Contextualized differentiated instruction in contemporary issues vis-à-vis the development of its COVID-19 model

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Abstract

The study analyzed the effectiveness of Contextualized Differentiated Instruction (CDI) in the teaching of Contemporary Issues, a Social Studies subject in Grade 10 with these of objectives by: (1) Determining its pre-post-test results; (2) Testing its significant mean difference; (3) Analyzing its learning competencies and identifying appropriate strategies; and (4) Formulating an enhanced CDI Model of Contextualized Teaching and Learning (CTL). A one group quasi-experimental design, using pretest-and-posttest, determined the respondents' performance on Contemporary Issues. A significant difference in the pre-posttest demonstrated an increase of proficiency manifested by an increase in the mean scores and enhanced qualitative equivalents. An above proficiency level revealed in the posttest was attributed by the engagement of the respondents in the learning process using contextual differentiated learning activities. Matching the learning competencies with the three learning domains of Gardner's multiple intelligences resulted in a substantial utilization of the interactive and prospective teaching strategies, except on the analytic teaching strategies that were found inadequate. Hence, the creation of the COVID-19 Model may juxtapose the essence of an enhanced CDI Model of CTL. The findings have social and practical value to support differentiation of instruction in the 21st century education.

Keywords: Contemporary issues, Contextualized Differentiated Instruction (CDI), COVID-19 Model of Contextualized Teaching and Learning

Introduction

One of the challenges in 21st century learning is cultural complexities and global technological advancement. These realities test educational heads and teachers to find better solutions, in responding to these gaps, considering the government's limitations on budget, technology, and logistics in the poorest countries in the world. Emerging learning theories necessitate further investigation in research and practice to prove instructional efficacy, despite these aforementioned limitations. The 21st century education requires enhancing the learners' knowledge, skills, attitudes, and values (KSAVs), in responding to the 21st-century skills of critical thinking, communication, collaboration, and creativity. These skills prepare learners for the world of work. Hence, Goh (2011) recognized teacher competence as a vital requirement to enhance learner academic performance and to facilitate learner experiences in school. Likewise, teachers need to master the use of concrete applications in the learning process that interest students (Mazzeo, 2008 in Kalchik & Oertle, 2010). In this context, educational institutions have a crucial role to play in sponsoring for trainings, workshops, advance studies, and research to situate a vibrant instructional process that addresses the challenging demands of the 21st-century education.

Background and rationale

While poor countries in the world struggle for quality of education, the situation of basic education in the Philippines manages to cope with international standards. By virtue of the Republic Act 10533, a 12-year program known as the K to 12 implemented in 2012. This act provides teachers to localize and contextualize instruction to facilitate learning in relevant culture-based instruction. Under Sec. 5 of this act, it highlights the importance of curriculum contextualization and policy guidelines on classroom assessment (Morales, 2016). A massive training for teachers to teach the new curriculum using this policy guideline was conducted. However, not all the teachers were given the opportunity to attend, including their school heads. This situation creates conflict between school heads and teachers in teaching properly the new basic education curriculum, using the prescribed content and performance standards and learning competencies found in the Curriculum Guide (CG) and the Teacher's Guide (TG).

Addressing the need to contextualize the K to 12, Differentiated Instruction (DI) of Tomlinson serves as a framework in the instructional process (Concordia, 2007). The Department of Education (DepEd) in the Philippines emphasizes the use of Contextualized Differentiated Instruction (CDI) in the observation checklist during the rating of teacher's demonstration. Hence, this paper tries to mediate the existing gaps, by analyzing CDI in contemporary issues in Social Studies Grade-10. As used in this paper, CDI refers to instructional activities that cater to the learners' needs in Contemporary Issues (CIs). CIs are current and relevant problems of society designed for K to 12 Curriculum in Social Studies Grade 10. At CDI, learners' capabilities, intelligences, and learning styles serve as basis to differentiate teaching vis-à-vis learning activities, as reflected in the learning competencies found in the CG. In RA 10533, teachers perform practical applications, use materials within the local context, engage experiential learning, and integrate lessons with other disciplines. These performances are compliant with the Result-based Performance Management System-Philippine Professional Standards for Teachers (RPMS-PPST) and the Classroom Observation Tool-Result-based Performance Management System (COT-RPMS) Rating Sheet in the observation checklist of DepEd. The contexts of learner diversity and alternative learning strategies remain the CDI's primary considerations in the study. Hence, the results of this study are significant for DepEd school heads and teachers to improve their current

practices in the teaching of the new curriculum. This study also promotes the DepEd's move towards meaningful and accessible CDI, in fulfilling its strategic mission to improve students learning outcomes (SLOs).

