



Constructivist Materials in Teaching Selected Topics in the Contemporary World Course

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Using the descriptive research design and the Research and Development methodology, the aim of this study was to develop a Constructivist Material in teaching The Contemporary World course. The study specifically sought to determine which lessons in The Contemporary World would be best taught using constructivist strategies, determining the features and parts of the constructivist materials to be developed and validate the material in terms of its learning outcomes, content, activities, assessment techniques and instructional qualities. The major steps in the Research and Development cycle followed by the researcher in preparing the resource materials were the bibliographic stage, developmental stage and the validation stage. Data were gathered using two instruments and the first one is a survey checklist to determine the lessons in The Contemporary World that can best be taught using constructivist strategies and the constructivist strategies that are most suited to teach each lesson and the other instrument is the content validation scale to

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determine the validity of the constructivist material for The Contemporary World course. The content validity of the constructivist materials was determined using the mean. The results revealed that the developed material in teaching The Contemporary World course met the standards in developing a constructivist learning material as manifested by the overall highly valid descriptive rating. The constructivist material in teaching The Contemporary World is recommended for use and to further validate and determine its effectiveness, a pilot testing can be administered for further enhancements and refinement. Similar research is recommended to continue the development of constructivist strategy-based resource materials in the other fields of the social sciences, particularly the new set of courses in the newly revised General Education curriculum.

Keywords: Constructivist material; constructivist-based strategies; constructivist material in teaching the contemporary world; content validity; validator.

1. INTRODUCTION

Education is a dynamic process that holistically develops the learner in response to the ever changing world. Education as an avenue of learning constantly induces the individual to progress. It reconstructs society in response to the dynamic needs and requirements of the time. At a bigger lens, like any other educational institutions in the world, the educational system in the Philippines may be likewise defined as dynamic as it is continuously evolving over time. From the pre-Spanish era up to the present, from the establishment of ancient schools known as bothoan to the ancient teaching strategies using leaves, clay tablets and stylus, to the modern day internet with ICT-based strategies, the educational system guarantees an advancement in learning.

The Philippine educational system, in order to meet the needs and demands of the learners according to developmental stages in the modern setting was made specific and thus created a mandate of trifocalization through an organic law enacted in the early 1900s. The law made sure the distinction of the three institutions- basic education governed by the Department of Education (DepEd), the technical-vocational and skills-related learning governed by the Technical-Vocational Skills Development Authority (TESDA) and the higher education governed by the Commission on Higher Education (CHED). The Three-Fold Mandate of the Philippine Education System, as defined in the CHED Memorandum Order No. 11 Series of 1999, refers to the trifocalization of the country's education system. It delegates authority for basic education to the Department of Education (DepEd), technical-vocational and skills-related learning to the Technical Education and Skills Development Authority (TESDA), and higher education to the Commission on Higher

Education (CHED). This mission was established to guarantee the efficient delivery of educational services to students at all levels (CHED, 2016).

At present, the system of education in the Philippines has gone through numerous stages of reform through a series of strategic developmental interventions to assess and address the needs of its learners most especially along instructional delivery. The gameplay as of the moment is educational transformation. New studies must be done and contributions on how to teach effectively and artistically must be at the top priority with the ever changing curriculum especially in tertiary institutions where curricular revisions are evidently observed.

Many factors indicate the necessity for significant educational transformation. Rocket science studies along education show how the brain works and how individuals learn. This is the driving change in the educational system throughout the world. Learners must acquire not just what they know, but also the skills, attitudes, and values that will enable them to be capable individuals- an asset of the nation and of the world. By embracing transformative changes in the educational system, countries like the Philippines will be able to satisfy the needs and demands of the learners as well as the demands of the twenty-first century.

In the Philippines, the Republic Act 10533 or the Enhanced Basic Education Act of 2013 paved the way for a new curriculum, the K to 12 Curriculum. The K-12 program offers a decongested 12-year program that gives students sufficient time to master skills and absorb basic competencies. The said K to 12 Program prepares students to be for employment, entrepreneurship, middle level skills development and most importantly higher education upon graduation.

This mandate paved the path for the CMO No. 20, series of 2013. The CMO No. 20 series of 2013 laid the foundations of the new curriculum in the tertiary level in response to the curricular changes as reflected in the K to 12 program. The new curriculum in the tertiary level enables students to be exposed to various levels of knowledge and differentiated methods of perceiving social and natural realities that develops their critical, analytical and creative thinking. Furthermore, it also develops their ways of expression with regards civic capacities that are demanded by the globalized society today.

Specifically, the mission of the higher education is to produce thoughtful graduates imbued with values reflective of a humanist orientation (e.g. fundamental respect for others as human beings with intrinsic rights, cultural rootedness, a vocation to serve, among others); analytical and problem solving skills; the ability to think through the ethical and social implications of a given course of action; and the competency to learn continuously throughout life- that will enable them to live meaningfully in a complex, rapidly changing and globalized world while engaging their community and the nation's development issues and concerns (Commission on Higher Education, 2016).

One of the many new General Education Subjects (GECs) offered in the Higher Education Institutions along the social sciences is The Contemporary World. The Contemporary World course was not originally offered in the old general education curriculum in the various degree offerings across HEIs in the country. The Contemporary World course is introduced to students by examining the multifaceted phenomenon of globalization. Using the various disciplines of the social sciences, it examines the economic, social, political, technological, and other transformations that have created an increasing awareness of the interconnectedness of peoples and places around the globe. To this end, the course provides an overview of the various debates in global governance, development, and sustainability. Beyond exposing the student to the world outside the Philippines, it seeks to inculcate a sense of global citizenship and global ethical responsibility. This course greatly contributes to the actualization of the goals and objectives of the new General Education Curriculum (GEC). The social studies classroom is the ideal setting for encouraging students to challenge the predominant social norms and their perception of

what reality actually is [1]. By focusing on complex social issues, social science as a topic in schools enables students to widen their intellectual abilities and cultural horizons.

One of the changes brought about by the New General Education Curriculum (GEC) is the shift of its framework to the outcomes-based education (OBE). The OBE Framework is built on a learner-centered paradigm and the foundation of OBE is built on the constructivist theory. This shift from the old set of GE courses to the introduction of the new set of said courses (apart from Rizal course) brought challenges to the teaching profession as they are offered prior to the pandemic in mid 2018 right after the graduation of the first batch of the K to 12 curriculum. The concern on availability of course materials raised awareness in higher education and thus, training and workshops were conducted to prepare GE faculty in the teaching of these new courses. Therefore, no textbooks were published not until years after. As to The Contemporary World like any other GE course under the social sciences, there had been some textbooks published but none to print modules. These textbooks can be accessed via Google or can be bought from various bookstores in the country but the circulation and availability is rare or at times, not available at all. As there are few textbooks already, modules and activity books have no record but are available only via coursewares. Courseware is a technological innovation, an instructional resource that is typically packaged for use with a computer and designed as kits for teachers, trainers, or tutorials for students [2]. This leads to difficulty in the access of course materials as coursewares are costly and at times, not contextualized which means it is more difficult for the learner to understand and appreciate. To add to the dilemma is the unstable internet connectivity of schools and homes, if not, no internet at all.

