Harmonizing Materials and Practices of Senior High School Teachers: A Conceptual Paradigm for Contextualization across K12 Curriculum

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Abstract: Harmonizing materials and practices of senior high school teachers in the contextualization of various learning areas are crucial in the current curriculum. The study determined how teachers in the senior high school harmonize materials and practices in teaching the various subjects and analyzed the contextualization across the K12 curriculum. Qualitative research was employed in the study specifically grounded theory. Eleven participants were included in the study where five were grade 12 students and six were senior high school teachers. Purposive sampling was employed in the conduct of the study and has employed key informant interviews and the focus group discussion. In analyzing the data, Grounded theory Analysis as modeled by Charmaz (2006), as well as Glasser and Strauss (2017), was employed. Relevance, coherence, and appropriateness as contextualization connectivity are considered in harmonizing materials and practices in the contextualization of lessons in senior high school. The themes culled were sources of contextualized materials, conceptualizing contextualized materials, teachers contextualized materials and practices, coherence, relevance, and appropriateness in contextualization. Formulation of the conceptual paradigm vis-à-vis contextualization across curricula emerged in the study.

Keywords: Senior high school, contextualization, materials, practices, grounded theory

1. Introduction

Globally, education has been recognized as a universal right and has been prioritized by various agencies. The benchmark and development call for an education that is set for global values that influenced educational policies and practices. Guerin (2017) problematized the current understanding of schooling and the educational system that is geared towards homogenizing values. Contextualized education is the key to moving away from the global curriculum set by the colonial powers [10]. Mam, Domantay, and Rosals (2017) on the other hand considered the problems on diversity among students, which is also tantamount to diverse needs. A teacher should be knowledgeable about socio-cultural background which could be utilized inside the classroom to scaffold on extensive concepts [16]. Classrooms are diverse and it prevails in all settings. Teachers’ background and cognitive preferences determine students’ perception of adequacy in classroom teaching practices, management of classroom environment, and accommodation of diversity. The higher the preference, the higher the teacher’s pedagogical approaches. Teachers are being regarded as adequate and competent along with classroom management, learning environment, and accommodation of diversity [15]. Given learners’ diversity, Perin (2011) defined contextualization as a diverse family of instructional strategies designed more seamlessly to link the learning of foundational skills and academic or occupational content by focusing teaching and learning on the concrete application in a specific context that is of interest of the student [19]. Similarly, Obiedo and Jugar (2017) opined that contextualized teaching and learning link classroom learning and real-life applications of what is learned through activities that motivate students further [18].

The discussions on teaching and learning focused on curriculum contextualization as its central theme. This enables the organization of content and activities close to students’ realities in the classroom. Contextualization is a coherent curriculum that contextualizes knowledge. Further, education in contextualization is not a mere transmission of knowledge and developing skills, habits, and values, the same way, it is the assumption of education as a production of knowledge and skills [17]. Further, contextualization engages in addressing content and organization of activities. Students’ work increases drastically when taught and learn concepts as used in real-world contexts. Contextualization enables students to know more about cultural heritage and learn to appreciate and understand it [16]. According to Hudson and Whisler (2007), contextualization is a way of using a variety of active learning techniques to help students connect knowledge with abilities, analysis, and synthesis of the learning process. The theoretical basis of this is the connection, constructivist, and active learning. It emphasizes the application of knowledge to the real world [11]. Contextualization along with the culture-based education is supported by various organic laws such as the 1987 Philippine Constitution: Article XIV states that the State shall establish and/or provide the following: Quality education accessible to all (Sec.1), Complete, adequate, and integrated and relevant education (Sec.2:1), Study of values such as patriotism, nationalism, etc., (Sec.3:2), Equal access to cultural opportunities through education (sec.18:1). Further, the National Cultural Heritage Act of 2009 which upholds the teaching and learning of cultural concepts and procedures through culture-based education, and the Enhanced Basic Education of 2013 or the Republic Act 10533 which states that (10.2) Education shall be gender, and culture-sensitive [14].
With the provision of Republic Act No. 10533 or the Basic Education Act of 2013, where K is Kindergarten and the elementary is from grades one to six, the junior high school is from grades seven to ten and the senior high school is from grades eleven to twelve. The curriculum is now culture-sensitive, contextualized, and global [22]. Moreover, DepEd Order 32, series 2015 specifically defined contextualization, it could be expressed as “to make competencies relevant, meaningful, and valuable to all students, educators relate education to a context, scenario, or application area [6].”

