

Contextualization of Indigenous Knowledge in the Selected Elementary Schools

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Abstract

This study focused on the contextualization of indigenous knowledge in selected elementary schools in the La Trinidad District. The knowledge of teachers in contextualizing Indigenous Knowledge is limited to translation of words and mentioning practices; teachers are limited to teaching only what is available at hand without mapping what needs to be learned on Indigenous Knowledge; essential Indigenous Knowledge lessons and practices are not identified in different levels of the curriculum; and challenges of teachers are in instruction, curriculum, teachers and L1 of learners. The informal interview was used as the main instrument in gathering the needed data for this study. The results were narrated and analyzed citing direct quotes and narratives from the respondents.

The presentation of the data included direct quotes from verbal narratives to enrich the themes that emerged during the interview. The findings revealed that the respondents' knowledge of contextualization was the use of the different mother tongue of the learners and the use of available indigenous resources. The contextualization teaching practices in using Indigenous Knowledge were the basics of localization and indigenization; the respondents frequently made use of contextualized teaching practices on Indigenous Knowledge; and the teachers encountered challenges categorized as to teachers; learners; and parental and other stakeholders.

Keywords: contextualization, Indigenous Knowledge, localization, indigenization, teaching practices, challenges

Introduction

The study focused on the understanding of contextualization of indigenous knowledge, the contextualized teaching practices in using indigenous knowledge, the frequency of use of contextualized teaching practices on indigenous knowledge, and the challenges encountered in the contextualization of indigenous knowledge among the teacher-participants in the selected elementary schools.

Background of the Study

Curriculum contextualization has gradually become by-word in the academic community. Understood to bring teaching-learning to students' realities, contextualization is a prerequisite in addressing the content and organization of activities to be undertaken in the classroom. As the principle of teaching says, "learning is meaningful when it is connected to student's everyday life by helping students to relate the educational tasks with their knowledge and everyday experiences; curricular contextualization facilitates the linking of theory and practice. Furthermore, contextualization allows students to give meaning and value to what they learn in school. Contextualizing knowledge is a process

that aims to produce a meaningful curriculum for students. Beane (1997) calls a curriculum that contextualizes knowledge a coherent curriculum.

According to Kenea (2014), curriculum contextualization, as an aspect of the continued process of curriculum development, is guided by the values of learner- and community-centeredness. Based on research findings on curriculum adaptation, the following important assumptions for a contextualized approach to curriculum are: effective learning requires not only the acquisition but also the active application of knowledge, skills, and process, to encourage transfer to other contexts; effective learning requires the acquisition of a complex knowledge base including content knowledge, skills, and cognitive and meta-cognitive strategies and, learning is a function not only of the activity itself but also of the context and culture in which it takes place. Moreover, contextualization is developing new skills, knowledge, abilities, and attitudes in students in presenting new subject matter in meaningful and relevant context along context of previous experience, real-life and workplace (Taylor, 2004).

These definitions point towards a sense of understanding the concept of contextualization from the basic educators who are the implementers of the new curriculum. And, it is important to know what the aspirations of the community are. This is through to contextualization of the lesson to connect the community to the students' lives. The success of contextualization efforts depends largely on the initiative and capacity of the teacher to at least localize or contextualize his or her lessons (Gallespie, 2002). The localized or contextualized curriculum is based on local needs and relevance to the learners where there is flexibility and creativity in the lessons.

The current concern in several countries (Karseth and Sivesind, 2010) is how contextualization in schools are done. This enlightens discussions about the importance of cultivation of national cultures as an overall purpose of the curriculum and how does this match the idea of qualifying students for life. Therefore, these issues and concerns should be addressed immediately. The awareness of teachers is a big factor in the contextualization process; it is on their hands to do their best to contextualize their lessons and to cultivate and preserve the indigenous knowledge.

The flexibility in adapting the program of education for students to local conditions, is a direct response to traditional curriculum design, which Taylor (2004) has described as "...too full, rigid, inflexible and irrelevant to lives of learners". This idea of relevance is critical to the understanding of localization and the policy planners who have been active promoters. The academic community puts into account the cultural and socio-economic realities (UNESCO, 2002) of local populations when designing educational content.

Nonetheless, the crucial failing of educational systems, worldwide has been their lack of relevance of learning in the lives of learners. How the teachers consider individual differences in lesson planning, to link teaching and learning in the classroom to the experiences, interest, and aspirations of the wider community, use local facts and translate the stories in the locality's language, localize concepts and examples for easy grasps, and also relate to the learner's environment where they belong are few of the causes why educators worldwide are failing. The lack of relevance weakens the mentioned connection and bond between communities, learners, and school thus, damages educational outcomes through decreased student, community, and teacher engagement in the learning process.

It is evidently occurring in some countries like Ethiopia that the educational sectors lack administrative support, focused on regional examinations, lack resources, time pressured due to unnecessary meetings and bulky curriculum portion (Kenea, 2014). These problems are consistent with what ANAFE (2010) writes regarding the failure of contextualization of the curriculum to African

reality, which are also the major reasons for lack of development of contextualized learning materials, lack of policy support, lack of funds, lack of incentives for the production of the materials, lack of experiences in the production of contextualized learning materials and limited partnership to support the process. Similarly, Taylor (2003) opined that among the difficulties blocking the efforts of curriculum contextualization are the constraints placed upon teachers by workload, general conditions, and lack of experience as well as the driving force of examination-oriented learning which acts against the introduction of more flexible approaches to teaching and learning.

Namibia also has the greatest challenge to the process of localizing vocational education and training curricula in the country as the preference of practitioners and educators for a more scientific, academic, general and standardized vocational education and training. The difficulty lies in determining local skills needs, distinguishing between local and national needs and the complexities involved in the implementation of a more flexible curriculum centralization and a "one for all" approach (Tomskey, 2007).

In Indonesia, the primary change in the 1994 curriculum reform was the inclusion of the Local Curriculum Subject (LCS) as an independent subject that takes more than 20% of the curriculum. This new curriculum attempts to deal with the overcrowded curriculum through integration, reduction of instructional time and decentralization of content, methods, and assessment procedures. It can be said that in the new curriculum — except the competency and exit performance standard — everything is localized at school or district levels (Ross and Gray, 1996).

In Israel, The Ministry of Education encourages school autonomy, in order to improve the quality of education provided by the school. The basic assumption was that the school staff was capable of developing and formalizing an educational approach and can then formulate a school- based curriculum by adapting teaching and learning methods to local conditions (Golby, 1975). These are the issues and concerns of the different countries regarding contextualized curriculum.

In order to adapt this new curriculum in the educational system of the Philippines, policies and guidelines on contextualization were set. The Philippine Constitution (1987) stipulated that the state shall foster the preservation, enrichment, and dynamic evolution of a Filipino national culture based on the principle of unity in diversity in a climate of free artistic and intellectual expression. Moreover, Article IV, Section 5 of the same constitution states that take into account regional and sectoral needs and conditions and shall encourage planning in the development of educational policies and programs. Thereupon, the policy basis of contextualization in the educational sectors stipulated in Philippine Republic Act No. 10533 otherwise known as Enhanced Basic Education Act of 2013, Sec. 10.2 (d) the curriculum shall be contextualized and globalized; and (h) the curriculum shall be flexible enough to enable and allow schools to localize, indigenize and enhance the same based on their respective educational and social contexts. The production and development of locally produced teaching materials shall be encouraged, and approval of these materials shall devolve to the regional and division education units.

Through this policy, the Department of Education fully supports the continuing professional development of its teaching personnel DepEd Order No. 35 (2016) provides that the curriculum contextualization is the process of matching the curriculum content and instructional strategies relevant to learners. Student diversity requires that teachers always consider individual differences in lesson planning and implementation. Teachers identify and respond to opportunities to link teaching and learning in the classroom to the experiences, interests, and aspirations of the wider school community

and other key stakeholders. By linking new content to the local experiences that are familiar to students, learning will be more efficient for and relevant to them. The localization of curriculum is an essential feature of the K to 12 Curriculum. The teacher's guide and learners' materials may be modified to accommodate the unique contexts of a particular locality. Deepening curriculum contextualization through indigenization is essential for communities that have cultural practices that are different from the majority of people in the same locality. Providing spaces for unique cultures in the K to 12 Basic Education Program is a key strategy for student inclusion and ensuring relevance of education processes for all learners. Teachers and school systems must make sure that the members of the community participate in indigenization processes, so that the curriculum will be accurate and faithful to the culture in consideration.

The purpose of this study is to come up with results that will guide teachers involved in the contextualization process present the lessons to students in a more meaningful and relevant context-based setting and utilize the learner's previous experiences and real-life situations. This is the lesson flexible, fit, creative, relevant, meaningful, and adoptive to students' level of understanding and instructional needs. In addition, contextualization of the curriculum as system-wide discussion within the education sector, capacity building for teachers and school leaderships in the form of formally organized orientation and school- and classroom-based professional support, and modelling contextualization of the curriculum education sectors through local production of materials enrich the regional curriculum/textbook. Hence the objective of the study is to determine the teacher's understanding on contextualization on indigenous knowledge, to identify contextualized teaching practices by the teachers, to determine frequency of use of the contextualized teaching practices on indigenous knowledge and challenges encountered in the contextualization of indigenous knowledge. The findings of this study will contribute to the addition transformation of indigenous knowledge that recognize indigenous knowledge, practices, and languages as valuable materials in teaching and learning. Furthermore, the students' learning needs will be appropriately addressed through the teacher's efforts to make the curriculum meaningful to the learner's cultural background and heritage.

Conceptual Framework

This study is anchored on important theories and concepts on contextualization. The theoretical underpinning for curriculum contextualization is Paulo Freire's 'humanizing education' (Freire, 1970 as cited by Kenea, 2014). As used in everyday language, contextualization is taken as linking or relating, or adapting the curriculum. Contextualization, from the philosophical strand, is understood as the process of embedding knowledge in history, culture, philosophical questions, and personal experiences.

Another appropriate name for this strategy, according to Nikitina (2002), might be "humanization of knowledge." Humanization of knowledge refers to the linking of theoretical knowledge to the situation or the context of those who pursue it. Hence, contextualization of the curriculum embraces relating the content, the teaching-learning process, and the materials to meaningful situations that are relevant to students' lives. It assumes that instead of first teaching skills and knowledge separated from the context of the learner and hoping that they will end up knowing how to transfer what they have learned to live outside the classroom, teachers start with real-life contexts and weave these contexts into every stage of the teaching and learning process.

When curriculum is contextualized, the child's experience is a fundamental starting point in the teaching-learning process and every effort is made to help him/her relate whatever is learned to his/her

every day. For Freire, education is humanizing when it helps the liberation of consciousness. When, because of the experiences they got from the curriculum process, the learners start to question (dialogue about) their situation then the process of liberation starts. Contextualizing education is one best medium for that.

