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# Contextualized, Creative, and Interactive Alternative Learning Materials for Physical Education in Senior High School: Development and Validation

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## ABSTRACT

This study explored the challenges and issues experience of school personnel, students and parents, preferred learning modality, concerns for contextualization of a topic in Physical Education under the HOPE curriculum. Using the qualitative methodology, the researcher interviewed three (3) parent-respondents, six (6) student-respondents, three (3) school head-respondents, and five (5) teacher-respondents who were purposively selected using the identified criteria. A series of procedures were employed that helped to code and categorize the details of participants' narratives and stories. To get the themes of their accounts, the analyses of meanings were performed. Findings revealed five (5) important themes that helped the researcher to develop and validate the contextualized, creative, and interactive alternative learning materials for Physical Education in the Senior High School Program. Finally, a discussion of the importance of the findings of this study and major recommendations for future research was presented in light of the recently established facts from extant literature.

*Keywords:* contextualize topic, alternative learning materials, learning modality, module development

## 1. INTRODUCTION

The Physical Education Curriculum in the K to 12 Program is very significant because it contributes a lot in addressing the problems and issues of public health and safety. Fitness and movement education content is the core of the K to 12 P.E. Curriculum. It includes value,

knowledge, skills and experiences in physical activity participation in order to (1) achieve and maintain health-related fitness (HRF), as well as (2) optimize health. In particular, it hopes to instil an understanding of why HRF is important so that the learner can translate HRF knowledge into action. Thus, self-management is an important skill. In addition, this

curriculum recognizes the view that fitness and healthy physical activity (PA) behaviors must take the family and other environmental settings (e.g. school, community and larger society) into consideration (Department of Education [DepEd], 2016).

Despite the improvement in the new P.E. Curriculum, the CoViD-19 pandemic negatively affects the situation of education in the Philippines particularly in the conduct of physical education classes which require physical interaction. It brought several issues and challenges to student life and learning. Many children, especially the youngest students in crucial developmental stages, experienced the associated consequences of limited face to face classes, school closures, including learning loss, mental distress, missed vaccinations, and increased risk of dropout, child labor, and child marriage (United Nations Children's Fund [UNICEF, 2020]).

Given these problems and issues, the application of contextualized learning strategies and the development of interactive alternative learning materials for physical education subjects is seen as a good strategy to introduce and perform difficult topics or lessons in P.E. Thus, this study deeply explored the narratives of the participants to identify the themes that may emerge about the challenges or problems of selected teachers, school heads, parents, and students, their coping mechanisms, preferences in terms of learning modalities, standpoint about contextualization, and identification of topics under the HOPE curriculum.

The ardent desire of the researcher to conduct this study is evidenced by her goal to ensure that every member of the school community can work together by the help of a functional intervention that will be designed to enhance student learning. In fact, Ferres (2020) believed that education officials should do their

best to ensure that every learner masters the most essential learning competencies (MELCs) amidst the new set-up of schooling. Teachers, school heads, and parents should note that P.E. education helps in building a safe, healthy, and resilient society.

To explore the actual situation, problems and issues observed by the respondents in the conduct of actual classes during pandemic as basis for development of contextualized and alternative learning materials for P.E in SHS curriculum the following objectives of this study have been accomplished by the researcher.

- Investigate the actual challenges and coping mechanism by the school heads, teachers, students, and parents in selected senior high schools in the DepEd Division of Quezon in the conduct of physical education classes using different learning modalities in the S.Y 2020-2021.
- Develop contextualized, creative, interactive, and alternative learning materials for the P.E. curriculum (Health Optimizing Physical Education) of SHS in Quezon Province.

## 2. METHOD AND MATERIALS

This study used the qualitative approach to assess and determine the experiences of the respondents regarding the different issues and challenges in the conduct of physical education classes and the abrupt implementation of distance learning modalities during the CoViD 19 pandemic. This study was conducted in Quezon Province which is composed of four (4) congressional districts and (43) municipalities. The respondents of this study were selected from different senior high schools in the DepEd Division of Quezon.

