SAN BEDA UNIVERSITY

BEDAN RESEARCH JOURNAL

THE OFFICIAL RESEARCH PUBLICATION
OF SAN BEDA UNIVERSITY

The **Bedan Research Journal** (BERJ) publishes empirical, theoretical, and policy-oriented researches on various field of studies such as arts, business, economics, humanities, health, law, management, politics, psychology, sociology, theology, and technology for the advancement of knowledge and promote the common good of humanity and society towards a sustainable future. BERJ is a double-blind peer-reviewed multidisciplinary international journal published once a year, in April, both online and printed versions.

BEDAN RESEARCH JOURNAL

Table of Contents

From the Editor

Divina M. Edralin
Editor-in-Chief

Research Articles

Research Note

The Contributors

Guidelines for Contributors

From the Editor

This volume is a collection of research articles focusing on the San Beda University priority Sustainable Development Goals (SDGs) and its Academic Year 2020-2021 theme: "Excellence in Educational Mission." The 12 featured articles analyzed from various experiences and perspectives how the Bedan community, as well as other students and faculty from other schools journeyed during the pandemic which affected their personal, work, academic, social, and spiritual life as well as their effort in advancing the pursuit of the SDGs.

The first paper by **Divina M. Edralin** and **Ronald M. Pastrana** on **"Developing an Instrument to Assess Organizational Readiness for a Sustainable E-Learning in the New Normal"** claimed the E-learning is aptly a practical response to continuous learning given the surge in the use of information technology, and economic disruptions impinging on the schools. The need to shift to e-learning has been exacerbated by the COVID-19 pandemic. In this regard, the researchers sought to develop an organizational assessment instrument to internally ascertain the level of readiness of the school for sustainable e- learning in the new normal. This assessment instrument was primarily developed for the use of the Mendiola Consortium member schools in their pursuit to conduct e-learning. The researchers asserted that many survey instruments had been made to assess organizational readiness as a construct for e-learning. However, it revealed that these instruments have varying limitations in validity and reliability to establish the domains of organizational readiness for e-learning. The study was anchored on the organizational readiness model developed by Schreurs and Al-Huneidi (2012) and Mercado (2002). From the review of related literature, the researchers generated seven basic dimensions of their model, namely: teacher, student, curriculum, technology, administrative support, financial support, and learning environment. The researchers also used a mixed method of qualitative and quantitative approach to come up with a validated instrument. The final instrument yielded 45 items to be

rated on a five-point Likert scale. For its content validity, the Item-Content Validity Index ranged from 0.91 to 0.96, while the Scale-Content Validity Index was 0.94. It has a Cronbach alpha of .975 for its reliability.

The second paper by **Ma. Emperatriz C. Gabatbat** and **Noel D. Santander** on **"The Value of Values Education in the Virtual Classroom"** investigated the value or importance of values education in online instruction during this time of the pandemic, based on Spencer's model. The researchers had used narrative descriptive method and strategy in analyzing the data that were collected through the digital data approach from several educators of higher and other educational institutions. Primarily, this research presented the various practices observed before, during, and after online learning, to ensure value-laden education aside from identifying the specific values needed to be promoted and intensified during this pandemic by reason of necessity and urgency like sensitivity, self-care, courage, perseverance, discipline, respect, accountability, faith, justice, peace, honesty, humility, and love. This research yielded to the importance and impact of values education to educational excellence while still in pandemic which are classified as personal character development, social and world development, and spiritual development on the account of the good nature of the value-based education, availability of much needed structures, quality of delivery, and dynamic support system.

The article on **"A Proposed Natural Science E-Instructional Systems Design (E-ISD) for the Mendiola Consortium"** by **Maria Eliza P. Cruz** and **Arvin P. Dizon** intended to support flexible learning without compromising authenticity and shared identity in the context of natural science virtual teaching and learning. The researchers reviewed and consequently, proposed a recalibration of the instructional systems design (ISD) as used by Natural Science teachers and professors of the Mendiola Consortium from October 2020 through March 2021. The proposed e-ISD, arising from flexibility, authenticity, and result-orientedness as eligibility criteria, enforces the importance of content and context feedback on the instructional process. Applying Argyris' perspective (1976) on feedback loops and theories of action, it could be

said that seeking the perspectives of the subject matter experts themselves, the Natural Science teachers, helped the researchers create a new meaning for Science Instruction— a meaning that is flexible and adaptable alongside the changing world.

This article by **Zernan L. De Ramos** and **Ma. Angela RJ. Balance** on the **"Community Extension and Citizenship Education of San Beda University Towards SDGs"** examined the community extension and citizenship education of San Beda University in its Community Engagement Center (CEC) and National Service Training Program (NSTP). It employed a framework on the *Priority Sustainable Development Goals (SDGs)* of SBU and selected key features and strategies of Education for Sustainable Development (ESD). After a critical assessment of the procedures, teaching methods, documents, and interviews, the results of the study identified the practices and programs including specific teaching activities. The results illustrated the level by which SBU utilizes SDGs towards sustainability. The researchers recommended to encourage increasing the commitment of SBU in integrating SDGs in instruction, research, and extension.

The paper by **Ester T. Rada** on **"Impact of the COVID-19 Pandemic on the Life of Faculty Teaching in Universities"** determined the impact of this pandemic on the life of college faculty and its consequences on their social, emotional, and personal aspects due to the transition from physical classes to online lectures and design a support program to help reframe and alleviate its impacts. As a descriptive study, it used a convergent mixed methods design. Employing a snowball sampling technique, a modified web-based global questionnaire that is divided into 7 sections, was administered via Google forms. With the use of SPSS v. 23, results showed from 81 respondents in 37 universities that despite the limited time and resources in the preparation, the faculty displayed an adaptive behavior. The narratives related impacts of emergency remote education on personal life circumstances more than what the figures showed in the statistical analysis. Three important words emerged with ambivalent themes as the general views on COVID-19 as generated by NVivo QSR: life, time, and changes. Using Braun-

Clarke approach to thematic analysis, the narratives also evoked that spirituality and emotions play a significant role in coping. The support program was designed with the academic, social, and emotional aspects in the key result areas with proposed program and activities such as educational policy on the pedagogy of care, continuing digital literacy program, social support elements of emotional concern, instrumental aid, appraisal, virtual socialization and also conduct of webinars, workshop series and fellowship as coping mechanisms.

Another article is on **"The correlation of workplace spirituality and work engagement among faculty of the Senior High School of San Beda University-Manila"** by **Jemville B. Acta, OSB** analyzed the degree of correlation of workplace spirituality and work engagement among the faculty of the Senior High School (SHS) of San Beda University–Manila. The correlational design was utilized to ascertain if there is a relationship existing between workplace spirituality (independent variable) and work engagement (dependent variable). The workplace components presented in the study are meaningful work, a sense of community, and alignment with organizational values. Work engagement was studied based on vigor, dedication, and absorption. Data were obtained through questionnaires that were sent to target respondents. The findings of the study established that there is a positive correlation between workplace spirituality and work engagement. The study concluded with several implications and recommendations to strengthen the workplace spirituality of faculty members in order benefit both the employee and the organization. The study also provided some suggestions for future researchers that will examine workplace spirituality in other industries.

The succeeding paper on **"Extent of Sustainability Practices in San Beda University: Basis for Action Plan Formulation"** by **Christian Bryan S. Bustamante** and **Rulina B. Viloria** averred that Higher Educational Institutions play an important role in the realization of SDGs as an institution and as a member of a society. San Beda University launched the realignment of its programs and projects with the Sustainable Development Goals (SDGs) starting the academic year

2019-2020. The Sustainability Office under the Rector-President was created to oversee the promotion and realization of the SDGs in the University's programs and projects. This study was conceptualized primarily to look into the extent of implementation, promotion and realization of SDGs in the University's programs and projects. The University is in infancy stage when it comes to the implementation of SDG. However, at this stage it has demonstrated practices that are aligned with SDGs particularly with SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth), SDG 10 (Reduced Inequalities), SDG 16 (Peace, Justice, and Strong Institutions), and SDG 17 (Partnership for Goals). But it has to overcome and improve on particularly in the areas of faculty research citation, formulation and implementation of policies and programs on Climate Action (SDG 13), documentation of pertinent information that will demonstrate commitment to reducing inequality (SDG 10), and the documentation of programs and activities that fall under other SDGs.

The paper on "**The Philippine Electricity Power Market Supply Options: Challenges and Policy Implications for Greening Economic Growth, Climate Resiliency, and Low Carbon Future**" by **Edilberto B. Viray, Jr.** and **Celedonio B. Mendoza, Jr.** asserted that one of the primary objectives of sustainable development is to make people without access to enough energy be able to meet their needs through the provision of stable, reliable, clean, safe, and affordable energy services. The researchers used the Granger Causality test to analyze the causal relationship among the endogenous variables among (1) GNI per capita; (2) GHG Emissions; and (3) Herfindahl-Hirschman Index (HHI) between energy-economic development and the influencing factors of power supply security indicators. The researchers suggested that the electric power development plans in the country have implications for the path that would lead the country to what is known as a green economy. It is in this background that energy security and economic growth development are intertwined by public policy. In a broader development sense, public policy draws in the active involvement of the community in identifying problems.

The paper on "**Development and Psychometric Evaluation of Faculty Evaluation for Online Teaching (FEOT)** by **Gil P. Soriano** was premised on the need to develop a valid and reliable instrument that is responsive to the current demands of instruction. Hence, the objective of the study was to develop and evaluate the psychometric properties of the Faculty Evaluation for Online Teaching (FEOT) among university students. A descriptive methodological study was used and a convenience sample of 2985 students were employed. The 20-item FEOT confirmed the four-factor loadings following the domains in the Denison Framework for Teaching. The factor loadings of the items were between 0.619 to 0.791 while the CFA model revealed a $\chi 2/df = 2.35$, root mean square error of approximation= 0.071, comparative fit index= 0.962, goodness of fit index=0.957, Tucker-Lewis index= 0.956, incremental fit index= 0.962, and standard root mean square residual= 0.023. The overall Cronbach's alpha of the instrument was 0.923 while the sub-domains have Cronbach's alpha of 0.906 for Planning and Preparation, 0.942 for Classroom Environment, 0.929 for Instruction and 0.921 for Professional Responsibilities indicating high reliability and the item-total correlations ranges from 0.764 to 0.868. At the item level, 60.60% of the ratings had a CVI of greater than 0.78. The FEOT was shown to be valid and reliable in assessing the competencies of faculty members in an online environment.

The paper on **Analyzing Inclusivity in Pope Francis' *Fratelli Tutti* (On Fraternity and Social Friendship) and Its Implications to Catholic Education"** by **James Loreto C. Piscos** tackled Pope Francis' social teaching entitled *Fratelli Tutti*, On Fraternity and Social Friendship. This encyclical draws inspiration from St. Francis' concept of *fraternitas* and human solidarity. The researcher employed an analysis inspired by Paul Ricoeur's hermeneutical framework which consists of the world behind the text, the world of the text, and the world before the text, to examine its content, context, and application. The researcher analyzed the document itself, its structure, genre, style of writing and key social encyclical concepts namely human dignity, solidarity and the common good against the backdrop of a "*throw-away culture*", an individualistic understanding of freedom and exclusivity. The document educates people to cross borders and build bridges

through new ways of encounter. The encyclical assesses current events, lays out the gospel value of inclusivity, presents new perspectives to walk the talk, inspires authentic conversion and calls everyone to action. *Fratelli Tutti* brings the message of social friendship that can be applied in the context of Catholic education to enrich its three pillars namely instruction, research, and extension.

The paper on "**The Perception on the Implementation of Flexible Learning in the Time of Covid 19**" by **Margarette C. Cayetano** and **Pocholo R. Autencio** pointed out that the COVID 19 pandemic has affected the global educational systems which led to delve into advanced teaching-learning tools or modalities that would help bring about the transition from the usual face-to-face mode to flexible learning. The study determined the perception of the respondents on the implementation of Flexible Learning in the delivery of nursing education programs as the basis for the recommended course of actions in the schools of nursing. This is a descriptive-quantitative study, which utilized a self-rated standardized questionnaire—The flexibility questionnaire developed by Bergamin et al., (2012). The questionnaires were purposively administered to a total of sixty-six (66) respondents composed of the deans, coordinators/program heads, and faculty members of selected nursing schools in Metro Manila. The results revealed that the respondents agreed to all indicators mentioned in the survey tool. It has therefore shown in this study that respondents desired an approach to flexible learning in which teaching, and learning could exercise regulation and jurisdiction.

The last article is a research note on **"Harnessing San Beda University's Organizational and Dynamic Capabilities to Flourish Amid the Pandemic"** by **Divina M. Edralin** described how San Beda University (SBU) harnessed its organizational and dynamic capabilities towards enabling the institution to flourish. The researcher utilized the Appreciative Inquiry approach to recount the University's experiences, on how the interaction of technology, physical facilities, structure, people, and systems capabilities empowered the Bedan community to manage this COVID-10 crisis and feel triumphant. The researcher"s

narrative data were based on the research-based internal individual stakeholders' evaluation feedback, and unit level performance assessment results, ISO audit data, formal and informal meetings with fellow administrators, and administrative reports submitted to the BOT from March 2020 until March 2021. Results showed that given the new normal, and with SBU's mission and strategies serving as north star to guide the academic community, SBU adopted a crisis management model, which considered two crucial major factors that influenced its ability to flourish sustainably to reach its dream. These are the organizational capabilities and dynamic capabilities. The University's one academic year journey, and a continuing one, amidst this COVID-19 pandemic, gave the internal stakeholders many learnings about being responsible school administrators and how to flourish as an academic community during a pandemic crisis.

On behalf of the Editorial Board of the Bedan Research Journal, I would like to express our profound appreciation to all contributors for publishing their research outputs in BERJ. I also would like to thank our reviewers who exerted much time and effort to provide insightful critiques of the manuscripts to improve the quality of the papers submitted for publication in our journal. Last but not the least; I would like to extend my heartfelt gratitude to our Grammar Editor and Editorial Assistant for ensuring that this volume will be published, in spite of the COVID pandemic.

Divina M. Edralin
Editor- in-Chief

Developing an Instrument to Assess Organizational Readiness for a Sustainable E-Learning in the New Normal

Divina M. Edralin
Graduate School of Business
San Beda University, Manila, Philippines
dedralin@sanbeda.edu.ph

Ronald M. Pastrana
Graduate School of Business
San Beda University, Manila, Philippines
rpastrana@sanbeda.edu.ph

Abstract

E-learning is aptly a practical response to continuous learning given the surge in the use of information technology, and economic disruptions impinging on the schools. The need to shift to e-learning has been exacerbated by the COVID-19 pandemic. In this regard, we sought to develop an organizational assessment instrument to internally ascertain the level of readiness of the school for sustainable e- learning in the new normal. This assessment instrument was primarily developed for the use of the Mendiola Consortium member schools in their pursuit to conduct e-learning. We intended that as an internal self-assessment it can diminish the threat of failure and provide some assurance of the successful implementation of e-learning. We noted that many survey instruments had been made to assess organizational readiness as a construct for e-learning. However, it revealed that these instruments have varying limitations in validity and reliability to establish the domains of organizational readiness for e-learning. We anchored our study on the organizational readiness model developed by Schreurs and Al-Huneidi (2012) and Mercado (2002). From our review of related literature, we were able to generate seven basic

dimensions of our model, namely: teacher, student, curriculum, technology, administrative support, financial support, and learning environment. We used a mixed method of qualitative and quantitative approach to come up with a validated instrument. We conducted a three-phase approach in developing the instrument. The final instrument yielded 45 items to be rated on a five-point Likert scale. For its content validity, the Item-Content Validity Index ranged from 0.91 to 0.96, while the Scale-Content Validity Index was 0.94. It has a Cronbach alpha of .975 for its reliability.

Background of the Study

The whole world was astonished and caught unprepared when COVID-19 came and quickly became a pandemic. It affected the lives of millions of people globally, including the Filipinos. This deadly disruptor seriously impinged on the business and economy of the nations. The education sector was one of the utterly affected sectors because schools were closed which led to the cancellation of all campus events, especially the face-to-face classes, to protect the teachers, students, and other personnel from COVID-19.

However, the COVID-19 pandemic cannot abate the major role and functions of education in society. Schools' top administrators found ways and means to continue providing education at all levels. Although not completely prepared and without any systematic and extensive assessment of its readiness, schools immediately shifted to online distance learning. The approach is either fully online or blended classes with the use of a reliable Learning Management System or another online platform. But this time is done in a more innovative and sustainable approach. Sustainable means it meets the needs of the present without compromising the ability of future batches of school stakeholders to meet their own needs (adapted from Brundtland Report, 1987).

E-learning is an alternative way of teaching, but its success happens by recognizing the demands as well as the readiness of key actors in the online learning environment (Mercado, 2002). A systematic process of planning, designing, developing, implementing, and evaluating an e-learning environment; where teaching and learning are vigorously nurtured and maintained, are necessary for an effective e-learning effort (Mercado, 2008). Moreover, e-learning is a great chance for organizations to upskill their people to address the challenges of lifelong learning, but it requires adequate preparations and management in its implementation since it frequently necessitates big investment costs (Schreurs and Moreau, 2008).

For many years, different assessment models have been suggested by practitioners and academicians. An early model was developed by Chapnick (2000) to evaluate organizational readiness for e-learning. She identified 66 factors and classified them into eight categories. These categories include psychological, sociological, environmental, human resource, financial, technological skill, equipment, and content readiness.

Another previous model was proposed by Haney (2002). It has 70 questions and is grouped into seven classifications, namely: human resources; learning management system; learners; content; information technology; finance; and vendor (Haney, 2002).

Subsequently, Fetaji, B. and Fetaji, M. (2009) proposed a framework also using seven e-learning indicators to measure organizational e-learning readiness. These indicators comprise learners' education and cultural background; learners' computing skills; learners' learning preferences; the quality of e-learning content; viable learning environment; and its e-learning logistics. There was also a model that was developed by Li-An Ho (2009). The model is composed of four core groupings that consist of e-learning system quality; technology readiness; learning behavior; and learning outcome.

The model by Schreurs and Al-Huneidi (2012) to gauge organizational readiness for e-learning has 21 specific item indicators containing five focal categories. These categories are facilities and infrastructure for e-learning; management; organization of e-learning function/ department; learners characteristics; and e-learning course and process. More recently, Piña (2017) used the model with three broad categories: *inputs; design components; and outputs* to assess higher education institutional capacity and readiness for establishing or expanding online education.

These models that were developed to assess organizational readiness for e-learning comprise specific critical elements or factors or indicators that should be present to measure each dimension particularly on students, teachers, curriculum, technology, administrative support, financial support, and learning environment.

The critical elements or factors that should be present in the online readiness student/learner dimension are metacognitive skills, self-motivation, self-regulation, satisfaction, and computer access and competence (Goh et.al., 2017; El-Seoud et.al., 2014; Tularan & Machisella, 2018; Hussein, 2016; S. Eom et al., 2006); Yukselturk and Bulut, 2007); Yu & Richardson, 2015); Doe, Castillo, & Musyoka, 2015); Atkinson, Blankenship, & Bourassa, 2012); Mercado, 2008); Watkins, Leigh, & Triner, 2004). Meanwhile, the critical elements or factors that should be present in the online readiness faculty/teacher dimension are computer access and competence, self-efficacy, and teaching experience (McQuiggan

(2007); Shea, et al., (2005); Makarenko and Andrews (2017); Kearsley (2008); Keengwe and Kidd (2010); Coppola, et al., (2002); Yang (2020); C. B. Andoh (2012); Villar and Alegre (2006); Zee, M., & Koomen, H. M. Y. (2016); Santagata, R., & Sandholtz, J. H. (2019); Mercado (2008)

The critical elements or factors that should be present in the online readiness curriculum/content dimension are course objective and course infrastructure (S. Eom, et al., 2006); J. Sun and Y. Wang, 2014); S. Ruth, 2006); S. Eom et al., 2006); M. Kenzig, 2015); W. Journell (2012); Masoumi, 2006). While the critical elements or factors that should be present in the online readiness technology dimension are connectivity, Learning Mnagement System, and technical skill and support (Al-Fadhli (2008); Sife, et al., (2007); Olufunmilola, et al., (2016); Rogers (2000); Hrastinski (2008); R. Salac and Y. Kim (2016); A. S. Sife et al (2007); A. Tubaishat et al., (2006); B. Saunders and P. Quirke (2002); Masoumi (2006)

The critical elements or factors that should be present in the online readiness administrative support dimension are policy, maintenance, and leadership commitment (Sife, et al., 2007); (Comeaux and Byington, 2003); (Meyer and Barefield, 2010); (Marek, 2009); (Holt and Challis, 2007); (Hilliard, 2015); (Mercado, 2008). On the other hand, the critical elements or factors that should be present in the online readiness financial support dimension are financial planning, financial policy, and financial control (A. S. Sife, et al., (2007); Hammond (2018); Ruth (2006); Kearsley (2004); C.A. Twigg (2011); Aronen and Dierssen (2001); Masoumi (2006)

The critical elements or factors that should be present in the online readiness learning/organizational environment dimension are culture difference, ICT infrastructure, and support services (Aldowah, et al., 2015); Al-Fadhli, 2008); McLoughlin and Oliver, 2000); Collis and Remmers, 1997); Zhu, 2012);Mohammed and Mohan, 2011); cited in Zhu, Valcke and Schellens, 2008); Hameed, et al. , 2016); Al-Hunaiyyan, 2008);Mulwa and Kyalo, 2011); Mercado, 2008).

It is this context on the surge in the mainstreaming of e-learning and an alternative option to deliver education in schools due to the exponential growth of information technology and the sudden occurrence of the COVID-19 pandemic. Specifically, the Mendiola Consortium represents a microcosm of the education sector in Philippine society which was not spared by COVID-19. The schools' immediate reaction is to adopt online

distance learning to continue providing education to its students in a sustainable development paradigm. These are the primordial reasons that warrant the need for assessing organizational readiness to use e-learning. The various models and critical elements or factors that should be present in the online readiness per dimension as shown from previous studies are the pillars of this research.

Statement of Research Problem

In this paper, we answered the focal question: What is a functional assessment instrument that can measure the organizational readiness of schools for sustainable e-learning in the new normal, that can be adopted by the Mendiola Consortium member-schools?

Statement of Specific Objectives

More specifically, we aimed to achieve these objectives:

1. Determine the basic dimensions of organizational readiness for sustainable e-learning in the new normal.
2. Identify the critical elements that must be present for each dimension to measure organization readiness for sustainable e-learning in the new normal.
3. Develop a validated instrument to assess the readiness of the Mendiola Consortium member-schools for sustainable e-learning in the new normal.

Significance of the Study

It is always prudent for school administrators to gauge its capability and lessen the risk to engage or pursue any new strategy in the delivery of its educational mission. Given the pandemic that leads to a new normal in providing education to people, online distance learning strategy requires a big investment both in technological and social infrastructures.

It is therefore advisable to have an instrument that can serve as a guide to know the level of readiness of teacher, student, curriculum, technology, support services, and administrators for the school to continue offering online learning. The information and standards of sustainable practices will help administrators to prepare more adequately in the areas

they assess that they are weak at. This will enable top administrators to prioritize programs and allocate properly their limited resources to areas of concern that will create the most value in the online delivery of their education programs.

In particular, the Mendiola Consortium school administrators will have a better appreciation of the characteristics and qualities that make an effective online teaching and learning. The developed validated instrument can be useful to school administrators to conduct internal self-assessment of their readiness to offer and continue offering online courses even after the COVID pandemic. This kind of internal self-assessment can also be beneficial to schools in different stages of e-learning implementation, even though they have a system in place.