Education that is devoid of any meaningful experience for the learner (he termed such an education as a banking concept of education) is oppressive (and dehumanizing). As humans, children need to see the meaning of what they learn, how what they are exposed to is related to their experience, and how the 'worthwhile knowledge' selected for them (and the process of education) serves as a framework to examine their condition (situation). Curriculum contextualization, as an aspect of the continued process of curriculum development, is guided by the values of learner- and community-centeredness.

Understanding of Contextualization

Learning becomes meaningful when it can be transferred from one context to another. Learners' knowledge should be connected with the phenomena where and how they are living. To make learning effective; knowledge must be contextualized with the prior understanding of the learners. Teachers as the facilitator can play the role of catalysts to evoke the memories of the learners and help to connect at present in their practical skills. Such types of previous knowledge now have to link with the real world. In the contextual curriculum, learners are encouraged to learn within a compatible environment for learning.

This compatible environment for learning is mainly associated with community-centered, learner-centered, and knowledge-centered. Community centered learning environment helps the learners to be good social members. Similarly, a learning-centered environment is where learners use a cognitive way of knowing the truth by linking history with the present context (Sharma, 2014). Some of these ways of knowing include describing contextualized curriculum as the use of real-world materials and activities (Jacobson et al., 2003); using critical thinking, problem-solving, and creativity on these materials/in these activities (Beder and Medina, 2001); connecting the knowledge to its multiple applications in students' lives (Berns and Erickson, 2001); and learning by doing (Mazezeo et al., 2003).

Contextualization is simply defined as the verbal and conceptual bridge over which students cross to learn new information being presented (Lee, 1995). It is the act of creating relevance and meaning when linking students' everyday experiences with academic knowledge (Tharp and Gallimore, 1988). Underlying this strategy is the belief that students come to school with a wealth of information, derived from personal and cultural experiences that can be first harnessed and then used in the teaching and learning process. Some researchers have referenced this prior knowledge as "funds of knowledge," acknowledging the role and importance of students' personal, cultural, and communal knowledge in designing classroom activities (Moll et al., 1992).

While all children have funds of knowledge that they bring to the classroom, these repositories differ slightly because they are developed in the activity settings and routines that organize households and cultural communities (Gauvain, 2001). Orellana (2001) also described contextualization as "leveraging" students' knowledge (Paris, 2012 Paris and Ball, 2009) described it as "bridging" what students know from their home, school, and community to the classroom.

Teaching Practices in Contextualization of Indigenous Knowledge

Research has shown that teachers who are knowledgeable about their students' family lives are better prepared to understand children's in-school behavior (Moll et al., 1992). Teachers are also better equipped to systematically tie students' interests, concerns, and strengths with instruction, which in turn strengthens student motivation (Ladson-Billings, 1994). Many available resources described classrooms showcasing successful practices (Ladson-Billings, 1992, Sleeter and Cornbleth, 2011) or lists of characteristics that define and describe culturally relevant teachers (Villegas and Lucas, 2002). What appears to be most needed are practical tools and resources that contribute to understanding its implementation. Only when teachers have such tools available will they be able to make the theory of using culture as a resource commensurate with practice (Gay, 1995 Gay and Howard, 2000)?

From this perspective, the teacher's role is to mediate students' learning between knowledge that is familiar with the knowledge that is typically taught in schools. The mediational process requires teachers to have a shared understanding to use as a starting point in the teaching and learning process. In highly diverse classrooms, mediating learning can be complicated, because teachers and students come from different cultural and linguistic backgrounds and may have more difficulty understanding each other compared to teachers who share a similar cultural background and similarly see the world (Tharp et al., 2000). In this, socio-cultural theory (Vygotsky, 1978) is used to understand how teachers implemented contextualization by focusing on how they helped students make academic connections.

According to Lubrica et al. (2018), learning style preferences guide the way students learn in contextualized instruction. Research conducted by Dunn and Griggs (2000) has proven that learners are most effective when they are taught in their preferred learning styles. McCombs and Whisler (1997) pointed out two important factors for a learner-centered teacher to consider: characteristics of the learners and teaching practices. Students learn differently and appreciating their differences will help the teacher teach them better. Lubrica (2012) supports these findings revealing a significant relationship between the learners' characteristics and their perceptual learning skills. Felder and Brent (2005) presented three ways in which students differ and these differences affect the way they learn: learning styles (i.e., characteristic ways of taking in and understanding information), approaches to learning and orientations to studying (i.e., surface, deep or strategic approach), intellectual development (i.e., attitudes about the nature of knowledge and how it should be acquired and evaluated). A learner-centered teacher must consider these differences and address them by employing various teaching strategies while providing a learning environment that encourages students to take charge of their learning at the same time (Weimer, 2002). Teachers need to be alert to individual student's learning styles as well as their actions and methods regarding their students' cultural experiences and preferred learning environments (Irvine and York, 2010). This is culturally responsive (or relevant) teaching (Ladson-Billings, 1995). Culturally responsive education is concerned with how teachers skillfully mediate or bridge cultural knowledge to help students navigate what they are learning in formal educational settings (Sleeter and Cornbleth, 2011). According to Gay (2000), the goal of culturally responsive teaching is to build bridges of meaningfulness between home and school experiences as well as between academic abstractions and lived socio-cultural experiences. Therefore, in an ideal classroom, all instructions are tailor-made for cultural groups reflecting the socio-cultural experiences of the learners (Sleeter, 2005). According to Kenea (2014), teachers carry out the following teaching activities which promote contextualization of the curriculum which are: visits to neighboring farms/markets/workshops to make their lesson more vivid, inviting local community elders/leaders to their classroom so that they talk to the class on some

local issues, inviting experts in the locality to their classroom so that they train the students on practical matters, differences between what teachers teach and what is in the textbooks, community studies (in the form of projects and assignments on community structures, health, relationships, governance, etc.) providing training on curriculum contextualization, and providing in-class supports on how to contextualize the curriculum (e.g., discussions after classroom observations included contextualization as an issue).

Also, teachers need to be trained to teach in more than one language and culture unfortunately, this is not always the case. Training should include specific components concerning bilingual students and intercultural classrooms, as well as specific methodologies for culture-related teaching practices. The ability to speak the indigenous language as well as the official one is also vital for teachers in indigenous education (King and Schielmann, 2004).

Moreover, the Department of Education (DepEd) included in the guidelines for hiring teachers for School Year 2015-2016, the specific criteria regarding familiarity with the indigenous community’s culture (e.g., capacity to speak the community language) and their preparedness in implementing indigenization process (DepEd Order No. 5, 2015). Teachers assigned to schools with indigenous children and youth should be knowledgeable about the community. Moreover, indigenous peoples consistently raise the point that the teacher is a key factor in the implementation of a culture-responsive education. It is not enough that an adequate number of qualified teachers are assigned to the school; what is crucial is that the teacher has the proper perspective and disposition to relate with indigenous children and youth and their community and is adequately equipped to undertake the indigenization of the curriculum and the teaching-learning process.

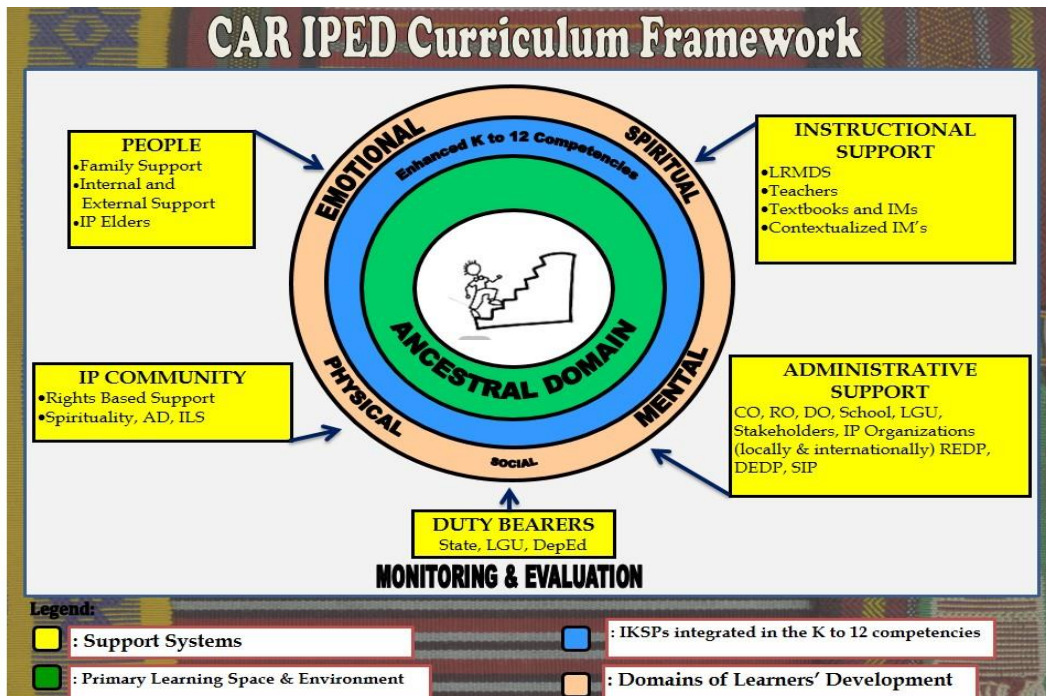


Figure 1. CAR IPED Curriculum Framework

Figure 1 shows the Indigenous Peoples Education (IPed) Curriculum Framework of the Cordillera Administrative Region showing the interrelationship of the people, the indigenous people’s community, instructional support, and administrative support. At present, the Indigenous Peoples

Education (IPEd) Program of the Department of Education pursues action to the realization of the intent of the continued process of the curriculum guided by the values of learners-and community-centeredness which guides the implementation of the K to 12 Basic Education Curriculum as appropriate in the context of indigenous communities. In this respect, for schools and learning programs in indigenous communities or with indigenous learners, "K to 12 is IPEd", as guided by National Indigenous People Education Policy Framework DepEd Order No. 62, s. 2011. Accordingly, IPs should be given opportunities for education wherein the education system provide education catering to their language with suitable cultural methods of teaching and learning. Furthermore, teachers should be aware of the following key concepts of IPEd. The ancestral domain is the foundation of the indigenous people's knowledge system and practices (IKPs). Contextualization is the educational process relating the curriculum to the setting and situation to make the competencies relevant, meaningful, and useful to all learners. Localization is the process of relating content in the curriculum to local information and materials. Indigenization is the process of interfacing the nationally designed curriculum with IKSPs and Indigenous Learning System. IKPs are systems, institutions, mechanisms, and technologies comprising a unique body of knowledge. IPEd is part of the rights-based approach to education and lastly, IPEd aims to pursue culture-based education.