In most universities in the Philippines, the main system of instructional delivery is via face-to-face and the availability of technology in classrooms is not yet at par with western developed countries. The Philippines has now shifted from the online setting to the face-to-face mode as it was then, a return from the old after the pandemic. With the advent of twenty-first century technology, particularly on the use of the internet, it is no longer new for both teachers and learners to use this online platform. The problem with this is that not all students have the access to technology at a sustained level and not all school locations

have hot spot zones and this poses threat to flexible learning with online interface. Thus, the need for print activity books and other instructional materials in aid of assessment must be made accessible to all.

With this, the researcher saw a need to combat this educational challenge and proposed on developing a learning material such that it is a constructivist-based instructional module in nature intended for The Contemporary World course. This study was conducted by the researcher because it was observed that there is scarcity as to learning resources that are valid for The Contemporary World in various HEIs in Ilocos Norte particularly on assessment of student learning in print form in the said course.

1.1 Statement of the Problem

This study focused on the development of constructivist strategy-based instructional material for the teaching of The Contemporary World in Philippine higher educational institutions (HEIs) in the province of Ilocos Norte.

Specifically, this study aimed at answering the following questions:

1. Which topics in the Contemporary World can be best taught using constructivist strategies as perceived by the teachers?
2. What constructivist learning material can be developed to teach the course?
3. How valid is the constructivist material in terms of the following:
 - 3.1 learning outcomes;
 - 3.2 content;
 - 3.3 activities;
 - 3.4 assessment techniques; and
 - 3.5 instructional qualities.

1.2 Significance of the Study

The study will help the faculty promote active learning in their respective classes. This will also simplify long and complex lessons in The Contemporary World and focusing more on skills acquisition and mastery. Through this study, the faculty will be aided accordingly in facilitating learning among students in tertiary higher education institutions in the province.

This study will give concrete and measurable learning experience for students in higher education institutions (HEIs). With the aid of said learning material, students will become more focused on learning the concepts that are discussed in the Contemporary World. Hence, this study will guide students to become more responsible twenty first century citizens as the skills needed are already embedded in the material. Furthermore, the study will eventually develop interpersonal skills among students through the constructivist approach with its multitude of activities that are pragmatic, up-to-date and essential for the development of lifelong skills. The material will also contain real world scenarios and examples hence the students can easily relate to the lessons. Also, the material will provide real-world examples of problems such that it will foster critical thinking and problem-solving skills among students.

This study on the other hand will give curriculum planners actual data on the issues and problems encountered by the faculty in the academe. Recommendations on how to address issues and problems will also be provided for in this study such as appropriate constructivist-based strategies to be used to address difficult topics. The findings of this study will also serve as a basis in conducting similar and related research studies by future researchers along various new courses in the social sciences in the transition curriculum from the K to 12 and in future curricular revisions of the different degree offerings in the country.

The study also will help the administrators by providing insights on the transformative ways on how to cater the needs of students with regards to enhancement of and maximizing the learning process.

1.3 Scope and Delimitations

The study focused on the development of a constructivist material in teaching selected topics in The Contemporary World course. The study covered the difficult lessons from The Contemporary World Course which are reflected in the course syllabus issued by the Commission on Higher Education (CHED) duly adapted by HEIs in Ilocos Norte. The following chapters are: Introduction to Globalization, The Structures of Globalization, A World of Regions, A World of Ideas, Global Population and Mobility, Towards a Sustainable World, and Finale of Contemporary World.

In order to identify the lessons per chapter the faculty find difficult to teach, a survey checklist was administered to the respondents who are teaching The Contemporary World to the eleven Higher Education Institutions (HEIs) in the Province of Ilocos Norte. The survey checklist was given via Google forms. As such, lessons with at least fifty percent of the respondents whose responses fall under strongly agree was considered difficult to teach. Part of the survey is the identification of the frequency of occurrence of the most ideal constructivist-based strategies that can be used in the identified difficult lessons and be considered for inclusion in the development of the constructivist material.

A Validation Rating Scale was utilized in evaluating the constructivist material for Selected Topics in The Contemporary World course. The Validation Rating Scale determined if the constructivist material attained the specific standards set along learning outcomes, content, activities, assessment techniques and instructional qualities. The validity of the constructivist material was based on the results of the evaluation by the panel of experts in terms of learning outcomes, content, activities, assessment techniques, and instructional qualities.

2. METHODOLOGY

This presents the research design, locale of the study, population and sampling procedures, research instruments, data gathering procedure, statistical treatment of data and ethical consideration.

2.1 Research Design

The study used the descriptive design following the Research and Development (R&D) methodology in the development of the constructivist learning material for the course The Contemporary World. There were three phases in the conduct of the study namely: the planning stage, development stage, and validation stage.

2.2 Locale of the Study

The study was conducted across eleven higher education institutions (HEIs) in Ilocos Norte. Of which, ten (10) come from private HEIs and one (1) from the public HEI. The locale include two (2) component cities of the province namely City of Batac and Laoag City, respectively, and four (4) local government units (LGUs) or

municipalities which include Bacarra, Currimao, Paoay and Dingras.

2.3 Population and Sampling Procedures

As to the sampling technique to identify the population to be involved in the study, total enumeration was employed in identifying the actual number of respondents. Total enumeration sampling is a type of purposive sampling technique where the researcher chooses to examine the entire population that have a particular set of characteristics. All faculty members who are teaching The Contemporary World from the start of its implementation in the New Curriculum based on CMO. 13 to present (Academic Year 2018-2022) were the respondents in this study.

2.4 Research Instrument

To gather the necessary information needed for the study, the researcher used two instruments: 1) needs assessment survey; and 2) a validation rating scale.

The first instrument is a survey checklist with two parts. The first part required the respondents to identify the topics in The Contemporary World they find most difficult to teach. The second part determined the best suited constructivist teaching strategy for the difficult topic(s) in The Contemporary World. The survey checklist was adapted and modified from the study of Espejo [3].

Lessons with at least fifty percent (50%) from the respondents whose responses fall under strongly agree were considered difficult to teach.