San Pedro Relocation Center National High School Landayan Annex as an integrated public school accommodates junior high school (Grade 7-10) and senior high school (Grade 11-12) learners. In 2016, it started offering senior high school with academic strand and technical-vocational strand. Teachers of various learning areas, specific to senior high school also adhere to the practice of contextualization. This is being done in the delivery of instructions such as in Mathematics, English, Filipino, and Social Science. Students are also interrogated on the materials and practices used by the teachers. However, the practice of contextualization is both arduous as well as a challenge among teachers as there is a paucity of contextualized materials. Another is that not all teachers have sufficient training in the contextualization of learning resources.

Premised on these observations, the researcher was driven to study “Harmonizing Materials and Practices of Senior High School Teachers: A Conceptual Paradigm for Contextualization across K12 Curriculum.” Further, the study interrogated the harmonizing activities of teachers aligned in relevance, coherence, and appropriateness. The study determined how teachers in the senior high school harmonize materials and practices in teaching various subjects such as English, Filipino, Mathematics, and Social Science using contextualization.

It also analyzed the contextualization across the K12 curriculum and formulate a conceptual paradigm, specifically the study sought to answer.

1. How do teachers interpret contextualization materials into practices in the delivery of the subject matter?

The following are the objectives of this study.

a) Describe the contextualization practices of SHS academic teachers across the K12 curriculum.

b) Analyze the interpretation of materials and practices for contextualization of SHS academic teachers across the K12 curriculum.

c) Formulate a conceptual paradigm for contextualization of SHS academic teachers across the K12 curriculum.

2. Literature Review

Sharma (2014) discussed that contextual curriculum is synonymous with local curriculum or as the process of localization. The basis of which is the need for locality and its available resources. When knowledge becomes contextualized, learning becomes effective and meaningful. This should be community-centered, learner-centered, and knowledge-centered. Contextualization is also social and public pedagogy. The contextual curriculum could be summarized with five processes such as relating, experiencing, applying, cooperating, and transferring.

Students relate past knowledge and experience to the present context, this experience should be used to create new knowledge or meta-cognition, students know how to apply knowledge in context into material or objects, students must learn to interact with others and create a cooperative nature of learning, students identify the problem and provide solution within context by discussing in the group to transfer knowledge [24].

Yarnall (2011) outlined the activities in a conceptualized instruction such as students’ application of knowledge in a real-world situation, students collaborating, the materials being reflexive, and teachers providing formative assessment. Further, contextualized learning recognizes multiple aspects of the environment, designs a learning environment that incorporates social, cultural, physical, and psychological domains, and students undergo the process of discovering, reinforcing, and relating. The assessment used a rubric for knowledge application and performance of tasks, allowing feedback from peers. Likewise, the Department of Education works to protect and promote the right of Filipinos to quality basic education that is equitable, culture-based, and complete and allows them to realize their potential and contribute meaningfully to building the nation as stipulated in its mission and vision statement. Cultural education is one way of contextualizing the present curriculum [26]. Lopez (2018) opined that in a culture-based education, culture is a foundation that sets the principle and perspective including the methodology, discussion as well as evaluation and assessment of skills and knowledge. It is a philosophy and strategy in which beliefs, values, knowledge, heritage, practices, and language are grounded [14].

Further, the DepEd order no.35, s. 2016 stipulates that curriculum contextualization is the process of matching the curriculum content and instructional strategies relevant to learners. Teachers must always consider student diversity and individual differences in planning lessons and implementation. In addition, localization is an essential feature of the present curriculum where materials accommodate unique contexts of the locality [7].