Finally, the teachers should be aware of the process involved in contextualizing the curriculum such as the community engagement through school partnerships with culture bearers is the foundational dynamics of IPEd. Community competencies should be validated by elders and culture bearers. Formulating the IPEd curriculum at the community level is premised on the process of an interface between the ILS of the community and the national educational system's curriculum. The interfaced competencies shall be the bases for designing content and processes in teaching. Curriculum designs must anchor on the ancestral domain, community's worldview, and cultural identity. Curriculum design can be enhanced to be aligned with the annual or periodic livelihood activities of the community. To pursue this Basic Education Sector Reform Agenda, the government states that teachers are responsible for creating a well-functioning environment and establishing equilibrium between the national curriculum and a contextualized curriculum. Therefore, the way teachers act, the way they plan and execute their class programs, how they manage the classroom, and how they set up the teaching and learning environment are key aspects of student's success and are central when defining and conceiving curricular contextualization (Formosinho and Machado, 2008).

Challenges Encountered in the Contextualization of Indigenous Knowledge

Teachers, as links between the learners, the curriculum resources, and the instructional environment play a central role in contextualizing the curriculum. It is the teachers who have to recognize if there is any gap between the espoused curriculum element/material and the situation of the learners. For this, teachers' knowledge of the learner and their situation is very important. Educational leadership at the various level along the ladder (including school principals) has also an immense role to play in making sure that the curriculum is adapted to the situation of the child. Important among the roles educational leadership at various levels play in curriculum contextualization is providing policy backup and professional support for teachers. It can be argued that teachers' role in effectively contextualizing the curriculum is largely a function of effective leadership support (Kenea, 2014).

Additionally, the desire for policy experts to create homogenous solutions for problems that occur is individual due to the individualized responsibility of implementation. As each teaching context

was different, attention is given to the individuals tasked with localization, the teachers, and community members who are charged with these additional responsibilities. Furthermore, it is important that any plan or strategy for innovation or curriculum development is open to change to fit the local context. These individuals have to internalize this change and be willing and open to taking on the additional responsibilities, or the process (Hawes and Stephen, 1990).

One objective of the decade is the promotion and protection of the rights of indigenous people, and their empowerment to make choices that enable them to retain their cultural identity while participating in political, economic, and social life, with full respect for their cultural values, languages, traditions and forms of social organization; however, millions of people are still denied their right to education and indigenous peoples are among the most affected and disadvantaged. Their situation has often been characterized by a lack of access to an education that respects their diverse cultures and languages. Educational materials providing accurate and fair information on indigenous peoples and their ways of life have been all too rare, and history textbooks have frequently depicted them in negative terms. Similarly, in many cases educational programs have failed to offer indigenous peoples the possibility of participating in decision-making, the design of curricula, the selection of teachers and teaching methods, and the definition of standards (King and Schielmann, 2004).

In addition, several factors affect the implementation of contextualization such as lack of knowledge in the contextualization of indigenous knowledge, insufficient training/orientation on contextualization, insufficient references and learning materials, negative attitude of teachers on indigenization and localization, absence, or lack of elders'/culture bearers in the community, lack of support from parents and community, overlapping school activities and programs. Also, the community has already embraced modernization. Facilitative factors such as school heads and superiors, the conduct of district or school level orientation on contextualization, availability of local references, consultation with elders and culture bearers, availability of local trainers on contextualization, assistance from government/indigenous peoples' council, and support from NCIP and other groups are also essential considerations in contextualization.

Many issues come into play in effectively designing and implementing indigenous or culturally responsive curricula as pointed out by Herbert (2006). He highlights many challenges, ranging from language, resources, beliefs (both for teachers and students), and theoretical frameworks that teachers have to use in the implementation of indigenous. Unfortunately, most teachers (in most parts of the world) were never trained on how to teach culturally appropriate curriculums. Hence, concerns about languages and teachers' pedagogical knowledge and theoretical frameworks are likely to pose challenges to those who are just joining the process of indigenizing their curriculums. And includes teachers who are not proficient in the use of local dialects thus it also affects the teaching-learning process. As the teacher will have varied teaching methods and strategies in different subjects which are based on the curriculum guide of subject learning and need to target all the competencies stated in the curriculum guide by focusing their lesson on contextualization, localization, and indigenization to make meaningful learning relevant to the learners.

Statement of the Problem

This research focused on the contextualization of indigenous knowledge in selected elementary schools in La Trinidad, Benguet.

Specifically, it sought answers to the following questions:

1. What is the understanding of contextualization of indigenous knowledge among the participants in the selected elementary schools?
2. What are the contextualized teaching practices by the respondents in using indigenous knowledge among the participants in the selected elementary schools?
3. What is the frequency of use of contextualized teaching practices on indigenous knowledge among the participants in the selected elementary schools?
4. What are the challenges encountered in the contextualization of indigenous knowledge among the participants in the selected elementary schools?

Methodology

This chapter presents the methods and procedures used. Specifically, it discusses the research design, population, and locale of the study, the data collection instruments, the procedure of gathering the data and the treatment of the data gathered.

Research Design

This study made use of quantitative and qualitative descriptive research design. According to Hornby (2000), a qualitative approach is a systematic, subjective approach used to describe life experiences and situations to give them meaning. Researchers use a qualitative approach to explore the behaviors, perspectives, experiences, and feelings of people and emphasized the understanding of these elements. A quantitative approach is focused on obtaining numerical findings in answering the specific problems of the study.

Population and Locale of the Study

The respondents of this study were twenty-eight (28) primary school teachers in the public schools in La Trinidad, Benguet Province during the School Year 2019-2020. The identified teachers were those with five (5) years of teaching experience in public elementary schools. They were selected using the purposive sampling technique. The District of La Trinidad, Benguet was chosen as the locale of the study because of the multi-indigenous cultures present in the area like Isneg, Kalinga, Bontok, Kankanaey, Tingguian, Gaddang, Ayangan and Tuwali, Kalanguya or Ikalahan, Ibaloy and Karao, hence, best suited for the study on contextualization of indigenous.

Data Collection Instruments

This study made use of the interview as the main instrument in gathering the data from the respondents. The interview is a highly flexible tool and an essential technique for gathering firsthand information from the interviewees. Likewise, the interview is a powerful tool for eliciting data from people's views that can be in a structured or unstructured format (Srivastava and Thompson, 2009). The advantages of the interview include open-ended questions that can be used with greater confidence, and particular questions of special interest or value which can be pursued in depth. Follow-up questions can be asked, and unclear items can be explained (Fraenkel & Wallen, 1994).

In addition, the interview strikes a balance between a structured interview and an unstructured interview. In this type, questions are open-ended; thus not limiting the participant's choice of answer (Gubrium and Holstein, 2002). The purpose is to provide an atmosphere where the interviewer and interviewee can discuss the topic in detail. The interviewer therefore can make use of cues and prompts

to help and direct the interviewee into the research topic area thus being able to gather a more in-depth or detailed data set (Creswell, 2003, Patton, 2002).

The interview questions asked from the participants focused on the specific problems of this study: understanding on contextualization of indigenous knowledge among the participants in the selected elementary schools; the contextualized teaching practices by the participants in using indigenous knowledge in the selected elementary schools; the frequency of use of the contextualized teaching practices on indigenous knowledge among the participants in the selected elementary schools; and the challenges encountered in the contextualization of indigenous knowledge among the participants in the selected elementary schools. On the other hand, a checklist was used to find out the frequency of use of the contextualization of Indigenous Knowledge.

Data Collection Procedure

The researcher sought permission from the Schools Division Superintendent of Benguet, the Schools District Supervisor of La Trinidad District, and all the School Principals of the selected schools to interview the respondents. Once permission was granted, the researcher personally inquired about the availability of the respondents for interviews. The data was gathered through one-on-one interviews with the respondents.

The Interview was done by posing questions as well as listening to the responses and posing follow-up questions while getting more information, including probing. This data-gathering method gave the participants the freedom to verbalize their experiences while the researcher listened, wrote their responses, and probed further to get more detailed responses.

The researcher personally interviewed all the participants by visiting them in their schools after class hours. The collected data were recorded and sorted per question ready for treatment.

Treatment of Data

The data gathered through the interview were recorded and consolidated to facilitate the analysis and interpretation of the qualitative and quantitative data. The presentation of the data included direct quotes from verbal narratives to enrich the themes that emerged during the interview. The interviews were transcribed into field texts (Clandinin and Connelly, 2000) where both anchors and phenomenal themes were extracted. The text was subjected to phenomenological reduction utilizing a repertory grid. The grid presented the significant statements made by the respondents which were classified using themes and were interpreted carefully. Simultaneous re-reading of the significant statements of each respondent facilitated the surfacing of the important ideas and experiences of the respondents. For the warm analysis, highlighted words or phrases were proofread and analyzed to formulate categories and themes. The validity, truthfulness, and trustworthiness of the emerging patterns and themes were done through correspondence with the participants where the consistency of the transcription and interpretation made by the researchers on the participants' statements were verified individually with the study participants.

Results and Discussion

This section presents the analyses and interpretation of the data gathered on the contextualization of indigenous knowledge in the selected elementary schools on the following: understanding of contextualization on indigenous knowledge, the contextualized teaching practices by the participants in

using indigenous knowledge, the frequency of use of the contextualized teaching practice on indigenous knowledge and the challenges encountered in the contextualization of indigenous knowledge in the selected elementary schools.

Understanding of Contextualization on Indigenous Knowledge Among the Participants in the Selected Elementary Schools

Based on the gathered responses, the participants have revealed their understanding about contextualization of indigenous knowledge in the selected elementary schools in La Trinidad District which were both localization and indigenization. The participants have expressed their knowledge and understanding of contextualization according to their actual teaching experiences.

The participants described contextualization as;

Translating in their mother tongue; and using of indigenous materials, stories and facts present in the locality; *I-contextualize idiyay usaren nga agisuro ti ubing. Kas koma dyay big books ngai-contextualized wenno intranslate iti Kankanaey, weno dyay Mother Tongue nga maus-usar iti eskwela* [Books are contextualized or translated in the mother language of the children].

Other participants said that;

Usually, we do not practice contextualization as children do not have common mother languages; *ditoy awan unay ti contextualization because it is not being practiced, like for example nu idyay isuro nga indigenous knowledge ket farming, haan da ngamai-practice ditoy. Unlike in other places kasla ijay Buguias nalaka nga i-contextualize daytoy nga lesson ta makitkita da iti environment da* [Here, there is no contextualization because it is not being practiced, for example if we are teaching indigenous knowledge like farming, they are not practicing here. Unlike in Buguias, it is easier to contextualized the lesson because they can see in their environment]. If the lesson is about gardening; the local terms *agkabite, ag tinulong*, children can easily relate because it is their everyday scenario. *Mas nalaka nga isuro ti lesson no mai-contextualize* [It is easier to contextualized].

One participant mentioned that;

When we talk of contextualization, we make use of local materials that the children are familiar with. Lessons on foods can easily be related like pinikpikan, etag, kini-ing and or the Ilocano pinakbet. Indigenous games like larongpinoy: tug of war, tumbang preso, sikil.