CTL's theoretical anchor

Gardner's Theory of Multiple Intelligences (MI) serves the foundation of Tomlinson's DI. Gardner (2011) believed that every individual possesses any of these intelligences, logical-mathematical, visual-spatial, verbal-linguistic, interpersonal, intrapersonal, bodily-kinesthetic, naturalistic, existentialistic, and musical. Armstrong (1999) mentioned that MI theory emerges in recent cognitive research that individuals learn in different ways, and commented that the traditional notion of intelligence based on IQ test is too limited. He rejoined with Gardner for the use of word smart, number-reasoning smart, picture smart, body smart, music smart, people smart, self-smart, life smart, and nature smart. Gardner and Armstrong believe that every learner exhibits a variety of interests and skills in learning. Though, a learner may possess plenty of these attributes; the rest struggle to maximize their potentials. Another theoretical anchor used in this study is Crawford's CTL-REACT Model. In this model, Crawford (2001) emphasized the learner as the center of the educative process where they relate to their own experiences; experience beauty of the learning tasks; apply lessons with mastery; cooperate among team members in order understand better; transfer learning in different situations. Hence, this scenario upholds a greater propensity to use DI, considering the learners' individual differences and learning styles.

The bias of many schools to focus on linguistic and logical-mathematical intelligence nuances the need to equate the use of other intelligences with what the artists, architects, musicians, naturalists, designers, dancers, therapists, and entrepreneurs exhibit (Armstrong, 1999). MI opens educators' mind to a major transformation in managing the learners' holistic development (Armstrong, 1999). Trained teachers present lessons in a variety of ways through music, cooperative learning, art activities, role play, multimedia, field trips, and inner reflections (Armstrong, 1999). The use of MI theory through CDI exhibits positive results based on existing literatures. Johnson (2007) pointed out the positive effect of MI on elementary student performance. Corollary with this, the use of MI in the curriculum increases the student achievement (Johnson, 2007). Hence, teachers need training on how to infuse MI in the curriculum framework to create authentic learning experiences that increase student performance (Johnson, 2007). Teachers' multiple intelligences and their classroom practices showed dominance in logical-mathematical intelligence in line with the activities they used (Dolati & Tahriri, 2017). If this is true, then, how can the potential for holistic development be formed when teachers set the limitations of the students' learning? This means that greater areas of MI need to be explored in the instructional contexts, with sufficient teacher mastery.

The CTL's global context

Badway and Grubb (1997) emphasized the primary goal of Contextualized Teaching and Learning (CTL) to drive instruction, by engaging learners in active learning based on their own experiences. Making learner experience interconnect and reinforce the lesson is CTL's main feature (Chemus and Fowler, 2010). CTL links with the principles of DI that accommodates different ways of active learning (Tomlinson and Allan, 2000). Teachers use learning styles to differentiate learning activities that enable learners to engage in the instructional process, helping them understand the practical competencies in life, and making them enjoy their lessons meaningfully. In DI, teachers are urged to use diverse learning styles and differentiate activities based on the learners' KSAVs (Tomlinson, 2006; Tomlinson &

Allan, 2000). To differentiate instruction means to recognize the learners' socioeconomic, cognitive, and cultural background to give them enough time to learn, reducing their likelihood of being left behind in the learning process.

CTL advocates define contextualization as a combination of skill and knowledge where learners obtain new information in an environment that they can relate to, with interest based on their knowledge and experience. In the conventional method, knowledge and skills are taught separately; students are not able to connect between what they know and how it is used in real life. Through CTL, learners acquire KSAVs in meaningful contexts; they retain the information and continue to learn more. In CTL, Bradsford *et al.* (2000) mentioned that learners develop a flexible understanding of when, where, why, and how to use their knowledge to solve new problems if they learn how to extract the underlying themes and principles from what they really mattered. Understanding how and when to put knowledge to use–known conditions of applicability–is an important characteristic of expertise (Bradsford *et al.*, 2000).

Contextualizing aspects of project-based instruction and its relationship to learning using everyday experiences become a catalyst for understanding. In Developmental Education, contextualization is recommended, in order to prevent its underutilization, danger of decontextualization and demotivation. Korkmaz and Korkmaz (2013) found out that the use of contextualization in the preparation of lesson exemplars directs high learning performance. Miller (2016) suggested CTL's use to achieve varying levels in English proficiency. Miller's context necessitates the need for DI so that teachers can monitor the learning process and keep-track on the developmental milestone of every learner to ensure a successful learning process.

CTL describes a set of instructional and assessment practices that aimed directly in developing skills and knowledge that adults need to deal with specific situations or to perform specific tasks (EFFTIPS, 2012). The occupational training programs transition learners to new careers that contextualize instruction in problems or tasks associated with career opportunities. For instance, workplace literacy programs contextualize instruction for specific job tasks require company's worksite for immigrant workers (Merrill *et al.*, 2011). This context only proves that CTL can be used for different learning programs, not only in schools but also in the workplace.