Figure 1. Preliminary Research Framework. Contextualization and its connectivity with materials and practices

Contextualization engages students with the connection between the content and context. Students should be aware of how they will perform it depending on their skills. The connection between what is known and what is learned gives new meaning. Hudson and Whisler (2007) noted that the ideal connection process would be three-fold. First students review what they know related to a new concept, practice new concepts, and apply them to real-world settings [11].

Downes has studied connective knowledge and characterizes
it as interactive, knowledge of a connection within a network. George Siemens and Downes are exponents of the openness an interpretive nature of knowledge and the connectedness of learning online, and model connected online learning and knowledge sharing through their blogs and web sites Siemens proposes connectivism as a learning theory for the digital age, a successor to behaviorism, cognitivism, and constructivism. It includes the following principles, (a) knowledge rests in diversity of opinions, (b) is a process of connecting information sources, (c) may reside in non-human appliances, (d) to know more critical, (e) nurturing and maintaining connections to facilitate continual learning. (f) ability to see connections, (g) accurate and up-to-date knowledge, and (h) decision-making is a learning process [1], [9].

Figure 1 suggests that the materials and practices have contextual connectivity and have the characteristics of relevance, coherence, and appropriateness. Harmonizing materials and practices should be able to perform the contextualization connectivity with coherence, relevance, and appropriateness [11], [1], [9].

Some local research on contextualization for reading, literature, and mathematics provided relevant insights in connection with this study. Sapitana-Villanueva (2021) studied the development of localized reading materials for speed and accuracy is significant in containing local information, particularly for learners of humanities and social science, general academic strand, science, technology, engineering, and mathematics as well as electrical installation and maintenance [23].

When teaching literature, authentic and localized resources must be used to ensure that students are engaged with topics. Teachers can also connect learners to the heart of the work by localizing literary masterpieces. Life-long learning becomes a reality if the context is set, topics are comprehensible, and students can draw on their own human experiences [25].

Pescuela and Goyena (2020) examine the effects of ICon (Interdisciplinary Contextualization) classes on teaching functions and graphs. Thematic learning, utilization of local context, problem-based learning, inquiry-based learning, and collaborative learning are among the characteristics mentioned. The characteristics were discovered through interviews with teachers who apply the approach and document analysis. It helps students become problem solvers in real-life situations by referencing pertinent in-context concerns and connecting previously taught principles from different fields. Mathematics is a component of students' personal lives, communities, and cultural heritage, and educators must recognize this. Interdisciplinary contextualization connects teaching and learning to specific communities and cultures, allowing students to engage in meaningful learning [20].

3. Methodology

Kroeger, Davidson, and Cook (2014) expounded grounded theory as an approach from qualitative research method that inductively employs procedure about the topic. The purpose of this approach is to elaborate on the elements, the category, the context, and the process. Further, data collection, analysis, and theory creation are fundamentally related to one another [12]. In connection to the system presented by Davidson and diGregorio (2007), the researcher purports to elaborate the elements, category, context, and processes in the conduct of senior high school teachers on contextualization among the academic subjects [5].

Glaser and Strauss (2017) averred that the empirical research of varying conditions makes it possible to formulate a valid theory. Different concepts are interrelated to surface description and explanation of the situation under investigation [8]. This study utilized the grounded theory to conceptualize a paradigm vis-à-vis contextualization materials and practices of senior high school academic teachers of SPRCNHS-Landayan Campus. A total of eleven (11) participants joined in this study. The participants of the study included five (5) grade 12 students from various specializations and six (6) teachers teaching the core subjects of which were: one (1) Filipino teacher, one (1) English teacher, two (2) Mathematics teachers, and two (2) Social Science teachers.