Participants of the study claimed that in enhancing the learning competencies, they make use of either English, Filipino or Iloko as medium of instruction because learners are from different ethnic groups. The municipality of La Trinidad is a melting pot of different cultures like Kankanaey, Ibaloy, Ilokano, Muslims and other lowland groups. With this diversity, teachers cannot make use of pure Iloko as mother tongue. This is why some participants expressed that they have to determine the common language which they use for their learners which makes it difficult in their everyday. The teachers need to explore and use all possible languages to cater to the needs of the learners having different mother tongues. With these feedbacks from the teachers, the chosen mother tongue must be used as medium of instruction from kindergarten to grade 3. This is part of the reforms in the elementary education. The

DEPED K to 12 Tool Kit (2012) specifically reiterates the institutionalization of the mother tongue not only as a learning area, but also as medium of instruction in kindergarten to grade 3 except English.

The Department of Education cited the research on the Lingua Franca Project and the Lubuagan First Language Component as evidence of the efficiency of the Mother Tongue-Based Multilingual Education (MTBMLE) for literacy and instruction. These studies show that learners learn to read more quickly when taught in their first language (L1); learners who have learned to read and write in their first language learn to speak, read and write in a second language (L2) and third language (L3) more quickly than those who are taught in a second and third language; and in terms of cognitive development and its effects in other academic areas, pupils taught to read and write in their first language acquire such competencies more quickly. But in the case of the participants of this study, there is a need for them to adjust in the use of diverse mother tongue to address the needs of the students.

The participants noted that they were able to connect with their learner's language by providing examples common to the learners. Teachers use words that are understood by all learners. In addition, teachers let the children simulate the event or issue. One participant said, "We let the school children experience the cultural practices of the community they do or act certain practices". The use of cultural practices of the community to further understand certain topics such as places, products, cultures, beliefs, traditions, and other local activities or materials in a certain place; providing information and understanding of the skills developed by the communities with their interaction with their natural surroundings.

These findings imply the participants' understanding about contextualization of indigenous knowledge is the use of the mother tongue as applied in teaching and learning situations in the schools. In corroboration to this study Torres (2015) wrote that localization and contextualization bring relevance in the teaching learning process. He referred contextualization as the educational process of relating the curriculum to a particular setting, situation, or area of application to make learning activities relevant, meaningful, and useful to the learners. Teachers present lessons in more meaningful ways relevant to the learners' previous experiences and indigenous background and real-life situations. With contextualization, learners are put into in a natural and actual learning environment letting them manipulate, relate, and adapt to various learning opportunities and resources available within the locality or community. It helps both teachers and pupils comprehend concepts by relating and presenting lessons on the context of prevailing local environment, culture, and resources, and much more the use of the native tongue in contextualizing teaching and learning situations. Hence, lessons be d-life, customized, and appropriate.

Similarly, the study of Milo (2015) on the impact of indigenous knowledge and cultural practices in education in the public elementary schools has found out that indigenous knowledge and cultural practices were used in teaching Araling Panlipunan. Indigenous knowledge such as ceremonies and rituals like the cañao, amdag, tupya and temo; stories of local heroes; gawain at hanap-buhay ng mga tao sa lugar (local livelihood); aralin tungkol sa mga tao at ugali ng bawat ethnic tribe; mga katutubong kaugalian, pananamit at pamumuhay; mga likas na yaman (lupa, tubig at kagubatan); and environmental protection (pangangalaga sa kalikasan) were cited. Learning is more profound and assured when lessons and/or learning activities are contextualized. While the program on contextualization in the public elementary schools is currently implemented, the teachers need to further enhance their knowledge, understandings, and skills on contextualization. Miller (2005) noted that the Philippines is rich in cultural heritage in various fields like historical events, places, people, traditional beliefs, and values,

produce and products all over the archipelago. Therefore, one must consider the cultural and socioeconomic realities of local populations when designing educational content and school materials which is crucial in engaging students in the learning process.

Contextualized Teaching Practices by the Participants in Using Indigenous Knowledge in the Selected Elementary Schools

Table 1. Contextualized Teaching Practices by the Participants in Using Indigenous Knowledge in the Selected Elementary Schools

| THEMES | TEACHING PRACTICES |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Localization | <ul style="list-style-type: none"> • Use of local facts/artifacts (musical instruments, clothing, farming tools, weaving tools, etc. • Use of local folktales, legends, stories • Use of songs and dances • Utilize of locally made instructional materials |
| 2. Indigenization | <ul style="list-style-type: none"> • Use of mother tongue as a medium of instruction • Integration of values • Experiential learning/ learning by doing • Use of games a springboard to the lesson |
| | |

Table 1 presents the gathered responses on the contextualized teaching practices in using indigenous knowledge in the selected elementary schools by the participants. Gleaned from the table, the contextualized teaching practices were focused on localization and indigenization. On localization, the participants use local facts/artifacts such as clothing, musical instruments, artworks; use of local folktales, legends and stories; use indigenous songs and dances, and utilize locally made instructional materials. The participants claimed that they incorporate in their lessons things that students see around them.

The participants claimed that;

Kasla idyay sayote, patatas, diyay makitkita ken mabuybuya da ditoy lugar [For example “sayote”, “patatas”, those things that they can see in this place].

Other participants related that they used local songs;

Let them sing, the bagbagto; used songs and dances, too. In teaching festivals video clips of the Adivay, Benguet Day and Strawberry Festivals were also shown. Other festivals and celebrations are celebrated by most indigenous peoples.

It was also gathered that the teachers also utilized locally made materials as one of the participant said;

Diyay topic in other places, haan mo ngai-adapt ditoy kas pangarigan isurom ti culture da ditoy [Those topics in other places, it should not be adapted rather to teach their own culture]. They also give examples such as in *cooking sabali t ipanagluluto da ditoy compare idyay lowlands, kaya masapol nga i-explain met lang ti ubing nu apay kasjay ti araramiden ditoy* [For example, when it comes to cooking there is difference when it comes to cooking in lowlands, there should be a brief explanation why they are doing such practices].

Most of the participants utilized *gongs, solibao* and etc. to showcase the culture of the community. Instead of using pictures, most teachers used authentic materials that are available in the community. Hence, some factors also have to consider the cost of producing locally made materials.

As the participant said;

Nu maminsan awan ti gangsa ken solibao ta it is very expensive [Sometimes there are no gongs and solibao because it is very expensive].

The teachers have demonstrated resourcefulness by trying to find ways to integrate cultural materials in the context of their lessons. The importance of using locally made materials can support student learning and increases student success. Ideally, the teaching materials are tailored to the content in which they're being used, to the learners in whose class they are being used to. It helps the teachers to do more so that students can learn more, this makes learning more genuine and real. According to Torres (2005) localization, being one of the aspects of contextualization is the process of relating learning content specified in the curriculum to local information and materials from the learners' community. It is localizing and contextualizing the curriculum and the use of learning materials in terms of geography, cultural diversity and individuality.

Clark (2009) explains that such utilization of the teacher's instructional materials makes teaching and learning process interesting. Taylor et al. (1997) adds localization as a freedom for schools or local education authorities to adapt the curriculum to local conditions and relating the content of the curriculum and the processes of teaching and learning to the local environment. This flexibility in adapting the program of education for students to local conditions, often away from traditional curriculum design.

Generally, teachers employ modification and localization because not all the topics found in the books are contextualized. The teachers also aligned or integrated topics that are related or common in the locality of the learners. While competencies are mandated by Department of Education, some lessons are modified by teachers by giving examples which are found in the community. The teachers also explain the practices in their culture so that the learners will be able to understand it well as they encounter them in their daily life.

It was learned in this study that in the indigenization of teaching and learning, the following were used by the teachers such as the use of mother tongue; the integration of indigenous culture, beliefs and values; used local games/plays as springboard in introducing lessons; hands-on or learning by doing. The mother tongue is used in kindergarten to grade 3 to ensure that learners can easily grasp information using their own language. The (Department of Education No. 62, 2011) provides that the IP education

for IP learners implements mother tongue-based multilingual education; a culture-based responsive education for sustainable development; and alternative modes of instructional delivery and assessment schemes to address need their peculiar needs.

As one participant attested;

Kung yong mga teachers hindi marunong gumamit ng wika ng mga bata [if the teacher doesn't know how to speak the dialect of the learners], then contextualization has no meaning because the teachers cannot explain this indigenous knowledge in the local language.

Malone (2007) affirmed that the use of mother tongue enables the young learners to immediately construct and explain without fear of making mistakes, articulate their taught and add new concepts to that which they already knew. In turn, teachers can more accurately assess what has been learned and identify the areas where they need help.

Likewise, Mondes (2012) as cited by Baa (2016) said that studies on the Mother Tongue Based Multilingual Education should have been considered in different regions first before the implementation of the subject. Participants said that "Mother Tongue is a medium of instruction so that the learners will easily understand the lesson." Participants added, "We employ mother tongue, if they are speakers they can understand it well, if not it is first-hand for them". Alvarez (2010) cited that many teachers believed that the use of the native language can be useful in teaching. Teachers who know the student's native language have more advantages over the ones who do not. The role of language as a medium of instruction in promoting an effective teaching and learning is an issue that has occupied many scholars all over the world for many years (Deyi et al., 2007). Research shows that the use of native language can encourages active participation by children in the learning process because they understand what is being discussed and what is being asked of them. Using mother tongue, the learners can construct and explain their world, articulate their thoughts and add new concepts to what they already know.

Moreover, integration of values meant a lot as one participant said;

Integrate met lang ti culture in all subjects. Ada met laeng ti values, diyay respect manang at manong [In the integration of cultures in all subjects, there are also values that could be integrated such as manang and manong].

This means that localization does not only focus on integrating what is familiar to the learners, but it is also a way of educating the children as to culture, beliefs and values they are born with. The Manitoba Education and Training (2000) cited that inculcating values to learners when they begin to know the full meaning of what and why aspect of such cultural practices in their community and how they can relate themselves into their community. Giving respect to elders is one of the values that should be remain in every learner. This is a way to bring back and strengthen the culture of indigenous people. As education should include traditional knowledge to help teachers and students understand the importance of an education towards a sustainable society. Education is not only intended for the transfer of knowledge, but also for nurturing and developing good character so that the students will not only master knowledge, but also has a strong sense of character.

In addition, participants also used games like "*Siatong and Salikawkaw*". Games that develop competency in the psychomotor domain range from a very calm psychomotor activity to highly active

ones. Along with these games employed by teachers, another indigenization teaching practice employed by teachers is giving the learners experiences through learning by doing, “*Experience ti ubing, damagen ti experience da nu cañao kas pangarigan*” [asking the experiences of the learners]. For cultural dances one participants said, “we teach simple steps”. Child’s experience is integral part of learning. The teachers also ask students experiences as starting points for the lesson. This can be a motivational force for students to share their experiences. Experiential or learning by doing is a common instructional approach among indigenous communities where young people practice the task and skills they need to perform as adults.