Framework

Conceptual Framework

Among the array of readiness measurement models on e-learning that are available, we found that the model of Schreurs and Al-Huneidi (2012) is the best fit to include the many dimensions needed to assess institutional readiness for online teaching and learning. Therefore, we adopted the framework developed by Schreurs and Al-Huneidi (2012). Their model has 21 specific item indicators containing five focal criteria. These criteria are:

> *(1) **facilities and infrastructure for e-learning** which includes the user ICT infrastructure, Internet connectivity, Learning management system, and E-learning room; (2) **management** which encompass willingness to invest in e-learning implementation, Learning time for staff); (3) **organization of e-learning function/ department** which includes informing about available e-learning courses , Organization of the e-learning activity, Preparatory training in the use of computers, Preparatory training in the use of e-learning system; (4) **learners characteristics** which cover learners have ICT skills, Learners have internet experience, Learners are motivated to take e-learning courses, Learners prefer*

their own learning style ; and (5) **e-learning course**
and process *which focuses on E-learning course*
content, E-learning course presentation, Progress in
the course, Level of personalization, Support and help,
Evaluation of the learning results, Tracking of the
participation in the e-learning course (p.2).

Since we realized that some aspects are missing in the Schreurs
and Al-Huneidi (2012) model, we also utilized part of the model proposed
by Mercado (2008) as a supplement. Her model identified three critical
factors that are highly noticeable and can be conveniently measured.
These are: (1) student; (2)faculty; and (3) the institution (administration).
By nurturing these online learning factors, the success of implementing an
online learning ready environment is expected to be achieved. (Mercado,
2008). Therefore, these combined models rightly fit our proposed
operational framework.

Operational Framework

Our review of the literature and the conceptual frameworks led us to
propose an operational framework shown in Figure 1 to develop an
instrument to measure the organizational readiness of schools for e-learning
in the new normal.

Figure 1.

Operational Framework for Organizational Readiness in E-Learning
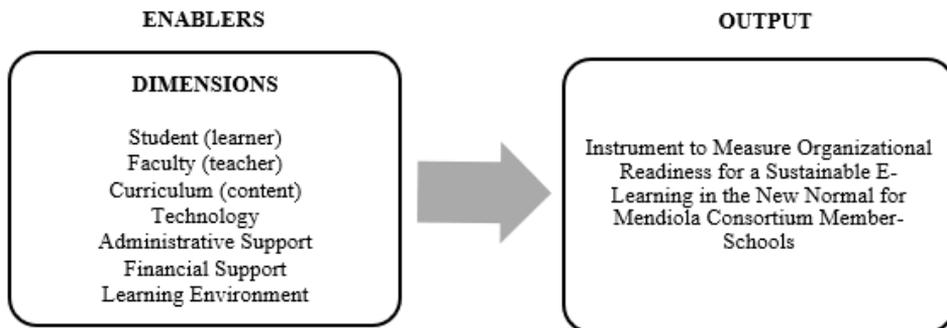
In this operational framework, we considered seven basic dimensions for a sustainable e-learning in an educational institution. These dimensions are (1) teacher; (2) learner; (3) curriculum; (4) technology; (5) administrative support; (6) financial support; and (7) learning environment. Each dimension will be comprised of critical elements or factors to measure readiness per dimension to be generated from the review of related literature.

Assumptions

We assumed the following to support the research design that led us to develop an institutional readiness assessment instrument for the Mendiola Consortium member schools:

1. The COVID-19 pandemic brought about a new normal environment and a new culture in educational institutions.
2. Schools must adopt innovative and flexible educational approaches to flourish amid the pandemic and even beyond.
3. Online education is a viable/feasible context and medium for learning.
4. Sustainable practices for online teaching and learning need to be aligned with the vision-mission, values, priorities, and culture of the entire institution.
5. The e-learning environment must be significant to all the key players of the organization which include the students, faculty, support personnel, and the institution. Its success constantly entails an organized process of planning, designing, developing, implementing, and evaluating an e-learning environment where learning and teaching are vigorously stimulated and encouraged (Mercado, 2008).

Methodology

Research Design and Approach

We primarily utilized the descriptive research design to determine the basic dimensions, critical elements in delivering e-learning, and challenges encountered in the shift to this new approach in education. We also used a mixed sequential qualitative and quantitative research approach (Creswell, J., 2009) to seek answers to the focal research question and

specific objectives we framed rooted in our conceptual and operational models.

The Instrument Development Process

Our research followed a three-phase approach in developing an instrument to measure organizational readiness for e-learning that can be adopted by the Mendiola Consortium member schools. Phases 1 and 2 focused on translation (content) validity, while Phase 3 addressed reliability.

In content validity, it ensured that the measure included an adequate and representative set of items that utilized the concept which is dependent on the rigor of delineating the dimensions and elements of a concept (Sekaran & Bougie, 2016). Specifically, in face validity, it considered the fundamental and lowest index of content validity which indicated that the items look or appear like they measure what they intended to measure as a concept (Sekaran & Bougie, 2016).

On the other hand, the reliability of a measure ensured coherent measurement across time and throughout the different items in the instrument that showed the extent to which it is without bias (Sekaran & Bougie, 2016). Therefore, the reliability of a measure shows the stability and consistency with which the instrument gauged the concept and aided to evaluate the "goodness" of a measure (Sekaran & Bougie, 2016). According to Coakes (2013), reliability test has several different models, but the most commonly used is the Cronbach's Alpha. This is a test for internal consistency, which is based on the average correlation of items within a test (Coakes, 2013). It can be explained as a correlation coefficient, the value of which ranges from 0.00 to 1.00. Alpha values ranging from 0.70 or higher are considered acceptable (Coakes (2013).

Method of Data Collection for Phase 1: Archival Research

We started doing archival research where we referred to recent as well as historical documents (Saunders, Lewis & Thornhill, 2019) by reviewing thoroughly the available literature to answer objectives one, two, and four. We then used thematic content analysis of the data to determine the basic dimensions, critical elements, and challenges in delivering e-learning.

Our archival research enabled us to generate seven basic dimensions, 22 sub-dimensions and 114 elements-items. These basic dimensions and their sub-dimensions are shown below.

Table 1.

Basic Dimensions, Sub-dimensions, and Specific Elements for the Instrument

Dimensions	Sub-Dimensions	Elements-Items
Student (Learner)	Metacognitive Skills	9
	Self-Motivation	5
	Self-regulation	6
	Satisfaction	7
	Computer Access and competence	6
Teacher (Faculty)	Computer access and competence	6
	Self-Efficacy	5
	Teaching Experience	8
Curriculum (Content)	Course Objective	4
	Course Infrastructure	6
Technology	Connectivity	6
	Learning Management System	4
	Technical Skills & Support	6
Administrative Support	Policy	2
	Maintenance	7
	Leadership Commitment	6
Financial Support	Financial Planning	1
	Financial control	4
	Financial Policy	5
Learning Environment	Culture Difference	5
	ICT Infrastructure	3
	Support Services	8
Total: Dimensions = 7	Sub-Dimensions = 22	Elements-indicators/items: 114

Method of Data Collection for Phase 2: Scale Construction and Pilot testing

We constructed 114 items for our initial questionnaire. We utilized a 5-point Likert scale using these descriptors: 1- not relevant at all; 2- slightly relevant; 3- moderately relevant; 4 - relevant; 5- to very relevant.

We pre-tested our initial questionnaire to faculty and administrators from other schools who possess the same characteristics of the intended respondents. Our pilot test determined the language suitability, comprehensibility of the items, and length of answering the instrument, among other considerations. (1) student; (2) faculty; and (3) the institution (administration). A total of 21 experts composed of Academic Administrators, Support Services and Faculty (teachers) from non-Mendiola Consortium member-schools/major colleges and universities in the NCR, i.e Far Eastern University, University of the East, De La Salle-CSB, San Sebastian College, Letran College, Jose Rizal University. Arellano University, University of Santo Tomas, University of Asia and the Pacific, and Philippine Women's University. participated in answering the initial Survey Instrument.

We conducted an item analysis to determine if the items belong to the particular dimension or not. We then examined each item for its ability to discriminate. This was done when we compared between those respondents whose total scores were high and those with low scores. We used the *means* (averages) to detect significant differences for our item analysis. Using the simple mean of each indicator-item, we established a threshold mean of 3.5 for the first iteration and 4.0 for the second iteration and arrived at the 55 question-items categorized and distributed among the seven dimensions.

To triangulate our content validity, we also consulted experts from colleges/universities to ensure that trimmed down item indicators of the theoretical constructs directly related to the major concepts of the study were well established. We were also able to get suggestions from the experts to improve the revised questionnaire for final validation. As a result, there are still seven basic dimensions, only 16 sub-dimensions, and 45 specific elements indicators remained. They are shown in the table below:

Table 2.

Basic Dimensions, Sub-dimensions, and Specific Elements for the Instrument

Dimensions	Sub-Dimensions/Areas	Elements-Items
Student (Learner)	Metacognitive Skills Self-Motivation Self-regulation	Sub-total for Dimension=10
Teacher (Faculty)	Computer access and competence Self-Efficacy Teaching Experience	Sub-total for Dimension= 10
Curriculum (Content)	Course Objective Course Infrastructure	Sub-total for Dimension = 5
Technology	Connectivity Technical Skills & Support	Sub-total for Dimension = 5
Administrative Support	Policy Leadership Commitment	Sub-total for Dimension =5
Financial Support	Faculty Resources/Laboring Equipment Buying	Sub-total for Dimension= 5
Learning Environment	Culture Differences ICT Infrastructure	Sub-total for Dimension= 5
Total: Dimensions = 7	Total Sub-Dimensions = 16	TotalElements-indicators: 45

Phase 3: Survey Validation and Reliability Test

We organized the 45- item Organizational Readiness for E-Learning Questionnaire using Google Survey Form and emailed it to Mendiola Consortium member-schools' qualified faculty and administrator respondents.

We used purposive sampling to select our target respondents from the MC member schools. We used the following criteria to choose a sample: a) online class experience for faculty/teachers; b) engagement in e-learning module design and development and teaching for academic heads/administrators in a certain official LMS or alternative platform ; and c) involved in the management of flexible learning modalities and support services for administrators such as Director for Information Technology,

Director –E-Learning Center, Academic Heads-Coordinators, Team Heads, Program Chairperson, Associate Dean, Dean and/or VP for Academics.

These 470 sample-respondents from the MC-member schools are distributed as follows:

School	Number
Centro Escolar University (CEU)	126
San Beda University (SBU)	243
College of the Holy Spirit Manila (CHSM)	11
La Consolacion College Manila (LCCM)	76
St Jude Catholic School (SJCS)	14
Total Sample-participants	470

We were able to get 470 respondents but only 469 was used as the basis for the reliability test statistical computation using Cronbach's Alpha. This was the actual number processed and accepted by the SPSS Statistical Analysis Software from the data matrix in MS Excel spreadsheet containing the 470 cases , which was the output from Google Survey Form fed into the system for statistical analysis. However, SPSS statistical analysis output generated a sample size (n=469, indicating that one missing data (case) may have been rejected by the system for some reasons such as no-response. We did not anymore request for a re-run or identification of *missing data code,* as we deemed it not having a significant bearing on the statistical results.

Research Ethics Approaches

We secured the consent of those administrators and faculty who participated in the validation phase of our research. For tabulation purposes, the only identifier for each respondent is their school affiliation and sector represented (teacher or administrator).

We stored and retained the filled-up Google Survey Forms in its original form in the computer hard drive and CD of the Research and Development Center of San Beda University. These data will be archived for a minimum of two years, and we will dispose these records subject to established policies and procedures of the RDC ISO Manual of Operations and in compliance with the Data Privacy Act.

Results and Discussion

The Final Instrument

Reliability Analysis

We used Cronbach's alpha as interim consistency reliability test using the 45 question items of our Instrument and measured in a 5-point Likert scale. For its content validity, the Item-Content Validity Index (I-CVI) ranged from 0.91 to 0.96, while the Scale- Content Validity Index (S-CVI) was 0.94. For its reliability, it has a Cronbach's alpha coefficient of .975. Following the hurdle "that the higher (at least .07 to closer to 1.00) the coefficients, the better that the measuring instrument as an adequate index of the interim-item consistency reliability. The summary of the results of the analysis is presented in Table 3.

Table 3

Over-all Cronbach's alpha reliability statistics

Cronbach's alpha	Cronbach's alpha Based on Standardized Items	No of items (variables)
.975	.976	45

Source: SPSS Software

In support of the overall Cronbach's alpha reliability statistics, a per item statistics of the mean and standard deviation (SD) was generated as shown in Table 4. The SD determined the validity of the data based on the number of data points at each level of standard deviation. The higher deviation means less reliable. While a low deviation reveals that the data are huddled closely around the mean, an indication that it is more reliable.

Table 4

The Item Mean and Standard Deviation of the Final Instrument (n=469)

Item	Mean	Std. Deviation	Corrected Item-Total Correlation	Cronbach's alpha if Item Deleted
STUDENT (LEARNER)				
1. Every student is clearly aware of their learning objectives in the course.	4.56	0.65	.578	.975
2. Every student deliberately accomplishes their course requirements (assignments, exercises, projects, exams) to achieve their learning goal.	4.35	0.76	.621	.975
3. Every student intends to frequently participate throughout the learning process.	4.24	0.80	.603	.975
4. Every student commits to abide by the policies and guidelines for online learning that the school will promulgate.	4.39	0.72	.629	.975
5. Every student knows what they want in an online course.	4.15	0.84	.506	.975
6. Every student carefully performs their tasks in accordance with the course requirements.	4.29	0.74	.660	.975
7. Every student has access to a computer with adequate software (e.g., Microsoft Word, MS Team, Adobe Acrobat; Excel; Google Chrome, etc.).	4.24	0.89	.683	.975
8. Every student has access to a computer with a fairly high-speed and reliable Internet connection.	3.87	1.03	.691	.975
9. Every student understands and can navigate the Learning Management Systems (e. g. CANVAS, MOODLE, SCHOOLOGY, NEO etc.) and other recommended school online platforms.	4.32	0.78	.663	.975

Table 4.

Continued

Item	Mean	Std. Deviation	Corrected Item-Total Correlation	Cronbach's alpha if Item Deleted
STUDENT (LEARNER)				
10. Every student is confident in using internet and computer-mediated communication for learning.	4.31	0.80	.639	.975
FACULTY/TEACHER				
11. Every teacher has access to a computer with adequate software (e.g., Microsoft Office, MS Team, Adobe Acrobat; Google Chrome, etc.).	4.58	0.65	.639	.975
12. Every teacher has access to a computer with a fairly high-speed and reliable Internet connection.	4.24	0.85	.648	.975
13. Every teacher understands and can navigate the Learning Management Systems (e. g. CANVAS, MOODLE, Schoology, Edmodo, NEO, etc.) and other recommended school online platforms.	4.46	0.70	.643	.975
14. Every teacher is confident in using the internet and computer-mediated communication for learning.	4.43	0.71	.678	.975
15. Every teacher knows how to use asynchronous tools (e.g., discussion board, chat tools) and synchronous tools (e.g., conference, modules, quizzes, etc.) for online teaching.	4.42	0.71	.687	.975
16. Every teacher feels confident to teach online.	4.33	0.78	.687	.975
17. Every teacher provides opportunities that promote student engagement and active learning.	4.49	0.67	.722	.975

Table 4.

Continued

Item	Mean	Std. Deviation	Corrected Item-Total Correlation	Cronbach's alpha if Item Deleted
FACULTY/TEACHER				
18. Every teacher updates and acquires in advance the necessary learning materials for the course that fits online teaching.	4.49	0.64	.710	.975
19. Every teacher is very knowledgeable about the subject matter of the course.	4.71	0.51	.600	.975
20. Every teacher can modify and/or add content, methodology, learning resources, and assessment using the Learning Management System adopted by the school.	4.57	0.59	.648	.975
CURRICULUM (CONTENT)				
21. Every course objective, outcomes, standards, and procedures are clearly communicated.	4.54	0.66	.729	.975
22. Every course contents/topic are organized into concise and manageable scopes and levels of difficulty, considering the course objectives.	4.50	0.65	.742	.975
23. Every course learning outcome is aligned to the School's and Program's expectations from their graduate.	4.60	0.60	.678	.975
24. Every course/lesson note, and additional reading materials are helpful in the student's deeper understanding and application of the lesson.	4.55	0.63	.686	.975
25. Every course material is presented in a format appropriate to the online environment and is easily accessible to and usable to student.	4.54	0.61	.710	.975

Table 4.

Continued

Item	Mean	Std. Deviation	Corrected Item-Total Correlation	Cronbach's alpha if Item Deleted
TECHNOLOGY				
26. The school has connectivity speeds that are fairly fast for communication and accessing all course materials at home.	4.24	0.86	.697	.975
27. The school has adopted a learning management system or digital technology platforms appropriate to the needs of the teachers and students.	4.49	0.73	.687	.975
28. The school's Learning Management System is functional in many types of computer devices and commonly used software applications.	4.42	0.75	.693	.975
29. The school conducts training for teachers and students to understand and navigate the adopted online platform.	4.51	0.76	.724	.975
30. The school has assigned qualified personnel to manage and maintain the hardware and software of all the digital technology for online classes.	4.51	0.74	.657	.975
ADMINISTRATIVE SUPPORT				
31. The school's online teaching and learning policy is aligned with its vision and mission.	4.61	0.62	.664	.975
32. The school has a policy towards the adoption of a transformative learner-centered instruction or Outcomes-Based Education (OBE).	4.51	0.71	.667	.975
33. The school engages in continuous quality improvement; updating its policies, processes, procedures, and technology in the task of maintaining and improving quality in online education.	4.54	0.72	.705	.975

Table 4.

Continued

Item	Mean	Std. Deviation	Corrected Item-Total Correlation	Cronbach's alpha if Item Deleted
ADMINISTRATIVE SUPPORT				
34. Every top school administrator ensures that the right technology is in place for the right reasons.	4.37	0.87	.722	.975
35. Every top school administrator guarantees provision of adequate resources to implement online education.	4.36	0.86	.779	.974
FINANCIAL SUPPORT				
36. The Finance Unit prepares a budget to ensure adequate funds to implement the online learning and teaching of strategy.	4.15	1.05	.738	.975
37. The Finance Unit uses standard costing, budgetary control, and cost reduction schemes to efficiently deliver online learning.	4.17	0.98	.731	.975
38. The Finance Unit sources additional financial resources to carry out plans related to online teaching and learning.	4.14	1.01	.730	.975
39. The Finance Unit has provisions for the acquisition of equipment, devices, and software application for online teaching.	4.16	1.02	.688	.975
40. The Finance Unit has provisions for the refurbishing of physical facilities like the audio-visual room and computer rooms matched for online classes.	4.22	0.94	.677	.975

Table 4.

Continued

Item	Mean	Std. Deviation	Corrected Item-Total Correlation	Cronbach's alpha if Item Deleted
LEARNING (ORGANIZATION) ENVIRONMENT				
41. Provision of holistic and integrated programs and activities geared towards the development of students.	4.47	0.74	.748	.974
42. Assurance that the online learning environment is safe and secure.	4.53	0.70	.719	.975
43. Ensuring the prompt response to teacher and student diverse needs.	4.44	0.73	.751	.974
44. Assurance that the online learning environment is engaging, enjoyable, and meaningful for people interaction.	4.48	0.73	.764	.974
45. Streamlining of work processes and procedures (e.g., enrollment, payment, and tracking of queries) suitable for the delivery of online classes.	4.41	0.77	.693	.975

Source: SPSS Software

The Table on Item statistics: Item Mean and Standard Deviation show a range of standard deviation (SD) from a low .50667- a high SD of .94196, but a majority are on the .6000-.7000 SD "spreading" around the mean ranging from 4.1 to 4.9, lending support to the "reliability" of the over-all 45-item Survey-Instrument which was calculated at 0.975. Three variables (questions –items) which obtained medium *mean* (x) and higher SD, namely variable 8 (x=3.8678; SD =1.03135) and variables 36,37,38,39,40 with *means* higher than 4.1 but SD exceeding than 1.0000 should be recommended for review for possible revision in the final instrument.

Item Analysis

We also conducted an item statistical analysis based on the 45 question-items (variables) categorized according to the seven dimensions (factors) using item *mean* and *standard deviation*, as well as the *Corrected Item Total Correlation* and *Cronbach's alpha if item deleted*. Our initial analysis, based on the SPPS generated data covered inter-item relation, and item-total statistics for item analysis. The Corrected Item-Correlation explains the coherence between an item and the other items in a test. Thus, an ideal range of an average inter-item correlation is 0.15-0.50; less than this, and the items are not well correlated and do not measure the same construct or idea very well (https://methods.agepub.com). SPSS provided an item-total correlation guideline which states that "a correlation value less than 0.20 or 0.30 reveals that the corresponding item does not correlate very well with the scale overall and, thus, it may be dropped" (Coakes, 2013). In our study, the Corrected Item-Total Correlation ranged from 0.578 to 0.779 for all the 45 items and Item *Cronbach's Alpha Coefficient if Item Deleted* ranged from 0.974- 0.975, thereby resolving the reliability of all the 45 items. Refer to Table 4.

Dimension Construct Reliability

When grouped according to their respective dimensions, the data show that all the seven dimensions obtained a very high Cronbach's Alpha Coefficient ranging from 0.880 to 0.956. Specifically, financial support garnered the highest (0.956), while technology had the lowest (0.880). Refer to Table 5.

Table 5.

Item Statistics- Cronbach's Alpha Coefficent of the Seven Dimensions of Online Learning (n=469)

Dimensions	No. of items (Question/Indicators)	Cronbach's alpha Coefficient
Student (learner)	10	0.916
Faculty/teacher	10	0.931
Curriculum (Content)	5	0.921
Technology	5	0.880
Administrative Support	5	0.919
Financial Support	5	0.956
Learning (Organization) Environment	5	0.933

Source: SPSS Software

Conclusion and Recommendations

The final instrument has seven dimensions consisting of 45 question-items to be rated on a five-point Likert scale. It can serve as a functional model in determining the institutional readiness for online teaching and learning that can be adopted by the Mendiola Consortium member schools. Given its high content validity and reliability, this organizational readiness instrument for e-learning may also be used by other higher educational institutions (HEIs) in the Philippines in this new normal time.

The significance of this instrument lies in enabling educational institutions to internally assess their readiness or preparedness for online teaching and learning under various approaches (i.e full online or blended) with the aid of technologies (LMS), and capacity and capabilities of the stakeholders. These were identified in this study as primarily the learners (students), faculty (teachers) , academic administrators/heads, and administrative , financial, and technical support services heads.

We identified a limitation in our study which we recommend as an area for further research. This is related to other validity tests. We propose to subject our final instrument to advanced statistical analyses for construct validity tests such as Confirmatory Factor Analysis (CFA), Principal Component Analysis (PCA) and Exploratory Factor Analysis (EFA) as used in the studies of Brown (2009 a & b); Alok,2011; Dray,2011; Soriano,2021. The purpose of these advanced statistical analyses is to reduce data sets containing several variables (components or factors) through a process of rotation to obtain a new set of factor loadings from a given set, thus increasing the validity of the instrument (Dancey & Reidy,2017; Brown,2009a &b).

References

Alok , Kumar (2011). Student Evaluation of Teaching: An Instrument and a Development Process. *International Journal of Teaching and Learning in Higher Education, 23*(2)*, 226-235. http://www.isetl.org/ijtlhe/*

Aldowah, H., Ghazal, S., & Muniandy, B. (2015). Issues and challenges of using e-learning in a Yemeni Public University. *Indian Journal of Science and Technology, 8*(32), 1-9. https://doi.org/10.17485/ijst/ 2015/v8i32/92160

Al-Fadhli, S. (2008). Students' perceptions of e-learning in Arab Society: Kuwait University as a case study. *E-Learning, 5*(4), 418-428. https://doi.org/10.2304/elea.2008.5.4.418

Al-Hunaiyyan, A., Al-Huwail, N., & Al-Sharhan, S., (2008). Blended e-learning design: Discussion of cultural issues*. International Journal of Cyber Society and Education, 1*, 17-32.

Aronen, R., & Dierssen, G. (2001). Improving equipment reliability through e-learning. *Hydrocarbon Processing, 80*(9), 47-60.