The participants of this study are composed of school heads, P.E teachers in Senior High School Handling HOPE subject, Senior High School P.E students, and

**Table 1.** Semi-structured Interview Questions

Item Number	Interview Questions
1	Kindly share the problems you have encountered and experienced as a parent/guardian in assessing/supporting your child or student in Physical Education class.
2	How would you overcome those challenges and transform into opportunities to adapt on the system of education of your child particularly in P.E. subject?
3	Based on your experience, what learning modality is best fit for P.E. HOPE curriculum and relevant to learning condition of your child or student?
4	During the pandemic, do you observe instances that your child or student had experience difficulties in understanding the lesson and preparing or developing their learning outputs in Physical Education?
5	Do you think that there is a need to develop alternative learning materials in P.E. to guide and support your child or student in his/her/their studies?

selected parents from selected Senior High Schools in the Division of Quezon province. The researcher purposively selected the schools to be included as the respondents of the study. The sampling of schools was accomplished purposively using the set criteria prepared by the researcher. The criteria are as follows: (1) the SHS has a good offering of P.E. program; (2) has qualified faculty handling the P.E subjects, (3) adopted distance learning modality in the delivery of instruction using modular, online, or blended learning. To select teachers- respondents, school heads, students, and parents, purposive sampling was used. This method of sampling was used for this study since the current study adopted a qualitative research design.

The main instrument utilized to gather necessary data for this study is the semi-structured interview guide. These are composed of semi-structured questions developed to interview the selected school heads, teachers, students, and parents-respondents. Five sets of questions were prepared by the proponents to assess the actual experiences and observations of the respondents which focus on the following: (1) issues and challenges encountered in conducting P.E. classes during the pandemic; (2) participants' coping strategies; (3) appropriateness of learning modality on the situation of learning; (4) the needs to contextualized selected topics which are difficult to execute due to

limitation of pandemic and; (5) selection of a topic in HOPE subject which is most appropriate to highlight in the development of contextualized alternative learning material for P.E. curriculum.

The table 1. presents the interview questions that the researcher has utilized for this study.

Online interviews were conducted with school heads, teachers, students, and parents to collect the necessary data for this study. The researcher conducted the interviews using available social media platforms such as Facebook Messenger, Zoom, Google Meet, etc. depending on the preference of the participants. Recording of interviews was included in the data gathering process with the permission of the participants. The data privacy of participants was observed by the researcher and the online interviews were guided by key questions based on the validated semi-structured interviews.

Prior to the conduct of the interview, formal letters were sent to the school heads for approval. The letters informed the school heads that their respective schools were selected as respondents of the study. For teacher-respondents, a copy of the approved letter from the school head accompanied by a formal letter informing the P.E teachers chosen as respondents through

communication was sent to their respective email accounts.

A formal request explaining the purpose of this research accompanied by the survey questionnaire was also sent to the student respondents. The list of students in P.E class was requested from their P.E. teachers for the selection of their names for sampling and to get their respective contacts on email or Facebook accounts to schedule the online interviews. Data were retrieved and consolidated through recording of actual conversations online. The total number of respondents who responded to online interviews was considered the actual size of respondents. The same procedure was adopted by the researcher to gather the data from the parent-respondents.

The data obtained from the online interviews were transcribed and translated by a third party. After the processing of data from interviews, the data were coded and categorized. Afterward, the researcher identified the common themes as they emerge.

Analysis occurred in three phases. First, interview transcripts were reviewed several times, searching for "recurring regularities" (Grundmeyer 2012; Merriam, 1998, p. 180). The researcher highlighted quotes and phrases from the interviews that were significant to the study. Using the constant comparative method (Glaser & Strauss, 1967; Grundmeyer 2012), the researcher went back and forth among transcripts until categories emerged that were consistent, yet distinct (Marshall & Rossman, 1989; Grundmeyer 2012). The researcher coded the transcripts and placed sections in labeled folders representing each category (Bogdan & Biklin, 1982; Merriam, 1998; Grundmeyer 2012). Second, the researcher brought together the coded interviews and field notes and looked for relationships within and across the data sources. A table was developed to

compare various coded interviews. As tentative categories emerged, the researcher tested them against the data (Merriam, 1998). Finally, the researcher integrated and refined the categories until themes solidified (Strauss & Corbin, 1998; Grundmeyer 2012).