The implication of these findings is that the teachers used varied indigenous knowledge in their contextualized teaching practices. The teachers were compliant to their mandate of providing quality learning experiences through contextualization by localizing and indigenizing their lessons and instructional materials. These results likewise signified the creativity and resourcefulness of the teachers in utilizing local materials, facts, and artifacts available in the community.

Parallel to the findings of this study is that of Marcelo (2017). She wrote that teachers made use of contextualized instructional materials in teaching Araling Panlipunan such as cultural songs, indigenous clothing, indigenous musical instruments, artworks, video clips, pictures, and big books/stories about the Cordilleras. Valencia (2008) also mentioned in his that tradition is a means of strengthening the government’s program in preserving indigenous knowledge and transferring them to the younger generation. The indigenous peoples learn about arts and crafts, oral traditions, music, instruments, dances, wine making and others. To transfer and teach to the young i-Benguets (Benguet people), the Department of Education- Benguet Division and the Province of Benguet have come up with a book containing a collection of Benguet ethnic and folk songs as a legacy that can be handed down from generations to come. The Benguet collection of ethnic and folk songs mirror the identity and rootedness of the Benguet people anchored on a deep sense of culture and spirituality. The said compilation is a way of remembering how their ancestors lived their economic, and religious endeavors, their sentiments, and ideas (DepEd-Benguet, 2013). It can be said that this is also a documentation which is a rich instructional material that can be used in contextualized teaching.

In addition, the former Secretary of Education Luistro (2013) emphasized that the development of instructional materials that suits to the learning needs of the pupils that enables them to conceptualize meaningful knowledge. Bringas (2014) described that the concept of localization and contextualization abide by the tenet that students learn best when experiences in the classrooms have meanings and relevance in their lives. Things experienced by the learners themselves and manipulated and associated with them are the learning that last forever. Applying the principle of learning by doing, applied learning, and manipulative learning is also a must in executing localization and contextualization in teaching. The curriculum is alive, it changes depending on who is implementing it, where and when it is implemented. If students were put in an actual learning environment letting them to manipulate, relate, and adapt to various learning opportunities and resources available within the locality or community, profound learning will be assured and realized. It helps teachers and students comprehend concepts by relating and presenting lessons on the context of prevailing local environment, culture, and resources. Hence, lessons are becoming more real life, customized, and appropriate.

Other researchers like Milo (2015) writes that correct and properly selected contextualized instructional materials are used by teachers to facilitate effective teaching and better quality of learning among students. Storytelling practices about culture are used to help construct important concepts and as

the instrument through which knowledge is passed from one generation to the next. Stories seemed to focus on key concepts such as respect and moral responsibility to oneself, others, and the environment and that the stories were primarily told by the elders. A person who knows legends, folktales, and ceremonies is considered to be a resource and a wealthy person in his culture (Miller and Pennycuff, 2008). Scholars such as Dzansi, 2002, Russel, 2002, and Mans, 2000 have demonstrated through ethnographic studies of children’s songs the need to use indigenous songs and singing games to make the children internalize the values and traditions of their cultures. By this way, teachers commonly used this as an example and present a short video clip to showcases what the community have. And started with a simple term as it goes deeper to what really mean.

Frequency of Use of the Contextualized Teaching Practices on Indigenous Knowledge Among the Participants in the Selected Elementary Schools

Table 2. Frequency of Use of the Contextualized Teaching Practices on Indigenous Knowledge Among the Participants in the Selected Elementary Schools

| THEMES | TEACHING PRACTICES | PERCENTAGE (%) | RANK |
|-------------------|------------------------------------------------|----------------|------|
| 1. Localization | Using local artifacts | 64 | 4 |
| | Using local stories | 89 | 3 |
| | Singing songs | 96 | 1 |
| | Utilizing locally made instructional materials | 93 | 2 |
| 2. Indigenization | Using Mother Tongue as a medium of instruction | 100 | 1.5 |
| | Integrating of values | 100 | 1.5 |
| | Experiential learning/ Learning by doing | 75 | 3 |
| | Using games a springboard to the lesson | 68 | 4 |

Table 2 presents the data on the frequency of use of the contextualized teaching on indigenous knowledge in the selected elementary schools as gathered from the participants. On contextualized teaching through localization, the foremost contextualization teaching practice is the using of songs rank 1, the utilizing of locally made instructional materials rank 2; using of local stories rank 3 and using of local artifacts rank 4. The localization of teaching practices is relating the lessons’ content to local

knowledge, practices and materials found in the community. The UNESCO 2002 noted that localization of education is a crucial dimension of quality education because of its relevance to curricula content; and the diversity of local, cultural, and social-economic realities. According to DepEd Order No. 5 (2015) localization of the curriculum content and teaching materials is relevant to the continuous Peoples Education Framework.

Contextualized teaching through indigenization, the topmost rank 1.5 the teaching practices were the use of the mother tongue and the integration of values. The mother or native tongue is the foremost language in the contextualization of teaching and learning. The Department of Education Order No. 28 (2013) specified that the mother tongue-based multilingual education aims to improve the pupil's language and cognitive development, as well as his/her socio-cultural awareness and is fundamental for literacy and learning. In relation to these findings, the study of Milo (2015) found that the impact of indigenous knowledge and cultural practices in education in the public elementary schools include the use of the mother tongue in teaching the learning areas facilitated understanding of Filipino and English terms.

The integration of indigenous traditions and values is one of the foremost contextualized teaching practices as shown in the table 2. Indigenous knowledge, culture and practices have shown great adherence of indigenous peoples to family values such as respect to elders and to one another. Milo (2015) mentioned that such indigenous values integrated in education include respect to nature; love and respect for family; respect to parents and older men and women (paggalang at pagsunod sa nakakatanda) and general respect to ancestors and elders. Other values like "aduyon" or bayanihan was also mentioned.

Such findings imply the significant importance of localization and indigenization as contextualized teaching practices in delivering learning. In the Department of Education Order No. 42 (2016) which set guidelines on daily lesson plan preparation for the K to 12 Basic Education Program, explicitly set for contextualization of daily learning plans stating that the K to 12 curriculum shall be learner-centered, inclusive and developmentally appropriate, culture-sensitive, research-based, contextualized, global and flexible enough to allow schools to localize, indigenize and enhance the same based on their respective educational and social contexts; and that teachers are mandated to use contextualization strategies in their lessons.

This is why the Department of Education institutionalized the Mother Tongue-Based Multilingual Education (MTB-MLE) as a fundamental educational policy and program in the whole stretch of formal education including preschool and the alternative learning system. Likewise, the MTB-MLE is consistent with the basic Education sector reform Agenda (BESRA) recommendations affirming the benefits and relevance of multilingual education. Malone (2007) a strong advocate of the MTB-MLE program said that "the use of mother tongue in teaching young learners because they can articulate their thoughts and ideas without fear of making mistakes. They can construct meaning and explain concepts which they already knew".

Villaneza (2009) asserted notable and empirical studies like the Lingua Franca Project and the Lubuagan (in Kalinga) First Language Component showed that learners learn to read more quickly in their first language; pupils who have learned to read and write in their language learn to speak, read, and write in a second language (L2) and third language (L3) more quickly than those who are taught in a second or third language first; and in terms of cognitive development and its effects in other academic areas, pupils taught to read and write in their first language acquire such competencies more quickly. In

the same perspective Gascon (2009) adds that the Mother Tongue – Based Education has a positive impact on educational and learning outcomes. The child's home language can effectively be used as a language of instruction in their early years of schooling as a bridge to learning. Appropriate language in education enables the teachers to instruct on the language a child speaks most at home and understands well enough to learn academic content through mother tongue.

The contextualization teaching practices on indigenous knowledge strongly integrates values. Indigenous culture (beliefs and practices) has impacted the way children grow up. Giving emphasis on the development of values like respect, love and for family and environment, courtesy and politeness are taught and preserved using indigenous knowledge and practices. Contextualization, indigenization of education is a way of attaining the vision and mission of the Department of Education (DepEd Order No. 36 s. 2013) in developing the full potentials of Filipinos who can contribute meaningfully to nation building who are Maka-Diyos, Maka-Tao, Maka-Kalikasan, and Maka-Bansa.

The culturally responsive teaching as using cultural knowledge, prior experiences and performance styles of diverse students to make learning more appropriate and effective for them. Culture not only makes life in society a pleasurable experience but a condition for educational development of the young in the schools.

Rank 3 and 4 in the contextualized teaching practices gathered from the participants were experiential learning/ learning by doing and uses games as a springboard to the lesson. La Trinidad District as part of the Cordilleras is a locality rich with indigenous music and songs to be sung, to be performed dances, instruments to be played and artworks to be showcased, games to be competed upon. These are teaching materials used to increase pupils' participation and interests in lessons.

The study of Milo (2015) regarding the impact of indigenous knowledge and cultural practices in education in the public elementary schools of Itogon I, Benguet wrote that story telling is a very appropriate way of motivating pupils, much more if the stories used are local folktales, legends and local heroes. This strategy is suited to develop pupils' reading skills, value formation and for enrichment activities. In teaching Music, Arts and Physical Education (MAPE) the teachers shared used indigenous music, songs, dances, musical instruments, games, sports; artworks, paintings and murals of native Cordillerans. In addition, in teaching Araling Panlipunan the teachers used indigenous ceremonies and rituals such as the cañao, amdag, tupyra and temo; stories of local heroes; gawain at hanapbuhay ng mga tao sa lugar (local livelihood); aralin tungkol sa mga tao at ugali ng bawat ethnic tribe); mga katutubong kaugalian, pananamit at pamumuhay; mga likas na yaman (lupa, tubig at kagubatan); and environmental protection (pangangalaga sa kalikasan).

The implication of these findings is that contextualized teaching practices have a great impact on teaching and learning. Teachers, therefore, must continue enhancing their knowledge and competence on the use of contextualized lessons and teaching materials. Teaching-learning environment must be culturally relevant, accommodating and appealing to learners. Teachers must demonstrate that if they care for their students and their cultural needs, a genuine attitude of interest is likely to yield positive emotions that empower and motivate learners.

Culturally relevant teaching was made popular by Dr. Gloria Ladson-Billings in the early 1990s. The theory surrounding culturally relevant teaching is connected to a larger body of knowledge on multicultural education and helping culturally diverse students to excel in education (Gay, 2000). Correspondingly, a report of UNESCO (2010) indicated that indigenous knowledge stored in the local culture in various forms like traditions, customs, folk tales, folk songs, legends, myths, dances, and

costumes are resources which can be used in the schools in making indigenous knowledge, skills, and practices (IKSPs) alive for learners to imbibe and learn from. These allow them to conceptualize traditions and issues around their culture. The learners become familiar to their indigenous culture and traditions. It would enable them active participation not only learning from these IKSPs but also in their involvement in collecting and documenting folk stories, folk songs, legends, myths, and culture related IKSPs.