Brown, J.D. (2009a). Statistics Corner. Questions and answers about testing statistics: Principal components analysis and exploratory factor analysis-Definitions, differences, and choices. *Shiken: JALT Testing & Evaluation SIG Newslette*r. 13(1), 26-30. Also retrieved from www at http://jalt.org/test/bro_29.htm

Brown, J.D. (2009b). Statistics Corner. Questions and answers about testing statistics: Choosing the Right Type of Rotation in PCA and EFA. *Shiken: JALT Testing & Evaluation SIG Newslette*r. 13(2), 19-23. Also retrieved from www at http://jalt.org/test/bro_30.htm

Chapnick, S. (2000). Are you ready for e-learning? Learning Circuits: ASTD's Online Magazine All About E-Learning. Retrieved May 21, 2011, from, http://www.astd.org/LC/2000/1100_chapnick.htm

Coakes ,S.J (2013*). SPSS: Analysis without Anguish : Version 20 for Windows .*retrieved from https://www.worldcat.org/title/spss-analysis-without-anguish-version-20-for-windows/oclc/795333279.

Creswell, J.W (2009). *Research design: Qualitative, quantitative, and mixed method approaches*. (3rd ed.). Sage Publications.

Comeaux, P., & McKenna-Byington, E. (2003). Computer-mediated communication in online and conventional classrooms: Some implications for instructional design and professional development programmes. *Innovations in Education and Teaching International, 40*(4), 348-355. https://doi.org/10.1080/1470329032000128387

Coppola, N. W., Hiltz, S. R., & Rotter, N. G. (2002). Becoming a virtual professor: Pedagogical roles and asynchronous learning networks. *Journal of Management Information Systems, 18*(4):169-190. https://doi.org/10.1080/07421222.2002.11045703

Dancey,C. & Reidy,J. (2017). Statistics without Math for Psychology, 7th Ed. University of East London. Pearson.

Dray, B.J., Lowenthal,P.R., Miszkiewicz, M.J., Ruiz-Primo, M.A, and Marczynski, K. (2011). Developing an instrument to assess student readiness for online learning: a validation study. *Distance Education,* Vol.32., No.1,29-47. https://doi.org/10.1080/01587919.2011.565496

El-Seoud, S., Taj-Eddin, I., Seddiek, N., El-Khouly, M., Nosseir, A. (2014). E-Learning and Students' Motivation: A Research Study on the Effect of E-Learning on Higher Education https://www.researchgate.net/publication/264417866_ELearning_and_Students'_Motivation_AResearch_Study_on_the_Effect_of_E-Learning_on_Higher_Education

Eom, S., Wen, H. J. & Ashill, N. (2006). The determinants of students' perceived learning outcomes and satisfaction in university online education: An empirical investigation. *Decision Sciences Journal of Innovative Education, 4*(2), 215-235. https://doi.org/10.1111/j.1540-4609.2006.00114.x

Fetaji, B., & Fetaji, M. E-learning indicators: A multi-dimensional model for planning and evaluating e-Learning software solutions. *Electronic Journal of e-Learning, 7*(1), 1-28. https://files.eric.ed.gov/fulltext/EJ867099.pdf

Goh, C. F., Leong, C. H., Kasmin, K., Hii, P. K. &Tan, O. K. (2017). Student' Experiences, Learning Outcomes and Satisfaction in E-learning, *13,* https://www.researchgate.net/publication /317229104_ Students'_Experiences_Learning_Outcomes_and_Satisfaction_in_e-Learning

Hameed, N., Shaikh, M. U., Hameed, F., & Shamim, A. (2016*). Cultural differences in e-learning: Exploring new dimensions*. https://arxiv .org/abs/1607.01359

Hammond, H., Coplan, M., & Mandernach, B. J. (2018). Administrative considerations impacting the quality of online teaching. *Online Journal of Distance Learning Administration, 21*(4). https://www. westga.edu/~distance/ojdla/winter214/hammond_coplan_mandernac h214.html

Haney, By. (2002). Assessing organizational readiness for E-learning: 70 questions to ask. *Performance Improvement, 41*(4), 10-15. https:// doi.org/10.1002/pfi.4140410404

Hilliard, A. T. (2015). Global blended learning practices for teaching and learning, leadership, and professional development. *Journal of International Education Research , 11*(3), 179-188. https://doi .org/10.19030/jier.v11i3.9369

Holt, D., & Challis, D. (2007). From policy to practice: One university's experience of implementing strategic change through wholly online teaching and learning. *Australasian Journal of Educational Technology, 23(1)*. https://doi.org/10.14742/ajet.1276

Hrastinski, S. (2008). Asynchronous and synchronous e-learning, *Educause Quarterly, 31*(4), 51-55. https://er.educause.edu/- /media/files/article-downloads/eqm0848.pdf

Hussein, Z. (2016). Leading to Intention: The Role of Attitude in Relation to Technology Acceptance Model in E-Learning https://www. sciencedirect.com/science/article/pii/S1877050917302181

Journell, W. (2012). Walk, don't run — to online learning. *The Phi Delta Kappan, 93*(7), 46-50. http://www.jstor.org/stable/23210004

Kearsley, G. (2008). Preparing engineering faculty to teach online.
    Educational Technology, 48(5), 28-33. https://www.jstor.
    org/stable/44429605

Kearsley, G. & Blomey, R. (2004) Preparing K-12 teachers to teach
    online. *Educational Technology, 44*(1), 49-52. https://www.
    jstor.org/stable/44428876

Keengwe, J., & Kidd, T. (2010). Towards best practices in online learning
    and teaching in higher education. *MERLOT Journal of Online
    Learning and Teaching, 6*(2), 533-541. https://jolt.merlot.
    org/vol6no2/keengwe_0610.pdf

Kenzig, M. (2015). Lost in translation: Adapting a face-to-face course into
    an online learning experience. *Health Promotion Practice, 16*(5),
    625-628. https://doi.org/10.1177/1524839915588295

Li-An Ho, (2009) The antecedents of e-learning outcome: An examination
    of system quality, technology readiness and learning behavior.
    Department of Educational Technology, 44(175), 581-599.

Makarenko, E., & Andrews, J. (2017). An empirical review of the mental
    health and well-being of online instructors. *The Journal of
    Educational Thought (JET) / Revue De La Pensée Éducative,
    50*(2&3), 182-199. https://doi.org/10.11575/jet.v50i2&3.44321

Marek, K. (2009). Learning to teach online: creating a culture of support
    for faculty. *Journal of Education for Library and Information
    Science, 50*(4), 275-292. http://www.jstor.org/stable/40732589

Masoumi, D. (2006). Critical factors for effective e-learning. Retrieved
    from: https://www.researchgate.net/publication/237556479.

McLoughlin, C. & Oliver, R. (2000). Designing learning environments for
    cultural inclusivity: A case study of indigenous online learning at
    tertiary level. *Australasian Journal of Educational Technology,
    16*(1), 58-72. https://doi.org/10.14742/ajet.1822

McQuiggan, C. (2007). The role of faculty development in online teaching's potential to question teaching beliefs and assumptions. *Online Journal of Distance Learning Administration, 10*(3). https://eric.ed.gov/?id=EJ1065614

Mercado, C. A. (2008). *Readiness Assessment Tool for an eLearning environment implementation*. Paper presented at the Fifth International Conference on eLearning for Knowledge-Based Society, Bangkok.

Meyer, J. & Barefield, A. (2010) Infrastructure and Administrative Support for Online Programs. *Online Journal of Distance Learning Administration, 13*(3). https://www2.westga.edu/ ~distance/ojdla/ Fall133/meyer_barfield133.html.

Mohammed, P., & Mohan, P. (2011). Integrating culture into digital learning environments: Studies using cultural educational games. *Caribbean Teaching Scholar, 1*(1), 21-33. https://journals.sta.uwi. edu/ojs/index.php/cts/article/view/3

Mulwa, A. S., & Kyalo, D. N. (2011). Mulwa, A. (2012). *The influence of ICT infrastructure on readiness to adopt e-learning in secondary schools in Kitui District, Kenya*. http://erepository.uonbi.ac.ke /handle/11295/10287.

Olufunmilola, O., Olafare, F. O. & Sakaba, D. (2016). Individual and technological factors affecting undergraduates' use of mobile technology in University of Ilorin, Nigeria. *Digital Education Review, 29*, 124-133.

Piña, A. (2017). An organizational development framework for assessing readiness and capacity for expanding online education. *Online Journal of Distance Learning Administration, 20*(3). https://www.westga.edu/~distance/ojdla/fall203/pina203.html

Rogers, D. L. (2000). A paradigm shift: Technology integration for higher education in the new millennium. *AACE Journal, 1*(13), 19-33.

Ruth, S. (2006). E-learning: A financial and strategic perspective. *Educause Quarterly, 1*, 22-30. https://er.educause.edu/- /media/files/article-downloads/eqm0615.pdf

Salac, R. A., & Kim, Y. S. (2016). A study on the internet connectivity in the Philippines. *Asia Pacific Journal of Business Review, 1*(1), 67-88. https://doi.org/10.20522/APJBR.2016.1.1.67

Santagata, R., & Sandholtz, J. H. (2019). Preservice Teachers' Mathematics Teaching Competence: Comparing Performance on Two Measures. *Journal of Teacher Education, 70*(5), 472–484. https://doi.org/10.1177/0022487117753575

Saunders, B. & Quirke, P. (2002). Let my laptop lead the way: A Middle Eastern study. *Educational Technology and Society, 5*(1), 1436-4522.

Saunders, M.N.K., Lewis, P. & Thornhill, A. (2019). *Research methods for business* (8th ed.). Pearson Education.

Schreurs, J., & Al-Huneidi, A. M. (2012). E-Learning readiness in organizations: Case KBC Bank. *International Journal of Advanced Corporate Learning (iJAC), 5*(1), 4-7. https://dx.doi.org/10.3991/ijac.v5i1.1885

Shea, P., Pickett, A., & Li, C. S. (2005). Increasing Access to Higher Education: A study of the diffusion of online teaching among 913 college faculty. *International Review of Research in Open and Distance Learning, 6*(2). https://doi.org/10.19173/irrodl.v6i2.238

Sife, A. S., Lwoga, E.T., & Sanga, C. (2007). New technologies for teaching and learning: Challenges for higher learning institutions in developing countries. *International Journal of Education and Development using Information and Communication Technology (IJEDICT), 3*(2), 57-67.

Soriano, G.P. (2020). Psychometric Properties of Spiritual Index of Well-Being Among Filipino Women with Breast Cancer. *Belitung Nursing Journal*, *6*(5),177-181 https://belitungraya.org/BRP/index.php/bni/index

Sun, J., & Wang, Y. (2014). Tool choice for e-learning: Task-technology fit through media synchronicity. *Information Systems Education Journal (ISEDJ), 12*(4), 17-28. https://files.eric.ed.gov/fulltext/EJ1140775.pdf

Twigg, C. A. (2011). Innovations in online learning innovations in online learning moving beyond no significant difference. In *the Pew Symposia in Learning and Technology*, Phoenix Arizona. https://www.immagic.com/eLibrary/ARCHIVES/GENERAL/RPI_US/R011107T.pdf

Tubaishat, A., Bhatti A., & El-Qawasmeh E. (2006). ICT experiences in two different Middle Eastern Universities. *Issues in Informing Science and Information Technology, 3*. 667-678. https://doi.org/10.28945/3036

Tularan, G., Michisella, P. (2018). Traditional vs. Non-Traditional Teaching and Learning Strategies-the case of E-learning https://www.cimt.org.uk/ijmtl/index.php/IJMTL/article/view/21

Villar, L., & Alegre, O. (2006). An innovative junior faculty online development programme. *E–Learning, 3*(4), 599-612. https://doi.org/10.2304/elea.2006.3.4.599

Yukselturk, E., & Bulut, S. (2007). Predictors for student success in an online course. *Journal of Educational Technology & Society, 10*(2), 71-83. http://www.jstor.org/stable/jeductechsoci.10.2.71

Zee, M., & Koomen, H. M. Y. (2016). Teacher self-efficacy and its effects on classroom processes, student academic adjustment, and teacher well-being: A synthesis of 40 years of research. *Review of Educational Research*, *86*(4), 981–1015. https://doi.org/10.3102/0034654315626801

Zhu, C. (2012). Student satisfaction, performance, and knowledge construction in online collaborative learning. *Journal of Educational Technology & Society, 15*(1), 127-136. https://www.jstor.org/stable/10.2307/jeductechsoci.15.1.127

The Value of Values Education in the Virtual Classroom

Ma. Emperatriz C. Gabatbat
College of Arts and Sciences
San Beda University, Manila, Philippines
mgabatbat@sanbeda.edu.ph

Noel D. Santander
College of Arts and Sciences
San Beda University, Manila, Philippines
nsantander@sanbeda.edu.ph

Abstract

This research endeavored to follow in a way the ideals of Herbert Spencer regarding value- based education. It inquired on the value or importance of values education in online instruction during this time of the pandemic. The researchers had used narrative descriptive method and strategy in analyzing the data that were collected through the digital data approach from several educators of higher and other educational institutions. Primarily, this research presented the various practices observed before, during, and after online learning, to ensure value-laden education aside from identifying the specific values needed to be promoted and intensified during this pandemic by reason of necessity and urgency like sensitivity, self-care, courage, perseverance, discipline, respect, accountability, faith, justice, peace, honesty, humility, and love. This research yielded to the importance and impact of values education to educational excellence while still in pandemic which are classified as personal character development, social and world development, and spiritual development on the account of the good nature of the value-based education, availability of much needed structures, quality of delivery, and dynamic support system.

Keywords: Values, Value-based education, Academic Excellence, Online Learning, Pandemic

Background of the Study

It is a given fact that the incorporation of values education in the curriculum has been an integral part in shaping the holistic formation of learners. The Values Education Program of the then, Department of Education, Culture and Sports was developed in 1988. It stemmed from the idea of "Social Transformation through Education" after the revolt in February 1986. In the study of Dr. Lourdes Quisumbing, on the Philippine's values education program, values education is the process by which values, attitudes and habits are formed as the learner interacts with the environment under the guidance of a teacher.

The then DECS order no. 6 states that "the outline does not prescribe or impose values. It is merely a list of virtues adaptable to varying situations which it is hoped the learner will internalize and practice." (Llego, n.d.) Even the Presidential Decree no. 6 of 1972, provides the promotion of "desirable cultural values in a changing world" as one of the goals of the maximum contribution of the educational system. (The Lawphil Project, n.d.). The teaching of values as an independent subject as well as an incorporated part of other subjects is crucial in shaping the entire make-up of the individual. The integration of values development of the lessons of every teacher in each discipline has been declared in the DO 41 in May 2003 of the Department of Education (DEPED, 2003). And so, the rest is history in so far as teaching the curriculum is concerned. Now, that a new era in our global history has emerged out of an unfortunate yet, relatively valuable event, the entire educational realm is challenged. It includes every aspect, from the physical interaction, down to getting across the learning outcomes, which is necessary for every learner. Yet, it is being pushed through now, in what we call, "the new normal" setting, and almost everyone seems to get by.

While both teachers and students, and even parents struggle to get along with the ramifications of such phenomenon through virtual processes, how can this so-called values education be still a part of it? For years, the educational realm cannot be without this curriculum if we are so concerned about the on-going and holistic formation of our citizens for authentic human development. This is not just the basic dos and don'ts nor the simple good manners and right conduct but the shaping of an individual's moral compass and integrity. DepEd aims at producing a "just and human society and an independent and democratic nation." It emphasizes the core values of *Maka-Diyos, Makatao, Makakalikasan and*

Makabansa to be instilled among learners, so that, our nation will be able to produce citizens who are socially responsible individuals, able to stand up for themselves and their country and profess accountability to the Ultimate Being. (DEPED, 2003) Likewise, in the Commission on Higher Education Memorandum Order Number 20, Series of 2013, it "describes the goal of the general education which is to produce thoughtful graduates imbued with values reflective of a humanist orientation (fundamental respect for others as human beings with intrinsic rights, cultural rootedness and an avocation to serve)" (CHED, 2013)

In this time of Covid-19 crisis, when all learners are glued to their gadgets to attend to their lessons, and mostly alone, how do we ensure that the entire virtual learning process includes those values necessary to be interiorized and appropriated by each learner? While we may deem it relevant and non-negotiable, the physical educational set-up alone had its own share of difficulties as far as values education is concerned, what more with the virtual world? The questions lie in how the values education lessons are being incorporated in the various subjects being taught in the virtual classroom, what specific values are these and how do the teachers carry it out to make an impact on their learners? In these trying times both in the physical and virtual world, do educators still inculcate in their learners the values necessary to form better, mature, God-fearing, and socially responsible individuals? This is the pressing concern in our academe today. This study is helpful in identifying the important specific values students can live by in the various situations in their daily life, not only during the pandemic. While we focus on a more academics-based virtual learning, values education instilled among them may be the core of educational excellence and mission.

This pandemic ushered us into a very unique and challenging situation putting almost everything into an unprecedented state. Many of us may have somehow been able to appropriate the situation into more meaningful thoughts or others associate it to their own lack of sense towards the environment or their sinfulness against God and so, in one way or another, try to amend for them. Yet, despite these, we can still hear news of rampant injustices and corruption, and domestic violence in the midst of this continuing crisis brought about by Covid-19. And so, we ask, what is happening? Why don't people learn?

This is perhaps, the same thought that Dr. Yuval Noah Harari asks in his book about finding the meaning of life, 21 Lessons of the 21st

Century, *"What is happening in the world today, and what is the deep meaning of these events?" …What can we do about the epidemic of fake news? …Can nationalism solve the problem of inequality and climate change? What should we do about terrorism?" (2018).*

We can ask the same for today's crisis, what can we do about the culture of bad politicking, of online bashing? Does it also happen even in online educational classrooms? Can values education really help in combatting and counteracting such characters?

The reality if dualism and polarities can leave us getting perplexed with so many realities. While we get inspired by many value-laden acts from several individuals and groups, we also get dismayed with others' indiscretions. Again, what is happening with the values being taught for the longest time during face-to-face classes? And now, that we shifted to the virtual classroom, will online values education bear the same weight as in the face-to-face classes or even higher?

This values education assumptions is interestingly express by Dr. Brian Hall in his book, Values Shift: A Guide to Personal and Organizational Transformation:

> *"There are many implications for the two assumptions on the uniqueness and complexity of individuals-not only in the worlds of science, computers, and electronic communication, but more significantly in spiritual development and the emergence of the new human being. The frontiers here are education, health, and organizational leadership. But we are way behind. We have investigated and become very disciplined in the measurement of material reality, but we have not made the same progress in the development of human beings. This is where values and values measurement comes in." (2006)*

At present, it can be seen that there is a continuing conduct of values education even in virtual classrooms, because it is deemed imperative, most especially in these times of crisis. But even in business organizations, there is a growing concern on "value shift," as what Lynn Sharp Paine has written, her term, the "turn to values," which she means the "growing emphasis" on values, culture, ethics, stakeholders, citizenship, etc." The emphasis nowadays on value priorities among

applicants during selections is common in the corporate world. Paine adds that *"today's leading companies are expected not only to conduct themselves as "moral actors" – as responsible agents that carry out their business within a moral framework. As such, they are expected to adhere to basic ethical principles, exercise moral judgment in carrying out their affairs, accept responsibility for their deeds and misdeeds, be responsive to the needs and interests of others, and manage their own values and commitments."(2003, preface)*

All of us, who are from the different facets of society came from the structured educational setting, which shaped not only our knowledge but also, our values and moral compass. We may come from varied learning environments, but all of us have values education and orientation. Value to educational formation would also depend on what aspect we give importance to each learning, if academics is of higher importance or a much more holistic one, incorporating morals or ethics in each subject. Liu, et.al. reiterates Herbert Spencer's emphasis on "What Knowledge is of most worth?" That is, *"the rearing activities require the study of physiology, psychology, and pedagogy in order to correctly implement the physical, intellectual and moral education of children;"* (2017)

Statement of Research Problem

The proponents of this research endeavored to answer the relevant question, *how important is the inclusion of values education delivery through the virtual classroom in this time of pandemic?*

Statement of Specific Objectives

This research has the following specific objectives:

1. Explore the values education being taught and the specific values being incorporated in every subject through online instruction among private schools, both sectarian and non-sectarian.
2. Examine the importance of these values in carrying out an integrated lesson through online instruction brought about by the pandemic; and
3. Identify the possible impact and contribution of values education delivered in online learning to educational excellence and mission.

Conceptual Model and Operational Framework

Conceptual Model

The English Philosopher, prolific writer and advocate of education, Herbert Spencer, states that "the great aim of education is not knowledge, but action." For him, "education has for its object the formation of character." (Holmes, n.d.) The c would play over knowledge, for by knowledge alone is not concrete without action. But, with knowledge to be acted upon, it must be through a good character. The teaching, then, of academics would be futile if it is merely learning it from the head. For him, it is scientifically based if it is learned through skills. Spencer further states in his theory of value, as to the goals of learning, that the learner should be "prepared to become good citizens and to impart an admirable moral and religious discipline. Success in life is not achieved only through enriching one's knowledge. To be professionally equipped does not necessarily mean a basis for success.

Spencer also maintains that punishing or rewarding the students should not be based on thought-based ideas such as heaven or hell, but rather a more specific and spontaneous conduct in which they will be able to get a learning out of their own doing. In his essay on moral education, "he hoped that the civilized members of the society would spontaneously use milder measures when it comes to penalizing the wrong acts of the children. He further states that all instruction should be pleasurable and interesting. One of his supreme conviction is that the method of education which produced the teacher himself and the contemporary and earlier scholars, authors, and publicists, must be the righteous and sufficient method. Its fruits demonstrate its soundness and make it sacred." (Holmes, n.d.)

Figure 1

Herbert Spencer's Framework of Education
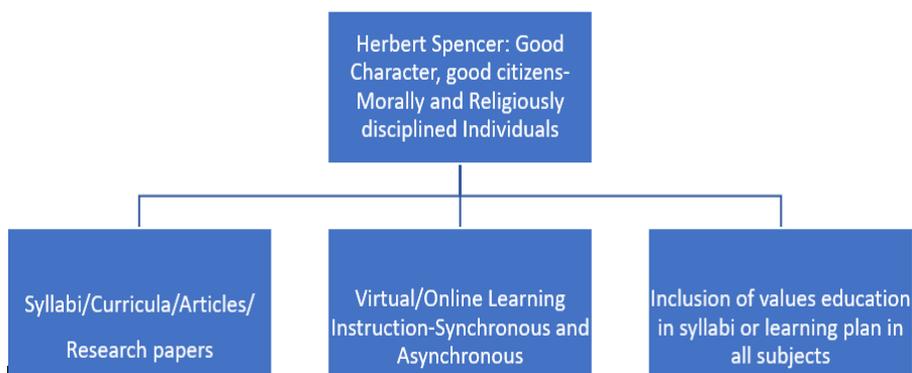
The framework shows that due to the crisis the world is facing right now, the virtual or online instruction delivery is a must and is being practiced in both public and private schools in the Philippines. The learners may be facing only their gadgets, as without a face-to-face interaction with their teachers and classmates, it is still important to incorporate the values needed and important to an integrated education. As Herbert Spencer said, it is important to produce a learner who is of good character, and who are good citizens of their country. This, in turn, contributes to the thrust of some schools towards educational excellence, and this would become each one's mission.

> *The formation of good character through values education in online instruction is of great importance towards producing good citizens which is a basis for educational excellence and mission.*

Operational Framework

The entire research endeavor will be guided by the operational framework presented below:

Figure 2

Research Operational Framework
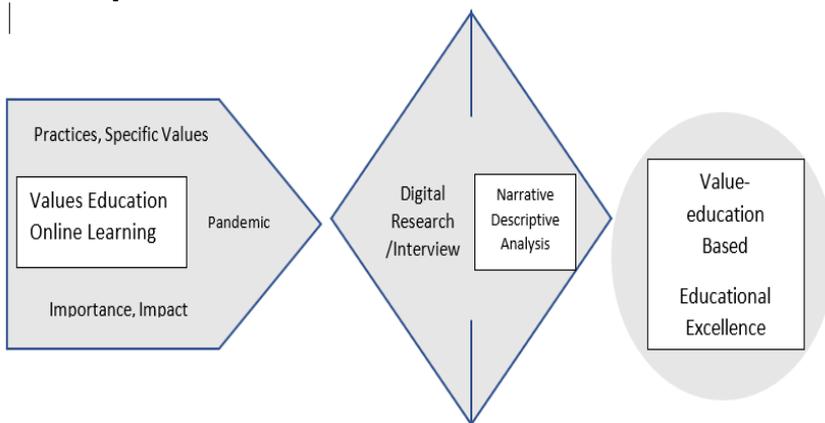
Methodology

Research Design

      This research used the exploratory descriptive research design and strategy with the help of the digital data research approach in collecting data. Exploratory descriptive research involves gathering of data that describes events and then organizes, tabulates, depicts, and describes the data collection (Glass and Hopkins, 1984). This research design and strategy aim to explore the importance of values education delivery in virtual classroom at this time of the pandemic.