The second instrument is a validation rating scale. The instrument was adapted and modified from the study of Espejo and was utilized for the validation of the proposed material. The Tool is a 32-item Likert Scale instrument. This tool was used by the panel of experts in determining the content validity of the Constructivist Strategy-based Instructional Materials in teaching The Contemporary World Course as to its learning outcomes, content, activities, assessment techniques and instructional qualities using the following scale:

3.41 - 4.00	-	Highly Valid (HV)
2.61 - 3.40	-	Moderately Valid (V)
1.81 - 2.60	-	Slightly Valid (SV)
1.00 - 1.80	-	Needs Improvement (NI)

2.5 Data Gathering Procedure

In this study, ethical standards in gathering data for research was observed. Necessary letters were forwarded to the concerned authorities. After the release of the clearance and notice to proceed from the UEREB, the researcher was set to conduct the study. Proper courtesy and procedures on asking for permission to conduct the research in the different Higher Education Institutions (HEI) was followed. The request letters to conduct the survey were forwarded to the presidents/school directors of the various higher education institutions (HEIs) in the province of Ilocos Norte.

Likewise, a copy of the approved request letter was forwarded to the Deans of the Higher Education Institutions. Upon approval of the request to conduct the study, the researcher asked permission from the Deans to distribute the survey questionnaires via Google forms link to the faculty-respondents. Furthermore, it was ensured that time-on task and the policy on non-disruption of any school-related activity was observed in the implementation of this study.

The Researcher discussed the nature of the study to the respondents via Google Meet before providing the link for the Google Forms, it was explained in the online orientation that there are minimal or negligible risks in participating and the direct benefits which they can get. Moreover, they were also informed that they will not receive any form of compensation for participating in the study. Voluntariness was also elaborated. The respondents were given 1-5 days to accomplish the survey checklist. After accomplishing the survey checklist, the researcher closed the google form for the tabulation and data analysis by the statistician. The data that were gathered from the survey checklist will be handled with utmost secrecy and confidentiality in compliance to the Data Privacy Act.

All data gathered were organized, analyzed, and interpreted using appropriate statistical tools to answer the problems of this study. Gathered informed consent forms and questionnaires were kept in a safe folder and shredded or permanently deleted after finishing the study. The results of the initial survey was the basis in the development of the Constructivist Instructional Material in teaching The Contemporary World.

The following specific steps followed in developing the material: 1) formulation of learning outcomes; 2) selection and identification of learning content based from the chapter lessons based from the CHED recommended syllabus; 3) selection of learning techniques with the use of constructivist strategies; 4) selection of assessment and evaluation tasks based on the content of the lessons; and 5) instructional qualities. The constructivist material was delivered to the chosen panel of experts for content validation after its packaging. The learning outcomes, content, activities, assessment methods, and instructional characteristics of the constructivist material was evaluated using the content validation rating scale. The data gathered was tabulated and analyzed. The result of the content validation then served as the basis in the enhancement of the material.

2.6 Statistical Treatment of Data

To describe the data, descriptive statistics such as frequencies, percentages, rankings, and means were used.

The frequencies and percentages were used to assess which lessons in The Contemporary World course HEI faculty find difficult to teach and what might be the most effective constructivist strategies be possibly employed to enhance the learning process. The best suited ways on the other hand, for teaching a particular lesson, was determined by using frequencies and ranks.

The mean was used to determine the content validity of the developed material. The range of means was utilized to interpret the means, along with their descriptive interpretations, as employed by Rabago [4] and Espejo [3].

Range of Means		Descriptive Interpretation
3.41 - 4.00	-	Highly Valid (HV)
2.61 - 3.40	-	Moderately Valid (V)
1.81 - 2.60	-	Slightly Valid (SV)
1.00 - 1.80	-	Needs Improvement (NI)

3. RESULTS AND DISCUSSION

This chapter presents the summary of findings, conclusions and recommendations of the research. The summary presented in this chapter includes the restatement of the problem, research design, methodology and findings.

3.1 The Need for Constructivist Strategies Material in Teaching the Course the Contemporary World

Understanding the characteristics of social science instructors might give insights into their adaptation experiences, problems and possibilities. Table 1 presents the demographic profile of social science teachers categorized as to their age, gender, teaching experience, relevant training attended, school administrative designations and other assignments and functions, and academic rank.

3.1.1 Results of the needs-assessment survey

Table 1 shows that all of the lessons in The Contemporary World could be best taught using constructivist strategies.

As shown in Table 1 all of the respondents a hundred percent strongly agreed that the following difficult lessons could be best taught using constructivist strategies. The Lesson in each chapter include: Chapter 1 - Introduction to the Contemporary World (Lesson 1- Introduction to the Contemporary World), Chapter 2 - The Structures of Globalization (Lesson 1 - The Global Economy, Lesson 2 - Market Integration,

Lesson 3 - The Global Interstate System and Lesson 4 - Contemporary Global Governance), Chapter 3 - A World of Regions (Lesson 1 - Global Divide: The North and The South and Lesson 2- The Globalization of Religion), Chapter 4 - A World of Ideas (Lesson 1 - Global Media Cultures and Lesson, Lesson 2 - The Globalization of Religion), Chapter 5 - Global Population and Mobility (Lesson 1 - The Global City, Lesson 2 - Global Demography and Lesson 3 - Global Migration), Chapter 6 - Towards a Sustainable World (Lesson 1 - Sustainable Development and Lesson 2- Global Food Security), and lastly Chapter 7 - Finale of the Contemporary World (Lesson 1 - Global Citizenship).

As Cudia [5] emphasizes, lack of up-to-date resources such as textbooks and multimedia materials in teaching The Contemporary World is noticeable in higher education. As a result, it is challenging to maintain course content relevant and interesting for students. With the present challenge of limited resources for instructional delivery in The Contemporary World course, it may be difficult for both learners and teachers to adapt to the current trends and substantial changes.