Purposive sampling was used in the study. Purposive sampling also called judgment, selective or subjective sampling is a non-probability method, and samples are chosen by the judgment of the researcher, where a representative sample could be obtained by sound judgment. Heterogeneous or maximum variation sampling will be used to select participants with diverse characteristics and ensure maximum variability within the primary data [2], [3]. The purpose of this kind of sample design is to provide as much insight as possible into the event or phenomenon under examination [3]. In this case, the teacher-participants and student-participants in this study are diverse and insights are expected from them to clarify the problem of this study. The students selected were actively engaged in each class from different sections. All the teachers were included since only six teachers were teaching the core subjects.

The researcher formulated the interview question which was used to draw answers from the six teacher-participants of the study as well as five student-participants. The researcher utilized the various information from the books, journals, thesis, and dissertation to formulate the instrument of the study. Five questions were formulated to answer the research question. The researcher utilized the key informant for students and teachers. Key informant refers to the person with whom an interview about a particular organization, social program, problem, or interest group is conducted. Key informant interviews are in-depth interviews of a select group of experts who are most knowledgeable of the organization or issue [13].

A Focus Group Discussion (or FGD) is a qualitative research method in the social sciences, which are predetermined semi-structured interviews. The researcher acted as a moderator and asked broad questions to elicit responses and generate discussion among the participants such as the teachers and learners on harmonizing materials and practices towards contextualization of lessons. The researcher’s goal is to generate the maximum amount of discussion and opinions within a given period [21]. The researcher conducted a separate FGD among students and teachers. With the approval of the participants, the researcher audio-recorded the focus group discussion.

The researcher employed the Grounded Theory analysis. Grounded theory Analysis as explicated by Charmaz (2006) and Glasser and Strauss (2017) is divided into three parts [4], [8].
a. Coding the data - Coding in grounded theory can be divided into two main phases: First is the initial ‘open coding’ stage. In this stage, the researcher worked closely with the data, trying to name specific lines or segments of the data by creating new codes. The core codes were refined during subsequent analysis phases. ‘Selective coding’ in advanced stages of the coding process comes next. In these later stages of coding, the researcher focused on coding to define the most significant higher-level codes and sort the lower-level codes created during the initial coding phase.

b. Category building - categories are created by grouping together similar concepts in the second half of the selective coding phase (or third phase of coding). These categories served as the basis for the new theory’s structure, the researcher labeled the links between categories theoretically. When new codes are generated, sorted, and organized into the hierarchical code structure, the relationships between codes begin to emerge.

c. Constructing theories (themes) - After the selective coding phase, the theoretical links between the categories were cleared. The next step in grounded theory is the theoretical sampling phase, in which further select data is collected to develop the emerging theory and elaborate the main categories constituting it.

4. Results and Discussion
Using the Grounded theory Analysis [4],[8], the researcher employed the three steps of data analysis such as (a) coding the data, (b) category building, and (c) constructing theories or themes. The results (a) describe the contextualization practices of SHS academic teachers across the K12 curriculum, (b) analyze the interpretation of materials and practices for contextualization of SHS academic teachers across the K12 curriculum, and (c) formulate a conceptual paradigm for contextualization of SHS academic teachers across the K12 curriculum.

Contextualization Practices

Theme 1. Sources of Contextualized Materials
Student 1 answered that “the teacher has PowerPoint presentation, module, textbook, visual aids, and video presentation”. Student 2 also agreed that “there are videos from other sources and using other portals to get materials. Aside from videos there were pdf files and activity sheets given to us”. Student 3 said “The teacher provides an avenue where we students could conduct interview and survey, barangay communication is also present, the teacher ask us to obtain information from barangay thru personnel and bulletin board”. Students 4 and 5 said that the “Internet is used, Filipino materials were commonly used by the teachers”.

Teacher 1 said, “I have Books, online articles, and educational videos”. Teacher 2 said, “Yes, social media, broadsheets, journals, online news, and correspondences were used in class. Materials are available on the internet; I provide problems appropriate for the learners’ specialization”. Further, Teacher 3 said that “Materials were derived from inquirer.net, rappler, youtube, and daily news reports, downloadable books, relating available sources for the lesson being taught”.