Research Approach

      This research adopted the digital data research approach, where data were collected through "the use of digital tools, such as computers, tablets, smart phones and video cameras, in scholarly research projects." (Eriksson and Kovalainen, 2016). The researchers gathered resources online and through resource persons from whom data were collected in an interview or focus group discussion via an online platform. The crisis of pandemic has curtailed the mobility of people to go about their daily activities, more so, with conducting and participating in research. This digital research is a more conducive way to do amid such situation, where "it allows participants to take part in your research in a familiar environment (e.g., home or office), which may make them feel more relaxed in expressing themselves and in responding when and how they feel comfortable" (2016, p.110).

Research Procedures of Data Collections

      The researchers sought the help of the school administrators to explore the data they will provide. Inquiries were done through online communication-via social media and other online communication platforms. Interview and Focus group discussion were conducted among participants for a more thorough collection of data. The size of the participants is 30 who are educators themselves from different sectarian and non-sectarian educational institutions from Metro Manila and other provinces.

Table 1.

List of Participants

RESPONDENTS	INSTITUTIONS
1	Institute of Religion, University of Santo Tomas
2	Department of Human Biology, San Beda University
3	Science Area, St. Paul College, Pasig
4	Religion Area, St. Paul College, Pasig
5	Department of Political Science, San Beda University
6	Theology Department, Universidad de Sta. Isabel, Naga City
7	Values Formation Area, Ateneo de Iloilo, Iloilo City
8	Institute of Architecture, University of Santo Tomas
9	Administrator for Religion, Pateros Catholic School
10	Administrator for Academics, Canossa School, Sta. Rosa, Laguna
11	Administrator for Theology and Values Education, St. Bridget College, Batangas City
12	Administrator for CLE and Values Education, Xavier School, Nuvali, Sta. Rosa, Laguna
13	Administrator for Research, Planning and Publication Office, St. Bridget College, Batangas City
14	Department of Languages and Literature, National Teacher's College
15	Administrator, Bicol University, Legazpi City, Bicol.
16	College of Nursing, San Beda University
17	Administrator, St. Scholastica's College, Manila
18	Administrator, Cagayan State University, Cagayan
19	College of Business, University of the East
20	College of Sciences, Cavite State University

Table 1.

Continued

RESPONDENTS	INSTITUTIONS
21	Department of Religion, Letran University, Manila
22	Administrator, West Bay College, Pasay City
23	Administrator, Senior High Department, University of Santo Tomas
24	Director, St. Magdalena of Canossa Catholic School, Arteche Eastern Samar
25	Campus Ministry, University of San Jose Recoletos, Cebu City
26	Administrator, Canossa College, Lipa City, Batangas
27	NSTP Department, Dela Salle University, Manila
28	Administrator, Pamantasan ng Lungsod ng Maynila
29	Administrator, Ateneo de Davao, Davao City
30	College of Nursing, Universidad de Sta. Isabel, Naga City

Measurement and Instrumentation

For the interview and focus group discussion, the respondents asked these questions:

1. How do you ensure the values formation of your students during online instruction?
2. What specific values formation are integrated in the curriculum/subjects being carried out in the virtual classroom of your learners?
3. How valuable is values education in the online instruction of the new normal?
4. What impact can it make in attaining educational excellence for your school?

Data Analysis / Analytical tools

This research is qualitative utilizing the narrative descriptive technique of analysis. This involved simple collecting the descriptions of events and then organizes, tabulates, depicts, and describes the data collection (Glass and Hopkins, 1984).

Results and Discussion

Aided by a digital data research approach in collecting data and by using the narrative descriptive method and process of analysis, the researchers found meaningful depictions or descriptions which the researchers subsequently attached to the categories developed based on the ideals of the conceptual model. These chunks of meaningful depictions or descriptions are considered seriously by the researchers in view of answering the research's problem and specific objectives.

Table 2.

Practices ensuring the values formation of students during online instruction.

Giving a set of rules and guidelines during the course orientation, the netiquette and other house rules. Explain the values or virtues that are practiced and cultivated in every rule. Reminders must be done regularly.

Sharing of teaching philosophy, the guiding principle that supports through the intricacies of day to-day instruction.

Begin and end with a prayer. Compose an opening and a closing prayer that can be used by the class. Present it to the class and explain the content of the prayer.

Create an atmosphere where everyone can be given a chance to speak, share their thoughts and reactions.

Crafting of modules with thematic approach, focus on the different core values of the school. Reiteration of certain values every session.

Following the "See-Judge-Act Method" via online modular scheme of delivering instruction.

Provide online venues to students, teachers, and parents to nurture or manifest the core values, the school wants them to imbibe.

Grounding on human and Christian consciousness.

Table 2.

Continued

Use of reflection journal or papers to evaluate the students' personal perceptions to such input of the learning plan.

Creation of a particular formation team to attend to the needs of the school for values and religious formation, the Virtue-al Formation Team. It is composed of CLE/Theology coordinator, Campus minister, student formation officers, and the religion teachers.

Values Formation is enshrined from the start, from the construction of syllabus, formation standard is part of it, to the writing of modules. Valuing is always part of it. Values to be developed in the lesson were listed and developed through-out the instruction.

Ensuring human and Christian formation, Catholic teachings and doctrines are discussed and explained in the classroom during CLE classes. Students are led to think and reflect on how their knowledge can and understanding of their faith be applied in their everyday lives. In the classroom, students are given situations and theoretically, they can propose some course of actions.

Webinars for students and parents are conducted to make sure that values formation continues even education is done online. Had guidance program which is also done online to make sure that the students feel loved and cared by the school despite distance barriers.

Teacher served as role model in following rules.

Design practical exercises at the end of each lesson to provide opportunity to students to apply what they have learned to real-life situations.

Values are integrated in every subject delivery through the synchronous sessions and in the learning materials and activities during asynchronous sessions. Integration of value-oriented questions to the lesson.

Table 2 presents the participants' several practices or course of actions taken to ensure that values education will be delivered in an online learning. Analyzing the data, these practices or course of actions taken can be categorized into Pre-Online Practices (PrOP), At the Moment Practices (AMP), and Post-Online Practices (POP).

Pre-Online Practices (PrOP)
The practices or courses of action taken ensuring values education delivery in an online learning even starts before the actual virtual classroom learning. It may begin with the creation of a particular formation

team to attend to the needs of the school for values (and religious) formation, the Virtue-al Formation Team. The team may be composed of CLE/Theology coordinator, Campus minister, student formation officers, and the religion or theology teachers. Values Formation may be enshrined from the start, from the construction of syllabus to the writing of modules. Valuing should always be part of it. Values to be developed in the lesson were listed and developed through-out the instructional preparation. Crafting of modules with thematic approach that focuses on the different core values of the school is also considered vital in ensuring values education be delivered through online learning. Another contributing factor is providing excellent online venues or platform-application to students, teachers, and parents to nurture or manifest the core values, the school wants them to imbibe. Administration and the faculty should consider values are integrated in every subject delivery through the synchronous sessions and in the learning materials and activities during asynchronous sessions. Integration of value-oriented questions to the lesson. The crafting of module alone is crucial if we seriously consider the holistic formation of our learners. Dr. Brian Hall is emphatic in the development of the human beings and even wrote a book on Leadership Through Values together with Helen Thompson. They came up with a model for leadership development that are definitely value-based, so as to produce leaders described by Robert Greenleaf as "capable but caring individuals whose choice to serve has caused them to lead." They are "competent, caring persons who can humanize our institutions and harness our technologies (1980, p.11).

At the Moment Practices (AMP)

There are practices that can be observed that may ensure the delivery of values education during an online learning. To cite a few, the participants mentioned that giving a set of rules and guidelines during the course orientation, the netiquette and other house rules may set the tone for a quality learning experience. Explaining the values or virtues that are practiced and cultivated in every rule is values education itself. The teacher serving as a role model in following rules can help students form their own values. Reminding the students regularly will help in doing the right thing in an online learning. The sharing of teaching philosophy, as a guiding principle, may support the students go through the intricacies of day to-day instruction.

The participants also found creating an atmosphere where everyone can be given a chance to speak, share their thoughts and reactions as necessary too. Opening and a closing prayer composed and recited by the students can be used as affective channel of values education. Following certain method of analysis like the "See-Judge-Act Method" via online modular scheme of delivering instruction can exposed students to certain realities where there are negative and positive values found. The use of reflection journal or papers can help evaluate the students' personal perceptions of such input of the learning plan. Grounding always on human and Christian consciousness can help students focus on certain human and Christian values. Ensuring human and Christian formation, Catholic teachings and doctrines are discussed and explained. Students are led to think and reflect on how their knowledge can and understanding of their faith be applied in their everyday lives. In the online classroom, students are given situations and theoretically, they can propose some courses of action.

Post-Online Practices (POP)

Some practices done outside the actual online learning may be considered beneficial in ensuring the delivery of values education in an online learning. These practices may reinforce the values education of the students. This requires involvement not just of teachers and students but also parents and other offices of student services. As mentioned by some research participants, webinars for students and parents can be conducted to help ensure that values formation continues even if education is done online. The guidance program which is also done online can help strengthen the values learned by the students or simply make sure that the students will feel loved and cared for by the school despite distance barriers.

Table 3.

Specific values integrated into the subjects being carried out in the virtual classroom.

Accountability	Faith	Preferential Option for the Poor	Social awareness
Advocacy for the poor	Gratitude	Propriety	social responsibility

Table 3.

Continued

Charity	Honesty, Academic Honesty	Prudence	Social commitment
Christ Centeredness	Human relationship	Punctuality	Solidarity
Compassionate service	Humility	Respect for God' creation	Stewardship
Competence	integrity	Respect for human dignity	Team player
Competent Consumer/user of technology	Interiority-silence, prayerfulness	Respect for Law	Tolerance
Conscience	Justice	Responsibility	Trust
Courage	Kindness	sacrifice	Truthful
Courtesy	Leadership	Self-awareness	Understanding people
Critical thinking	Love for God, self, others, environment	Self-care	Volunteerism
Cultural competence	Nationalism	Self- learning	Witnessing
Discipline	Patience	Sensitivity	Work ethics
Educational excellence	Peace	Service	
Effective communicator	Perseverance	Creativity	
Engaged in Social transformation	Person for others	Simplicity	

Positive or higher values are those standards of which a society judges as desirable and important for people. It is a collective conviction in what is are considered contributory to the welfare of the individual, group, institution, society, environment, and the cosmic world. In life, positive values are manifold and countless, and they are interconnected. Generally, values shape the way people live their lives, how they interact

with others and how they feel about themselves. Values are learned, usually passed down from generation to generation or from an institution to its stakeholders. Some of these are reflected in Table 3, and these evidently respond to CMO Number 20, Series of 2013, which is to "produce thoughtful graduates imbued with values reflective of a humanist orientation" that includes respect, love for culture and selfless service. (CHED, 2013).

The said table presentation provides several specific positive or higher values that are considered essential in teaching values education in an online setting according to the research participants who are online educators themselves from different higher educational institutions. Analyzing the presented values, they can be loosely classified either as institution-based core-values, religious charism-based values, and faith-based values if not personal biased based values. Although, all these values can have overlapping classification.

An institution-based values are values preferred by the educational institutions commonly expressed through the institution's articulated common interests, the mission-vision statement. They are the likes of integrity, educational excellence, leadership, nationalism, volunteerism, social responsibility, respect for law, and others.

A religious charism-based values are values attributed to the charisms of the religious congregation who administer the educational institution. Some of the examples are service, simplicity, preferential option for the poor, interiority-prayer, and the likes.

A faith-based values are values purposely driven by the religious beliefs like love for God, self, others, and the environment, peace, justice, faith, charity, humility, stewardship, kindness, Christ-centeredness, respect for human dignity, and others.

A personal biased-based value are values that are individually chosen and preferred to be shared with others. These are courage, courtesy, critical thinking, creativity, perseverance, patience, discipline, effective communicator, Self-care, self-awareness, self-learning, punctuality, sensitivity, understanding people, honesty, gratitude, courage, and the likes.

Essential Values During Pandemic

This pandemic period had brought a lot of challenges to life, that includes even to the educational system. It challenged the academic institutions on how to effectively deliver their services to students with the available online technology, well-planned curriculum and instructions, and the preparedness of the faculty. On the part of the students, they are facing also great challenges in online learning like connectivity issues, gadget issues, online teaching style, and limited opportunity to communicate. In this kind of situation, appropriate values must be promoted and intensified. The cited specific values of the research participants are all necessary, but the following values are needed to be emphasized, these are some of them, sensitivity, self-care, courage, perseverance, discipline, respect, accountability, faith, justice, peace, honesty, humility, and love.

The identification of these values being promoted in different educational institutions determined by the respondents, especially those discerned relevant values during this time of pandemic is something that follows the idea of Brian Hall (2006) of making progress in the development of human beings, where values are given much emphasis and discernment.

Table 4.

Importance of values education in the online instruction during the pandemic.

It still focuses on the total formation of the human person.
Promotes independent learning. Mature students learn at their own pace
Shaping the character and values of the students to be useful in the society and in the bigger world. They will be future leaders. Students whose values and moral fiber are formed can be of great help to others especially those in the peripheries of life.
A good moral booster to fight issues on mental health.
Focuses on human life experience, culture, and social transformation.
Allowed a more personal encounter with God through online masses, online retreats, for students and faculty, online Recollection, and online BEC.
Played a vital role in shaping the values of the students and molding their attitude and behavior that will lead them to make good decisions in life.
Can produce responsible, productive, and humane individuals/citizens.

Table 4.

Continued

Inculcate the right values to our students it will affects their attitudes towards studies, responsibility, and accountability. It affects the quality of graduates.
Help remain being human in an online world, and to socialize students into the conventions and norms of online communication.
Allows the students to be reminded of their moral responsibility and duty to their families and society
Helps students see the goodness and beauty of pressing realities during pandemic and remind them of their inner strength. They are being reminded of a faithful God and must go on with life patiently with a positive disposition.

In a society where there is a huge crisis of moral values, or there is a moral degradation, values education proves out to be the solution. The research participants identified several points as to why values education is important in online learning, especially in this pandemic period. Referring to table 4, the importance of values education can be categorized in terms of personal character development, social and world development, and spiritual development.

Personal character development. Values education in this case focus more on the formation of value-system within the self, making the self-more resilient and able to withstand the test of time. With strong character and a positive value-system, right attitude and behavior, students will know who they are better, their moral responsibility and accountability which can lead them to make good decisions in life. They will be able to see also the goodness and beauty of pressing realities during the pandemic and remind them of their inner strength. Values education in online setting provides morale booster to fight issues on mental health which is prevalent and alarming because of the pandemic caused by COVID19.

Social and world development. Values education in online learning promotes values that can help students remain to be human and socialize within the conventions and norms of online communication. Online values education still focuses on human life experience, culture, and social transformation. It can help produce students who are responsible, productive, and humane citizens of the world. Shaping the character and values of the students to

be useful in the society and in the bigger world as future leaders. Students whose values and moral fiber are formed can be of great help to others especially those in the peripheries of life.

Spiritual development. Values education not just aim for personal character formation and transforming the society and world for better, it is also very concerned with intensifying one's spirituality or relationship with the divine. In values education, they are being reminded of a faithful God and must go on with life patiently with a positive disposition. The online values education allowed a more personal encounter with God through online masses, online retreats, for students, faculty, and parents, online recollection, and online BEC or basic ecclesial community.
Teaching values education online is as challenging as it is done normally in a classroom setting. It might be even more challenging today because of the pandemic. And so, values education must be intensified during the time of the pandemic.

Table 5.

Values education possible impact to educational excellence during the pandemic.

Values education can serve as a beacon of light and hope in these trying times. It can serve as an avenue for students to gain strength and security from their sighs and fears. It can serve as a stronghold for students to be better persons facing these new challenges.
Values education can serve as an eye-opener to the real truths of reality. It may ignite the students' awareness not only in their academic endeavors but also their social and civic duties and responsibilities and provide a spark to nurture and give importance to their spiritual life.
If consistent in teaching values, then it will have great impact to educational excellence of our school. Educational excellence is not just about the head, the hand, it must be balanced between the head, the hand, and the heart. Then it will complete our holistic education.
Educational excellence will only be attained when young people are formed not only to be intelligent but people whose hearts beat for the service of other people. Only then we can say that the institution has attained educational excellence.
Values education can help students to remember the values that are important for lifelong learning.

Table 5.

Continued

The school should be a venue for character and conscience formation. We cannot bring transformation to society unless our children are also transformed when it comes to values, attitudes, and principles.

Values education teachers are really challenged to be more patient, understanding, and creative to lead the students to a more engaging participation in the virtual classroom, to facilitate trust in the sharing despite the lack of personal touch in establishing relationship with the students. Building friendships with students to promote achievement of learning is vital. Students listen and participate to teachers whom they find interesting and likable.

Just as we teach for understanding and acquisition of knowledge, skills, and attitudes, we also teach our students how to thrive in this new normal.

Careful, systematic implementation of policies, projects, and activities in values education are elements that may attain educational excellence.

Webinars for parents of students are conducted to make sure that values formation continues even outside online education. Guidance program and a campus ministry spiritual activity also done online to help them reinforced student's values education.

The students or graduates can demonstrate the character of being a good person, of being a good citizen and if the students and graduates can concretize the values integrated in the subjects through their responses or actions on their life situations also on how they treat or relate with others amidst diversity and pandemic.

The transformation of students to be more caring and understanding, to feel the feelings of other people. And so, educational excellence can still be attained even in online education.

Students who embraced the school's values contribute to the society and in return, the schools generate less risk and more income opportunities because of the image projected

It has an impact on human development since the intellectual formation of the human person is still being addressed through blended learning despite the current situation. Last, but not the least, there is still a continuous formation on the Catholic faith of our students which contributes a lot to the stability of their life in this time of pandemic.

How we prepare the students for the future, that should be trademark of real education.

Allowing students get in touch with themselves through Values formation even in reliable virtual set up, supported by the authenticity, sincerity, and preparedness of a teacher, will help them appreciate the value of life, they gain not only excellent education but wisdom they would bring for life.

The formation of the heart grounded by the principles of different values can help produce educational excellence.

Measuring the true impact of values education on educational excellence needs to have a full grasp of what the students had become after receiving the value-based education. The students' life may reflect the quality of education received, and that requires time. It may seem difficult to measure the true impact of values education on academic excellence, it can still be known tentatively through its apparent assumptions as found in table 5. From the shared data of the research participants, the researchers arrived with values education possible impact to academic excellence under the following category:

Nature of Value-based Education. By the nature itself of values education, with all its intent, it can serve as a beacon of light and hope in these trying times. It can serve as an avenue for students to gain strength and security from their sighs and fears. It can serve as a stronghold for students to be better persons facing these new challenges. Values education can serve as an eye-opener to the real truths of reality. It may ignite the students' awareness not only in their academic endeavors but also their social and civic duties and responsibilities and provide a spark to nurture and give importance to their spiritual life. The formation of the heart grounded by the principles of different values can help produce educational excellence.

Availability of Needed Structures. Allowing students to get in touch with themselves through Values formation in a reliable virtual setup supported by the authenticity, sincerity, and even preparedness of a teacher, will help students appreciate the value of life, they gain not only excellent education but the wisdom they would bring for life. It has an impact on human development since the intellectual formation of the human person is still being addressed through blended learning despite the current situation. The school should be a venue for character and conscience formation. We cannot bring transformation to society unless our children are also transformed when it comes to values, attitudes, and principles.

Quality of Delivery. Careful, systematic implementation of policies, projects, and activities in values education are elements that may attain educational excellence. Continuous formation on the Catholic faith of our students which contributes a lot to the stability of their life in this time of the pandemic. If consistent in teaching values, then it will have a great impact on educational excellence of our school. Educational excellence is not just about the head, the hand, it must be balanced between

the head, the hand, and the heart. Then it will complete a holistic education. With value-based education, it is not limited to teaching for the acquisition of knowledge, skills, and attitudes, but also teaching the students how to thrive in this new normal. It should touch all the aspects of human life. As Catholic institutions, schools should be a venue for character and conscience formation. They cannot bring transformation to society unless our children are also transformed when it comes to values, attitudes, and principles. Values education teachers are really challenged to be more patient, understanding, and creative to lead the students to a more engaging participation in the virtual classroom, to facilitate trust in the sharing despite the lack of personal touch in establishing relationship with the students. Building friendships with students to promote achievement of learning is vital. Students listen and participate to teachers whom they find interesting and likable.

Dynamic Support System. Conducting webinars for parents of students make sure that values formation continues even outside online education. Guidance program and campus ministry spiritual activities are also done online helped the student's reinforced their values education. By this, we can refer again to the question, "What Knowledge is of most worth?" *(Liu, et.al. 2017)* We might also ask this every time we craft our own curriculum, in our institutional goals, and in the way we implement this in our classrooms face-to face or virtual.

Conclusions

This research endeavored to know the value or importance of values education in an online learning during this time of the pandemic. Specifically, it explored the values of education being taught and the specific values being incorporated in every subject through online instruction among private schools, both sectarian and non-sectarian. Also, it examined the importance of these values in carrying out an integrated lesson through online instruction brought about by the pandemic. This research tried even reflecting on the possible impact and contribution of values education delivered in online learning to educational excellence and mission.

The researchers had used the narrative descriptive method and strategy in analyzing the data collected through the digital data approach. On the question of what practices helped ensure values education of the

students during online instruction, the practices or course of actions taken can be categorized into Pre-Online Practices (PrOP), At the Moment Practices (AMP), and Post-Online Practices (POP). The practices or courses of action taken ensuring values education delivery in online learning even starts before the actual virtual classroom learning. There are practices that can be observed that may ensure the delivery of values education during online learning. An example of these is giving a set of rules and guidelines during the course orientation, the netiquette and other house rules may set the tone for a quality learning experience. Some practices done outside the actual online learning may be considered beneficial in ensuring the delivery of values education in an online learning. These practices may reinforce the values of education of the students. As regards the specific values incorporated in online instruction, this research found they are many of them, they are all positive or higher values, and they can be loosely classified either as institution-based core-values, religious charism-based values, and faith-based values if not personal biased based values. All the cited specific values of the research participants are all necessary, but during this pandemic period there are appropriate values that must be promoted and intensified. the following values are needed to be emphasized, these are some of them, sensitivity, self-care, courage, perseverance, discipline, respect, accountability, faith, justice, peace, honesty, humility, and love. Answering the question on how valuable values education in the online instruction, the data yielded several points which can be categorized into personal character development, social and world development, and spiritual development. Lastly, this research reflected on the impact of value-based education on academic excellence. It may seem difficult to measure the true impact of values education on academic excellence, it can still be known tentatively through its apparent assumptions as expressed by the four categories, nature of the value-based education, availability of much needed structures, quality of delivery, and dynamic support system.

The limitation of this research is mainly focused on the importance of value-based education in online learning during this pandemic time, the particular values incorporated in online education, and the impact of value-based education on educational excellence. All these are based only a limited size of participants from several sectarian and non-sectarian higher educational institutions. Therefore, the study yielded only an initial result. It needs to be conducted in a bigger size of participants from a diverse research environment to come up with a more integral result about the essence of value-based education given in the online classroom.

References

AECT. (2001). *What is Descriptive Research? The handbook of research for Educational Communications and Technology.* http://members.aect.org/edtech/ed1/41/41-01.html.

CHED Memorandum Order No.20. (2013). Commission on Higher Education. *General Education Curriculum: Holistic Understandings, Intellectual and Civic Competencies.* https://ched.gov.ph/wp-content/uploads/ 2017/10/CMO-No.20-s2013.pdf

Eliot, C. W. (1911). *Spencer on Education. Online Library of Liberty.* https://oll.libertyfund.org/pages/spencer-on-education

Eriksson, P. & Kovalainen, A. (2016). *Qualitative Methods in Business Research*, 2nd Ed. Sage Publications, Ltd.