Baker et al. (2009) rejoined that a promising approach for basic skills instruction is the CTL, where the subject matter is taught in meaningful situations relevant to the students' real-life situations, in order to let them learn more effectively. Faculty collaborations and partnerships are formed across disciplines. The faculty functions with community stakeholders and employers encourage CTL's effective use. To Baker *et al.* (2009), "Instructors collaborate to varying levels on a wide range of activities including program design, curriculum and professional development, resource acquisition, and assessment of CTL's practices." CTL can provide a broad range of learning activities, which include meaningful projects that teachers require as evidence of students' learning. Pedagogically, CTL is similar to Project-based Learning (PBL), where learners are given space for teachers to meet their needs in a variety of ways.

Miller (2016) emphasized six strategies for differentiated instruction in a PBL way and described these as follows. First is differentiation through students' level either by academic ability for collaboration skills or for social-emotional purposes by their interest and passion. Second is the reflection and personalized goal setting for further learning that serves a great opportunity to set desired targets for meaningful instructional tasks. Third are the mini-lessons, centers, and resources, including videos, games, and readings. Fourth comprises voice and choice in products in terms of what students produce and how they use their time and allow them to show what they know in a variety of ways. Fifth is differentiation through

formative assessments and collaboration in a project, oral conference, a series of written responses, and other learning activities. Sixth is the balance collaborative teamwork and individual work that students engage in the learning process.

Kalchik and Oertle (2010) emphasized CTL as a "diverse family of instructional strategies designed to seamlessly link the learning of foundational skills and academic, occupational content by focusing teaching and learning squarely on concrete applications in a specific context that interest students." They pointed out CTL's theory and application in relation to programs of study and career pathways that build on process and recognition and prod students to learn more effectively when they are taught in a hands-on and real-world context. The theory utilizes a context supported by traditional academics to drive instruction that engages students in active learning that assists them in constructing personal meaning based on their experiences (Badway and Grubb, 1997). This strategy benefits the students to experience the subject matter, as connected and reinforced, rather than a separate and unrelated piece of information (Chernus and Fowler, 2010).

The use of DI in CDI vis-à-vis CTL

In CDI, the teachers facilitate learners to understand based on their learning modalities. The learners are guided to understand concepts based on their experiences as contextualized in real life situations to make learning more meaningful. DepEd authorities consider localization and contextualization necessary to situate CDI, in order to nurture and enhance the 21st-century skills. When a teacher talks about CTL what comes next is the different types of learners in a heterogeneous classroom. DI gives students' choices on what to learn and how to demonstrate learning. Robb (2002) believed that in DI, a teacher observes and understands the students' differences and similarities before engaging in an instructional plan. In DI, a teacher anticipates and responds to a variety of students' needs in the classroom. To meet their needs, teachers differentiate instruction by modifying the content (what is being taught), the process (how it is taught) and the product (how students demonstrate their learning). Having a choice would help boost student engagement in the task (Access Center, 2010). This affirms research findings that CTL use in DI enhances effective learning.

DI's philosophy is progressivist, where learning tasks are selected based on the students' age and maturation, interest and motivation, socio-cultural background, and multiple intelligences. Hence, every classroom of 25 students has 25 different combinations of personality, interests, learning styles and background knowledge about the lesson. A differentiated classroom would present students with choices in terms of how to learn a concept, how to practice it, and how to create an output (Access Center, 2010). Vis-à-vis, this nuances Gardner's theory of MI to start up for an effective instructional planning and a more efficient system for assessment and evaluation.

Robb (2002) narrated how DI was done in a typical college literature class where the professor decided to do a quick assessment of the understanding of the class on the use of symbolism in a selected novel, in order to determine whether they are ready to move on to the next objective. In a blank paper, the professor asked the class to draw a picture to express their understanding on different symbolisms about the novel. In the class proceedings, the students responded differently. Gifted artists in the class got the right instructions to work; the less artistic students protested that their product could not be possibly represented their understanding; others gave a try but they fell short and decided not to try at all anymore. These classroom scenarios illustrate the effect of one-size-fits-all approach to instruction. At the end, the way mastery was assessed by the college professor left some students to look like they failed to understand the content (Robb, 2002). This scenario is commonly done in a

traditional instruction which today proves to be less effective. If the instruction is contextualized and differentiated, it becomes more dynamic and students learn more actively.

In terms of assessment of learning, Robb (2002) offered a list of key principles that form the foundation of DI which include the ongoing formative assessment, recognition of diverse learners' group work, problem solving, and self-assessment in line with their choices. Assessment is very important to measure the DI's result.

DI in the Philippine context

Republic Act 10533 mandates the use of DI in basic education in the Philippines through localization and contextualization. Inocian (2015) recalled the salient provisions of this Act that resulted in the creation of the Quadrant Model of Teaching (QMT) for proper implementation of the K to 12 in Philippine basic education curriculum. Anchored on the four pillars of learning in the 21st century and other humanistic learning theories, QMT adopted the brain-based, differentiated, integrative and collaborative theories, which globally and locally contextualized in basic education teaching in the Philippines. Inocian (2015) described integration sequence of 21st-century skills, DI, contextualization and localization in the actual teaching demonstrations in economics, which was aptly executed in the teaching of critical thinking, communication, and collaboration, but found insufficient in the teaching of creativity as one of the four skills, which needed utmost attention and full academic administrative support.