Theme 2. Conceptualizing Contextualized Materials
All students agreed and said, “We are provided with varying examples that were locally rooted like dance, music, arts, etc. The materials were being introduced by the teacher and classified already materials that are Pilipino”. All teachers agree and said, “I conceptualized materials by adapting community-based situations relevant to the topic”. On the other hand, Teachers 4 and 6 said that “I follow the contextualized materials from books, in the case of Mathematics problems used contextualized word problems, but I develop contextualized materials most of the time”.

The information provided by the teacher-participants and student-participants affirmed that contextualization engages in addressing content and organization of activities, it enables students to know more about cultural heritage and learn to appreciate and understand it [16]. This enables the organization of content and activities close to students’ realities in the classroom [17] and local information [23].

Interpretation of Materials and Practices

Theme 3. Teachers Contextualized Materials and Practices
Student 2 answered, “Performance tasks that present the Filipino culture such as values, folkways, and arts are executed.” Student 1 said, “Teacher provides examples that are local experience from news and other current events from inquirer, rappler and other local sources, government agency websites are used”. Students 3 and 4 also said “Presentations such as creative performances based on social realities, role-playing, debate, poster-makings, reflection paper, essays, diary, terminal reports and documentaries from our community.” Student 1 said, “We were also provided the time to share individually and by group on our experiences as well as the data that we gather when we conduct a survey, interview, and research.”

Teachers 1 and 2 said, “Examples are adapted locally; students have also elicited answers from their observation in the community.” Teacher 5 said, “Using magazine, newspaper and all types of media, as well as validating contextualized materials that are related to the topic”. Likewise, Teachers 3 and 4 stated “I allow students to observe, collect and survey data in the community pertinent to the topic”. Teacher 6 added that “I check the PowerPoint presentations, problems, and activities, which are always aligned with the specialization I am teaching with”.

The participants’ information substantiated the idea that contextualization is a way of using a variety of active learning techniques to help students connect knowledge with abilities, analysis, and synthesis of the learning process. It emphasizes the application of knowledge to the real world [11]. Sharma (2014) When knowledge becomes contextualized, learning becomes effective and meaningful. Life-long learning becomes a reality as students draw on their own experiences [24], [25].

Theme 3.1. Coherence in Contextualization
Students agreed that “Objectives for the day on the lesson are mentioned by the teacher to the students, materials that were being shared to us are contextualized and the assessment is also set in the personal, local, and national realities.” Teacher 1 said, “Connection between the discussion and reality are
set, we determine the gap between theoretical and practical”. In addition, Teachers 3 and 4 said “Making modules that are aligned to the content standard performance standard and learning competencies”.

**Theme 3.2. Relevance in Contextualization**

Students 1 and 2 mentioned that “News and current affairs are also highlighted in our class. Activities are usually problem-solving oriented; we conduct a survey in the community as well as interview”. Student 3 also added, “The teachers can also relate new topics with the previous topic discussed, there is always a link from previous to present the topic”. Teacher 3 expressed that “There were unaligned contents of materials to the curriculum guide such as those from textbooks are being updated by the teachers by rethinking the presentation of the lesson using the local experiences, eliciting the local knowledge and narratives of people in the community”.

**Theme 3.3. Appropriateness in Contextualization**

Student 2 explained that “The teacher provides direct examples”. Student 3 opined that “Knowledge expansion on culture and historical roots were also highlighted in the lessons”. Among teachers, Teacher 1 employed the “Reflective approach and community-based approach in the lesson”. While Teacher 4 suggested the use of “Compilation of teachers contextualized module”.

In terms of coherence, relevance, and appropriateness, the result corroborates with Yarnall (2011) outlined the activities in a contextualized instruction such as students’ application of knowledge in a real-world situation, students collaborate, the materials are reflexive, and teachers provide formative assessment [26]. The conception of contextualization should be community-centered, learner-centered, and knowledge-centered [24]. Culture-based education sets the principle and perspective including the methodology, discussion as well as evaluation, and assessment of skills and knowledge. Contextualization is also social and public pedagogy [14]. Interdisciplinary contextualization connects teaching and learning to specific communities and cultures, allowing students to engage in meaningful learning [20].