Hall, B. P. 2006. *Values Shift: A Guide to Personal and Organizational Transformation*. Resource Publications.

Hall, B.P. (2000). *The Genesis Effect*. Personal and Organizational Transformations. Don Bosco Press.

Hall, B.P. & Thompson, H. (1980). *Leadership Through Values.* Paulist Press.

Harari, Y. N. (2018). *21 Lessons for the 21st Century.* Jonathan Cape.

Harari, Y.N. (2015). *Sapiens.* HarperCollins Publishers.

Holmes, B. and Spencer, H. (2020, November 8) *International Bureau of education (1820-1903).* http://www.ibe.unesco.org/sites/default/files/spencere.pdf.8

Liu, et.al. (2017). Scientific Knowledge Education Based on Herbert Spencer "What Knowledge is of Most Worth?" *Open Access Eurasia Journal of Mathematics Science and Technology Education.* 13(7):4291-4299 https://doi.org/ 10.12973/Eurasia .2017.00836a

Llego, M. A.(n.d.) *DepEd Values Education Program (VEP) Goal and Objectives.* https://www.teacherph.com/deped-values-education-Program

Paine, L. S. (2003). *Value Shift. Why Companies Must Merged Social and Financial Imperatives to Achieve Superior Performance*. McGraw-Hill.

Presidential Decree No. 6-A. The Lawphil Project (1972). *Authorizing the Undertaking of Educational Development Projects, Providing for the Mechanics of Implementation and Financing Thereof, and for other Purposes.* https://lawphil.net/statutes/ presdecs/pd1972/ pd_6_a_1972.html.

Seidenberger, T. and Weiss, M. (2011). *The educational theory of Herbert spencer*. https://www .newfoundations.com/GALLERY /Spencer.html.

ThoughtCo. Famous education quotations from Philosopher Herbert Spencer. (2020, November 11). https://www.thoughtco.com/ famous-education-quotations-herbert-spencer-

Values Education in the Basic Education Curriculum. (2003). DO 41, S. 2003. https://www.deped.gov.ph/2003/05/22/do-41-s-2003-values-education-in-the-basic-education-curriculum/

What is Research? (n.d.) https://www.personal.psu.edu/wxh139 /research_talk.htm6.

A Proposed Natural Science E-Instructional Systems Design (E-ISD) for the Mendiola Consortium

Maria Eliza P. Cruz
College of Arts and Sciences
San Beda University, Manila, Philippines
mcruz@sanbeda.edu.ph

Arvin P. Dizon
Integrated Basic Education
San Beda University, Manila, Philippines
adizon@sanbeda.edu.ph

Abstract

The surfacing of the coronavirus COVID-19 pandemic in the latter part of 2019 drastically forced school systems to restructure and go full-blast with remote learning. Despite the uncertainties, the educational sector must still meet academic ends and so must be resilient in facilitating flexible learning. This shift towards flexible "remote" learning has been predictable and has become, even, the most pragmatic alternative at this time towards providing effective learning delivery systems. To support flexible learning without compromising authenticity and shared identity in the context of natural science virtual teaching and learning, the researchers reviewed and consequently, proposed a recalibration of the instructional systems design (ISD) as used by Natural Science teachers and professors of the Mendiola Consortium from October 2020 through March 2021. The proposed e-ISD, arising from flexibility, authenticity, and result-orientedness as eligibility criteria, enforces the importance of content and context feedback on the instructional process. Applying Argyris' perspective (1976) on feedback loops and theories of action, it could be said that seeking the perspectives of the subject matter experts themselves, the Natural Science teachers, helped the researchers create a new meaning for Science Instruction— a meaning that is flexible and adaptable alongside the changing world.

Keywords: flexible learning, authentic learning, COVID-19 pandemic, Design Thinking, E- Instructional System Design, Argyris' feedback loop models

For a teacher to be effective, he must know how to direct, facilitate, and support specific academic ends. For decades, educational researchers have extensively focused on improving instructional designs, teaching approaches, and strategies to maximize student learning while at the same time, providing them with equitable learning opportunities. In recent years, the focus eventually shifted to effective face-to-face teaching as supplemented by asynchronous learning, which is called blended learning (Kintu, et al, 2017).

However, with the unexpected surfacing of the coronavirus COVID-19 pandemic in the latter part of 2019 which restricted physical contact, education experts worldwide felt the urgent necessity to restructure school systems by going full blast with distance learning. Academic ends must be supported at all-cause and means whilst, schools must be resilient and facilitate flexible learning (Huang, et al, 2020). The shift towards distance learning via conducting online classes has been the most pragmatic alternative towards providing effective learning delivery systems.

For Natural Science Courses, online teaching and learning pose an even greater challenge. Traditionally, it is expected for teachers to design laboratory experiments that complement class lectures while students are projected to acquire certain skills after performing them. With digital mediation, both the designing of the laboratory activities by teachers and the assessment of skills of students after performing them become complex and challenging.

Instructional designs have the potential to revolutionize education through the application of design thinking (Dalziel, 2016). As educators worldwide face this quintessential challenge of being flexible in learning systems delivery, design thinking suggests that the recalibration of instructional designs be scientific, systematic, and context-based.

With *Design Thinking* as the grounding framework, the intent of this research is clarified: to develop a Natural Science online instructional systems design (E-ISD) for the Mendiola Consortium.

Statement of Research Problem

Reigeluth (1999), posits that there could be two kinds of changes that an instructional design may adopt: piecemeal and systemic. Piecemeal changes require unsystematic or partial measures taken over some time and which may not drastically change the entire structure. In contrast, systemic change entails systematic and fundamental transitions that will eventually modify the entire structure. System thinkers know that, when a human-activity system (or societal system) changes in significant ways, its subsystems must change in equally significant ways to survive as each subsystem must meet one or more needs of its super-system (Hutchins, 1996). Hence, if the current educational system, as the "super-system", is undergoing systemic change because of the COVID pandemic then, instructional design, as the "sub-system" must also change.

This leads to the central problem being:

What Natural Science Online Instructional Systems Design (E-ISD) can be developed to fit into authentic learning, flexible learning, and result-orientation as eligibility criteria?

Statement of Specific Objectives

To systematically resolve the central problem, these objectives are mapped:
1. Assess the Instructional Needs of the Natural Science Course Teachers in the Mendiola Consortium.
2. Design a Virtual Instructional Design (ISD) Framework for Natural Sciences with consideration to the eligibility criteria set and the instructional needs of Natural Science Course Teachers in the Mendiola Consortium.

Conceptual Model and Operational Framework

In developing the E- ISD for Natural Science Courses, the researchers referred to the concepts of Richey and Klein (1994, 2005) and followed the method of Ibrahim (2016) in doing a Descriptive-Developmental Research. This research method involves designing, developing, and evaluating instructional programs, processes, and products thru meeting set criteria on internal consistency and effectiveness. It is believed to be of particular importance in the field of educational

technology and is most appropriately used in creating model designs and theorizing (Richey, p.123).

Richey and Klein (2005) supplicated that developmental research could be of two (2) distinct types depending on the structure and intent of the study. The table below captures the basic distinctions between the two types of developmental research: Type I – Formative Research System-Based Evaluation and Reconstructive Studies Model Development and Techniques Development:

Table 1.

Types of Developmental Research (Richey and Klein, 2005)

Features	Type I	Type II
Names as	Formative Research System-Based Evaluation	Reconstructive Studies Model Development and Techniques Development
Emphasis	Study of a specific product or program design, development, and evaluation project	Study of design, development, and evaluation processes, tools, or models
Product	Lesson learned from developing a specific product and analyzing the conditions that facilitate their use	New design development and evaluation procedures and/or models that facilitate the use
Conclusion	Context-Specific	Generalized

The Natural Science E-ISD Model falls into the Type II Category as it aimed to be reconstructive with consideration to flexible and authentic learning. Further, the four (4) stages in conducting developmental research, as elucidated by Ibrahim (2016), were adopted in this study.

Table 2.

The Four Stages of Descriptive- Developmental Research following Ibrahim (2016)

First Stage	Second Stage	Third Stage	Fourth Stage
ANALYSIS	**DESIGN**	**DEVELOPMENT**	**EVALUATION**
Phase 1: Systematic Review of Pre- Defined Eligibility Criteria	**Phase 3**: Identify eligibility criteria and instructional needs	**Phase 5**: Design Review (Dick et al, 2006; Smith & Ragan, 2005)	Phase 7: Expert Review of Virtual ISD Model for Natural Sciences (Clark and Dunn, 2000)
Phase 2: Needs Assessment to Identify Instructional Needs (Driscoll, 1991; Seels and Glasgow, 1998).	**Phase 4**: Design the Virtual ISD Model for Natural Sciences (Johnson et al.,1989)	**Phase 6**: Redesign the Virtual ISD Model for Natural Sciences	

Stage 1 Phase 1 – Systematic Review of Literature

This review highlights an array of diverse kinds of literature pointing to the conceptions of various intellects in terms of instructional systems design (ISD), flexible and authentic learning, alongside theories of learning, feedback models, and organizational identity. These were reflected and dissected by the researchers which led to their in-depth selection of the eligibility criteria included in the development of the Natural Science E-ISD.

Instructional Systems Design (ISD) for Flexible Learning

Instructional Systems Design (ISD) is a collection of complex activities that are intended to facilitate learning as anchored to educational outcomes that range from individual learning experiences to learning environments. Such activities are defined in a sophisticated level of abstraction where instructional designers can initiate varied learning sequences to produce specific learning outcomes (Smith & Ragan, 2005).

An ISD attempts to answer three major questions (Mager, 1984): *Where are we going? How will we get there? How will we know when we*

have arrived? These three activities form the foundation of instructional design. The instructional design process are Analysis, Strategy, and Evaluation all subjected to the process of Revision as proposed by Smith, P. L., & Ragan, T. J. (2005).

Authentic Learning

For educators to maximize the quality of student learning outcomes, they must construct learning environments that ensure students' *adaptive responses* to the curriculum that are congruent with their aims (Boud, 1982; Biggs, 2003; Ramsden, 2003). At its core, Authentic Learning focuses on solving real-world tasks, problems and solutions, problem or project-based activities, case studies, among relevant others.

Organizational Identity

Tüzün (2006) thought that organizations must constantly exert efforts to promote successful organizational identity identification. The former is achieved when members of the organization share the same commitment to the principal values, culture, and standards set by the organization (Dutton & Dukerich, 1991; Taşdan, 2010). Almario and Austria (2020) suggested that for schools to achieve successful integration of organizational identity, they must (1) revisit one's school philosophy and (2) review the school's vision, mission, and goals during planning.

Argyris' Feedback Loop Models and Organizational Learning Theories

Argyris (2004) claimed that a scientific feedback system is necessary for organizational leaders to detect errors and analyze the extent of the commitment of the organization towards achieving specific goals. He suggests a single feedback loop when consonance is achieved between working theory and practice while he calls for a double-feedback loop, a revisiting of governing variables if dissonance is observed between working theory and practice. Before the pandemic, learning and teaching activities alongside effective assessments have been set in place, but with the new normal setting, an analysis of whether there is still consonance between teaching "means" and learning "ends" appears to be the most urgent move towards organizational learning.

Content Standards for Flexible Learning

The DepEd (2020) Order 012, CHED Covid Advisory No.7 and CHED CMO No.4 series of 2020 acknowledges the difficulties and challenges of distance learning as caused by the COVID-19 pandemic. Henceforth, the Department of Education eventually selected the Most

Essential Learning Competencies (MELCs) as a guide to teaching in basic education for the SY 2020-2021. The Commission on Higher Education (CHED), on the other end, advises the Higher Educational Institutions (HEIs) to follow strictly the IATF guidelines, but with greater flexibility in terms of choosing Content and Standards. In addition, the implementation of flexible learning as a delivery mode shall be adopted beginning AY 2020-2021 and may be extended upon consultation with the stakeholders and CHED.

Methodology

To ascertain how the researchers could effectively develop the E-ISD for Natural Science Courses via the use of design thinking and Ibrahim's stages of descriptive developmental research, the following systematic protocols were observed:

Population and Sample of the Study

The study was conducted on schools that are part of the Mendiola Consortium. The Mendiola Consortium is an organization of five academic institutions located along Mendiola Street in Manila, Philippines.

In selecting the teacher participants, purposive snowball sampling was employed. Purposive or judgmental sampling is a strategy in which particular settings, persons, or events are selected deliberately to provide important information that cannot be obtained from other choices (Maxwell, 1996). Snowball sampling is a non-random sampling method that uses a few cases to help encourage other cases to take part in the study, therefore increasing the sample size (Breweton and Millward, 2001). Selected participants were then requested to participate and respond to a validated, researcher-made survey questionnaire.

The research proposal was subjected to an ethics review by the San Beda University Research Ethics Board for analysis since human respondents are essential to the study. The researchers followed the protocols advised by the SBU- REB.

Instrument of the study

To clarify the protocols performed by the researchers, these research stages are elucidated.

Stage 1 Phase 2: Instructional Needs Assessment

The instrument was a researcher-made questionnaire that consisted of 14 questions as presented in Table 3. Instructional Needs Assessment Survey for Natural Science Teachers in the Mendiola Consortium. These are adopted from the principles of Instructional Design Approach to Learning by Conole (2016), Instructional System Design for Flexible Education by Moloney (2018), and Instructional Design by Smith & Ragan (2005). The concept of Organizational Identity is also taken into consideration, as it is a strategic tool to achieve the objectives and vision of the organization (Riel, 1997). The concepts by the different authors are then synthesized to understand the categories of the Instructional Process.

Table 3.

Instructional Needs Assessment Survey for Natural Science Teachers in the Mendiola Consortium

Instructional Design Process	Instructional Process	Question/s
(1) Instructional Analysis	(a) Learning Outcomes (b) Learning Objectives (c) Organizational Identity	Q1. I find the current remote learning outcomes suitable for the students to understand in one term in the new normal.
		Q2. I find it easy to write cognitive, affective, and psychomotor skills objectives in the new normal.
		Q3. I find it easy to create learning tasks/activities that promote intrapersonal, interpersonal, and interdisciplinary skills in the new normal.
		Q13. I find it easy to incorporate the vision- mission in my learning activities in the new normal.

Table 3.

Continued

Instructional Design Process	Instructional Process	Question/s
(2) Instructional Strategy	(d) Instructional Strategy (e) Instructional Activity (f) Instructional Resources	Q4. I find it easy to plan learning activities that proceed at an efficient phase in the new normal.
		Q5. I find it easy to contextualize information in the new normal.
		Q6. I find it easy to design a course that is learner community-based in the new normal.
		Q7. I find it easy to include opportunities for students to produce original content in the new normal.
		Q11. I find it easy to choose an online teaching approach to student learning in the new normal.
		Q12. I find it easy to focus on individual learners' performance in the new normal.
(3) Evaluation	(g) Learning Assessment (h) Learning Evaluation (i) Instructional Evaluation	Q8. I find it easy to create fair, well-thought-of evaluation tools in the new normal.
		Q9. I find it easy to identify gaps in a learner's or group of learners' knowledge in the new normal.
		Q10. I find it easy to assess the knowledge/skills of students after their learning activities in the new normal.
Qualitative Questions		(1)What led you to this response? (2)What do you suggest be done for improvement?

The Instructional Needs Assessment Survey was tested for reliability and validity. To achieve content validity, 5 Subject Matter Experts (SME) in science education were invited to comment and evaluate the Items. All of the SME's have a Doctorate Degree and have been in the educational field for more than 10- years. The SMEs' responses were then analyzed. Thereafter, appropriate modification of items was made and was re-evaluated by the same set of validators. Ultimately, all 14 items were retained, with minor modifications.

Thereafter, the questionnaire was pilot-tested on a convenient sample of Natural Science teachers from San Beda University. The purpose of the pilot-testing is to determine the reliability of the tool and to qualitatively determine if there are still ambiguous items. The questionnaire was sent to twenty (20) SBU- IBED Natural Science Teachers, with seventeen (17) forms accomplished (return rate of 85%) via Google Forms. With responses received and analyzed from both SMEs and Natural Science Course teachers, the questionnaire was fully validated.

The Needs Assessment Survey was also tested for its reliability by finding the value of its Cronbach Alpha. The Cronbach's alpha measures the internal consistency methods that depend upon every measurement tool that is constructed to realize an objective and those have known equal weights (Karasar, 2000). The Cronbach alpha generated of the 14-item questionnaire is .854 which is deemed as an acceptable value. Hence, the validity and reliability of the questionnaire used by the researchers were affirmed.

Data Processing and Statistical Treatment

Qualitative Responses and Reviews: Coded until data saturation is reached; review of related literature and studies alongside qualitative responses of participants became bases in determining the eligibility criteria for the E-ISD.

Weighted Mean. Resonated the interpretations for the scored responses of the participants in the survey-questionnaire

Results and Discussions

This section outlines the results generated thru the administration of the researcher-made survey questionnaire. Phase 1 has been elucidated in the earlier pages of this research through the systematic review section, hence a discussion of the next phase, Phase 2 proceeds.

First Stage: Analysis
Phase 2 - Instructional Needs Assessment for Teachers

A. Demographic Profile

The participants of this research are Natural Science Teachers and Professors in the Mendiola Consortium ($n = 19$). Seven (7) out of nineteen (19), or 37% has a Bachelor's degree, ten (10) out of nineteen (19) or 53% has a Bachelor's degree with Master Degree Units and two (2) out of nineteen (19) or 11% has Master Degrees. All Subject Matter Experts (SMEs) who served as validators of the survey- questionnaire possess Doctorate Degrees ($n = 5$).

As per the number of years teaching a Natural Science Course, six of (6) of nineteen (19), or 32% has 3 or fewer years of teaching experience, eleven (11) of nineteen (19) or 58% has 4 to 10 years of teaching experience, with one (1) out of nine (9) or 5% that has 11 to 20 years of teaching experience and with one (1) or again, 5% that has over 30 years of teaching experience.

Their teaching assignments were: Earth and Life Science, Physical Science, General Physics 1 and 2, General Chemistry 1 and 2, Earth and Life Science, Environmental Science, Environmental Chemistry, and Science Technology and Society. Further, their online platforms for teaching were: Microsoft Teams, Schoology, Blackboard, Zoom, Canvas, Moodle, Google Classroom, Local Learning Management System, and Brightspace. On the other hand, the Offline LMS are Genyo and Moodle.

B. Instructional Needs Assessment Survey Results
The summarized results of the Survey are listed below:

Table 4.

Subject Matter Experts' Responses and Interpretations (N= 5)

No.	Question	Mean	SD	Description	Interpretation
1	I find the current remote learning outcomes suitable for the students to understand in one term in the new normal.	2.40	.894	Disagree	Great Need
2	I find it easy to write cognitive, affective, and psychomotor skills objectives in the new normal.	1.60	.547	Agree	Little Need
3	I find it easy to create learning tasks/activities that promote intrapersonal, interpersonal, and interdisciplinary skills in the new normal.	2.60	.894	Disagree	Great Need
4	I find it easy to plan out learning activities that proceed at an efficient phase in the new normal.	2.00	.707	Agree	Little Need
5	I find it easy to contextualize information in the new normal.	2.20	.837	Disagree	Great Need
6	I find it easy to design a course that is learner community-based in the new normal.	3.20	.837	Strongly Disagree	Very Great Need
7	I find it easy to include opportunities for students to produce original content in the new normal.	2.80	.837	Disagree	Great Need

Table 4.

Continued

No.	Question	Mean	SD	Description	Interpretation
8	I find it easy to create fair, well-thought-out evaluation tools in the new normal.	1.80	.837	Agree	Little Need
9	I find it easy to identify gaps in a learner's or group of learners' knowledge in the new normal.	3.40	.547	Strongly Disagree	Very Great Need
10	I find it easy to assess the knowledge/ skills of students after their learning activities in the new normal.	2.80	.447	Disagree	Great Need
11	I find it easy to choose an approach to student learning in the new normal.	2.00	1.00	Agree	Little Need
12	I find it easy to focus on individual learners' performance in the new normal.	3.20	.837	Strongly Disagree	Very Great Need
13	I find it easy to incorporate the vision-mission in my learning activities in the new normal.	1.60	.548	Agree	Little Need
14	I find it easy to apply the online instructional delivery in the new normal.	2.80	.837	Disagree	Great Need

Table 5.

Natural Science Teachers' Responses and Interpretations (N=19)

No.	Question	Mean	SD	Description	Interpretation
1	I find the current remote learning outcomes suitable for the students to understand in one term in the new normal.	2.62	.582	Disagree	Great Need
2	I find it easy to write cognitive, affective, and psychomotor skills objectives in the new normal.	2.46	.683	Disagree	Great Need
3	I find it easy to create learning tasks/activities that promote intrapersonal, interpersonal, and interdisciplinary skills in the new normal.	2.38	.607	Disagree	Great Need
4	I find it easy to plan out learning activities that proceed at an efficient phase in the new normal.	2.62	.452	Disagree	Great Need
5	I find it easy to contextualize information in the new normal.	2.31	.612	Disagree	Great Need
6	I find it easy to design a course that is learner community-based in the new normal.	2.69	.630	Disagree	Great Need
7	I find it easy to include opportunities for students to produce original content in the new normal.	2.54	.477	Disagree	Great Need

Table 5.

Continued

No.	Question	Mean	SD	Description	Interpretation
8	I find it easy to create fair, well-thought-out evaluation tools in the new normal.	2.77	.688	Disagree	Great Need
9	I find it easy to identify gaps in a learner's or group of learners' knowledge in the new normal.	2.92	.405	Disagree	Great Need
10	I find it easy to assess the knowledge/ skills of students after their learning activities in the new normal.	2.54	.684	Disagree	Great Need
11	I find it easy to choose an approach to student learning in the new normal.	2.77	.602	Disagree	Great Need
12	I find it easy to focus on individual learners' performance in the new normal.	3.08	.459	Strongly Disagree	Very Great Need
13	I find it easy to incorporate the vision-mission in my learning activities in the new normal.	2.38	.841	Disagree	Great Need
14	I find it easy to apply the online instructional delivery in the new normal.	2.31	.697	Disagree	Great Need

Second Stage: Design
Phase 3 – Identify Eligibility Criteria and Instructional Needs
From the systematic review of the literature and the result of the needs assessment survey for teachers and subject matter experts, the following eligibility criteria have been clarified.

Table 6.

Eligibility Criteria

Eligibility Criteria	Description
Flexibility	The ISD model should support flexible teaching and learning and must provide students with diverse learning opportunities.
Result-orientation	The ISD model should target specific results that are aligned with national and international standards and with the school's organizational identity as clarified in its vision and mission, incorporated.
Authenticity	The ISD model must promote authentic assessment and evaluation with the flexible use of materials and resources that are readily available for both the learner and teacher.

To furthermore clarify, the Eligibility Criteria was organized to a set of components of an ISD model grounded on the qualitative responses of the Subject Matter Experts and Natural Science Teachers and informed by the systematic review of literature which is presented in the table below.

Table 7.

Specified Eligibility Criteria for the Proposed Virtual Instructional System Design

No.	ISD Component	SME Statement	NST Statement	Criteria
1	Instructional Context	University/College Wide Training for faculty members	Considerations and seminars should be provided. School's support to teachers in their needs especially internet needs.	Flexibility
2	Instructional Context	Teachers be familiarized with the learner's profile (in terms of learning style, or online distance learning readiness)	The differences in environment. Unmotivated during distance learning. Students have low connectivity and feel unmotivated	Flexibility
3	Instructional Standards	Streamlined course outlines or most important learning competencies in instruction only	Reduction to MELC provides flexibility for the teachers and students in terms of delivery since there is a great reduction of the learning outcomes/competencies	Result-orientedness
4	Instructional Context / Instructional Analysis	Appropriate use of Synchronous Utilization of technology or applications	Limited features of LMS assessments Online learning platforms that can be used without compromising (learning)	Flexibility
5	Instructional Standards / Instructional Analysis	The integration of school vision, mission, and core values during the discussion	Revisit and retool the VMC	Result-orientedness

Table 7.