In this study, the researcher observed and apply the pertinent provisions of the Data Privacy Act to protect the identity of participants and the information obtained during the conduct of research. To increase the trustworthiness of the study's findings, the researcher employed strategies suggested by Lincoln and Guba (Grundmeyer, 2012).

### 3. RESULTS AND DISCUSSION

After various phases of theme development, the researchers identified five important themes that answered the research questions. The themes are enumerated as follows: (1) respondents' problems; (2) collaboration; (3) flexible learning; (4) need for contextualization; and (5) Physical Fitness Test. The presentation of subthemes from the data shared by teachers, school heads, students, and parents is also organized in the table below.

There is no extant literature that delved into the experiences of multiple groups of participants to utilize as a basis for the development of contextualized learning materials in Physical Education HOPE curriculum. Based on the narratives of the selected teachers, parents, school heads, and parents, the research was able to establish five important themes that as follows: (1) respondents' problems; (2) collaboration; (3) flexible learning; (4) need for contextualization; and (5) Physical Fitness Test.

Respondents' problems such as lack of learning materials and equipment can be attributed to the high level of poverty incidence in Quezon Province (International Labor Organization). Due to the

restrictions imposed by the Government, students are contained in their respective residences.

They need to study under a distance learning modality or modalities. Poverty may cause lack of ability to purchase functional gadgets and strong internet connection for student learning. Thus, students encountered many challenges that may affect their academic performance. As seen from the data, students' motivation to study Physical Education is also at risk under distance education. It may be due to the lack of

teaching and cognitive presence that are required in distance education set-ups. In fact, the motivation of students can be enhanced if all important aspects of the teaching-learning process are taken into consideration. One helpful model that explains this further is the Community of Inquiry (CoI) model. This model highlights that a conducive virtual or distance learning should be accommodating to the students (social presence), well-guided by teachers (teaching presence), and can stimulate cognitive development (cognitive

**Table 2.** Thematic Presentation among Participants

Research Questions	Subtheme/s from Teachers	Subtheme/s from School Heads	Subtheme/s from Students	Subtheme/s from Parents	Theme
Question 1: Kindly share the problems you have encountered and experienced as a parent/guardian in assessing/supporting your child or student in Physical Education class.	Lack of teaching and learning materials and equipment	Lack of teaching and learning materials	Lack of Teachers' Guidance	Lack of teaching and learning materials and equipment	<b>Respondents' problems</b>
	Lack of Motivation among Learners		Learning difficulty	Lack of Motivation among Learners	
Question 2: How would you overcome those challenges and transform into opportunities to adapt on the system of education of your child particularly in P.E. subject?	Collaboration	Innovation	Focusing on studies	Collaboration	<b>Collaboration</b>
		Collaboration	Support from family  Communication with teachers		
Question 3: Based on your experience, what learning modality is best fit for P.E. HOPE curriculum and relevant to learning condition of your child or student?	Flexible Learning	Flexible Learning	Flexible Learning	There is no established subtheme from the narrative of the parent-respondents because of lack of commonalities among their answers.	<b>Flexible Learning</b>

**Table 2.** Thematic Presentation among Participants

Research Questions	Subtheme/s from Teachers	Subtheme/s from School Heads	Subtheme/s from Students	Subtheme/s from Parents	Theme
Question 4: Do you think that there is a need to develop contextualized alternative learning materials in P.E. to guide and support your child or student in his/her/their studies?	Contextualization is needed.	Contextualization is needed.	The theme can be developed from teachers and school heads only as they are the key informants that can answer the question.	The theme can be developed from teachers and school heads only as they are the key informants that can answer the question.	<b>Need for Contextualization</b>
Question 5: What topic under the HOPE curriculum should be prioritized in the development of contextualized alternative learning materials?	Physical Fitness Test	The theme can be developed from teacher-participants only as they are the key informants that can answer the question.	The theme can be developed from teacher-participants only as they are the key informants that can answer the question.	The theme can be developed from teacher-participants only as they are the key informants that can answer the question.	<b>Physical Fitness Test</b>