**Conceptual Paradigm**

Based on the results and discussion from the student-participants and teacher-participants, the new paradigm is now presented in Figure 2. The contextual connectivity is based on relevance, coherence, and appropriateness which is connected to curriculum guide (CG) and assessment. The curriculum guide also informed contextual connectivity where materials are crafted which include print, broadcast, and digital media. The assessment further unified the contextual connectivity where contextualization practices are implemented such as reflexive and community-based that is personal, communal, national, and digital. The curriculum guide and assessment are the bases of teachers in harmonizing materials and practices in contextualization.

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**Figure 2. Framework for Contextualization Connectivity on Materials and Practices**

**5. Conclusions and recommendations**

Contextualized materials in the classroom include the facilitation of PowerPoint presentations, modules, textbooks, visual aids, pdf files, activity sheets, and video presentations. Social media, broadsheets, journals, online news and correspondences, materials were derived from inquirer.net, rappler, youtube, and daily news reports, downloadable books, relating available sources for the lesson being taught. While contextualization practices include conducting surveys and interviews, provision of activities appropriate to specialization, varying examples that were locally rooted like dance, music, arts, experiences, stories, etc. The materials were being introduced by the teacher and classified materials that present Filipino culture and heritage, conceptualizing materials by adapting community-based situations relevant to the topic. The teacher interprets the contextualization through performance tasks that are aligned with the content standards and learning competencies from the curriculum guide, which present the Filipino culture such as values, folkways, and arts are executed, provision of examples that are local experience from news and other current events from inquirer, rappler and other local sources, government agency websites are used, creative performances based on social realities, role-playing, debate, poster-making, reflection paper, essays, diary, terminal reports and documentaries from the community and conducting the survey, interview, and researches.

In terms of coherence, the objectives for the day based on the curriculum guide on the lesson are mentioned by the teacher to the students, materials that were being shared are contextualized, and the assessment which uses rubric is also set in the personal, local, and national realities. The connection between the discussion and reality are set to determine the gap between theoretical and practical, making module that are aligned to the content standard performance standard and learning competencies. In terms of relevance, news and current affairs are also highlighted in the class. Activities are usually problem-solving-oriented, a survey in the community as well as interviews. The teachers relate new topics with the previous topic being discussed, there is always a link from before to the present topic. If there were
unaligned contents of materials from the curriculum guide teachers rethink the presentation of the lesson using the local experiences, eliciting the local knowledge and narratives of people in the community. In terms of appropriateness, knowledge expansion on culture and historical roots was also highlighted in the lessons and utilized a reflective approach and community-based approach. Contextualized resources should be evaluated as adaptable and relevant to learners, the community, parents, and other stakeholders. These stakeholders must be encouraged to participate in the planning, development, and implementation of the contextualized resources. Design research that identifies, measures, and evaluates connectedness, relevance, coherence, and appropriateness at the division or regional level for greater coverage or scope. Evidence of contextualization and compilations for district or division sharing and validation. Creating validation criteria or a rubric, as well as communicating the validation results to the professional community must be encouraged, recognized, and rewarded.

**Implications**

To contextualize lessons, research is essential. Teachers must contextualize lessons for the students, whether the materials or the practices, as demonstrated in this study. To investigate the varied learning delivery, learning resources, and learning assessment in the classroom, contextualization connection in terms of relevance, coherence, and appropriateness is required. Print, broadcast, and digital materials must all be scrutinized considering Filipino culture and experiences. Furthermore, a reflexive and community-based education leads to improved learning and long-term understanding and application of what is learned in the classroom. It allows students to reflect on personal, communal, national, and even digital issues. Nonetheless, in a changing environment, contextualization activities must continue to meet the demands of learners.

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**References**


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