Continued

No.	ISD Component	SME Statement	NST Statement	Criteria
6	Instructional Context	Contextualize information such as creating activities that can be done at home or thru the use of social media. Case studies can be an alternative	Contextualized information… applying it to the new normal	Result-orientedness
7	Identify learning objectives	Simplification of learning objectives	Come up with activities that will promote skills.	Result-orientedness
8	Identify Learning Assessments	To provide authentic assessment/evaluation (creating jingle, poster, magazine, or write-ups) A more personalized assessment utilizing a rubric	Attention on the written & performance tasks. (The use of) rubrics and criteria can ease this process.	Result-orientedness
9	Instructional Context / Instructional Analysis	Collaboration of faculty members/subject head (course coordinator) through sharing expertise would also be a good practice. Table of specification per departmental exam is highly encouraged		Result-orientedness
10	Develop Learning Strategy	Adjusting and careful planning of Instructional Strategies to fit the current set-up	Redesign strategies and use different approaches that promotes student-centered activities	Authenticity

Table 7.

Continued

No.	ISD Component	SME Statement	NST Statement	Criteria
11	Develop Learning Strategy	Appropriate use of Synchronous

Plan out lessons/activities that will bring out students creativity

Have a resource person or expert interview | Some activities need to be done at home and it limits the students' interaction to the "reality"

Limited work activities. Have synchronous and asynchronous sessions in online classes | Authenticity |
| 12 | Develop Learning Materials | Utilization of technology, applications, and resources to facilitate the transfer of information and encourages teachers. | Using available references/online resources. | Authenticity |
| 13 | Implement Instruction Effectively | Proper Phasing/ Time Allotment And efficient management of time

Weekly Class Expectation indicating schedules | Time flexibility

Time constraints | Flexibility |
| 14 | Implement instruction effectively | Creativity in delivery/feedbacking of and during the instruction, | Teachers should engage learners in the learning process | Authenticity / flexibility |

Improve Instruction

Phase 4: Design the Virtual ISD Model for Natural Sciences

From the Eligibility Criteria, ISD component, a systematic review of literature, and responses of the Subject Matter Experts and Natural Science Teachers, this E-ISD for Natural Sciences is proposed:

Figure 2.

Proposed Natural Science E-Instructional System Design Model for the Mendiola Consortium
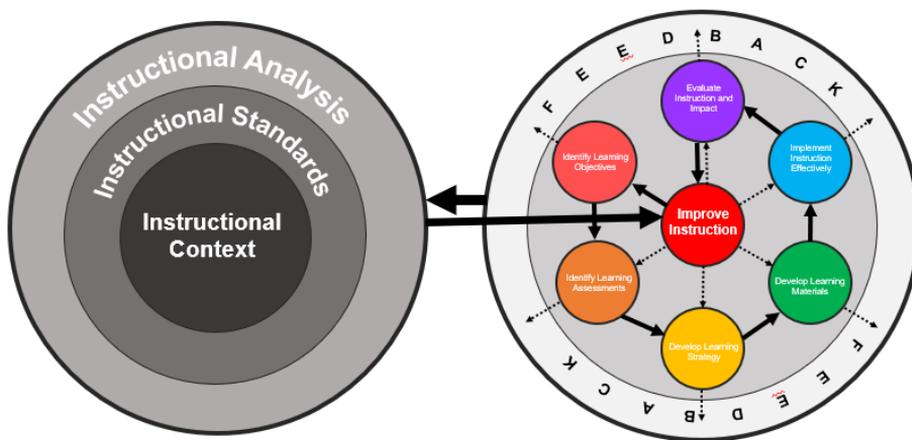
This proposed e-ISD enforces the importance of content and context feedback on the instructional process. Argyris (1976) magnified the power of feedback as a tool for evaluation when he introduced the processes of single and double-loop learning. He suggests examining realities from the point of view of humans as actors. Cruz (2015) claimed that by using Argyris' lens in examining such realities, the detection and correction of errors and weaknesses within the organization while at the same time affording a gateway towards a positive transformation that begins with the individual and ends with the organization becomes realistic and plausible.

From this same author, it was explicated that a single feedback loop is manifested when there is consonance between the espoused values, what people do, what are their practices, and the theory- in- use. If there is dissonance, then a double-feedback loop is necessary. This would mean

that corrective mechanisms (program intervention or program modification) are necessary to deconstruct the existing dissonance that is followed up by another cycle of feedback.

Conclusion

Applying this perspective to the development of this proposed ISD, it could be said that seeking the perspectives of the subject matter experts themselves, the Natural Science teachers, helped the researchers create a new meaning for Science Instruction— a meaning that is flexible and adaptable alongside the changing world. This new meaning that is deduced from getting feedback on content and context suggests the adoption of double-loop learning, a recalibration of the instructional design itself for it to be adapted into the current times.

To end, it is recommended that the proposed ISD in this paper be subjected to validation by the same teacher- participants from the Mendiola Consortium by pilot-testing it to their respective Natural Science Classes promptly.

References

Almario, A., & Austria, R. (2020). *Helping K-12 Schools Transition to post-COVID 19 times*.

Argyris, C. (2004) *Reflection and beyond in research on organizational learning. Management Learning. 35*(4), 507–509.

Argyris, C. (1976). *Increasing Leadership Effectiveness.* Wiley.

Batko, R. (2019). *Digital Innovation as the Key Factor in Changing Organizational Identity into a Digital Organizational Identity. 49,* Research Gate.

Biggs, J.B. (2003). *Teaching for quality learning at university*. (2nd ed.), : Open University Press.

Biggs, J.B., & K.F. Collis. (1982). *Evaluating the quality of learning: The SOLO taxonomy (Structure of the observed learning outcome).* Academic Press.

Boud, D. (Ed.). (1982). *Towards student responsibility for learning. In Developing student autonomy in learning*, 21–37. Kogan Page.

Breweton, P. & Millward, L. (2001). *Organizational Research Methods,* SAGE.

Clark, C., & Dunn S. (2000) *Second generation research on teacher planning.* Waxman HC,

Conole, G. (2016). *Theoretical underpinnings of learning design. . Learning Design: Conceptualizing a framework for teaching and learning online.* 42-62.

Cruz, MEP., & Doctolero, P. (2015). Articulation of Outcome-Based Education in Graduate Education: A Practitioner Action Research. *UTM Jurnal Teknologi. 77*(26).

Dalziel, J. (2016). *Learning Design: Conceptualizing a Framework for Teaching and Learning Online*. Taylor and Francis eBooks.

DepED. (2020). https://commons.deped.gov.ph/MELCS-Guidelines.pdf

Dick, W., Carey, L. & Carey, J.O. (2004) *The Systematic Design of Instruction*. (6th ed.). Allyn and Bacon.

Driscoll, MP. (1991). *Paradigms for research in instructional systems*. In Anglin G. (Ed.). Instructional technology: Past. present. and future. Libraries Unlimited. 310-317.

Dutton, J. E., & Ve Dukerich, J. M. (1991). Keeping an Eye on the Mirror: İmagine and İdentity in Organizational Adaptation. *Academy of Management Review*. *34*, 517-54.

edtech2statetheobjectives.blogspot.com. (n.d.). http://edtech2state theobjectives.blogspot.com/ 2015/10/assure-model.html

Entwistle, N.J., & D. Hounsell, eds. (1975). *How students learn*. Institute for Research and Development in Post-compulsory Education, University of Lancaster.

Huang, R.H., Liu, D.J., Tlili, A., Yang, J.F., Wang, H.H., et al. (2020). *Handbook on Facilitating Flexible Learning During Educational Disruption: The Chinese Experience in Maintaining Undisrupted Learning in COVID-19 Outbreak*. Smart Learning Institute of Beijing Normal University.

Hutchins, C. L. (1996). *Systemic Thinking; Solving complex problems. Professional Development System*.

Ibrahim, AA. (2016). Definition Purpose and Procedure of Developmental Research: An Analytical Review. *Asian Research Journal of Arts & Social Sciences. 1.* 1-6. 10.9734/ARJASS/2016/30478.

Johnson KA, & Foa LJ. (1989) *Instructional design: New alternative for educative education and training*. SAGE.

Karasar, N. (2000). *Research methods in science.* Nobel Yayin Dagitim.

Kintu, M.J., Zhu, C. & Kagambe, E. (2018). Blended learning effectiveness: the relationship between student characteristics, design features and outcomes. *Int J. Educ Technology High Educ. 14*, 7.

Mager, R. F. (1984). *Preparing Instructional Objectives* (2nd ed.). Fearon-Pittman.

Maxwell, J.A. (1996). *Qualitative Research Design: An Interactive Approach*. Applied Social Research Methods Series.

Moloney, B. (2018, September 5). https://elearningindustry.com/ instructional-systems-design-5-basic-principles

Ramsden, P. (2003). Learning to teach in higher education. (2nd ed.), Routledge Falmer.

Reigeluth, C. M. (1999). *Instructional-Design Theories and Model.* Lawrence Erlbaum Associates, Inc.

Richey, Rita (1994) *Developmental Research: Definition and Scope.* Proceedings of Selected Research and Development Presentations at the 1994 National Convention of the Association for Educational Communications and Technology. https://files.eric.ed.gov/fulltext /ED373753.pdf

Richey, Rita. & Klein, J. (2005) Developmental Research Methods: Creating Knowledge from Instructional Design and Development Practice. *Journal of Computing in Higher Education Spring Vol. 16*(2), 23-38. http://dx.doi.org/10.1007/BF02961473

Riel, V. C. (1997). Corporate identity: the concept, its measurement and management. *European Journal of Marketing*. 340-355.

Seels B. & Glasgow Z. (1998). *Making instructional design decision.* Prentice-Hall, Inc.

Smith, P. L., & Ragan, T. J. (2005). *Instructional Design.* John, Wiley and Sons. Inc.

stats.idre.ucla.edu. (n.d.). Retrieved from https://stats.idre.ucla.edu/
        spss/faq/what-does-cronbachs-alpha-mean/

Strumin, A., & Jussila, J. (2009). *Organizational innovation capability*.
        In N. Oza, & P. Abrahamsson (Eds.). Building blocks of agile
        innovation. Book Surge. 101–118.

Taşdan, M. (2010). Örgütsel Kimlik. H. B. Memduhoğlu, K. Yılmaz
        (Ed.). Yönetimde Yeni aklaşımlar. 243-260. Pegem Akademi.

Tüzün, K. İ. (2006). Örgütsel Güven, Örgütsel Kimlik Ve Örgütsel Özdeşleşme
        İlişkisi; Uygulamalı Bir Çalışma (Yayınlanmamış Doktora Tezi). Gazi
        Üniversitesi Sosyal Bilimler Ens

Community Extension and Citizenship Education of San Beda University towards SDG's

Zernan L. De Ramos
College of Arts and Sciences
San Beda University, Manila, Philippines
zderamos@sanbeda.edu.ph

Maria Angela RJ. Balance
College of Arts and Sciences
San Beda University, Manila, Philippines
mabalance@sanbeda.edu.ph

Abstract

The critical roles of the Higher Education Institutions (HEI) towards the achievement of sustainable development signifies the need to implement Education for Sustainable Development (ESD). Opportunities in applying ESD can be accomplished in different dimensions of the school to pursue the worldwide acceptance of the Sustainable Development Goals (SDGs). This formed a question for San Beda University (SBU) to describe its practices and programs towards the achievement of ESD. In this study, the community extension and citizenship education of San Beda University were specifically examined in its Community Engagement Center (CEC) and National Service Training Program (NSTP). The study employed a framework on the *Priority Sustainable Development Goals (SDGs)* of SBU and selected key features and strategies of ESD. After a critical assessment of the procedures, teaching methods, documents, and interviews, the results of the study identified the practices and programs including specific teaching activities. The results illustrate the level by which SBU utilizes SDGs towards sustainability. The conclusion provided recommendations to encourage increasing the commitment of SBU in integrating SDGs in instruction, research, and extension. The study is significant in providing

a preliminary assessment of the level of SBU engagement towards SDGs. It demonstrated the actions of how a university implements sustainable development. The study intends to contribute to the continuous implementation of ESD and improve the SDG performance of SBU as institutional change agent.

Sustainable Development Goals (SDGs) are a new universal set of goals and targets that came into effect on 1 January 2016 which aims to "end poverty in all its forms" by 2030 "and balance the three dimensions of sustainable development: the economic, social and environmental" (UN, 2015, p. 3). As part of the New Sustainable Agenda, SDGs succeeded and expanded the eight-millennium development goals (UN, 2015, p. 5) which were launched in 2001 and expired in 2015 with a primary focus on poverty and health only.

As the aim of the SDG, all the nations are called to integrate the 17 goals into their national program, plans and governmental policies and to exert work towards achieving the said SDGs.   The 17 goals of SDGs are composed of 169 targets, include new elements such as inequality, climate change, sustainable consumption, economic, innovation, peace and justice.

Evolution of SDG

The concept of Sustainable Development (SD) was first published in global conference and under the report *Our Common Future* that appeared in 1987. The report presents a brief definition of SD as the "ability to make development sustainable—to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs", the standard definition when judged by its widespread use and frequency of citation (Kates et al, 2005, p. 10). To systematically implement and measure the outcome of SD, the UN initiated and formulated SDG through a series of global and extensive conversations from 70 countries.

SDG included 11 thematic and 83 national consultations and door-to-door surveys, as well as an online survey where people were asked to highlight topics they would like to see approached in the goals (UN, 2015, p. 10). Indicators will be the backbone of monitoring progress towards SDGs at local, national, regional, and global levels (SDSN, 2015). As a requirement to achieve the challenging goals within 15 years, it is essential to incorporate the measurement scheme of the complete coverage of SDGs by utilizing framework structures and indicators to be monitored.

The targets must be attained and realized into actions and projects that help all nations to develop their implementation strategies, provide resources, measure their progress and guarantee the accountability of all organizations and persons involved. The mechanics of SDG monitoring are still continuously being worked out, but an emerging consensus based

on years of intensive global discussions, involving thousands of experts from UN organizations, academia, civil society, business and a large number of national statistical offices, suggests that the focus of SDG monitoring will be at national level (SDSN, 2015). The National Economic and Development Authority (NEDA), being the socioeconomic planning ministry of the Philippines, is in charge of coordinating the implementation of the SDGs using the process of overseeing the implementation of the Philippine Development Plan (PDP) 2017-2022 that is based on adopted 2030 Agenda (NEDA, 2019, p.4 & 6).

Participation of the Higher Education Institutions (HEIs)

To contribute to a definite legacy for tomorrow's generations across the world, the principles and action implementation of SDGs need to be disseminated to the youth. As embodied in the process of change, the UN (2015) has shown that if SDGs are to be achieved, various actors around the world need to be engaged in taking actions. The global aims have the potential to result in a paradigm shift for teaching, learning and understanding sustainability, as core to the functioning model. Therefore, the conceptualization and implementation of the SDGs opens opportunities for the participation of the HEIs.

As the significant influencers for the youth and future generation, the universities and colleges can work prominently and significantly in the long-term process of sustainability. Also, these HEIs are persuaded to communicate and provide annual reports of the implementation and teaching of SDGs in their academic functions. There are challenges in dealing with the interdependencies and functions of learning and teaching, research, and administration/governance. These are in fact areas of synergies for SDG implementation in the school. SDSN Australia/Pacific states that the opportunity for creating, establishing and communicating connections between these areas can be attributed by SDGs (2017). These SDGs also cover the solutions to economic, social and environmental challenges that universities can work out.

Several universities in Netherland conduct SDG-related courses with the main purpose of raising students' understanding of important outcomes of SDGs, and at the same time, qualifying students "to reflect upon their ethical positioning on sustainable development and SDGs" (Kopnina, 2017, p.2). Kopnina (2017) concluded the relevance of teaching SDGs in the educational process. Unfortunately, only a few HEIs have identified the potential benefits of strategically aligning the curriculum

with SDGs acknowledging the benefits and impact that their educative role will have on societal engagement with the goals (Leal Filho et al., 2019, p.287).

In general, there is a high-level impact that HEIs contribute to society. These should be seen as an essential driving force in the teaching process toward sustainable development and transformative change by exploring and developing the pedagogical methods and communicating the SDG principles. On SDSN Australia/Pacific (2017, p. 14), universities can provide students with the knowledge, skills, and motivation to understand and address the challenges of the SDGs. Specifically, these are done by SDG training in curriculum development, SDG inclusion to courses, creation of learning environment and real-world joint projects.

The achievement of SD requires the vital element of education, according to the agreement reached in the UN General Assembly. Several follow-up conferences stressed the necessity to improve educational systems and design learning programs for sustainable development to increase general understanding of how to promote and implement sustainable development (UNESCO, 2005, p. 9). HEIs are encouraged to regularly evaluate their teaching effort on SDG programs and other SD endeavors.

Education for Sustainable Development (ESD)
Realizing the education's crucial position in implementing SD, the UN General Assembly adopted a resolution on ESD that articulates the importance of concerted action of the school and emphasizes that the implementation of SDG will offer high quality life for all humankind.

Many definitions of ESD have been presented in the SDG literature. This created issues on the differences in the SDG priorities of HEIs. It ensures that ESD is being implemented in ways that are directly and locally relevant to the community and appropriate to the culture. This is where the community extension services of HEIs come in. Also, course subjects of the school concerning citizenship training and values formation must be directly involved as the core element in increasing awareness in implementing SDGs. This issue seeks consensus around the spectrum of vital principles covering the purpose of actions and projects under SDG that directly impact the community.

Education for Sustainable Development (ESD) is an approach of teaching (or learning process) based on the principles and concepts of sustainable development that prepare people of all walks of life to plan for, cope with, and find solutions for issues that threaten the sustainability of our planet (UNESCO, 2005, p. 7). Under the SDG, the principle also involves extensive learning and teaching activities covered in the undergraduate level, online learning, and executive/professional/adult education including the graduate school level. ESD also applies to learning activities of student clubs and societies and co-curricular tasks. As SDG grows in scale and importance, ESD is closely tied into the international discussions of universities.

The vital role of education in promoting and supporting SDGs implementation is attributed to the following principle (SDSN, 2017, p. 14): *Quality education leads to improved development outcomes for individuals, communities, and countries, meaning better access to gainful employment, better nutrition and health, reduction of gender disparities, greater resilience in disasters, more engaged citizens, and so on.*

Dela Serna (2015. p.6) explained that the Philippines has created policies and solutions for ESD implementation for the youth such as the National Environmental Awareness and Education Act of 2008, National Service Training Program (NSTP) and Sangguniang Kabataan. The country's efforts still need to be further bolstered especially in terms of curricula, transforming learning environments and building capacities of educators (Dela Serna, 2015. p.6). The HEI's pursuit of ESD in the country is progressing in its teaching delivery for the benefit of the students. There are quite a number of legal bases that direct the way it should be implemented in all levels of education and see to it that it should be implemented based on its purpose (Balanay & Halog, 2016, p.172).

Initiatives of San Beda University

SBU has been working and addressing several economic, environmental, and social challenges under the sustainability concern, involving complicated interconnection, uncertainty and differences of values. Since its foundation on June 17, 1901, as one of the leading HEIs in the Philippines, SBU continues to affirm the blending synergy of fides (faith), scientia (knowledge) and virtus (virtue) in its education mission. As part of the SBU's community extension and citizenship education function, the students are exposed to real world scenario which enables them to develop their capabilities and higher thinking skills, engage in deep reflection on social issues, learn through dialogues and convey ideas

with people, develop opinions and worldview and values sensitivity. The students can directly witness the community environment and experience the challenges in hands-on applications of SDGs. These experiences allow them to integrate with other people who may facilitate their change that will make them become more civic-conscious and socially responsible citizens (Labuguen et al, 2019, p. 12). The students, then, acquire academic learnings on civic responsibility and people skills. The service-learning programs are distinguished from other service programs by their intention to equally benefit the provider and the recipient of the service, as well as to ensure equal focus on both the service and the learning that is occurring (Albareda-Tiana, 2018, p. 475).

While there is ample literature on ESD, there is a pressing concern on how HEIs including SBU must be directly engaged with the SDGs. Thus, it is necessary to dwell on the question of how SBU could transform and bring the principles of sustainability and its related teachings to the students and other stakeholders.

SBU needs to align with the global agenda and explore mechanisms to help our nation achieve the SDGs. One interesting agenda of SBU is the learning opportunities of the students and the concern for underprivileged or poor citizens of the community. This leads to the questions on how does SBU implement its (1) extension services towards community partners in the Community Extension Center (CEC), and (2) academic function that focuses on civic and values formation education in its National Service Training Program (NSTP)? Furthermore, what are the types of academic engagement taking place, and are they really addressing all SDGs or just a few?

Although SBU is capable of developing its SDG engagements with the community and students, it is necessary to first conduct a self-assessment of its capacities and efforts to address the preparedness and weaknesses and thus effectively implement its endeavors towards SDG. This research addresses the disparity in the integration of the SDGs in the context of a university's engagement in its implementation. Stated explicitly, the research problem is, as follows:

What are the practices and programs implemented by the Community Extension Center *(CEC) and* National Service Training Program *(NSTP) of SBU towards the achievement of the Education for Sustainable Development (ESD)?*

This question forms the direction of this research study and supports the central aim of exploring how SBU embraces SDGs so that the practices, activities, projects, and programs in CEC and NSTP can be benchmarked with other academic functions.

In this aim of SBU to enable its education mission to achieve SD, the overall research objective is *to describe the engagement of SBU towards Education for Sustainable Development in its CEC and NSTP.*
The specific objectives are:
1. To describe the practices, extension services and programs of CEC.
2. To assess the benefits received by each community partner of SBU.
3. To describe the practices, programs, and curriculum integration in the NSTP.

To completely realize the institutional purpose of the school, SBU needs to determine its practices that serve its academic role in achieving SDGs through ESD. Most SDG related research endeavors pertain to overall sustainability assessment and/or specific SDG component framework of analysis which is applied for the entire university. This research is significant because of the rich content as we intensively analyzed deeply two specific functions of SBU.

Further, there is a need to determine the forms of SDG engagement as well as assess which SDGs lack implementation. This research is limited to qualitative assessment of SDG engagement of CEC and NSTP only. We are not quantifying the level of SDG implementation. We are not also measuring the satisfaction level of concerned stakeholder towards ESD implementation of San Beda University.

Conceptual Model and Operational Framework

Our descriptive study in identifying the practices, activities, projects, and programs is primarily framed on the principle of ESD. The features of ESD that are included in the analysis are the following: (1) Interdisciplinary and holistic, (2) Values-driven: it is critical that the assumed norms are made explicit so that that can be examined, debated, tested and applied, (3) Critical thinking and problem solving, (4) Multi-method: word, art, drama, debate, experience, … different pedagogies

which model the processes towards … approach in which teachers and learners work together to acquire knowledge and play a role in shaping the environment, (5) Participatory decision-making: learners participate in decisions on how they are to learn, (6) Locally relevant: addressing local as well as global issues, and using the language(s) which learners most commonly use (UNESCO, 2005, p.18). ESD is holistic and transformational education where the HEI should address the learning content and outcomes, pedagogy, and the learning environment towards the implementation of sustainable development (UNESCO, 2017, p. 7).

This paper is also guided by the six (6) *Priority SDGs* that are articulated in the SBU's 2027 SMART plan. These are *SDG4: Quality Education, SDG8: Decent Work and Economic Growth, SDG10: Inequalities Reduced, SDG13: Climate Action, SDG16: Peace Justice Strong Institutions, SDG17: Partnership for the Goals.* The 6 *Priority SDGs* were selected and formalized in accordance to SBU's capabilities, resources and commitment to university projects and activities. In this study, the *Priority SDGs* served as a guide structure in determining the SDG practices, activities, projects, and programs.

Also, the practices were assessed based on selected ESD Strategy namely: (1) Advocacy and vision building, (2) Consultation and ownership, (3) Partnership and networks, (4) Capacity building and training, (5) Research and innovation, (6) Use of Information and Communication Technologies (ICTs), and (7) Monitoring and evaluation (UNESCO, 2005, p.28-29).