Table 1. Results of the needs-assessment survey on which lessons in the contemporary world can be best taught using constructivist strategies

Lessons in The Contemporary World	YES	%
Chapter 1 - Introduction to the Contemporary World		
1. Introduction to the Contemporary World	30	100.00
Chapter 2 - The Structures of Globalization		
1. The Global Economy	30	100.00
2. Market Integration	30	100.00
3. The Global Interstate System	30	100.00
4. Contemporary Global Governance	30	100.00
Chapter 3 - A World of Regions		
1. Global Divide: The North and The South	30	100.00
2. Asian Regionalism	30	100.00
Chapter 4 - A World of Ideas		
1. Global Media Cultures	30	100.00
2. The Globalization of Religion	30	100.00
Chapter 5 - Global Population and Mobility		
1. The Global City	30	100.00
2. Global Demography	30	100.00
3. Global Migration	30	100.00
Chapter 6 - Towards a Sustainable World		
1. Sustainable Development	30	100.00
2. Global Food Security	30	100.00
Chapter 7 - Finale of the Contemporary World		
1. Global Citizenship	30	100.00

The results are furthermore supported by the study of Fajardo and Maala [6] that students in The Contemporary World course have trouble engaging with course content because it appears distant from their daily lives. The results of the study of Rugg [7] support the findings, which suggest that the social studies curriculum should focus on contemporary issues, provide students with knowledge about social and economic disparities, and inspire them to act in affecting societal transformations.

The results show that all teacher-respondents agreed that the course in its totality needs constructivist materials. It is further supported by Shah [8] who posited a case that when students actively participate in the learning process, they learn more quickly, efficiently, and permanently.

3.1.2 The constructivist strategy-based instructional material for the course the contemporary world

Workbook is an effective tool in enhancing student learning. A workbook is a valuable resource for students to practice and consolidate their knowledge of the subject matter [9]. Furthermore, workbooks are educational and instructional tools generally used for academic institutions, businesses, schools, universities, and other learning organizations.

Workbooks are then used by teachers and other academic professionals to assess learners' understanding. It benefits their knowledge of the subject or topic they are learning as well as their application of what they have learned. The workbook is developed from a specific set of resource materials such as teaching and learning programs (Whitlock, 1985), and must be used with resource materials. Workbooks are designed to involve the student in learning activities, which progressively work through the course content from beginning to end. With very long courses which involve more than one area of study, the workload may be split up into various smaller workbooks, each covering a separate division of the course content [10].

The first significant element of the workbook is its capacity to engage the student in all of the activities that comprise the targeted learning. These activities might include reading, writing, applying, researching, reporting and many more. Workbooks are designed to help students improve their skills in knowledge intake and

assimilation, theory and abstract construct comprehension, communication and application to hypothetical or real-world issues or situations. In advanced courses, these activities may be tailored to promote designing and creative talents through the application of theories and abstract constructions [10].

Bloom's taxonomy of educational objectives has been found to be quite useful in designing course materials of this type (Cryer, 1986). Bloom Recognized three domains and they are the cognitive, affective, and psychomotor domains. A workbook has the capability to control and direct involvement of the learner in learning activities in such a way as to develop objectives progressively, thus ensuring consolidation of learning, at each learning step.

The cover page contains the title of the workbook. It also contains illustrations that depict the subject matter of the book. One can also find in the cover page the name of the author and the name of the consultants. According to McLeod and Dienes [11], visual elements such as images and graphics can enhance students' motivation and engagement with learning materials. Hence, the cover page of the workbook contains images and graphics that will entice the interest of students. The cover page of the material has a playful design, and the bright colors will convey a sense of fun for learners.

Another part of the workbook is the dedication. The dedication tells who the workbook is for. It creates a sense of intimacy and builds a relationship with the learners who will use the workbook. It helps the learners feel more connected to the workbook as they engage themselves into it. The introduction contains the introductory statement of the author. The introduction part lets the author explain the reasons behind writing the workbook. It also describes whom the workbook is intended for. The about the workbook part presents how the workbook is to be used by the learners. This part explains the contents of the different parts of the workbook.

The main part of the workbook is the body. The body of the workbook is usually divided by chapters with specific lessons. The body has different parts namely: Introduction, Specific Learning Outcomes, Definition of Concepts, Concept Building, Exercise Your Brain, Enhancing Your Higher Order Thinking, Learning Resources and Further Readings.

The introduction is given per chapter. It provides the chapter number, title, introduction, definition of concepts, and the contents that will be covered per lesson in the chapter. The Specific Learning Outcomes contains the specific learning targets of each chapter. These are based on the topics or lessons presented in the course syllabus of SOCSC03 adapted from the Commission on Higher Education (CHED). Definition of Concepts on the other hand unlocks the specific words that are significant in every unit. The definitions of these key terms are based on how they are presented in every lesson for further understanding and most of these concepts are contextualized. The Concept Building works as a warm-up activity that concentrates on the learning outcomes prior to the actual assessment. It contains relevant and up-to-date information about the topics addressed in each unit which will act as a starting point for students' future reading and comprehension. The concept building per lesson is also supplemented by visual aids such as images for these can improve memory retention and recall [12]. By associating a visual image with a concept or idea, learners are more likely to remember the information and be able to learn complex concepts easier.

Exercise Your Brain includes a variety of assessment tasks intended to evaluate the learner's knowledge of each finished topic. With the aim of fostering a greater knowledge and enjoyment of the course, these activities come in a variety of styles and include both objective and subjective assessments. Application examinations are also incorporated into the curriculum to allow students to discuss and examine their personal experiences in relation to current situations. This is made possible through the use of various constructivist-based strategies in the different activities that are geared toward the development of their higher order thinking skills. Enhancing your higher order thinking is a combination of cognitive-affective questions. To

further improve and develop the higher order thinking skills of the learner, a series of cognitive-affective questions are provided for each set of learning tasks. These questions aim to enhance and further boost the learner's ability to think critically and creatively.

Learning resources on the other hand is a selection of possible reading materials and a listing of bibliographic references used in the development of the workbook. Further readings are supplementary resource materials (Open Educational Resources) in aid of the various lessons within the chapter that are in print and non-print mode. These are presented in three forms: print media, online retrievals and film.

The parts of the body come in pair with specialized icons. Icons are small graphics or symbols that represent concepts of ideas. The use of icons can assist the workbook in creating a unified and recognizable identity. The use of uniform iconography throughout the workbook makes it simple for readers to recognize that the content is part of a specific series or content.

3.2 Constructivist Strategies Appropriate to Teach the Lessons

This section discusses the results of the survey on Constructivist strategies that are appropriate to use in teaching the lessons in The Contemporary World. The results are presented in Tables 2, 3, 4, 5, 6, 7 and 8.

3.2.1 Appropriate Constructivist Strategies to Teach the Lesson in Chapter 1

In teaching lesson 1, majority of the teacher-respondents or a total of fifteen (15) suggested the use of mind mapping is the most suited or appropriate constructivist strategy in teaching the lesson.