Bonganciso (2016) affirmed a significant increase of the students' reading comprehension performance, by contextualizing their reading tasks in DI. This scenario supports learner-centered instruction. To Ali (2016) in Morales (2018), "Do not force our children to behave like us, for surely they have been created for a time which is different to our time." This quote serves a platform for 21st century DI, where students learn at different rates in many different ways with tolerance and their styles of learning are valued. The teachers, students, and learning contexts found in the learning competencies remain the CDI's important factors, where multiple teaching strategies are planned and when and how they are used. In DI, the context is learner centered, collaborative, relevant, responsive, and research based.

DepEd Philippines believes that DI can provide students with multiple learning options in the classroom based on their interests, abilities, and needs, without sacrificing the realization of the learning competencies in the CG. DepEd Order No. 42, series of 2016 on policy guidelines on Daily Lesson Preparation for the K to 12 Basic Education Program pointed out the guidelines that affirm the role of the K to 12 teachers as a facilitator of learning (DepEd Order 42, s. 2016). The Detailed Lesson Plan provided teachers an opportunity to determine what learners need to learn and how they learn in the learning process; to use varied instructional and formative assessment strategies with appropriate educational technologies (DepEd Order 42, s. 2016).

DepEd supports teachers to use DI and requires teachers to be responsible in their efforts to facilitate students' learning. The policy guidelines on daily lesson preparation, remind teachers on the provisions of Article IV, Section 2 of the Code of Ethics for Professional Teachers adopted in 1997 through Board Resolution No 435 by the Board of Professional Teachers which states that, "Every teachers shall uphold the highest standards of quality education, shall make the best preparation for the career of teaching, and shall be at his best at all times in the practice of his profession" (Republic Act 7836, 1994). This means that the department supports teachers in upholding the standards of quality education, by affirming the importance of instructional planning, that is focused on the principles of DI across grade levels. The study of CDI is not only limited for use in high school, but this can

also be used in the tertiary level. Perin (2011) conducted a study on facilitating student learning through contextualization and affirmed that it has the potential to accelerate the progress of academically unprepared college students. CDI researchers in the Philippines and abroad aim to get real benefits in the instructional process. The use of CDI by different international and local researchers affirmed the positive improvement in the students' academic achievement.

Research objectives

The study aimed to analyze the effectiveness of CDI in the teaching of Contemporary Issues in Junior High School social studies program in basic education. This study also aimed to find answers these objectives:

a) Determine and compare the CDI's pre-post-test results in Contemporary Issues;
b) Analyze the differentiated learning competencies found in the learning guide;
c) Identify CDI strategies commonly used by the teachers; and
d) Formulate an enhanced CDI (COVID-19 Model of CTL) based on the results of the study.

Methodology

Research design

The study used a quasi-one experimental design with a pre-test/post-test without a control group, in order to measure the performance of the respondents in Contemporary Issues. This quasi-one experimental design of the non-equivalent group (Cook and Campbell, 1963) used a specific section in Grade-10 with forty-three (43) student-respondents. The respondents in a non-equivalent control group design were selected using a purposive sampling, because they belonged to one specific section (Grade-10) who were subjected to the pre-post-test participated within the duration of the study. The design was appropriate because the respondents were assigned as the main target population in determining the comparison on the CDI's effectiveness before and after its use. The administered pre-test/post-test gauged the respondents' performance before and after the experiment.

Development of the test instrument for the student-respondents

Assessment of learning is a crucial phase in the instructional process because this determines how far the students learn in the lesson. Assessment strategies provide learners the "opportunities to demonstrate what they know and what they can do with their knowledge" (Abdul Karim & Yin, 2018). Henceforth, this guiding principle was a basis for the formulation of the instrument used in the study, 50-item pre-post-test focused on the learning competencies required within the 1st-quarter of the course in Contemporary Issues. After the list of competencies were mapped out, a Table of Specifications (TOS) was prepared to identify the test items based on the target learning competencies. As prescribed by DepEd, the test was constructed in Filipino language, which was subjected to an inter-rater validation among three content experts in social studies from three universities in Cebu City. After the inter-rated validation, the test was revised based on the suggestions by the experts. This revised test was approved by the research committee before this was subjected for a pilot test. A specific section taking another class in Contemporary Issues pilot tested the instrument, in order to determine its validity and reliability like the frequency of errors and the corresponding item

analysis using the Zip Grade. After the validation of the instrument, the test was administered to the legit respondents. Pre-post-tests were used to establish comparability.

Development of the DLL checklist for the teacher-respondent

Like the student-respondents, a transmittal letter was also sent to the teacher teaching Contemporary Issues for the inspection of her DLLs for the first quarter. To find out whether the teacher-respondent utilized the learning competencies found in the CG and the teaching strategies for CDI, a checklist was formulated. The first column was the list of the 18 Leaning Competencies; the second column reflected the CDI strategies based on the MI perspectives; and the third column was the list of KSAVs. This checklist was used during the review of the teacher's DLL for the first quarter only.