ESD does not only integrate contents such as climate change, poverty and sustainable consumption into the curriculum; it also creates interactive, learner-centered teaching and learning settings. What ESD requires is a shift from teaching to learning. It asks for an action-oriented, transformative pedagogy which supports self-directed learning, participation and collaboration, problem-orientation, inter- and transdisciplinary and the linking of formal and informal learning. (UNESCO, 2017, p. 7). Only such appropriate pedagogical approaches of HEIs will enable them to advance their key competencies for promoting and implementing SDGs.

Operational Framework

To attain the research objectives, we identified the ESD practices, services, programs and curriculum integration of SBU that contribute to the attainment of SD. As shown in Figure 1, we focused only on assessing (1) the university extension functions through CEC and (2) academic programs citizenship/values formation through NSTP. Each SDG indicated observations both for CES and NSTP as academic functional areas of SBU.

Figure 1.

Operational Framework

Figure 1: Operational Framework
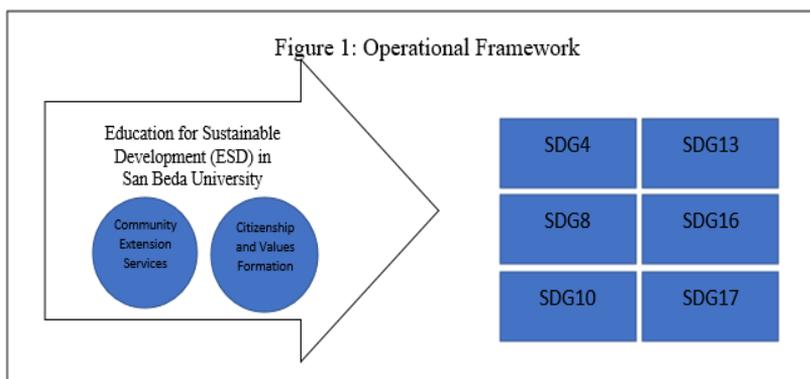
Table 1.

ESD Practices and Programs Matrix

	Community Extension Center (**CEC**)	National Service Training Program (**NSTP**)
SDG4: Quality Education		
SDG8: Decent Work and Economic Growth		
SDG10: Inequalities Reduced		
SDG13: Climate Action		
SDG16: Peace Justice Strong Institutions		
SDG17: Partnership for the Goals		

Table 1 shows the matrix tool for systematic identification of the said ESD practices and programs. This tool establishes the framework for the required methodology and approaches of this study that would enable data gathering across the domain of CES and NSTP anchored on key characteristics and strategy of ESD shown in the conceptual framework of this research.

Proposition

CEC and NSTP have moderate level of practices and programs towards ESD.

Methodology

We performed descriptive analysis of ESD practices and programs in the Community Extension Center (CEC) and the National Service Training Program (NSTP) of SBU using Table 1 as a reference matrix tool. We apply documentary analysis by scrutinizing the office operation manuals, course catalog, reports, syllabus, electronic files books and other teaching materials. The semi-structured online interviews with faculty were also employed in order to gather primary data on teaching techniques of professors. This analysis was accomplished by classifying the practices in accordance with ESD characteristics and for simplicity in applying the *Priority SDG* of SBU. For a clear presentation, we divided the ESD practices and programs into two separate tables. The research study started last December 2020 during the pandemic period. Face-to-face interviews and field visits were not conducted to students and community partners due to prevailing lockdowns, restrictions, and safety protocol from COVID19 transmission. In assessing the benefits of the community partners, only the fundamental output based on faculty interviews and their observations were considered due to the limitation of field interview.

This research included assessment of school in-class and field activities, extension projects and teaching techniques/tools to address the priority SDGs within SBU. The context is anchored on the university's involvement in sustainable development based on how it was taught and demonstrated with the aim of economic growth, environmental awareness, and manifestation of ecological modernization. As two research authors of this paper, our background and teaching experience in NSTP course

subjects and active participation CEC, helped us in accomplishing the research objective in identifying the ESD practices and in providing recommendations for improving SDG involvement on the institutional level of SBU.

Results and Discussion

CEC Practices, Major Programs and Extension Services

Community Extension Center (CEC) carries significant tasks to achieve SBU's primary extension functions and fulfill its corporate social responsibilities that contribute for nation-building. It is also the locus for sharing and bringing the knowledge and expertise of the faculty, students, and administrators of SBU to the community. CEC as an extension arm of SBU has a direct and indirect impact in enabling the principles and features of ESD.

As culled in the Operations Manual of CEC (CEC, 2016), six (6) major programs and services are identified which are all operational based on the knowledge and skills of the participating faculty and students as well as the needs of target beneficiaries in the community.   Upon assessment, the following are the descriptions of the major programs and services of CEC and alignment to corresponding *Priority SDGs* of SBU is reflected as parenthetical text:

1. *Educational and Scholarship Programs (Priority SDG4: Quality Education):* These are a mix of formal and informal education- related endeavors like educational assistance and scholarship, tutorial services, scholarships for TESDA skills training, alternative learning system and computer literacy programs.

2. *Livelihood Initiatives (Priority SDG8: Decent Work and Economic Growth)***:** It includes capability training on business functional areas in basic financial/accounting, marketing, human resource and operations management, guidance in government registration, resource mobilization (funding agencies, manpower, sourcing of raw materials etc.) and establishment of the income- generating livelihood project.

3. *Legal and Paralegal Services (Priority SDG16: Peace Justice Strong Institutions)***:** These are free consultation on legal counseling, legal advice, and court representation of senior law students under the guidance of their lawyer-mentor.

4. *Health and Environment* (*Priority SDG13: Climate Action*)**:** These pertain to medical missions, blood donations and related projects in collaboration with local government units and concerned institutions. Environmental concerns involve the collaboration of all the SBU stakeholders (colleges, student organizations, service personnel, alumni, faculty, monks, and administrators).

5. *Spiritual Life, Morals and Values* (*All Priority SDGs*)**:** These are engagement in the work of apostolate and evangelization of SBU. Partner communities undergo spiritual exercises which include participation in Sto. Nino Procession, Eucharistic masses and recollections.

6. *Disaster Risk Reduction and Management and Gift Giving* (*Priority SDG10: Inequalities Reduced*)**:** These are initiatives that render immediate services to victims of typhoons and calamities. They bring SBU stakeholders together to help affected individuals to secure their basic needs. Trainings to reduce the risks of disaster are also being conducted in Bedan community and partner communities. Gift giving activities are done whenever possible where various colleges and student organizations are giving their shares and tokens to the service personnel and members of the partner communities, institutions, and the less privileged citizens.

The six services and programs also serve as learning avenues for the students, faculty and administrators in their academic undertakings including SDG engagement. To answer Objective #2 of this study, we observed that the residents of the Community partners have benefited from the major programs and services of CEC. Essential assessment based on observation of the faculty on key benefits includes the following: adoption of alternative livelihoods and acquisition of other related business skills, empowerment and other learnings from justice/peace, spirituality and wellness activities provided by CEC.

Table 2.

SDG Practices and Programs Matrix of CEC

SDG	0CEC Practices and Programs
SDG4: Quality Education	Donation of IT facilities to public school teachers, army reservist and youth that promote and encourage inclusivity in learning; Partnerships with public school such as Balatong Elementary School in Pulilan Bulacan and V. Mapa High School in Manila
	Lakbay aral of CEC staff and active SBU faculty to social enterprises, specialty stores and organic shops in different provinces to benchmark the practices; Learnings are applied to current and future projects livelihood projects for the community. (Examples are visits to mushroom growers in Silang Cavite, Gawad Kalinga Enchanted Farm in Bulacan, Little Shepheard in Baguio).
	Collaboration and support in the educational programs of San Beda College Benedictine Educational Foundation Inc. (SBCBEFI) on providing scholarship grants and educational assistance to deserving youths in the partner communities, employees, SBU students and other partners.
	Training sessions on Business Clinic Program (BCP) and Health, Environment, Advocacy Literacy Spirituality (HEALS) of CAS which aim to enhance and develop literacy and education of community members in the partner communities. These include seminars and trainings on livelihood development, financial literacy, bookkeeping, computer literacy, water survival, spirituality, environment, etc.

Table 2.

Continued

SDG	CEC Practices and Programs
SDG8: Decent Work and Economic Growth	BCP training livelihood sessions and monitoring of community products; Continued assistance in marketing and profitability. Supporting the Kankanais as indigenous people (Igorot subtribe) in Sitio Pactil, Barangay Monamon Sur in Bauko, Mountain Province by providing avenues for new products (mushroom growing and potato chips making)
	Support in RENPER conference on poverty alleviation spearheaded by SBU's Linkages and International Affiliation (LIA)
	Collaboration with SBCBEFI for other CSR projects in relation to poverty alleviations and creating opportunities for development of less privilege members of other communities
	Consultative meeting that aims to aligns training and other activities that conform to equity for women beneficiaries in community partners
	Conducting socio-economic assessment of the partner communities and impact assessment of CEC projects; Economics professors critically explain the role of small enterprises including those of community partners in economic growth.
SDG10: Inequalities Reduced	Support to the Social Enterprise and Economic Development (SEED) program of LIA Conference and discussions on justice and inequality per implementation of Legal Aid Bureau of the College of Law. This includes other multidisciplinary perspectives (legal, political, ethical). Topics includes Street Law, LABvocay in partner communities and other site.
	Collaboration with CAS Student organizations in conducting seminar workshop on awareness of HIV/AIDS and Voters education
	Providing an inclusive, safe working, and supportive learning environment for socially and economically disadvantaged individuals. Donation Drive to rural areas and Aeta indigenous group
	Sustainable procurement practices by prioritizing products (locally produced indigenous product) of small enterprises whenever SBU have conference and events; This can served also as souvenirs for guest speakers and visitors.
	Supporting the indigenous Kankanais people in Sitio Pactil through the formation of people's organization to advocate for their cause.

Table 2.

Continued

SDG	CEC Practices and Programs
SDG13: Climate Action	Establishing climate change adaptation and mitigation strategy frameworks whenever CEC conducts strategic planning activities.
	Increasing maintenance and calibration of CEC equipment, machines and transportation vehicle in order to prevent too much carbon emission and prevent failure function
	Campaigns and engagement of CEC staff and student leaders in all sustainable campus activities
	Tree planting projects in Sitio Pactil in Maintain Province and Tungtong Falls in Rizal Province
	Practicing ethics and sustainability principles to CEC buying policies, procedures and activities
	Participation in Manila coastal cleanup and cleaning programs in Mendiola
	Collaboration and planning and execution of activities pertaining to environmental and sustainability in general with the Natural Science Department; Example activity is the Turtle release project (Pawicare)
	Engaging students in recycling and upcycling activities in collaboration with student organizations
SDG16: Peace Justice Strong Institutions	Discussion of generational justice, fair participation and human rights in decision-making processes through COL-LAB; Satellite offices of COL-LAB in different sites for free legal and para-legal services.
	Participating of CEC in developing strategies, plans, policies and procedures of SBU that ensure safe campus against conflict and violence for all staff, students and visitors
	Participation of CEC that ensures the purchasing policies and procedures of SBU that clearly indicate prohibiting firms that engages to exploitation of people
	Organizing multicultural and inter-religious activities on campus (same with NSTP)

Table 2.

Continued

SDG	CEC Practices and Programs
SDG17: Partnership for the Goals	The global partnership is implemented and discussed in the context of sustainable development and its paradoxes
	Building external and internal capacities, systems and culture that openly supports development, enhancement, and maintenance of partnerships.
	Participation in SEED program which could elevates students' awareness and realities towards social issues.

CEC has implemented initiatives that have created the practices and programs grouped accordingly based on *Priority SDGs*, as presented in Table 2. Before the establishment of a centralized sustainability office in SBU last 2019, CEC has no formal program yet for SDG engagement. The pillars and elements of SD, however, are already being addressed since 2010 since concerns for the society and humanity have been part of the mission identity in the different programs and services of CEC.

Table 3.

CEC Learning Methods

Learning Methods	CEC Educational Activities
Video Presentation	Documentary films and/or short videos that demonstrate specific skills for livelihood training and spirituality topic
Written Assignments and Final Term Paper	No assignment for single day activity
Lectures and Literature	Daily lecture for adult participants (for activities that are more than one day)
In-Class Discussions and Presentation (facilitator/ teacher or student led)	Discussion and reporting for adult participants
Demonstration	Demonstration of skills especially for livelihood projects and disaster preparedness; Excursion and field work

Based on assessment, we identified varieties of designed or deployed learning methods being employed that strongly indicate that

ESD is being implemented in CEC (see Table 3). In the CEC projects and activities, multi pedagogical methods are identified that promote participatory learning towards SD. For CEC activities being conducted in an open space environment like Manila Coastal Clean Up and Blood Donation, the concept of ESD is still indirectly integrated through educational methods of live demonstration or showcasing of advocacy which create the conditions for learning among SBU students and other stakeholders.

During our semi-structured interviews of CEC staff and faculties involved, they mentioned the fairly good implementation of ESD as described in the presence and documentation of practices aligned to *Priority SDGs*. However, the active faculty expressed their concerns that effective monitoring and evaluation of ESD implementation in CEC needs improvement. The use of ICTs for communication purposes of the CEC projects and activities are needed in order to fully communicate the SDG concerns.

National Service Training Program (NSTP)

NSTP of SBU was institutionalized in 2002 in compliance with the Republic Act 9163 that aims at enhancing civic consciousness and defense preparedness in the youth by developing the ethics of service and patriotism (Labuguen et al, 2012). All baccalaureate degree programs in SBU include NSTP for two semesters as part of the graduation requirement. Objectives of NSTP are directly associated with SD as this course subject aims to develop student consciousness and commitment to social change and nation building (SBU, 2014, p. 215).

The citizenship education in SBU is an instrumental platform for teaching SDG since NSTP of SBU focuses on Civic Welfare Training Service (CWTS) (SBU, 2019, p. 1). Among the important topics under CWTS are education, entrepreneurship, health, environment, safety and other activities contributing to the general welfare of the society and the better life of community members.

Integrated ESD in the NSTP curricula

The NSTP syllabus conforms to ESD concepts which include lessons, learning methods, and learning outcomes including development of knowledge, skills, attitudes, and values (SBU, 2019). The NSTP

subjects use various mixed content as they contain more applied instructions as compared to pure theoretical teaching. The subjects are designed to raise awareness on social and reflexive thinking on civic consciousness.

All students enrolled in NSTP1 and NSTP2 have a background in different disciplines in business, legal management, science, nursing, and IT courses. Some NSTP faculty connect the special topics to the course of the students. Example, legal management students tackle topic issues on Justice, Peace and Sustainability. For nursing students, the health awareness topics are prioritized. For business courses, the faculty focuses on livelihood and poverty alleviation. Most faculties provide topics on sustainability, the pillars of sustainable development, poverty and economic growth as well as environmental management concerns.

The elements of SD have already been included to topics under NSTP1 and NSTP2 at varying extents in the curriculum, as reflected in NSTP Course Syllabus A.Y. 2019 – 2020.

1. *Sustainable Development and the Sustainable Development Goals* (*All Priority SDGs*): In Week 12, this topic showed a learning outcome that "The students will be able to discuss sustainable development and examine the situation of the Philippines."

2. *Social Issues on Environmental Education: Climate Change and Disaster Preparedness and Management* (*Priority SDG#13: Climate Change*)**:** These are separate topics on week 10 - 11 and emphasize a major pillar of Sustainability. There is a Special Topic: Laudato Si.

3. *Social Issues on Dimensions/Pillars of Development and Peace* (*Priority SDG#16: Peace Justice and Strong Institutions*): These are separate topics on week 6 - 8 and emphasize Peace Education.

4. *Value Formation –Filipino Values based on the Constitution* **from the Course Syllabus A.Y. 2020-21.** Core Values are: MakaDiyos (*All Priority SDGs*), MakaTao (Priority *SDG#10, 16*), MakaBayan, MakaKalikasan (*Priority SDG13: Climate Action*). This pertains to the introductory topic on citizenship

education and civic consciousness. The lesson explains the core values of NSTP that matches alignment to *Priority SDGs* of SBU: The core values of NSTP is values-driven which is a feature of ESD. The lesson includes explanations and immediate real-world examples and the role of youth in nation building. It also aims to enable students to make a positive relationship with society at large, health, natural environments and promoting their sustainable use.

The details of identified practices and programs under NSTP are reflected in Table 4.

Table 4.

SDG Practices and Programs Matrix

SDG	NSTP Practices and Programs
SDG4: Quality Education	Book Donation Drive
	Literacy seminars managed by students conducted in the communities during immersion. Common topics include livelihood, health, and personal hygiene.
	Discussion of illiteracy as one of the social issues in class
	Faculty meetings, project monitoring and feedback gathering with CEC staff and NSTP faculties for coordination with community partners for immersion projects under NSTP2
	Training seminar of NSTP faculties on Lau Dato Si
	Tutorial services provided by students specific for the children in the community during immersion. Topics include basic math arithmetic, reading proficiency, etc.
SDG8: Decent Work and Economic Growth	Critically querying the students on the importance of economic growth in community partners during immersion.
	Consultative meeting of students with members of the partner communities to develop the profitable livelihood with alignment to the principles of SD.
	Discussion about concerns and challenges in economic growth and environmental issues. Reading materials are assigned in class as case study.
	Discussion of topics on entrepreneurship as one of the elements for socio-economic growth for community development
	Demonstration of product as business livelihood during immersion.

Table 4.

Continued

SDG	NSTP Practices and Programs
SDG10: Inequalities Reduced	Discussion of topics and workshop on empowering the women through seminars and mentoring during community immersion
	Encouraging students to donate for victims of natural calamities
	Exposure of NSTP students to different sectors of the society eg Elderly, Children, Women, Farmers, etc as part of their immersion for NSTP 2.
SDG13: Climate Action	Student competition that encourages creativity in upcycling, zero waste and innovation in environment related project.
	Topics on climate change is included in lectures and discussion; Special guest lecturers are invited to discuss the major bottlenecks in environmental management
	Participation of NSTP mentors on climate change seminar with greater emphasis on social equality, generational and ecological justice in relation to climate change; The vulnerable communities and risk areas in developing countries were assessed.
	Partnering with Pasig River Rehabilitation Commission in their Annual Run for Ilog Pasig which aims to promote the program and to raise funds for the program
	Engaging the students in all SBU sustainable campus activities (same with CEC)
	NSTP mentors includes the topic on environmental management as one of the social issues; NSTP mentors are commonly requiring reaction paper and/or report presentation as one of the major requirement of the subject
SDG16: Peace Justice Strong Institutions	Discussion of topics that promote policies and eliminate the deals in arms, human trafficking, violence and modern slavery for legal management students.
	Drug Prevention Awareness and Campaign
	Emphasis in lecture and classroom activities that ensure that the policies and cultures of the institution clearly indicate the 17 good citizenship against violence, bribery, dishonesty, crime and terrorism actions.
	Organizing multicultural and inter-religious activities on campus (same with CEC)
	Ensuring that all staff and students have access to justice and information about their rights in the first topic in NSTP
	Involving the students, service personnel and other stakeholders in school governance decisions of SBU

Table 4.

Continued

SDG	NSTP Practices and Programs
SDG17: Partnership for the Goals	Promote awareness within NSTP 1 and 2 to work with the local community challenges in collaboration with LGU and barangay officials.
	Meeting with leaders with community partner of CEC as one of the immersion sites

Table 4 presents classroom, student activities, and immersion projects about SDG and the key principles articulated in each of the *Priority SDGs* including the three pillars of sustainability. Thus, more students are served which enable them to shift and transition towards embracing SD.

Table 5.

NSTP Learning Methods

Learning Methods	NSTP Educational Activities
Video Films	Documentary films and case studies on environment, poverty, drugs addiction and other social issue case studies and values formation
Written Assignments and Final Term Paper	Weekly individual and/or group assignment; Essays reflection paper; Group Project Conceptualization
Lectures and Literature	Weekly lecture and reading materials for students; Seminar with guest speaker/s
In-Class Discussions and Presentation (facilitator/ teacher or student led)	Students were asked to explain sustainable project case analysis and activities; Student led activities include student debates.
Demonstration	Community Immersion; Demonstration of products with upcycling application; These are conducted via seminar. field work and immersion.

The assessment of Learning Methods for NSTP shows that NSTP applies more ESD principles since this course offering is instructional in nature, as reflected in Table 5. This shows that ESD ideals have then been implemented already in the NSTP.

Written assignments and group projects were intended as assessment of student learning per objective of NSTP. We have taken note that group activities and other learning methods are aimed to engage students in discussions that allow reflection, imaginative and critical thinking on issues and paradoxes that characterize the larger scope of sustainable development.

Answer to the Proposition

Based on the identified SD practices and programs of CEC and NSTP of SBU based in each *Priority SDG*, we have observed the high level of integrated SDG teachings and demonstration beyond the moderate level that we stated in our proposition.

Conclusion

Based on the descriptive assessment on Sustainable Development Goals (SDG) involvement, we found that San Beda University (SBU) has high engagement in the Education for Sustainable Development (ESD) endeavor. We observed the essential role of community extension through the Community Extension Center (CEC) and citizenship education through the National Service Training Program (NSTP) in implementing Sustainable Development Goals (SDG) practices, activities, projects, and programs which are aligned to the *Priority SDGs* of SBU. This study responds to the pressing concern on whether SBU has started contributing towards and/or teaching SDGs, although several faculty members expressed their concern on other improvements needed.

This research is a preliminary study regarding the level of implementation on how SBU seriously works on the Sustainable Development Goals (SDGs). The Education for Sustainable Development (ESD) assessment in SBU is a vital driving force, a source for specifying ways to improve and to identify for future changes in the management of CEC and NSTP.   Also, this research hopes for the continuous implementation of ESD and to improve the SDG performance of SBU and other HEIs. This study contributes to the current state of knowledge by describing the practices and actions on how HEIs could increase their implementation of ESD and sustainable development in general.

We recommend for SBU to further engage in incorporating the SDGs not just in extension services and citizenship education, but also in all academic programs and school operations whenever possible. This future move will entail capacity building and training, administrator commitment in cross-curricular, and multidisciplinary practices of the entire institution. Field visits to community partners are also recommended for extensive analysis of the impact of CEC and NSTP projects.

References

Albareda-Tiana, S., Vidal-Raméntol, S., and Fernández-Morilla, M. (2018). Implementing the sustainable development goals at university level. *International Journal of Sustainability in Higher Education. 19*(3), 473-497. https://doi.org/10.1108/IJSHE-05-2017-0069

Balanay, R.M. & Halog, A. (2016). Teaching education for sustainable development at university level: A case study from the Philippines. *Teaching Education for Sustainable Development at University Level.* World Sustainability Series. *1*, 163-174, https://doi.org/10.1007/978-3-319-32928-4_11

Community Engagement Center (CEC) – SBU. (2016). *Institute of Community Involvement Center Manual of Operations*. Unpublished manuscript. San Beda University, Manila.

Dela Serna, A. (2018). Teaching sustainable development in the Philippines: Looking through the lens of education for sustainable development (esd). *ASEAN Conference on Education*. p. 841 – 851. http://www.pbic.tu.ac.th/wp-content/uploads/2019/10/2018-Ace-proceedings.pdf

Kates, R., Parris, T., and Leiserowitz, A. (2005). *What Is Sustainable Development? Goals, Indicators, Values, and Practice*. http://www.heldref.org/env.php

Kopnina, H. (2017). Teaching sustainable development goals in The Netherlands: A critical approach. *Environmental Education Research. 24*(9), 1268–1283. https://www.tandfonline.com/doi/pdf/10.1080/13504622.2017.1303819?needAccess=true

Labuguen, F., Ramos, A., Placer, R., Vidal CJ., Moralde, R.P., & Rendorio, E. (2012). *Understanding the national service training program: A modular worktext for nstp1.* Mutya Publishing House, Inc.

Labuguen, F., Ramos, A., Placer, R., Vidal CJ., Moralde, R.P., & Rendorio, E. (2019). NSTP2: *Understanding the national service training program.* Mutya Publishing House, Inc.

Leal Filho, W., Shiel, C., Paço A., Mifsud, M., Veiga Ávila, L., Londero
        Brandli L., Molthan-Hill, P., Pace, P., Azeiteiro, U., Ruiz Vargas,
        V., & Caeiro, S. (2019). Sustainable development goals and
        sustainability teaching at universities: Falling behind or getting
        ahead of the pack? *Journal of Cleaner Production. 232*, 285-294.
        https://doi.org/10.1016/j.jclepro.2019.05.309.