Table 2. Results of the survey on constructivist strategies suited to teach lessons in chapter 1 lesson 1 (Introduction to the Contemporary World)

Constructivist Strategies	Lesson 1	
	f	Rank
1. Concept Mapping	6	2
2. Mind Mapping	15	1
3. News Article Analysis	4	3
4. Role Playing	2	5
5. Venn Diagram	3	4

Tsinakos & Balafoutis [13] stated that mind mapping is a hands-on learning approach, it allows the left and right sides of the brain to cooperate which boosts productivity and memory retention. It is a diagram for representing tasks, words, concepts, or items linked to and arranged around a central concept or subject using a non-linear graphical layout that allows the user to build an intuitive framework around a central concept. A mind map can turn a long list of monotonous information into a colorful, memorable and highly organized diagram that works in line with the brain's natural way of doing things.

The application of this strategy will let learners create their own definition of globalization while fostering their creativity by creating a concept map. This will also help students organize their knowledge then create their own definition and understanding of globalization at a contextual level but not far away from its academic definition.

3.2.2 Appropriate constructivist strategies to teach the lessons in chapter 2

Findings in Table 3 shows that the most appropriate or suited constructivist strategy in teaching lesson 1 is the exploratory discussion with a majority of twelve (12) responses. In this strategy, learners examine various points of view

supported by evidence. This strategy will give the learners the opportunity to reflect and to do research for instances or real life examples wherein they are directly or indirectly benefited.

In teaching lesson 2, the use of situated learning was suggested to be the most appropriate strategy by the teacher-respondents with a majority of thirteen (13) responses. Stein (1998) stated that situated learning involves students in cooperative activities where they are challenged to use their critical thinking and kinesthetic abilities. Moreover, it is said that students could learn more efficiently by being placed in real learning environments, hence, the concept of situated learning.

In real-life situations, most of the students gain experiences through their own strategies [14]. This furthermore justifies effectiveness on the use of situated learning in a constructivist approach.

In lesson 3, concept mapping is deemed to be the most appropriate constructivist strategy in teaching the lesson with a majority of thirteen (13) responses. Burkhardt [15] made mention that concept maps are used as diagrammatic representations to visually document knowledge or visualize connections among concepts. Concept mapping encourages active learning.

Table 3. Results of the survey on the constructivist strategies suited to teach lessons in Chapter 2 Lesson 1 (The Global Economy), Lesson 2 (Market Integration), Lesson 3 (The Global Interstate System) and Lesson 4 (Contemporary Global Governance)

Constructivist Strategies	Lesson 1		Lesson 2		Lesson 3		Lesson 4	
	f	Rank	f	Rank	f	Rank	f	Rank
1. Case-based Learning	0	0	3	4.5	0	0	0	0
2. Case Study	7	2.5	0	0	0	0	0	0
3. Concept Mapping	0	0	0	0	13	1	0	0
4. Debate	0	0	5	2	0	0	0	0
5. Exploratory Discussion	12	1	0	0	0	0	0	0
6. Film Viewing	0	0	4	3	0	0	0	0
7. Historical Analysis	0	0	3	4.5	0	0	4	3
8. Individual Research	7	2.5	0	0	0	0	0	0
9. Infographics	0	0	0	0	0	0	7	2
10. Interdisciplinary/Thematic Approach	0	0	0	0	2	5	0	0
11. K-W-L-(H) Chart	0	0	0	0	3	4	0	0
12. Think-Pair-Share	0	0	0	0	0	0	3	4
13. Min-Max Concept Formation	1	3.5	0	0	0	0	0	0
14. Mind Mapping	0	0	0	0	0	0	0	0
15. News Article Analysis	1	3.5	0	0	4	3	0	0
16. Poster Slogan Session	1	3.5	2	5	0	0	0	0
17. Problem-Based Learning	0	0	0	0	8	2	16	1
18. Situated Learning	1	3.5	13	1	0	0	0	0

Hence, by using concept mapping, learners organize the ideas or concepts that they have learned from the lesson allowing students to organize their thoughts and ideas about the lesson in a meaningful way.

In lesson 4, the most applicable constructivist strategy is the problem-based learning (PBL) holding a majority of sixteen (16) responses. In this strategy, learners will come up with their own policies that could solve the problems posted by the lesson. Eurasian [16] emphasized that this strategy promotes empowerment and self-reliance and significantly elevates the self-confidence of the learner which cannot be obtained by using conventional methods. By using this strategy learners can enhance and use their skills in problem-solving by crafting solutions to problems encountered in the lesson. Barron et al. [17] furthermore supported this in his study stating that students learn to handle realistic problems through problem-based learning.

3.2.3 Appropriate constructivist strategies to teach the lessons in chapter 3

Table 4 illustrates the various proposed constructivist ways for teaching lessons in Chapter 3. The chosen constructivist strategy in teaching lesson 1 is role playing with a majority of fourteen (14) responses. News broadcasting as a for of role playing activity could essentially boost the mastery level of students of the topic or issue through script writing and reporting. This method is a great way to keep learners interested and provide them the chance to communicate with their peers while they work to complete the task set to them in their position (SERC, 2012).

In lesson 2, the selected constructivist strategy is the use of Know-What-Learn or simply the KWL strategy with a majority of seventeen (17) responses. The KWL chart is an effective strategy for learners allowing them to organize their ideas and questions about a topic. This strategy will also give them an avenue to reflect on what they have learned after finishing the lesson.

Grant and Fisher [18] wrote that when learners are given the option to set their own learning objectives, they are more likely to be motivated to learn. This strategy will let students organize their knowledge about the lesson and its effects on individuals and communities.

3.2.4 Appropriate constructivist strategies to teach the lessons in chapter 4

Table 5 demonstrates the proposed most accepted constructivist strategies for teaching lessons in Chapter 4.

Majority of the respondents selected venn diagram as the most appropriate constructivist strategy in teaching lesson 1 with a total of thirteen (13) responses. This strategy helps students quickly comprehend and examine ideas vividly using the inductive approach. The concept was first and widely used to teach elementary set theory, and to illustrate simple set relationships in probability, logic, statistics, linguistics and computer science. But with the advent of integrative teaching strategies, it was made accessible to teachers, hence, the use of venn diagrams in classroom instruction.