Data gathering procedure

After all the letter of permission was written to the school heads and the concerned social studies teachers were approved by the school superintendent to conduct the study, a Letter of Informed Consent was prepared for the parents to allow their children to be involved as part of the chosen respondents. In this letter, the parents were informed about the objectives of the study and the assurance for its confidentiality of results. Their children's identity was protected and respected with anonymity. The participation of the respondents was voluntary on the basis of the required research protocol of the university. After all these preliminaries were set, the test was administered for an hour. Refreshments were provided and a little token of gratitude was given to the respondents for the valuable time they spent for the test. The test was checked and the scores were recorded, the scores were treated with appropriate statistics.

Data analysis

The paired-sample t-test was utilized in the study. The gain or difference scores were taken and recorded from the pre-test and post-test of the experimental group. The significant difference was derived from the hypothesis testing by using the t-test formula. The hypothesis decision was also analyzed and decided using a .05 alpha level or p-value. This technique was used to check significant gains and/or difference of scores before and after the application of the intervention–the CDI. The pre-post-test design in a quasi-experiment was randomly studied before and after the manipulation. The pre-post-test results established the expected change in the participation after the manipulation.

Findings and discussion

Significant pre-post mean difference of the test results in CDI

Based Paired T-test results in Table 1 showed that there was a statistically significant difference between the pre-test *((M(43)=39.81; SD = 1.99)* and post-test scores*(M(43)=39.81; SD = 1.99), t(43)=17.38, p<0.01, d=3.41, delta=5.19, and g=3.39*. The effect sizes test also suggested that there is a large effect or high practical significance value.

Table 1. Pre-Post Mean Difference of Test Results in CDI

Group	Indicators	Mean	SD	t-value	p-value	Cohen's D/Glass's Delta/Hedges G
Experimental	Pre-test	29.488	1.991	17.38	<0.01	3.41/5.19/3.39
	Post-test	39.814	3.788			

The descriptive statistical results demonstrated that there was an increase of proficiency manifested by the increase of mean scores and enhanced qualitative equivalents. As revealed, the respondents had a below proficiency level in the pre-test *(M (43) =29.49; SD=3.79)* while above proficiency level in the post-test *(M (43) =39.81; SD = 1.99)*. This result initially implies that CDI's utilization in Contemporary Issues was effective and may be caused by the intervention. This is finally tested or validated in the paired t-test to compare the pre-test and post-test scores.

This significant difference can be attributed to factors such as the teacher's utilization of the learning competencies found in the curriculum guide; the awareness of the social studies teachers on the important provisions of localization and contextualization provided in the RA 10533; and the prescribed detailed Daily Lesson Log (DLL). It can be further implied that these factors prodded teachers to plan and implement CDI activities. The mean difference of significance indicates the effectiveness on the use of a CDI that it greatly helps the respondents' academic performance from the pre-test to the post-test. Further, when CDI was used, the respondents were engaged in the learning process. None of them was left behind. Upon using the CDI, the teacher had a set of pre-planned activities emphasizing the respondents' multiple intelligences as basis for contextualization. The connection of Social Studies concepts to other disciplines was made easy because of proper planning and scaffolding of CDI were done based on the respondents' learning experiences.

Also, the significant result was a manifestation that the respondents were exposed with the actual and more relatable hands-on learning activities which were contextualized and later tailor-fitted according to diversity in the classroom such as their learning styles, nature of multiple intelligences, and actual experiences (Subban, 2006). This supports the positive findings of Satriani *et al.*, (2012) that CTL approach was beneficial to the students' reading performance. They were encouraged to make meaning on newly acquired concepts. They participated in several leaning engagements. The shy and timid members of the class were given a chance to perform and be involved in the learning process so that nobody would be left behind.

Learning competencies subjected to differentiation

The 18 Learning Competencies (LC's) in the CG for the 1st Quarter were listed as basis for checking on how these were contextualized based on the teacher's DLL. These competencies were analyzed for CDI based on Gardner's multiple intelligences. The social studies teachers were moderately effective in differentiating activities in the interactive domain (22.23%) and introspective (20.37%) domain compared to the ineffective use of the analytic domain (9.88%). Though, these results contradicted the traditional notion of social studies as a content-oriented discipline. However, the results imply the transition of teaching in Contemporary Issues to a facilitating style of instruction that emphasizes the use of communication, collaboration, and creativity in both the interactive and introspective domains.

The low percentage of the analytic domain (9.88%) indicates a remiss of teacher preparation in terms of differentiated task identification required for the successful learning outcomes in the cognitive learning competencies. This result supports the findings of Kiong, Yunos, Heong, Hj. Hussein, & Mohamad (2018) on the low-level performance of students in higher order thinking skills using the cognitive process dimensions. However, a greater concentration of the visual, bodily-kinesthetic, and linguistic intelligences in contrast with naturalistic, rhythmic, and logical-mathematical intelligence with less teacher preference. At the outset, the moderately effective percentage (52.48%) indicates positive nuances that the social studies teachers shift their perspectives with regard to the proper implementation of the teaching of Contemporary Issues in the K to 12 basic education curricula. As it is noted, the unfit activities in the CDI are not essential, presumptuous that students could successfully integrate the non-negotiable competencies in the learning process.