In other countries like South Africa their school curriculum integrates indigenous knowledge in teaching science, mathematics and technology and educators are encouraged to review and apply them to students for them to easily cope and relate what they learned from science in high school to their cultural environment. The students would be able to appreciate, prove and strengthen their dignity as citizens of a democratic multi-cultural society (Ogunniyi, 2011).

Challenges Encountered in the Contextualization of Indigenous Knowledge Among the Participants in the Selected Elementary Schools

Table 3. Challenges Encountered in the Contextualization of Indigenous Knowledge Among the Participants in the Selected Elementary Schools

| CATEGORIES | CHALLENGES ENCOUNTERED | RANK |
|-----------------------------------------|---------------------------------------------------------------------|------|
| A. Teacher-related | Insufficient knowledge about local indigenous knowledge & practices | 2 |
| | Inadequacy of contextualized instructional materials | 1 |
| | Inadequate time to prepare contextualized teaching materials | 3 |
| | Lack seminar on contextualization | 4 |
| B. Learner-related | Ethnic diversity | 1.5 |
| | Diverse native languages of learners | 1.5 |
| | Lack appreciation and interest of IKs integrated in lessons | 3 |
| | Limited exposure of IKs at home and community | 4 |
| C. Parental & Other Stakeholder-related | Limited involvement and support | 1 |
| | Indifference to the idea of contextualization | 2 |

Table 3 presents the data gathered on the challenges encountered in the contextualization of indigenous knowledge among the participants in the selected elementary schools. The gathered challenges encountered from the participants in the contextualization of indigenous knowledge were categorized as to teacher-related challenges; learner-related challenges; and parental and other stakeholder-related challenges.

Teacher-related Challenges

The results showed that inadequacy of contextualized teaching materials was the foremost challenge and/or problem encountered by the teachers in the contextualization of indigenous knowledge. The teacher-related challenges encountered by the participants are those emanating from what they and their teaching conditions lack.

Most of the participants said;

We lack reading materials and other resources that is why we cannot teach it well. Materials are not readily available; *Nu maminsan awan ti gangsa ken solibao ta very expensive* [Sometimes there are no gongs and solibao because it is very expensive]; *Awan pulos ti K to 12 books nga maususar mi, old books ti ada ditoy ngem mabalin met lang nga reference nu agisuro. santo saan met agdengngeg ti ubing isu nga haan nga la unay maadalan ti culture ditoy. Haan amin nga uubbing ket ammoda nga ag-Ibaloi ken Kankanaey* [There are no K to 12 books to be used, we used old books as reference in teaching. And, learners are not listening to learn the culture. And another is they don't know how to speak native dialects].

Surprisingly, the participants revealed their sentiments on how knowledgeable they are on contextualization of indigenous knowledge. Not all the teachers in the public elementary school in La Trinidad District are native of the area. Some are born in the Cordilleras but their roots are from the lowlands and other ethnic tribes in the region. They speak their native languages such as Iloco, Tagalog, Pangasinense, Bicol, i-Fontoc, Kalinga, Ifugao and many others.

As one participant honestly said;

We lack practice and knowledge about indigenous knowledge in the locality because some of us doesn't know the reasons behind. *We cannot teach if haan mi nga i-papractice idyay balay, masapul nga maadal mi ken dagiti ubbing practice da idyay balay da* [We cannot teach if they are not practicing at home, they should learn in their home].

Participant 7 said;

Awan reference bookswenolibro kaya agdamdamag kami met lang [There are no reference books that is why we inquire].

Participant 10 said;

No knowledge on some other indigenous knowledge or culture in the different provinces in CAR.

Other participant observed that;

Diyay daduma nga books ket Iloko ti taga-lowland isu narigat nga i-translate weno i-explainmo
[Those books are Iloko of lowlands that is why it is we need to translate or explain it].

And participants 26 and 28 blatantly said;

I am forced to research and read about this indigenous practices and knowledge; we are not much familiar about indigenous knowledge.

Ranked 3 challenge encountered was the inadequacy of time in the preparation of contextualized teaching materials with responses as follows;

We have to prepare learning materials as early as possible; Preparing and gathering materials to be used is time-consuming; Some learning materials are not easy to find; teaching duties are overload like contextualizing 8 lesson plan in one day; Recalling the local stories, myths and legends are time-consuming; and consume much time to research and prepare the materials.

These thoughts and sharing of the respondents affirmed that they were hard-up in managing their time just to be able to comply with requirement on the contextualization of indigenous knowledge. Marcelo (2017) indicated in her study that teachers who were teaching Araling Panlipunan also experienced the lack time in preparing contextualized instructional materials. Least among the challenges encountered by the teachers was the lack of seminar on contextualization.

Some of the participants in a straightforward manner said;

We are not much familiar about indigenous knowledge; we are forced to research and read about this indigenous practices and knowledge; while another respondent said, It is difficult to reconcile up to what point does DepEd wants indigenous culture to be taught; we teachers must be trained to deepen our knowledge on contextualization of indigenous knowledge and how to integrate them in learning activities in the context of the K to 12 basic education curriculum.

These findings manifest that teachers in the public elementary schools are confronted with different problems on the contextualization of indigenous knowledge which need to be appropriately addressed in order to increase the efficiency of the teachers in implementing contextualization in their daily lesson planning and teaching. Localization and contextualization in education relatively offer a number of benefits as stated in several DepEd Orders however, there has been no current updates yet as to the status of its implementation objectives and desired outcome.

Based on the UNESCO (2002) indicated that actual implementation of localization and contextualization of education depends a great deal on the capacity and interest of individual teachers, since national education systems seem rarely able to support the development of such abilities on a large scale. The lack of competent staff, lack of funding, resistance from teachers' constraints the implementation of the localization, contextualization, and indigenization policy. Byron (2002) mentioned that the failure to involve key stakeholders and the inadequate preparation of principals and teachers for curriculum change are key factors, too.

Learner-related Challenges

Teachers also experience challenges pertaining to learners' diversity in ethnicity and native language. In addition, learner's appreciation, and interests of IKs integrated in lessons. They have also limited exposure of IKs at home and in the community. The findings showed that learners come from different ethnic groups – highlanders and lowlanders.

The results of the interview revealed the following responses;

Diverse learners with different cultures, traditions and backgrounds; Mixed learners with different dialect and cultural backgrounds; Pupils in our school are mixed like Ilocano, Tagalog, Ibaloi, Kankana-ey and other ethnic groups from the Cordilleras, so you cannot teach Ilocano as their mother tongue, so you cannot teach Ilocano as their mother tongue; *Mix pupils isu nga mixed ti sao, multilingual met lang* [diverse learners therefore it is also multilingual]; *Haan da nga maisao diyay mother tongue da, ngem maawatan da met ketdi* [They cannot speak their Mother Tongue but they can understand]. Instead of teaching their own dialects they prefer speaking in English or Tagalog.

Other participant supplemented that;

Some of the pupils cannot comprehend local languages and indigenous practices –for example those from Pangasinan, Bisaya, Muslims and even those pupils born in foreign lands who eventually lived here.

Other problems encountered by the participants were the learners' lack of interest in learning the indigenous knowledge;

Haan da nga interested nga masuro diyay culture da, kaykayat da ket modernized nga sala, kanta, they go with the trend, kasla nga maawawanen ti culture isu ti ipa-susubli da [They are not interested to learn their culture, they would prefer modernized dance, songs, and they go with the trend that is why the culture is now deteriorating but they are bringing back].

Others shared that;

Haan me met lang ususaren nu mathematics, tano i-mother tongue ti math ket narigat nga isuro mas nalaka nu English ti usaren [In mathematics, if mother tongue will be used it is difficult, it is better to use English as a medium of instruction]; Instead of teaching the contextualized way, they prefer speaking in English or Tagalog; and much worst - *“Haan da nga maawawatan diyay dadduma* [Some of the learners cannot understand].

The mother tongue used is “foreign to learners.” Other respondents added that there is no orthography or dictionary of the language to refer on for the correct translation of some “terms” especially in teaching Science and Mathematics. Similarly, the studies of Marcelo (2017) and Marpa (2015) have found that elementary teachers met problems in the use of contextualized materials such as no budget to acquire new and/or additional contextualized instructional materials; and inadequate copies of both printed and non-printed contextualized instructional materials; that financial resources are almost an issue on instructional materials because amount budgeted for instructional materials may not be sufficient to purchase desirable materials. Likewise, Cortez (2016) also found out in her study that K to 12 teachers met highly serious constraints in the use of present K to 12 instructional materials such as

high cost of reproduction of the materials; no alternative for non-printed materials; instructional materials are outdated and inconsistent to the learning goals of the K to 12 curriculum.

With these challenges, teachers have difficulty in motivating and gaining the interest of the learners. It must be an accepted truth that learners today are more attentive and participative when technology is used in teaching. Considering the promotion of the use of different information and communication technologies (the internet, computers, laptops, blogs, media, cellular phones etc.) contextualization of learning seemed to be less appealing to learners nowadays. These attitudes of the young learners towards contextualized/indigenized learning negatively affect their appreciation and preservation of indigenous knowledge and practices.

As evident in the comment of one of the participant;

Awan ti appreciation da ti culture da ta modernized dan [They lack appreciation of their culture because they already modernized].

According to Berry (1985) an ethnic group is likely to interact with other ethnic groups, such interactions should not be ignored as possible sources of cultural influences. It was said by the informant that, “consider the melting pot of cultures bring out all the culture then relate them all as one”. Ethnic identity emerges when an individual's social context underscores aspects that are related to the categorization of individuals along ethnic lines.

One participant added;

They need to learn first tipagka-ibaloï da and they need to learn ti pangkanakanaey da. Haan da nga pagsisinaen diyay specific tribe [They need to learn their own dialects and do not separate those specific tribes]. The classes are affected with ethnicity, we have Muslims, Tagalogs, and those who lived in far-flung areas.

LeRoux (2001) argues that exposing children and having them acquire their own cultural identity should occur before introducing them to other cultures. However, an individual who does not have one identity, but multiple identities also need to recognize the co-existence of multiple worldviews and knowledge systems and find ways to understand and relate to the world in its multiple dimensions and varied perspectives. The culturally responsive pedagogy should begin with the formation of relationships between teachers and students. That is why the teachers also considered ethnicity of the learners in teaching pedagogy because there were some lessons that were hard-to-find strategies to contextualize the lessons to suit the different ethnic background of the learners.

These findings regarding the challenges encountered by the teachers to the learners seriously hinder the use of contextualized and/or indigenized materials in teaching in the public elementary schools in La Trinidad District. The Iloko language as mother tongue used in La Trinidad District is not widely spoken and understood by all learners. Utang (2014) resonates the same problems were also observed by the teachers in the implementation of the Mother Tongue-based Multilingual Education such as diversity of learners' languages; and even the teachers were not native speakers of the mother tongue which was vital in contextualization of indigenous knowledge and practices.

Parents and Other Stakeholder-related Challenges

Limited involvement of the parents and other stakeholders posed a challenge, too in the contextualization of indigenous knowledge. The success of any school endeavor is critically affected by the collaboration and involvement of parents and other education stakeholders.