Table 4. Results of the survey on the constructivist strategies suited to teach lessons in Chapter 3 in Lesson 1 (Global Divide: The North and the South) and Lesson 2 (Asian Regionalism)

Constructivist Strategies	Lesson 1		Lesson 2	
	f	Rank	f	Rank
1. Historical Analysis	0	0	4	4
2. Individual Research	1	4.5	0	0
3. Infographics	1	4.5	0	0
4. Infomercial	0	0	6	3
5. K-W-L-(H) Chart	0	0	17	1
6. Formulating Conflict Resolution	2	3	0	0
7. Project-Based Learning	0	0	7	2
8. Role Playing	14	1	0	0
9. Venn Diagram	12	2	0	0

Table 5. Results of the survey on the constructivist strategies suited to teach lessons in Chapter 4 in Lesson 1 (Global Media Cultures) and Lesson 2 (The Globalization of Religion)

Constructivist Strategies	Lesson 1		Lesson 2	
	<i>f</i>	Rank	<i>f</i>	Rank
1. Concept Mapping	3	4	0	0
2. Debate	0	0	6	3
3. Film Viewing	2	5	0	0
4. Historical Analysis	0	0	7	2
5. Individual Research	0	0	3	4
6. Infomercial	1	6	0	0
7. Think-Pair-Share	5	2	0	0
8. Poster Slogan Session	4	3	0	0
9. Formulating Conflict Resolution	0	0	17	1
10. Venn Diagram	13	1	0	0

This strategy was proposed by Venn (1880) with the idea that Venn diagrams as a constructivist strategy can help students recall information such as basic facts and relational cases and retain knowledge at the same time. Learners are more likely to retain and recollect what they have learnt when visual aids are used to depict concepts. The diagram is an illustration that uses circles to show the relationships among things or finite groups of things. Circles that overlap have a commonality while circles that do not overlap do not share those traits. In its most basic sense, the venn diagram is commonly used to visually represent the differences and the similarities between two concepts.

In lesson 2 the chosen teaching strategy is conflict resolution with a total of seventeen (17) responses. This specific strategy refers to the process of teaching students the skills, information, and tactics required to manage disputes in a good and productive manner. Conflict resolution is conceptualized as the methods and processes involved in facilitating the peaceful ending of conflict and retribution that would eventually benefit parties involved.

Using this strategy, students will be given tasks to solve conflicts that are in relation to the lesson. Several educational researchers state that this strategy helps facilitate the development of attitudes, values, and abilities of learners to consider multiple perspectives.

3.2.5 Appropriate constructivist strategies to teach the lessons in chapter 5

Table 6 presents the most appropriate constructivist strategies to teach lessons in

Chapter 5. In Lesson 1, the majority of the respondents with a total of ten (10) responses selected the use of poster slogan. This is a strategy done usually with a large sheet with images and text which aims at conveying certain information and making it visible to many such that in a class. Learners will create their ideal image of a global city and would also learn to promote the global city by coming up with their own slogan.

García & Sanmamed [19] emphasized that designing posters and slogans can help learners improve critical thinking abilities by challenging them to examine and synthesize information.

In Lesson 2, the most suited constructivist strategy is individual research with a total of twelve (12) responses. Blazic (2003) defined research-based learning (RBL) as a teaching method that incorporates components of research into lessons so that students can learn both the subject matter and the research process at the same time.

In Lesson 3, the most suited constructivist strategy is the use of exploratory discussion with a majority of thirteen (13) responses. In this activity, learners will examine the points of view of migrants in the different parts of the world. This will give learners evidence that would support the learning process. Learners will know the reasons why the majority of the population in the Philippines choose to migrate. With the aid of interview, learners will gain first-hand information by interviewing OFWs who chose to work abroad, thus, making the constructivist strategy exploratory.

Table 6. Results of the survey on the constructivist strategies suited to teach lessons in Chapter 5 in Lesson 1 (The Global City), Lesson 2 (Global Demography) and Lesson 3 (Global Migration)

Constructivist Strategies	Lesson 1		Lesson 2		Lesson 3	
	f	Rank	f	Rank	f	Rank
1. Case-based Learning	0	0	4	4	0	0
2. Case Study	9	2	0	0	0	0
3. Exploratory Discussion	0	0	0	0	13	1
4. Give One, Get One strategy	0	0	0	0	3	4
5. Individual Research	4	4	12	1	0	0
6. Infomercial	7	3	0	0	0	0
7. Think-Pair-Share	0	0	0	0	4	3
8. News Article Analysis	0	0	8	2	0	0
9. Poster Slogan Session	10	1	0	0	0	0
10. Problem-Based Learning	0	0	0	0	5	2.5
11. Project-Based Learning	0	0	6	3	0	0
12. Role Playing	0	0	0	0	5	2.5

Table 7. Results of the survey on the constructivist strategies suited to teach lessons in Chapter 6 in Lesson 1 (Sustainable Development) and Lesson 2 (Global Food Security)

Constructivist Strategies	Lesson 1		Lesson 2	
	f	Rank	f	Rank
1. Case Study	3	3	2	5
2. Debate	2	4.5	0	0
3. Film Viewing	2	4.5	3	4
4. Individual Research	0	0	5	3
5. News Article Analysis	0	0	11	1
6. Poster Slogan Session	7	2	0	0
7. Problem-Based Learning	16	1	0	0
8. Role Playing	0	0	9	2

3.2.6 Appropriate constructivist strategies to teach the lessons in chapter 6

Table 7 shows the chosen teaching strategies for the lessons in Chapter 6. In lesson 1, the constructivist teaching strategy that is most appropriate for the lesson chosen by the respondents is problem-based learning (PBL) with a majority of sixteen (16) responses.

In the Study of Strmčnik [20], he stated that problem solving is an instructional method in which students learn through facilitated problem solving wherein learners concentrate on a complex problem. Roopashre [21] also expressed in his study that with the employment of this strategy, learners apply their new knowledge to the problem and reflect on what they learned and the effectiveness of the strategies employed.

In lesson 2, the chosen teaching strategy is news article analysis with a majority of eleven (11) responses. News article analysis as a teaching strategy involves students reading and analyzing

news article. As mentioned by Gupta & Khurana (2014), news article analysis will require students to evaluate information and form reasoned opinions. Thus, the skills that will be developed can help students become more informed citizens and critical thinkers.

3.2.7 Appropriate constructivist strategies to teach the lesson in chapter 7

The chosen teaching strategy for teaching the lesson in chapter 7 is shown in the Table 8. In lesson 1, the chosen constructivist strategy is the use of concept mapping with a majority of fifteen (15) responses. Moreno (2004) emphasized in his study that concept mapping enhances learners' higher-order thinking skills. This is furthermore supported by Novak & Gowin (1984) who posited that by requiring students to analyze and synthesize information, they are able to visually represent their knowledge and ideas between concepts, hence, it deepens their understanding of the relationship of these concepts.