LCs 1, 3, 7, 10 & 12 were the first four LC's with highest number of differentiations, with learning activities related to the bodily kinesthetic, visual spatial, linguistic, and life-smart were maximized. The respondents could relate on their own contexts based on the aforementioned LCs in social and environmental issues. LCs 2, 4, 16 & 18 were the lowest with lesser of CDI in the naturalist, musical, logical-mathematical, intrapersonal, and interpersonal intelligences. Analysis on the structure and elements of society; understanding on the difference of personal and social issues; application on the use of Community-Based Disaster Risk Reduction and Management (CBDRRM) Plan and the analysis and evaluation of the CBDRRM Approach are difficult to differentiate among the respondents. This means that CDI is dependent on the learner's cognitive ability to grasp the concepts, in relation to their individual and group contexts.

Common CDI strategies in contemporary issues

The bodily-kinesthetic activities were found dominant in the CDI; while, strategies related to naturalist and musical intelligences were less likely used. The respondents used their fine and gross motor coordination as they engaged in these activities. They processed concepts quickly in the simulation, pantomime, human diorama, role play, paint me a picture, and carousel. The visual-spatial and linguistic reasoning activities ranked second, where they processed ideas from what they visualized; they analyzed perceived information and details very quickly in poster and slogan making, prediction charting, creating a slide presentation for group discussions, Venn diagramming, semantic webbing, and retrieval charting that enticed collaboration and bonding. They pictured ideas faster and conveyed their messages effectively in testimonial sharing, poem rendering, brainstorming, inquiring, and buzzing sessions were used in environmental issues and features; hazards and preventive measures in avoiding its detrimental effects in the future.

The intrapersonal, logical reasoning, interpersonal and existential intelligences were considered by the respondents' favorites. They engaged in self introspection when they made their commitments. They reflected on their actions and how these actions affected them personally to others in the community and to the country as a whole. Furthermore, they justified their learning with valid and practical reasons in the commitment build up, reflective inquiry, word or phrase completion, role playing, buzz session, and in painting me a picture. They engaged in reflections on the lessons in Contemporary Issues and engaged in activities related to naturalist and musical intelligences. They engaged themselves in a jingle, in a tribute song, and in learning situations that would preserve the environment; and synthesized their learning regarding the aftermath of environmental hazards and pointed out the measure in preserving nature.

CDI enhancement in the teaching of contemporary issues

Table 3 shows the illustration of the crafting of the enhanced CDI based on the REACT Model of Crawford (2001). Based on one of the current issues, COVID-19 creates havoc to public health, business, and travel to any country in the world today. This enhanced CDI is named after this virus known as the COVID-19 Model of CTL, crafted in December 2019. This enhanced model sustains the noble objectives of the K to 12 Curriculum in basic education, and serves as basis for social studies teachers to conduct a demo fest during regular INSET at the beginning of the school year. COVID-19 Model of CTL is anchored on the progressivist philosophy where learners are the center of the educative process.

Table 3. The COVID-19 Model of CTL in Contemporary Issues

CTL-REACT (Crawford, 2001)	CDI-COVID (Saguin, et al., 2019)	Context in Contemporary Issues	Learning Tasks
Relating is the pre-existing knowledge where the learners share their life experiences	**C**onditioning refers to the activation of the learners' prior experiences of a specific issue that the teacher selected based on the learning competencies	What virus that infected thousands of lives and killed many? Can someone share to us your existing knowledge about Corona Virus? Is it natural or engineered?	After watching the news clips and footages, relate your existing personal views about the issue
Experiencing is learning by discovery or exploration where the learners organize their thoughts in responding to appropriate learning tasks	**O**rganizing is the process of navigating the concepts and issues needed in the planned panel discussion. The learners organize the kind participation they have in the task whether as a researcher, a discussant or a reactor	What is your experience when the government implemented the community quarantine, lockdown, and social distancing?	Presenting a panel discussion about other countries' implementation of community quarantine, lockdown, and social distancing
Applying is learning by putting concepts into use through mastery	**V**isualizing is the imaging of WHO's community quarantine, lockdown, and social distancing in the actual practice at home and in public places	How to ensure a safety life during COVID-19 pandemic? Is your practice in line with WHO's definition of these concepts?	Making Graphic Organizers of the legitimate process of WHO's community quarantine, lockdown and social distancing
Cooperating is learning by collaboration to enhance communication and teamwork	**I**nteracting is engaging in a meaningful discussion regarding the taken concepts	Who are allowed to work during the enhanced community quarantine and lockdown? What are the roles of the frontline workers?	The learners decide to select the best Cooperative Learning strategies that they agreed in the team

Transferring using KSAVs to a new situation based on the learner's context	Demonstrating is showing the learned concepts to a new situation	How can COVID-19 Pandemic be manifested in the personal context?	The learners can perform any of these tasks: writing a poem, interpretative dance, song composition, etc.