The participant reacted that;

Diyay parents ket haan da nga sursuraan ti ubing da ti Ilokano, Ibaloi wenu Kankanaey. Nu maminsan ket English ti ammo da, kaya narigat da nga agsao ken maawatan no i-contextualized ti teaching materials [Parents are not using the mother tongue of the learners they prefer speaking in English that is why it is difficult to contextualized teaching materials].

According to Bartilad (2010) the successful collaboration of school stakeholders is the key in ensuring that Filipino children and youth go to school, remain in school and learn in school. The African proverb says, “it takes a village to raise a child”. The parent and the teacher need to care for the whole child as he responds to life in school and at home, and guiding the development of the child is a cooperative process (Bilbao, 2006). More so, the involvement of parents and education stakeholders in school projects promotes camaraderie and harmonious relationship between parents and teachers. Aside from that, it conveys to the students the essence of community and of humanity which forms the core of the Filipino spirit (Hernandez, 2011). The implication of these findings is that the teachers need extra effort and help from other stakeholders to captivate the love and interest of pupils in their learning through contextualized indigenous knowledge, culture and practices.

As a whole, these above-mentioned challenges encountered in the contextualization of indigenous knowledge for teaching and learning must be suitably and immediately addressed. The teachers together with their school heads, parents, pupils and other concerned stakeholders must find ways and means to solve these said problems. Though, teachers, learners and parents felt contextualization as less helpful and meaningful in facilitating mastery learning, the benefits gained must also be highlighted and replicated. Other schools, and District in the Division of Benguet have plenty of best practices on contextualization of learning materials which can be benchmarked by teachers of La Trinidad District.

The reality is that the education of the youth is everybody’s concern. The successful collaboration of the stakeholders is the key in ensuring that Filipino children and youth go to school, remain in school and learn in school. The cooperation of every member of the school has become a reminder to the society that helping a public school and community is a responsibility and not merely an act of support (Bartilad, 2010). Besides, the Department of Education (DepEd) promises the provision of quality system of public education by providing the schools with teachers who are able to help learners develop their abilities, skills, and attitudes for them to function effectively in an environment that is changing rapidly in many different way (DepEd- TEC-CHED, 2009). However, the instructional needs of teachers must be equally addressed not only in terms of instructional supervision but also their instructional material needs most especially on the provision of sufficient localized and contextualized materials.

Moreover, the Department of Education and its allied stakeholders are relentless in responding to the urgent and critical need to improve the quality of basic education in the Philippines through the education reform, the K to 12 Basic Education Program. This reform includes decongesting and

enhancing the basic education curriculum including contextualization and localization of teaching and learning for learners to master the basic learning competencies. Overall, the holistic development of the learners is the utmost concern of all educational institution. Former Secretary of the Department of Education Valisno (2012) said that teacher's practices in the classroom need to be replaced with effective and teaching-learning approaches. A student's success is synonymous with a teacher's success.

Summary

The following are the salient findings of the study.

1. Contextualization among teachers is providing examples of local terms and literal interpretations of common practices.
2. In localization, teachers integrate songs, dances, musical instruments and local artifacts. In Indigenization, teachers use mother tongue to translate the lessons.
3. Contextualization of indigenous knowledge is frequently done by teachers in the grade levels.
4. Several challenges along contextualization are met by teachers. Teachers themselves are challenged with content and pedagogy, diversity of languages among learners, where contextualization in the curriculum should happen.

Conclusions and Recommendations

Conclusions:

Based on the salient findings of the study, the following conclusions were drawn;

1. The knowledge of teachers in contextualizing Indigenous Knowledge is limited to translation of words and mentioning practices.
2. Teachers are limited to teaching only what is available at hand without mapping what needs to be learned on Indigenous Knowledge.
3. Essential Indigenous Knowledge lessons and practices are not identified in different levels of the curriculum.
4. Challenges of teachers are in instruction, curriculum, teachers and L1 of learners.

Recommendations:

In the light with the conclusions, the following are the recommendations:

1. There is need to deepen teachers' understanding of contextualization for a continuous learning of the IPEd among teachers and school heads to improve their content knowledge. Feedback meetings on their IK teaching practices is encouraged as part of the teachers LAC session agenda.
2. There is need for curriculum mapping to integrate relevant and in-depth discussion of indigenous knowledge per grade level.
3. School head prioritize in monitoring and evaluating how teachers contextualize indigenous knowledge in the curriculum.
4. A sample enhanced curriculum is put forward for test and use among stakeholders.
5. A follow up study in coping mechanisms and interventions in the challenges encountered in the contextualization of indigenous knowledge.

References

1. ANAFE (African Network for Agriculture, Agro-forestry and Natural Resources Education). 2010. Improving relevance through contextualized learning resources. Retrieved from www.anafeafrica.org on 28/07.2012. Accessed on April 30, 2019.
2. ALVAREZ, L. 2010. Focusing formative assessment on the needs of English language learners. San Francisco: WestEd
3. BAA, G. 2016. Mother Tongue Subject as a Bridging Tool in Grammar Skills in Multi-Cultural Classroom. Benguet State University, La Trinidad, Benguet.
4. BARTILAD, A. 2010. Forming partnerships with parents: self-learning module. Retrieved from: <http://www.threededucationteam.com>. Accessed on October 30, 2019.
5. BEANE, J. 1997. Curriculum integration: designing the core of democratic education. New York and London: Teachers College Press.
6. BEDER, H. and P. MEDINA. 2001. Classroom dynamics in adult literacy education. Cambridge, MA: The National Center for the Study of Adult Learning and Literacy, Harvard Graduate School of Education.
7. BERNS, R. and P. ERICKSON. 2001. Contextual teaching and learning: Preparing students for the new economy (The Highlight Zone: Research @ Work No. 5). Louisville, KY: University of Louisville, National Research Center for Career and Technical Education.
8. BERRY, J. 1985. In I. Reyes-Lagunes & Y. Poortinga (Eds.), From a different perspective: Studies of behavior across cultures. Lisse, The Netherlands: Swets & Zeitlinger.
9. BILBAO, D. P. 2006. The Teaching Profession. Quezon City. Lorimar Publishing House.
10. BRINGAS, H. 2014. Localization and contextualization (A presentation during the grade 9 mass training) University of the Cordilleras, Baguio City. Retrieved from www.slideshare.com. Accessed on October 30, 2019.
11. BYRON, P. 2000. An overview of country reports on curriculum development in South and South East Asia. Retrieved from <https://theschoolsproject.org/curriculum-localization>. Accessed on August 6, 2019.
12. CLANDININ, D. and F. CONNELLY. 2000. Narrative inquiry: experience and story in qualitative research. San Francisco, CA: Jossey-Bass.
13. CLARK, L. 2009. Teaching tools teaching in the secondary school New York. Macmillan publishing co. Inc.
14. CORTEZ, G. 2016. The status of instructional materials in the K to 12 curriculum in Candon City Division. Unpublished dissertation. Baguio Central University, Baguio City.
15. CRESWELL, J. 2003. Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research (Fourth Ed.). Boston, MA: Pearson Education, Inc.
16. DEPARTMENT ORDER No. 42 s. 2016. "Policy Guidelines on Daily Lesson Preparation for K to 12 Basic Education Program
file:///C:/Users/user/Desktop/masters%20assignment/POLICY20ON%20CONTEXTUALIZATION/DO_s2016_042.pdf. Accessed on March 18, 2019.
17. DEPARTMENT OF EDUCATION ORDER No. 35 s. 2016. "The Learning Action Cell as K to 12 Education Program School-Based Continuing Professional Development Strategy for the Improvement of Teaching and Learning." Retrieved from www.deped.gov.ph/sites/default/files/order/2016/DO_s2016_035.pdf. Accessed on March 18, 2019.

18. DEPARTMENT OF EDUCATION ORDER No. 5 s. 2015. “DepEd issues IPed Curriculum Framework”. Retrieved from <http://www.deped.gov.ph/press/releases/deped-issues-iped-curriculum-framework>. Accessed on March 18, 2019.
19. DEPARTMENT OF EDUCATION ORDER No. 36, s. 2013. Our Department of Education Vision, Mission and Core Value (depedvmv). Accessed on March 18, 2019.
20. DEPARTMENT OF EDUCATION-BENGUET DIVISION. 2013. Benguet Ethnic and Folk Songs.
21. DEPARTMENT OF EDUCATION (DepEd) – Southeast Asian Ministers of Education Regional Center for Innovation and Technology (SEAMEO-INNOTECH). 2012. The K to 12 Tool Kit.
22. DEPARTMENT ORDER No. 62 s. 2011. “Adoption of the National Indigenous Peoples Education Policy Framework.” Retrieved from Actualizing the Inclusion of Indigenous Peoples’ Rights in Education 15p www.deped.gov.ph/sites/default/files/order/2011/DO%20No.%2062%2C%20s.%202011.pdf. Accessed on March 18, 2019.
23. DEPARTMENT OF EDUCATION (DepEd), Teacher Education Council (TEC), Commission on Higher Education (CHED). 2009. Experiential Learning Courses Handbook.
24. DEYI, S., E. SIMON, S. NGCOBO and A. THOLE. 2007. Promoting the multilingual classroom: Why the significance of multilingualism in HE. Paper presented at the National Foundation Conference, Conversations about Foundation, Granger Bay, 2-3 October 2007.
25. DUNN, R. and S. GRIGGS. 2000. Practical approaches to using learning styles in higher education. Connecticut: Bergin & Garvey.
26. DZANSI, M. 2002. Some manifestations of Ghanaian Indigenous culture in children’s singing games. International Journal of the Arts in Education. Retrieved from <http://ijea.asu.edu/v3n7>. Accessed on March 18, 2019.
27. FELDER, R. M. and R. BRENT. 2005. Understanding student differences. Journal of Engineering Education, 94(1), 57-72. <https://doi.org/10.1002/j.2168-9830.2005.tb00829>.
28. FORMOSINHO J., and J. MACHADO. 2008. Currículo e organização: As equip as educative as comomodelo de prática pedagógica. Currículo Sem Fronteiras, 8(1), 5.
29. FRAENKEL, J. and N. WALLEN. 1994. How to design and evaluate research in education. New York : McGraw-Hill Inc.
30. FREIRE, P. 1970. Pedagogy of the oppressed, Penguin books.
31. GALLESPIE, M. 2002. EFF Research principles: a contextualized approach to curriculum and instruction – EFF Research to Practice Note – 3; www.nifl.gov. Accessed on March 18, 2019.
32. GASCON, N. 2009. Curriculum Development: Its Influence on Instructional Development. Quezon City. Avenida Book Store Publications Inc.
33. GAUVAIN, M. 2001. The social context of cognitive development. New York, NY: The Guilford Press.
34. GAY, G. 2000. Multicultural teacher education for the 21st century. Teacher Educator, 36(1), 1–16.
35. GAY, G. and T. HOWARD. 2000. Multicultural teacher education for the 21st century. Teacher Educator, 36(1), 1–16.
36. GAY, G. 1995. Bridging multicultural theory and practice. Multicultural Education, 3(1), 4–9.
37. GOLBY, M. 1975. Curriculum Design. London: Crown Helm.
38. GUBRIUM, J.F and J.A HOLSTEIN. 2002. Handbook of Interview Research: Context and Method. Thousand Oaks, CA: Sage.
39. HAWES, H. and D. STEPHENS. 1990. Questions of quality. [n M. J. Kelly (Ed.) The Origins.
40. HERBERT, S. 2006. The challenges of designing and implementing across-cultural unit of work. Education Action Research, 14 (1), 45-64.