Table 8. Results of the survey on the constructivist strategies suited to teach the lesson in chapter 7 particularly lesson 1 (global citizenship)

Constructivist Strategies	Lesson 1	
	f	Rank
1. Concept Mapping	15	1
2. Film Viewing	5	3
3. Min-Max Concept Formation	4	4
4. Role Playing	6	2

3.3 Content Validity of the Constructivist Instructional Material for the Contemporary World Course

Content validity refers to the degree that the instrument covers the content in the learning material that it is supposed to measure (Yaghmale, 2009). The content validity of the constructivist strategy-based material in teaching topics in The Contemporary World course was validated by a panel of expert evaluators composed of the following: one curriculum developer in the Social Sciences Department from a State University and Colleges; five professors and experts in Social Sciences from the various Higher Education Institutions (HEIs) in Ilocos Norte; and one IT expert who specialize in visual graphics.

3.3.1 Criterion A - Specific learning outcomes

Table 9 shows the results of the validation made by the panel of experts about the specific learning outcomes of the different lessons in the developed constructivist instructional material in

teaching topics in The Contemporary World course.

The results show that the learning outcomes of the developed material are attainable, teachable, observable, measurable and arranged in logical order thereby obtaining a mean of 3.76 or *highly valid*. Thus, they conform with the standards of a good set of learning outcomes.

The results are identical to that of Espejo [3], Nolasco [22], Galzote, Jr. (2014) and Ramones [23] who developed a Resource Material in Readings in Philippine History, Technology-Enhanced Instructional Guide in Teaching Sociology I, A Dynamic Learning Guide in teaching Philippine History I and Documentary Material in Teaching the Concept of Heritage of Selected Local Industries, respectively. All of the materials developed in the aforementioned studies were highly valid as to their material's specific learning outcomes which means that the desired outcomes are attainable on the part of the learners.

Table 9. Results of the content validation by the panel of experts as to the material's specific learning outcomes

Criteria	Mean Rating	Descriptive Interpretation
A. Specific Learning outcomes		
The objectives of the Constructivist Materials in teaching Selected topics in The Contemporary World are:		
1. attainable	3.86	Highly Valid
2. teachable	3.86	Highly Valid
3. observable	3.86	Highly Valid
4. measurable	3.71	Highly Valid
5. clearly stated	3.71	Highly Valid
6. arranged in logical order	3.57	Highly Valid
Composite Mean	3.76	Highly Valid
Legend: Range of Means	Descriptive Interpretation (DI)	
3.41 - 4.00	Highly Valid (HV)	
2.61 - 3.40	Moderately Valid (MV)	
1.81 - 2.60	Slightly Valid (SV)	
1.00 - 1.80	Not Valid (NV)	

3.3.2 Criterion B - Content

Table 10 shows the results of the validation made by the panel of experts on the content of the developed material.

With regards content, the constructivist learning materials were rated as *highly valid* by the evaluators with an overall mean of 3.77.

This implies that the constructivist learning materials was seen by the validators having clarity and focus, organized in a systematic way, has an accurate information, self-explanatory and relevant. This is justified by the feedback made by one of the experts who said that:

'All of the topics became self-explanatory because they are all stated clearly and orderly. It also covers all of the lessons in SOCS03 which made it more amazing.'

-Evaluator 1

3.3.3 Criterion C - Activities

Table 11 shows the results of the validation made by the panel of experts on the activities of the developed material.

For the activities found in the various lessons, the constructivist materials were also rated as *highly valid* by the validators as indicated by the obtained composite mean of

3.68. This means that the activities that are in the constructivist materials are learner-centered, present authentic activities, provide multiple perspectives, put emphasis on metacognition, facilitate knowledge construction, support knowledge collaboration, emphasize previous knowledge constructions and encourage self-analysis-regulation, reflection and awareness. This is further justified by the feedback given by one of the experts. Accordingly, he commented that:

'This [developed material] is great because the material employ constructivist strategies allows students to be active learners.'

-Evaluator 2

This is affirmed by Mayers [24] in which he made mention that activities should be engaging so learners can have better understanding of the information they are trying to learn. Another comment from a validator is that:

'The material enables students to construct their own knowledge hence making it an effective tool for instruction.'

-Evaluator 3

3.3.4 Criterion D - Assessment techniques

Table 12 shows the results of the validation made by the panel of experts about the developed material.

Table 10. Results of the content validation by the panel of experts as to the content of the material

Criteria	Mean Rating	Descriptive Interpretation
B. Content		
The content of the constructivist materials in teaching selected topics in The Contemporary World has/is:		
7. clarity and focus	3.86	Highly Valid
8. organized in a systematic way	3.86	Highly Valid
9. an accurate information	3.86	Highly Valid
10. self-explanatory	3.57	Highly Valid
11. relevant	3.71	Highly Valid
Composite Mean	3.77	Highly Valid
Legend: Range of Means	Descriptive Interpretation (DI)	
3.42 - 4.00	Highly Valid (HV)	
2.62 - 3.40	Moderately Valid (MV)	
1.82 - 2.60	Slightly Valid (SV)	
1.00 - 1.80	Not Valid (NV)	

Table 11. Results of the content validation by the panel of experts as to activities

Criteria	Mean Rating	Descriptive Interpretation
C. Activities		
The activities of the Constructivist Materials in teaching Selected topics in The Contemporary World are:		
12. learner-centered	3.57	Highly Valid
13. present authentic activities	3.71	Highly Valid
14. provide multiple perspective	3.57	Highly Valid
15. put emphasis on metacognition	3.71	Highly Valid
16. facilitate knowledge construction	3.71	Highly Valid
17. support knowledge collaboration	3.57	Highly Valid
18. emphasize apprenticeship learning	3.71	Highly Valid
19. encourage previous knowledge constructions	3.86	Highly Valid
20. encourage self-analysis-regulation, reflection and awareness	3.71	Highly Valid
Composite Mean	3.68	Highly Valid
Legend: Range of Means Descriptive Interpretation (DI)		
3.43 - 4.00		Highly Valid (HV)
2.63 - 3.40		Moderately Valid (MV)
1.83 - 2.60		Slightly Valid (SV)
1.00 - 1.80		Not Valid (NV)

Table 12. Results of the content validation by the panel of experts as to the assessment techniques used

Criteria	Mean Rating	Descriptive Interpretation
D. Assessment Techniques		
The assessment techniques of the Constructivist Materials in teaching Selected topics in The Contemporary World are:		
21. encourage multiple modes of expression (for example role play, simulations, debates and explanations to others	3.57	Highly Valid
22. provide choices in tasks and in how to show mastery or competence	3.86	Highly Valid
23. include concrete experiences (manipulatives, links to prior personal experience)	3.71	Highly Valid
24. motivate students with real-life tasks and connections to personal experience	3.71	Highly Valid
25. help students to self-evaluate-to think how they learn, set new goals, and why they like certain work/task.	3.57	Highly Valid
26. encourage divergent thinking, multiple links and solutions, not just one right answer	3.71	Highly Valid
27. provide students with opportunities for self-evaluation and peer-review	3.71	Highly Valid
28. encourage students to see connection between effort and results	3.71	Highly Valid
Composite Mean	3.70	Highly Valid
Legend: Range of Means Descriptive Interpretation (DI)		
3.44 - 4.00		Highly Valid (HV)
2.64 - 3.40		Moderately Valid (MV)
1.84 - 2.60		Slightly Valid (SV)
1.00 - 1.80		Not Valid (NV)