Preparing the COVID-19 Model of CTL provides teachers with an opportunity for reflection on what learners need to learn and how they learn. These guidelines aim to empower teachers to carry out quality instruction that recognize learner diversity, commit learner success, allow the use of varied instructional and formative assessment strategies, use of information and communications technologies (ICTs) that enable teachers to guide, mentor, and support learners in the assessment process (DepEd Order 42, s., 2016). COVID-19 considers the different mental abilities of the learners: fast, average, and slow, as they engage into **C**onditioning, **O**rganizing, **V**isualizing, **I**nteracting, and **D**emonstrating the learning competencies found in the CG. Learner diversity is an important consideration in the utilization of the appropriate activities that scaffold the learning process.

The slow learners are guided to use some simple techniques in graphic organizer, painting me a picture, human drama, pantomiming, word completion, one stanza jingle, and think-pair-share in initiating motivation and collaboration. Time element is considered because of the low attention span of the learners in lengthy presentation of the lessons. The average learners think faster in preparing and in executing the suggested activities like playing, skit showing, Venn diagramming, retrieval charting, skit showing, role playing, poster making, news reporting with live interview, feedbacking, rapping with poem rendition and panel interview are activities appropriate for their needs. Challenging tasks are given to the fast learners. Being hyperactive and smart thinkers, they love to plan and execute more creative, resourceful, and artistic activities like buzz session, debate, simulations, learning stations, infomercials, making caricatures, music galore, scenario build up, concept mapping, and semantic webbing. They engage these with elaboration in the actual lesson presentations and rated their performance using required rubric. The rubric is rated by the both the teacher and the members of the entire class. The results of the rating are added and divided in order to get the average rating.

Conclusions and recommendations

The effectiveness of CDI in teaching of Contemporary Issues was attributed by several factors such as: teachers' knowledge of the curriculum; pedagogical and content knowledge; learning abilities and styles of learning, and the readiness of the learners to grasp the learning competencies. This effectiveness affirms Mazzeo's theory that students find interest on lessons with concrete applications in specific context and Crawford's REACT Model. Teachers' knowledge on learning abilities and styles of learning necessitates greater area of improvement in DI context which is thoroughly planned in pro-type lessons for an enhanced COVID-19 Model of CTL.

As part of the limitation of the study, it is recommended for future research that an Exploratory Factor Analysis (EFA) will be explored on the aforementioned variables in the study to measure the implementation of curriculum, teaching strategies and assessment practices in promoting HOTs. Other recommendations include the following: (1) seminar-training for social studies teachers to unpack the learning competencies based on the content procedural knowledge of the curriculum; (2) reorientation of teachers during the In-Service Training (INSET) to improve the dismal result in the selection of strategies appropriate for

the analytic domain of multiple intelligence strategies: (3) infusion of teachers' INSET in the effective utilization of the proto-type lessons for the effective utilization of an enhanced CDI; (4) policy recommendations for government to allocate special funding for the revisit of the social studies curricular programs across grade levels; and (5) replication studies that will be focused on the analysis of matching the LC's for the complete CDI within the four quarters.

References

Abdul Karim, N., & Yin, K. (2018). Outcome-Based Education: An approach for teaching and learning development. *Journal of Research, Policy & Practice of Teachers and Teacher Education, 3*(1), 26-35.

Access Center (2010, August, 27th). Differentiated instruction for reading (blog post). Retrieved from https://www.readingrockets.org/article/differentiated-instruction-reading

Armstrong, T. (1999). *Kinds of smart, identifying and developing your multiple intelligences*. New York, USA: Penguin Putnam, Inc.

Badway, N., & Grubb, W. N. (1997). *A sourcebook for reshaping the community college: Curriculum integration and the multiple domains of career preparation, Vols. 1 & 2*. Berkeley, National Center for Research in Vocational Education.

Baker, E. D. L., Hope, L. & Karandjeff, K. (2009) *Contextualized teaching and learning: A faculty primer.* Retrieved from http://www.cccbsi.org/Websites/basicskills/Images/CTL.pdf

Bransford, J. A. D., Brown, A. L., & Cocking, R. R. (Eds.), (2000). *How people learn: Brain, mind, experience, and school*. Washington DC, USA: National Academy Press.

Bonganciso, R. (2016). Effects of contextualization on the reading comprehension performance of Filipino learners. *Asia Pacific Higher Education Research Journal, 3*(1), 1-13.