41. HERNANDEZ, B. 2011. Philippine Daily Inquirer Online.
42. HORNBY, A. S. 2000. Oxford Advanced Learner's Dictionary. Oxford University.
43. IRVINE, J. and D. YORK. 1995. Learning styles and culturally diverse students: A literature review. In J. A. Banks & C. A. Banks (Eds.), Handbook of Research on Multicultural Education. New York, NY: Macmillan.
44. JACOBSON, E., S. DEGENER and V. PURCELL-GATES. 2003. Creating authentic materials and activities for the adult literacy classroom. Cambridge, MA: National Center for the Study of Adult Learning and Literacy, Harvard Graduate School of Education. Retrieved from http://www.ncsall.net/file_admin/resources/teach/jacobson.pdf. Accessed on May 28, 2019.
45. KARSETH, B. and K. SIVESIND. 2010. Conceptualizing Curriculum Knowledge Within and Beyond the National Context. European Journal of Education, Vol. 45, No. 1, Part I, pp.103-120.
46. KENEA, A. 2014. The practice of curriculum contextualization in selected primary schools in rural Euthopia. Journal of education and practice, (10),49-56.
47. KING, L. and S. SCHIELMANN. 2004. The Challenges of Indigenous Education. United Nations Educational, Scientific and Cultural Organization. UNESCO.
48. LADSON-BILLINGS, G. 1995. But that's just good teaching! The case for culturally relevant pedagogy. Theory into Practice, 34(3), 159–165.
49. LADSON-BILLINGS, G. 1994. The dream keepers: Successful teachers of African-American children. San Francisco, CA: Jossey-Bass.
50. LADSON-BILLINGS, G. 1992. Reading between the lines and beyond the pages: A culturally relevant approach to literacy teaching. Theory into Practice, 31(4), 312–320.
51. LEE, C. 1995. A culturally based cognitive apprenticeship: Teaching African American high school students skills in literacy interpretation. Reading Research Quarterly, 30, 608–630.
52. LEROUX, J. 2001. Effective schooling is being culturally responsive. Intercultural Education, 12(1), 41-50.
53. LUBRICA, P., J. MONTEMAYOR, E. ANGIWAN and A. CAPILI. 2018. Contextualizing Teaching Practices in a Diversified Classroom: An Assessment. International Journal of Teaching and Education Vol. VI, No. 2 / 2018. DOI: 10.20472/TE.2018.6.2.007.
54. LUBRICA, P. 2012. Cognitive Learning Strategies Among Teacher Education Students: Their Implications for Improving Classroom Practices. International Journal of Multidisciplinary Research. IAMURE, Philippines. Vol. 3, ISSN22438327, pp.160- 175.
55. LUISTRO. 2013. Deped Strengthens Mother Tongue based education. Retrieved from <https://ph.news.yahoo.com/>. Accessed on October 15, 2019 from 171203454.
56. MALONE, S. 2007. MTBMLE: Its implications for education policy. Katmandu.
57. MANITOBA EDUCATION AND TRAINING. 2000. Kindergarten to Senior 4 Physical Education/Health Education: Manitoba Curriculum Framework of Outcomes for Active Healthy Lifestyles. Winnipeg, MB: Manitoba Education and Training, School Programs Division.
58. MANS, M. 2000. Using Namibian music/dance traditions as a basis for reforming arts education. International Journal of the Arts in Education. Retrieved from <http://ijea.asu.edu/v1n3>. Accessed on September 28, 2019.
59. MARCELO, C. 2017. Using contextualized instructional material in teaching araling panlipunan in North Quezon District, Schools Division of Baguio City. Unpublished master's thesis. Baguio Central University, Baguio City.
60. MARPA, S. 2015. Why there are problems in the use and usability of instructional materials for the K to 12 education program. The Graduate School Journal, Philippine Normal University, Volume XXV, Number 2.

61. MAZZEO, C., S. RAB and J. ALSSID. 2003. Building bridges to college and careers: Contextualized basic skills programs at community colleges. Brooklyn, NY: Workforce Strategy Center.
62. MCCOMBS, B. and J. WHISLER. 1997. The learner-centered classroom and schools: Strategies for increasing student motivation and achievement. San Francisco, CA: Jossey-Bass.
63. MILLER, E. 2005. The child scope approach: A handbook for improving primary education through local initiative. Retrieved from <https://www.unicef.org/un/>. Accessed on October 30, 2019.
64. MILLER, S. and L. PENNYCUFF. 2008. The Power of story. Using Storytelling to Improve Literacy Learning. *Journal of Cross-Disciplinary Perspective in Education*. Retrieved from <http://wmpeople.wm.edu/asset/index/mxtsch/storytelling>. Accessed on September 15, 2019.
65. MILO, J. D. 2015. Impact of indigenous knowledge and cultural practices in education in the public elementary schools of Itogon I District, Division of Benguet. Unpublished master's thesis. Baguio Central University, Baguio City.
66. MOLL, L., C. AMANTI, D. NEFF and N. GONZALES. 1992. Funds of knowledge for teaching: Using a qualitative approach to connect homes to classrooms. *Theory into Practice*, 31, 132–141.
67. MONDES, R. 2012. Appropriateness of Mother Tongue-based Multilingual Educ. (MTB-MLE) in Urban Areas. A synthesis Study. *International Journal of Science and Research*. 2 (1) 611-620. <http://ijsr.net>. Accessed March 29, 2019.
68. NIKITINA, S. 2002. Three strategies for interdisciplinary teaching: contextualization, conceptualization and problem-solving. Report on interdisciplinary Studies Project, Harvard Graduate School Education.
69. OGUNNIYI, M. 2011. Modeling the integration of indigenous knowledge systems into the teaching and learning of science.
70. ORELLANO, M. 2001. The work kids do: Mexican and Central American immigrant children's contributions to households and schools in California. *Harvard Educational Review*, 71(3), 366–390.
71. PARIS, D. 2012. Culturally sustaining pedagogy: A needed change in stance, terminology, and practice. *Educational Researcher*, 41(3), 93–97.
72. PARIS, D. and A. BALL. 2009. Teacher knowledge in culturally and linguistically complex classrooms: Lessons from the golden age and beyond. In L. M. Morrow, R. Rueda, & D. Lapp (Eds.), *Handbook of research on literacy instruction: Issues of diversity, policy, and equity*. New York, NY: Guilford.
73. PATTON, M. Q. 2002. *Qualitative Research an Evaluation Methods* (2nd ed.). Thousand Oaks, CA. Sage.
74. PHILIPPINE CONSTITUTION OF THE REPUBLIC OF THE PHILIPPINES. 1987. Official Gazette. Volume 6. Issue:3. Publication: April 2003 Retrieved from www.gov.ph/constitutions/the-1987-constitution-of-the-republic-of-the-philippines/.Journal. Accessed on March 18, 2019.
75. REPUBLIC ACT NO. 10533. An Act Enhancing the Philippine Basic Education System by Strengthening its Curriculum and Increasing the Number of Years for Basic Education, Appropriating Funds Therefore and for other Purposes.
76. ROSS, J. A. and H. A. GRAY. 1996. 'the Effects of Curriculum Integration. *Research in Ontario Secondary School*.
77. RUFINO, R. 2013. Looking back at IPs and school system. (Powerpoint Presentation during the Regional Educators Congress), DepEd- Cordillera Administrative Region.
78. RUSSEL, J. 2002. Sites of learning: Communities of musical practice in the Fiji Islands. Focus area report. Bergen, Norway: International Society for Music Education.

79. SHARMA, R. 2014. Should Curriculum be Universalized or Contextualizes? A Seminar Paper in Curriculum and Instruction. <https://www.researchgate.net/publication/311952592> Accessed on May 2, 2019.
80. SLEETER, C. and C. CORNBLETH. 2011. Teaching with vision: Culturally responsive teaching in standards-based classrooms. New York, NY: Teacher's College Press.
81. SRIVASTAVA, A. and S. B. THOMPSON. 2009. Framework Analysis: a Qualitative Methodology for Applied Research Note Policy Research. JOAAG Vol. 4. No. 2.
82. TAYLOR, P. 2004. How can Participatory Processes of Curriculum Development Impact on the Quality of Teaching and Learning in Developing Countries? From: UNESCO.
83. TAYLOR, P. 2003. "Making learning relevant: principles and evidence from recent experiences" in David Atchoarena and Lavinia Gasperini (eds.) Education for Rural Development – Towards new Policy Responses, A joint study conducted by FAO and UNESCO, Paris.
84. TOMSKY, B. 2007. Administrators' Perceptions of Curriculum Integration with Jewish Community Day Schools. University of Hartford Conference.
85. THARP, R. G., P ESTRADA, S. S., DALTON and L. A. YAMUCHI. 2000. Teaching transformed: Achieving excellence, fairness, inclusion, and harmony. Boulder, CO: Westview Press.
86. TORRES, Y. A. 2005. Selections on the assessment of instructional materials. The Education Journal, Volume XXI. Number 4.
87. UNESCO. 2010. Building the capacities of curriculum specialists for educational reform (Final report of the Regional seminar in Vientiane, Laos).
88. UNESCO. 2002. The Dakar Framework. pages 8, 58, and 59. Retrieved from <http://unesdoc.unesco.org/images/0012/001211/121147e.pdf>. Accessed on March 28, 2019.
89. UTANG. J. 2014. The mother tongue based-multilingual education: its effect to teachers in the Districts of Sablan and Tuba, Division of Benguet. Unpublished master's thesis, Baguio central University, Baguio City.
90. VALENCIA, M. 2008. Surfing Indigenous Knowledge System and Practices Towards the Establishment of SMU School of Living Tradition. Unpublished Dissertation in Saint Louis University.
91. VILLANEZA, R. 2009. The What, Why and How of Mother Tongue Based Multilingual Education.
92. VILLEGAS, M. and T. LUCAS. 2002. Preparing culturally responsive teachers: Rethinking the curriculum. Journal of Teacher Education, 53, 20.
93. VYGOTSKY, L. 1978. Mind in society: The development of higher psychological processes. Cambridge, MA: Harvard University Press.
94. WEIMER, M. 2002. Learner-centered teaching: Five key changes to practice. San Francisco, CA: Jossey Bass.