Education Open Textbooks. Book 1. <http://oer.galileo.usg.edu/education-textbooks/1>