Chernus, K., & Fowler, D. (2010). *Integrating curriculum: Lessons for adult education from career and technical education*. Retrieved from https://lincs.ed.gov/publications/pdf/IntergratingCurriculum2010.pdf

Concordia, A. L (2007). Differentiating instruction: what does it look like when utilized in a kindergarten classroom? (Master's Thesis, Rowan University, Glassboro, New Jersey). Retrieved from https://rdw.rowan.edu/cgi/viewcontent.cgi?article=1785&context=etd

Cook, T. D. & Campbell, D. T. (1963). Quasi-experimental designs. In L. Cage (Ed.), *Experimental and quasi-experimental designs for research* (pp. 34-61). Boston, USA: Houghton Mifflin Company.

Crawford, L. M. (2001). *Teaching contextually: Research, rationale, and techniques for improving student motivation and achievement*. Texas, USA: CCI Publishing, Inc.

Department Education Order 42, Series (2016). *Policy Guidelines on daily lesson preparation for l-12 basic education program.* Department of Education, Manila, Philippines.

Dolati, Z., & Tahriri, A. (2017). EFL teachers' multiple intelligences and their classroom practice. *SAGE Open, 7*(3), 1-12. https://doi.org/10.1177/2158244017722582

EFFTIPS, (2012). *What is contextualized instruction?* Retrieved from https://efftips.wordpress.com/2012/05/29/faqwhat-is-contextualized-instruction/

Gardner, H. (2011). *Frames of mind: The theory of multiple intelligences*. e-book edition, New York, USA: Basic Books.

Goh, P.S.C. (2018). Improving teacher competence through the new Malaysian Teacher Standards: Exploring the challenges for teacher educators. *Journal of Research, Policy & Practice of Teachers and Teacher Education*, *1*(1), 88-99.

Inocian, R.B. (2015). Quadrant modelling in teaching (QMT): Responding to RA 10533 salient provisions. *Asia Pacific Journal of Education, Arts and Sciences*, *2*(4), 71-78.

Inocian, R.B. (2015). 21st century skills in teaching economics: K to 12 Spiral Instructional Modelling (SIM) in the Philippines. *Asia Pacific Journal of Education, Arts and Sciences, 2*(4), 1-11.

Johnson, M. (2007). The effect of multiple intelligences on elementary student performance (Master's Thesis, Dominican University of California, San Rafael, California). Retrieved from https://files.eric.ed.gov/fulltext/ED497741.pdf

Kiong, T., Yunos, J., Heong, Y., Hj. Hussein, A., & Mohamad, M. (2018). Thinking skills for secondary school students in Malaysia. *Journal of Research, Policy & Practice of Teachers and Teacher Education, 2*(2), 12-23.

Kalchik, S. & Oertle, K. M. (2010). The *theory & application of contextualized teaching and learning in relation to programs of study and career pathways*. Retrieved from https://www.researchgate.net/publication/234684911

Korkmaz, S. & Korkmaz, S.C. (2013). Contextualization or decontextualization: Student teacher's perception about teaching a language in context. *Procedia-Social and Behavioral Sciences (93)*(21), 895-899.

Merrill RM, Aldana SG, Garrett J, and Ross C. (2011). Effectiveness of a workplace wellness program for maintaining health and promoting healthy behaviors. *Pub Med.gov (53)* (7),782-787. https://doi.10.1097/JOM.0b013e318220c2f4.

Miller, R. D. (2016). Contextualization instruction for English language with learning disabilities. *Teaching Exceptional Children, SAGE Open Journals*, *9*(1), 58-65.

Morales, S. (2016). Differentiated instruction-Philippine contextualization [slide share]. Academia.edu. Retrieved from file:///C:/Users/Sir/Downloads/Contextualizing_Differentiated_Instructi.pdf

Perin, D. (2011). Facilitating student learning through contextualization: a review of evidence. *Community College Review SAGE Open Access Journal, 39*(3), 268-295.

Republic Act 7836 (1994). *Philippine Teachers Professionalization Act of 1994. Republic of the Philippines, Congress of Manila*. Retrieved from https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbn x0aGVyaW1sZXNNzc3BlY3RhY2xc3xneDoxOGY1NzVlNzBhMDU1YjM4

Robb, L. (2002). *What is differentiated instruction? 100 Scholastic*. Retrieved from https://www.scholastic.com/teachers/articles/teaching-content/what-differentiated-instruction/

Satriani, I., Emilia, E. & Gunawan, M.H. (2012). Contextual teaching and learning approach to teaching writing. *Indonesian Journal of Applied Linguistics, 2*(1), 10-22.

Subban, P. (2006). Differentiated instruction: A research basis. *International Education Journal, 2006, 7*(7), 935-947.

Tomlinson, C. A. (2006). *How to differentiate instruction in academically diverse classrooms* (3rd Edition). Retrieved from http://www.ascd.org/ASCD/pdf/siteASCD/publications/books/HowtoDifferentiateI nstructioninAcademicallyDiverseClassrooms-3rdEd.pdf

Tomlinson, C. A., & Allan, S.D. (2000). *Leadership for differentiating schools & classrooms*. Virginia, USA: Supervision and Curriculum Development (ASCD).