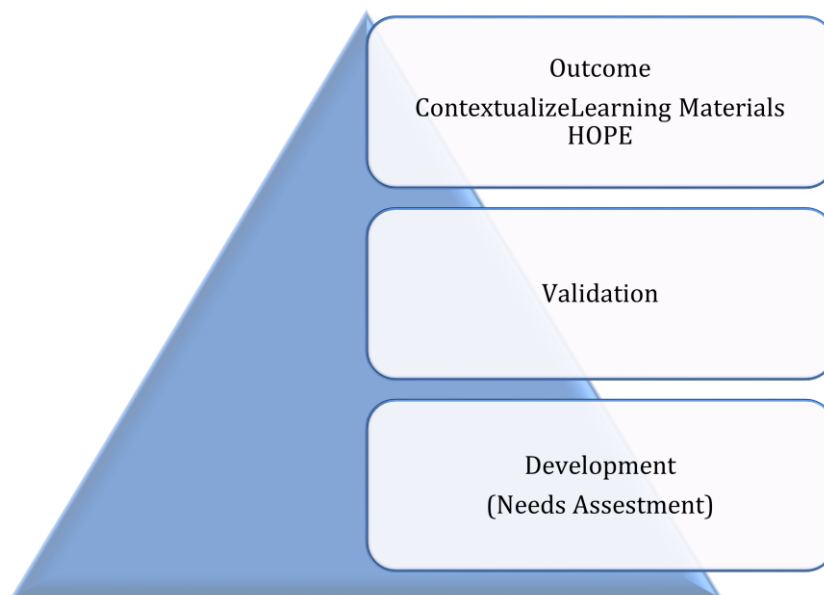
presence) (University of Denver, 2020).

Collaboration is identified by the participants as indispensable mechanism to cope with the abovementioned problems. It is noticeable that teachers, students, school heads, and even parents appreciate the value of working together to achieve the goals of the students for Physical Education classes. Many researchers and educators proved collaboration as a useful tool in community organizing, management of schools, parenting, and in teaching. In the aspect of learning, students learn more and survive their problems and challenges when students co-construct knowledge with their communities (Hausburg, 2022). Thus, the good instructional supervision of school heads, the guidance or teachers, the perseverance of parents, and the eagerness of students to learn the lessons are very necessary. These elements comprise the so-called “collaboration”.

Flexible learning is identified by most of the participants as the most appropriate modality to ensure student learning. Naidu (2017) in his editorial in Distance Education argued that flexibility in the learning process for students might include options for entry and departure points, choice of learning activities, assessment tasks, and educational materials in exchange for various forms of credit and fees. Additionally, it may involve decisions for the teachers regarding how they spend their time, how they communicate with students, and how they interact with the educational setting. Given these elements of flexible learning, school communities especially the students can adopt this measure specially during those times where teachers and students are physically separated by unprecedented situations.

Process of Development and Validation of Proposed Learning Material





**Figure 1.** Process Involved in the Development of Contextualized, Creative, Interactive Alternative Learning Material for HOPE Subject

On the preliminary assessment through interviews of respondents, the proponent was able to identify the general situation and condition of education adopted in the senior high school SHS considering the current situation of the teaching and learning process during the period of a pandemic. The actual observation and experiences observed from the respondents; Teachers, School Heads, Students, and Parents were used as a basis in the development of Contextualized, Creative, Interactive Alternative Learning Material in HOPE Subject (Modified from Engeström's Activity Theory Model, 2015).

The Proposed learning material undertakes the process of development by consulting different authors and literature. The proponent adopt and modified Engeström's Activity Theory Model (2015) to develop the contextualized materials in the HOPE subject.