With regard to assessment techniques, it reveals that the assessment used in the resource materials was rated as *highly valid* with a mean rating of 3.70. This signifies that the validators recognized the constructivist learning materials to encourage multiple modes of expression, for example role play, simulations, debates, and explanations to others, provide choices in tasks and in how to show mastery/competence, include concrete experiences (manipulatives, links to prior personal experience), motivate students with real-life tasks and connections to personal experiences, help students to self-evaluate to think how they learn, set new goals, and why they like certain work/task, encourage divergent thinking, multiple links and solutions, not just one right answer, provide students with opportunities for self-evaluation and peer-review and encourage students to see connection between effort and results. This is furthermore justified by the comments of one of the evaluators:

'The assessment techniques used were all unique in aid of the development of HOTS. The assessment is more of an authentic one,

fitting to the lessons directly in line to the need to develop critical thinking among the learners. Good job!

-Evaluator 1

'Students learn to apply their problem solving skills by coming up with solutions to the problems of The Contemporary World.'

-Evaluator 6

The findings affirm Bloom's taxonomy of instructional objectives wherein the application of knowledge belongs to the higher-order thinking skills as it clearly involves the ability to use previously acquired knowledge to solve problems and complete tasks (Bloom, 1956). With this, learning becomes more self-paced, more critical and more meaningful.

3.3.5 Criterion E - Instructional qualities

In terms of instructional qualities, Table 13 reveals that the material was rated as *very highly valid* by the evaluators as indicated by the composite mean of 3.79.

Table 13. Results of the content validation by the panel of experts as to its instructional qualities

Criteria	Mean Rating	Descriptive Interpretation
E. Instructional Qualities		
The instructional qualities of the Constructivist Materials in teaching Selected topics in The Contemporary World:		
29. encourage creative and critical thinking	3.86	Highly Valid
30. arouse interests and sustain attention	3.71	Highly Valid
31. promote active participation	3.71	Highly Valid
32. are clear, accurate and easy to understand	3.86	Highly Valid
Composite Mean	3.79	Very Highly Valid
Legend: Range of Means Descriptive Interpretation (DI)		
3.45 - 4.00		Highly Valid (HV)
2.65 - 3.40		Moderately Valid (MV)
1.85 - 2.60		Slightly Valid (SV)
1.00 - 1.80		Not Valid (NV)

Table 14. Results of the content validation of the constructivist strategy-based instructional material

Criteria	Mean rating	Descriptive interpretation
1. Specific Learning Outcomes	3.76	Highly Valid
2. Content	3.77	Highly Valid
3. Activities	3.68	Highly Valid
4. Assessment Techniques	3.70	Highly Valid
5. Instructional Qualities	3.79	Highly Valid
Composite Mean	3.74	Very Highly Valid

Criteria	Mean rating	Descriptive interpretation
Legend: Range of Means Descriptive Interpretation (DI)		
3.46 - 4.00		Highly Valid (HV)
2.66 - 3.40		Moderately Valid (MV)
1.86 - 2.60		Slightly Valid (SV)
1.00 - 1.80		Not Valid (NV)

This means that the instructional qualities can encourage creative and critical thinking, arouse interests and sustain attention and can promote active participation. This is justified by the feedback of the experts that the instructional qualities of the resource materials can encourage students to think how they learn, enhance divergent thinking, multiple links and solutions. This is justified by the feedback of one of the experts:

'The constructivist material in general lets students become diverse thinkers and problem solvers in this dynamically and every-changing world.'

-Evaluator 5

The findings of Lasaten [25] confirms the feedback that constructivist-based instructional materials foster creative and critical thinking, generate interest and sustained attention, present concepts in a logical order and encourage active involvement.

The developed constructivist strategy-based instructional materials in teaching lessons in The Contemporary World was rated *very highly valid* by the panel of experts with an overall mean of 3.74 [26,27].

4. CONCLUSION

Based on the findings, all the lessons in The Contemporary World can be best taught using constructivist strategies like concept mapping, mind mapping, exploratory discussion, situated learning, problem-based learning, role playing, K-W-L chart, formulating conflict resolution, venn diagram, poster slogan, individual research and news article analysis.

It can be further concluded that the constructivist material developed is valid, hence, the utilization of hands-on activities in teaching The Contemporary World can aid in fostering the critical thinking and higher order thinking abilities of learners, which is the main goal of the constructivist theory. By engaging in such

activities, students are given opportunities to construct a more meaningful understanding of the subject matter and further develop the essential skills required for comprehending concepts related to The Contemporary World.

CONSENT AND ETHICAL APPROVAL

Ethical guidelines for data collection for research were adhered to in this study. Letters that were required were sent to the concerned authorities. Before beginning the study, the researcher sought approval from the University Research Ethics Review Board (URERB).

The researcher carried out the study after the URERB released the clearance and notice to proceed. The proper protocol and manners were used when requesting permission to carry out the research. The presidents of the various higher education institutions (HEIs) in the province of Ilocos Norte received the request letters to conduct the survey.

The Researcher ensured that he discussed the nature of the study to the respondents via online platform (via Google Meet) for 20-30 minutes before providing the link for the Google Forms. It was explained in the online orientation that there were minimal or negligible risks in participating and the direct benefits which they can get. The respondents were given 1-5 days to accomplish the survey checklist. After accomplishing the survey checklist, the researcher closed the google form for the tabulation and data analysis by the statistician.

For confidentiality, the names of the respondents and schools were not included in the discussion of the results. The responses that they provided were solely used for the study and were analyzed and interpreted statistically. Their identity and that of their schools and whatever information they provided was kept confidential and the researcher is responsible in ensuring privacy to such. The participants had been given the opportunity and liberty to participate or to retract. Hence, all the data that were gathered

from the survey checklist were handled with utmost confidentiality in compliance to the Data Privacy Act.

Gathered informed consent forms and questionnaires were kept in a safe folder and were shredded or permanently deleted within the year of the completion of the study.

The results of this study will be used for educational purposes only. The respondents were informed that copies of the results of this study will be provided to their respective institutions, to the MMSU-Graduate School Library and to the National Library of the Philippines.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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