To establish baseline information on the development of alternative learning materials the proponent conducts a need assessment study among respondents using a

qualitative research approach (Strauss & Corbin,1998; Grundmeyer, 2012). To identify who will be the respondents of the study the researcher carefully analyzes the situation of learning specifically during the period pandemic when the school suspended face-to-face classes and abruptly adopt the distance learning modality. Results of the observation found that the delivery of instruction and learning process during the pandemic centered on home-based learning rather than school-based learning before the pandemic. The students adopt (SOTO) or "student own their own" approach to learning and the participation of parents and immediate members of the family is highly significant. Teachers' role is focused more on the preparation of learning modules, distribution, retrieval, consolidation, evaluation, and monitoring. However, the school head focuses on school administration, coordination with the local level, planning, decision-making, and implementation of urgent policies, projects, and activities to overcome the impact of a health crisis. To summarize the results of the evaluation the

proponent found out that stakeholders such as; teachers, school heads, students, and parents play a significant role to survive and sustain the education of their children during the period of a pandemic. This becomes the basis of the proponent to select the respondents for the preliminary part of this study.

To establish the demand for education and the needs of learners during the period of pandemic and to determine what specific learning approaches and materials are needed to support students learning at home considering the actual challenges and issues experienced by the respondents. The proponent prepares five guide questions use for online interviews of respondents (teachers, school heads, students, and parents). The highlight of questions focuses on issues and challenges experienced by respondents in education during a pandemic, their coping mechanisms, issues on the abrupt implementation of distance learning modality DLM, the need for contextualization of lessons or topics, and what specific topic/lesson in P.E need to develop for contextualization.

The goal of this work initiated by the proponent originated from the findings and observations during the preliminary interview of P.E teachers. Based on their responses there were topics part of (MELCs) or most essential learning competencies that are difficult to teach due to lack of learning resources, restrictions/limitations due to pandemics, and conflicts between the policies and regulations adopted by the school and community. Generally, the output of this research work helps P.E teachers from senior high school to develop contextualized interactive learning materials alternatively used for some topics, which they observed difficult to execute and perform.

In addition, the other purpose to develop the said learning material is to prepare the learning activities

more interactive among learners, and easy to understand and perform by the learners given the available learning resources and materials at home or in their immediate environment.

Results of qualitative study and assessment among respondents emerge ten major themes and sub-themes. In terms of issues and challenges encountered by respondents, the subthemes that emerged are as follows: lack of learning materials and equipment and low motivation of students. In terms of How? Respondents cope or overcome those issues and challenges? The teachers emphasized collaboration and innovation, for students through the support of family and focus on self-learning. In terms of what learning modality best fits for distance learning approach most of the respondents suggest flexible learning. To overcome some difficulties in the teaching and learning process respondents ask the question "is there a need to contextualize some topic in HOPE subject? Teachers and school heads agreed on the contextualization of lessons and the majority of P.E suggest physical fitness tests. However, the students and parents are not much aware of contextualization since this work initiative is a major task for teachers. All this information and data were gathered, consolidated, organized, and used as inputs on the development of contextualized, interactive, and alternative learning materials for HOPE subject

#### **4. CONCLUSION**

Given the abovementioned problems and challenges in instructional supervision, provision of teachers' and parents' guidance, as well as the difficulties encountered by the students, using qualitative approach of the study five major themes identified as basis of development of alternative materials for P.E SHS. The themes are enumerated as follows: (1) respondents' problems; (2) collaboration; (3) flexible learning; (4) need for contextualization; and (5) Physical Fitness Test. the



need to develop contextualized alternative materials for Physical Fitness focus on fitness emerged as a result of investigation. Contextualized curriculum helps students learn the skills required for Physical Education classes by teaching them the knowledge, skills, and values using the most appropriate cultural, personal, and developmental contexts which students can relate to.

The aforementioned results of this study suggest that contextualized, creative, and interactive alternative learning materials for physical fitness test in senior high school be formulated to help the school communities in Quezon Province shape a conducive atmosphere for Physical Education students.

Due to the limited number of participants that this study accommodated during the interviews, other researchers are encouraged to conduct a survey using the themes of this study. In this way, methodological verification and the refinement of the instrument can be done. They can also investigate the problems, coping mechanisms, preferred modalities, and suggestions of various stakeholders in the private schools. From this, we can have some comparisons regarding the plight and strategies of these different groups of school communities with the end goal of adopting the practices the work effectively to make students well trained in Physical Education.

## 5. ACKNOWLEDGEMENT

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## 6. CONFLICT OF INTEREST

The author have declared that there is no conflict of interest.

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