National Economic and Development Authority. (2019). *The 2019
        voluntary national review of the Philippines.* https://sustainable
        development.un.org/content/documents/23366Voluntary_National_
        Review_2019_Philippines.pdf

San Beda University. (2014). *College of Arts and Sciences Course
        catalogue 2014 – 2015*. Unpublished manuscript.

San Beda University. (2019). *College of Arts and Science Course
        syllabus 2019 – 2020: National service training program-civic
        welfare training services I.* Unpublished manuscript.

Sustainable Development Solutions Network (SDSN). (2015). *Indicators
        and a monitoring framework for the sustainable development goals.
        Launching a data revolution*. https://irp-cdn.multiscreensite.com/
        be6d1d56/files/uploaded/150612-FINAL-SDSN-Indicator-Report-
        Executive-Summary.pdf

Sustainable Development Solutions Network (SDSN). (2017). *Getting
        started with SDGs in universities: A guide for universities, higher
        education institutions, and the Academic Sector*. (Australia, New
        Zealand and Pacific Edition). Sustainable Development Solutions
        Network, http://ap-unsdsn.org/wp-content/uploads/University-
        SDG-Guide_web.pdf.

United Nations (UN). (2015). *Transforming our world: the 2030 agenda
        for sustainable development.* https://www.un.org/ga/search/view_
        doc.asp?symbol=A/RES/70/1&Lang=E

United Nations Educational Scientific and Cultural Organization
        (UNESCO). (2005). *United nations decade of education for
        eustainable eevelopment (2005-2014): International
        implementation scheme DRAFT*. https://unesdoc.unesco.org
        /ark:/48223/pf0000139023

United Nations Educational Scientific and Cultural Organization
        (UNESCO). (2017). *Education for sustainable development goals:
        Learning objectives*. https://unesdoc.unesco.org/ark:
        /48223/pf0000247444.locale=en

Impact of the COVID-19 Pandemic on the Life of Faculty Teaching in Universities

Ester T. Rada
College of Arts and Sciences
San Beda University, Manila
erada@sanbeda.edu.ph

Abstract

COVID-19 has greatly affected the education sector compelling educators to adapt to online teaching and platforms quite abruptly. Thus, this study aims to determine the impact of this pandemic on the life of college faculty and its consequences on their social, emotional, and personal aspects due to the transition from physical classes to online lectures and design a support program to help reframe and alleviate its impacts. This is a descriptive study using a convergent mixed methods design. Employing a snowball sampling technique, a modified web-based global questionnaire that is divided into 7 sections, was administered via Google forms. With the use of SPSS v. 23, results showed from 81 respondents in 37 universities that despite the limited time and resources in the preparation, the faculty displayed an adaptive behavior. Remarkably, the narratives related impacts of emergency remote education on personal life circumstances more than what the figures showed in the statistical analysis. Three important words emerged with ambivalent themes as the general views on COVID -19 as generated by NVivo QSR: life, time and changes. Using Braun-Clarke approach to thematic analysis, the narratives also evoked that spirituality and emotions play a significant role in coping. The support program was designed with the academic, social and emotional aspects in the key result areas with proposed program and activities such as educational policy on the pedagogy of care, continuing digital literacy program, social support elements of emotional concern, instrumental aid, appraisal, virtual socialization and also conduct of webinars, workshop series and fellowship as coping mechanisms.

Keywords: COVID -19, Braun-Clarke approach to thematic analysis, Academic-socio-emotional support program

When the World Health Organization (WHO) declared a pandemic with the spread of Novel Corona Virus (COVID-19), the Philippine government implemented the community quarantine to mitigate its effect. Consequently, among the most affected sectors, the educational institutions suspended all face-to-face classes but recommended utilizing distant education and computer-based instruction (Telli, Yamamoto and Altun, 2020 cited in Hebebci, Bertiz & Alan, 2020; Korkmaz & Toraman, 2020, UNESCO, 2020 cited in Hebebci, Bertiz & Alan, 2020).

Undoubtedly, this unprecedented event caught the academe off-guard thus, may have caused an impact on the academic life as well as on the social, emotional, and mental well-being of its stakeholders. Kraft, Simon & Lyon (2020) also stated that "schools and teachers were forced to pivot to fully remote instruction with virtually no warning or preparation time. This sudden and total change in how teachers delivered instruction, combined with the health threats and economic consequences of the pandemic, created a uniquely stressful and demanding context for teachers' work" (p. 2).

Consequently, it is deemed that learning requires a more holistic perspective however, the psychological and social or socioemotional aspects should not be overlooked, being humans as biological, psychological and social beings (Aslan & Güngör, 2019; Gove, 1994 cited in Korkmaz & Toraman, 2020).

Notably, educators have been trying for many years to make learning more social (Bandura, 2002; Boyd, Richerson & Henrich, 2011; Heyes, 2012 cited in Korkmaz & Toraman, 2020), collaborative and cooperative (Jacobs, 2015; Lin, 2020; Ornstein & Hunkins, 2017, p. 209 cited in Korkmaz & Toraman, 2020), but this unprecedented time resulted to digitalized and individualized learning which may pose more learning challenges and issues.

The study by Nawaz et al. (2020) on the state of research about COVID -19 accounted that there is less research on the psychological aspect and its consequences, which mostly cover different aspects such as in medical sciences. This study is significant at supporting a research agenda on COVID -19. Using the methodological framework questionnaire of a global research on impact to students (Aristovnik et al., 2020), the items were partly modified to suit the target respondents, i.e the faculty-members specifically, in higher education institutions in the

Philippines. This present study hopes to contribute to the relevant literature describing the opinions of teachers across fields of specializations on the research about COVID-19, specifically, on the support program for the college faculty to help alleviate the impact of the pandemic causing concerns on their academic, emotional, social and personal life.

Thus, this study wants to address the following problems: What is the impact of COVID-19 pandemic on the life of college faculty? What are the elements and aspects of academic work and academic life of college faculty that have consequences on their social, emotional, and personal life due to the transition from onsite to online lectures? What support program that can help reframe and alleviate these impacts? Thus, this study aims to describe the impact of COVID-19 pandemic on the life of college faculty and its consequences on their social, emotional, and personal aspects and consequently, design a support program to help reframe and alleviate these impacts.

Conceptual Framework

This is a descriptive study that aimed to describe the impacts of COVID-19 on the life of the faculty in college. The aspects and elements such as academic life and work, social life and personal circumstances served as variables to determine the impact of this pandemic due to the transition from onsite to online platform of teaching. Eventually, a program for the institutions to provide support for the mental well-being of their faculty was proposed. Figure 1 showed the variables of quantitative and qualitative data:

Figure 1.

The aspects and elements from a global web-based questionnaire served as the variables to determine the impact of Covid-19 on the life of college faculty as basis for the designing of the support program

.
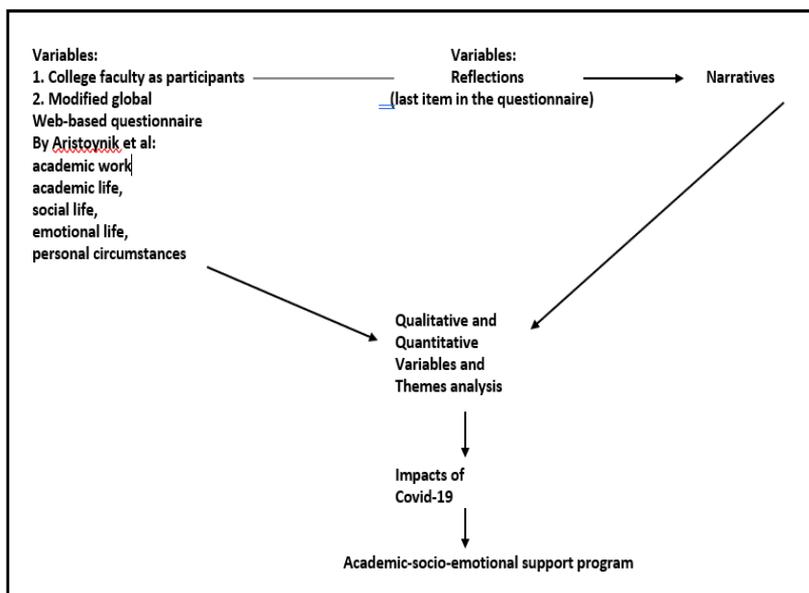
The variables on academic work pertained to the assessment of college faculty with regard to their workload, teaching and administrative support and their performance and expectations in conducting online classes.

As regards academic life, the faculty assessed their conditions in the work-from-home set up (infrastructure) and skills.

To determine the consequences on social life, the variables were about support network during the COVID-19 crisis and situations when they get support such as in sickness, sadness, on teaching issues (lectures, seminars, practical work), personal finances, family and relationships, professional career in the future and about the COVID-19 itself.

On emotional life, the variables inquired on their feelings since the onset of the COVID-19 pandemic.

On life circumstances (general and financial), the faculty were asked about their worries in life and their opinion regarding the support measures and changes made in behavior during the COVID-19 pandemic.

Finally, general views/words of reflection on COVID-19 served as the qualitative data for analysis.

As a final output, the study aims to. design an academic-socio-emotional support program to help alleviate the impacts described in the results of the study.

Methodology

Research Approach
The study employed a convergent mixed methods design with quantitative and qualitative procedures and products. The quantitative and qualitative data were collected at the same time. The data received equal weighing and mixed during the interpretation (Creswell & Plato Clark, 2011 as cited in Stage and Manning, 2016).

Research Participants / Respondents
Inclusion: The respondents are college faculty who are presently teaching in Philippine universities, males, and females, part-time and full-time who hold master's or doctoral degrees, across generational ages from Maturists to Gen Z.

Exclusion: Faculty members who have been transferred to Senior High School although they used to teach in college were not included in the analysis. Also, those who are no longer teaching college subjects in the universities were excluded.

Sampling Design
Faculty who are teaching college subjects in Philippine universities were the target population. Using a snowball sampling technique, faculty from different universities were asked through messenger chat if they are willing to participate in this study and also requested them to send to other faculty members in their universities who are likewise willing to be part of the study. The questionnaire then was sent to the those who assented to participate. Email requests of the questionnaire were also entertained. In the interest of time, the survey did not reach the institutional administrations in order to get a percentage of their faculty members to

answer the survey and so a snowball sampling technique was the most convenient way. The questionnaire was administered during Christmas break after one cycle of the First Semester, at first, blush of online classes of faculty members. Since it is break time, faculty members would unlikely participate in a formal survey unless prompted by close colleagues on behalf of a close friend, although the questionnaire was also uploaded in professional organizations on Facebook. In effect, the study was delimited using snowball sampling thus, it is recommended in this study to administer the questionnaire to a wider population and use a random sampling technique for further validation.

There were 87 respondents from 37 universities across the country who responded during the allotted time. Only 81 respondents were considered for analysis excluding respondents from Senior High School.

Research Procedures of Data Collection

The study used a convergent mixed methods design. Figure 2 showed the procedures and products of quantitative and qualitative data:

Figure 2.

Convergent mixed methods design diagram was based on Wittink et al. 2006 as cited in Creswell & Clark, 2011)
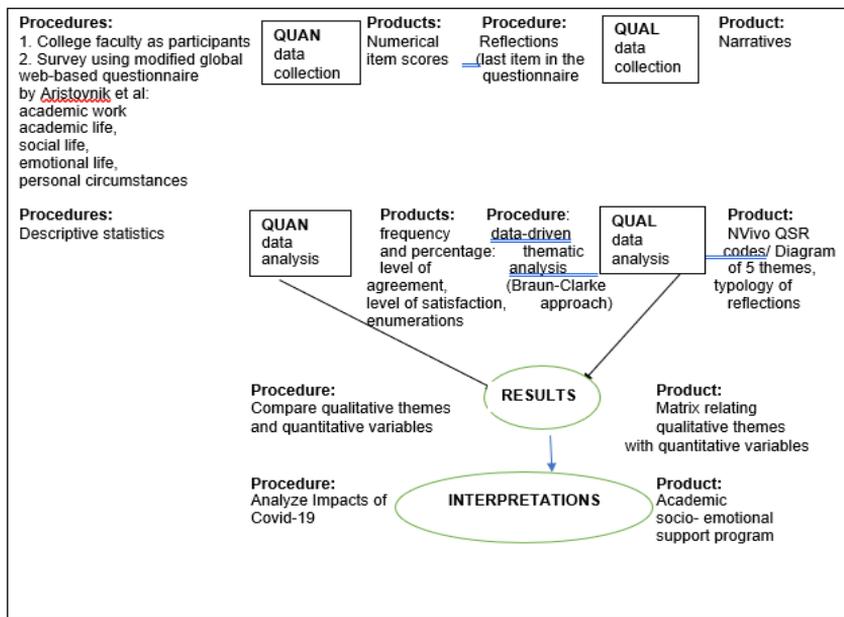
The items on the academic work pertained to the rate of agreement of the faculty as to their assessment and workload, level of satisfaction with teaching and administrative support and level of agreement also on their performance and expectations in conducting online classes.

On assessment and workload, using 5-Likert scale, from *Strongly disagree to Strongly agree* (*Not applicable* if there is no experience in particular item), the respondents were asked to rate their agreement with the statements about course assignments (e.g. readings, homework, quizzes) on a regular basis, feedback on students' performance on given assignments, response to students' questions in a timely manner, being open to students' suggestions and adjustments of online classes and information to students on what exams will look like in this new situation.

Their total workload was also inquired in comparison to the workload before on-site classes were cancelled, whether significantly smaller, smaller, the same, larger, or significantly larger.

Regarding teaching and administrative support, with the use of 5-Likert scale from *Very dissatisfied to Very satisfied* (*Not applicable* if there is no experience in particular item), the respondents were asked about their level of satisfaction with the organization of own lectures, webinars (e.g. online platform tutorials, etc), administrative support (e.g. computer and wifi connectivity support), technical support or IT services, support of finance and accounting, library, Central Office and Student Affairs Office.

Given of the new teaching and learning environment, using 5-Likert scale, from *Strongly disagree to Strongly agree* (*Not applicable* if there is no experience in particular item), the faculty were asked on their level of agreement with the statements on difficulty to focus during online teaching in comparison to on-site teaching, if performance has improved since on-site classes were cancelled, if they have adapted well to the new teaching and learning experience, if they can foster mastery of skills of students even on-site classes were cancelled and if they can figure out how the students can do the most difficult classwork since on-site classes were cancelled.

As regards academic life, the items inquired whether the respondents have the conditions to work from home (infrastructure) and skills. They were asked to tick on the following if they have access and indicate other infrastructure on the blank: a quiet place, a desk, a computer, required software and programs, a printer, headphones and microphone,

webcam, office supplies (notebooks, pens, etc.), a good internet connection, course study material (e.g. compulsory and recommended literature) and other. Also, they were asked if they are confident in the following: browsing online information, sharing digital content, using online teaching platforms (BigBlueButton, Moodle, Blackboard, GoToMeeting, etc.), using online collaboration platforms (Zoom, MS Teams, Skype, etc.), using online communication platforms (e-mail, messaging, etc.), using software and programs required for studies, applying advanced settings to some software and programs and other.

To determine the consequence of social life, the items in the questionnaire are interested in finding out about support network during the COVID-19 crisis. The faculty were asked about their social support from given choices: Close family member, more distant family member, Close friend, someone the faculty lives with, neighbors, colleague/s from own course, administrative staff, voluntary organizations, social networks, and someone else (specify).

The respondents were also asked to select the one they feel closest to whom they would turn to first (from the choices above) given the situations such as sickness, depression, teaching issues (lectures, seminars, practical work), personal finances, family and relationships, professional career in the future and about the COVID-19 crisis.

In the part of the questionnaire on emotional life, the items would like to find out how have the respondents been feeling since the onset of the COVID-19 pandemic. The following emotions were the choices, and a blank was provided for other answers: Joyful, hopeful, proud, frustrated, angry, anxious, ashamed, relieved, hopeless, bored and other.

On life circumstances (general and financial), the faculty were asked about their worries in life and their opinion regarding the support measures and changes made in behavior since the pandemic: Personal physical health, personal mental health, teaching issues (lectures, seminars, practical work), personal finances, future education, family and relationship, professional career in the future, COVID-19 or similar pandemic crisis in the future, leisure activities (sports and cultural activities, parties, hanging out with friends, etc.) and traveling abroad.

On the narratives, the faculty were asked about their general views/words of reflection on COVID-19. In analyzing the narratives,

Braun-Clark approach, specifically, descriptive thematic analysis (TA) was used.

In the final analysis, the quantitative and qualitative were converged for a better understanding of the impact of COVID-19.

Research Ethics Approaches

Participation in the study was voluntary and the questionnaire can be answered within 15 minutes. The answers submitted were anonymous and used solely for this survey.

There was no conflict of interest. The researcher is also a college faculty and she may have respondents from the institution where she is teaching, however, the researcher maintained the confidentiality of the information that was given by the respondents and did not manipulate any data to the advantage of the researcher or the institution she represents.

Withdrawal criteria: As indicated in the Informed Consent Form (part of the introduction of the Google Form) – The participants may withdraw anytime during the course of the study even if they agreed earlier.

Data Analysis/Validity and Reliability

Quantitative data analysis. Descriptive statistics with the use of SPSS v. 23 were generated for the quantitative analysis. The enumerated items were coded for statistical analysis. Using SPSS v. 23, the modified version of closed ended questions has a Cronbach reliability coefficient of α .891. Note that open-ended items were not included in the reliability statistics. For content validity, two researchers who are also psychologists and educators read each item in the modified questionnaire for correctness and completeness. The experts may also evaluate the grammar and suggest wording changes to improve the items. Then, the experts evaluated the set of items as a whole. The experts rated the congruency of the items resulting in an average congruency percentage (ACP) of 96.36% (Expert 1 = 98.18%, Expert 2 = 94.54) (Popham 1978 cited in Polit & Beck 2006). Waltz et al. (2005 cited in Polit & Beck 2006) advised that an ACP of 90 percent or higher would be considered acceptable. ACP is calculated by first obtaining the percentage of items that each expert rated as +1 (congruent with the objective). Osterlind (1998 cited in Dilorio, 2006) suggests assigning -1 for an item that is poor match with the objective, 0

for moderate or uncertain match and +1 for strong match. There were only moderate items that were revised accordingly.

Qualitative data analysis. NVivo QSR generated the themes from the narratives. Büyüköztürk et al. (2015 cited in Hebebci, Bertiz, & Alan, 2020) suggest that qualitative data should be assessed by more than one person to ensure validity and member checking should be done for reliability. For this reason, the narratives and the themes were examined by two researchers/psychologists/educators and member checking by respondents has been done for reliability. In addition, direct opinions of the participants were written using Google forms**.** For the thematic analysis, Braun-Clarke Approach, specifically, descriptive analysis was followed which aimed primarily to summarize and describe patterned meaning in the data.

Results and Discussions

The respondents were faculty teaching in universities from different parts of the country. There were 81 faculty who were included in the study, 69 (85.2%) full-time and 12 (14.8%) part-time, 54 (66.7%) have master's and 27 (33.3%) hold a doctorate degrees, 45 (55.6%) females and 36 (44.4%) males, representing generational ages from Maturists to Gen Z, with Gen X (41-60) composing more than half of the samples (51.85%). Most of the respondents came from the Social Sciences (40.7%) and Arts and Humanities (39.5%) fields of specialization. Other disciplines include Natural and Life Sciences (12.3%), IT/Finance (3.7%), Accountancy, Applied Science and Educational Management (equal at 1.2%).

From Classroom to Online Lectures
Online teaching has been a mandatory educational process during the outbreak of the novel coronavirus. As stressed by Aristovnik et al. (2020), "teaching online is not simply putting learning materials online." (p. 7) The content and learning methods of the lectures must be organized according to the new mode of delivery to ensure an active interaction between teachers and students during the learning process. Thus, it calls for appropriate knowledge and skills as well as ICT equipment on the part of the lecturers. This has been pointed out by the authors of studies in countries where online learning was still not widespread before the COVID-19 pandemic (Aristovnik et al., 2020). In this survey, college faculty were asked about their attitudes to different online forms of teaching and learning, including their satisfaction with the organization

and support of their institutions in the shift from classroom to online platforms.

Most of the respondents said that their onsite/physical classes have been cancelled at 85.2% since the pandemic was declared. Consequently, several different forms of online lectures were established. As shown in Table 1, the most dominant forms of online lectures were real-time video conferences (60.5%) followed by asynchronous forms: sending presentations to students (17.3%), written communication using forums and chats (8.6%). and video recording (7.4%). The rarest form was audio recording (2.5%), which is not surprising since learning platforms and videoconference systems (e.g. Moodle, Zoom, MS Teams, BigBlueButton etc.) are widespread and have been freely available for quite some time. Other forms of online engagements involve Facebook, modules, WhatsApp, Short message service (SMS)/text messages, modular tool kit, phone calls for correspondence-based students and the use of Learning Management System (LMS). As to the level of satisfaction, most of the different forms of delivery in online classes got Satisfied rating with audio recording (M=3.96), written communication (M=3.88) such as e-mails, chat and others, online presentations and video recording (M=3.85), and video conference (M=3.76). Noticeably, while video conference is the most dominant form of lecture, the level of satisfaction in its conduct registered as the lowest maybe because of several factors which can be discussed in the next aspects. Some factors may be the faculty need more training to be adept in this platform but required by the institution, interconnectivity issues and electricity, support network and services, and others.

It is believed that the teacher has a large share in providing an interactive environment for the students to get involved in the learning environment (Lehman & Conceição, 2010). A study by Dougiamas (2000 cited in Hebebci, Bertiz, & Alan, 2020) revealed that instructors who teach courses in distance education affect students' views. Thus, educators have a great responsibility in distance education process prompting them to use different interactive forms of delivery to encourage student engagement.

Table 1.

Forms of Lectures

	Forms	Level of satisfaction		Dominant	
		Mean	*SD*	*f*	*%*
	Video conference	3.76	1.08	49	60.5
	Video recording	3.85	1.27	6	7.4
Valid	Audio recording	3.96	1.25	2	2.5
	Online presentations	3.85	1.08	14	17.3
	Written communication	3.88	1.15	7	8.6
	Other (synchronous/asynchronous/NA)			3	3.7
	Total			81	100

Academic Work

With the shift of pedagogical processes to online media by universities, some studies noted that the quality of teaching and learning in these new circumstances needs proper attention (Aristovnik et al., 2020). Also, taking into consideration, poor Internet connectivity or electricity issues in some areas, the effectiveness of online learning depends on the designed and prepared learning material, the lecturer's engagement in the online environment and their interactions with the students. Therefore, the college faculty were asked to compare their workload before the onsite classes were cancelled with the new circumstances after the lockdown. On the average, the rate of agreement for different forms of assessments and workload are not far from each other ($M = 4.20$ to 4). On the average, as shown in Table 2, most respondents inform students on examination style ($M = 4.20$), they are open to student suggestions ($M=4.19$), give assignments ($M=4.14$), respond to student queries ($M=4.11$) and give feedback to assignments ($M=4.10$). Results showed that on average, as compared to the workload before on-site/face-to-face classes were cancelled, the respondents posit that their workload has been larger (38.3%).

Table 2.

Assessment and Workload

		Mean	*SD*
	Give Assignments	4.14	1.07
	Give Feedback to Assignments	4.00	1.01
Valid	Respond to student queries	4.11	0.98
	Open to student suggestions	4.19	1.08
	Inform students on exam style	4.20	1.10

In a crisis such as the COVID-19 pandemic many questions emerge, and faculty need the support of various services. The survey results show that as to the level of satisfaction with the support during this time, on the average, organization of own lectures ($M=3.34$) got the highest, then organization of own webinars ($M=3.32$), central office support ($M=3.29$), Student Affairs Office ($M=3.28$), library ($M=3.14$), administrative ($M=3.06$), finance and accounting ($M=3.03$) and Technical IT support ($M=3.00$) in this order.

Table 3.

Teaching and Support

		Mean	*SD*
	Organization of Lectures	3.34	0.82
	Organization of Webinars	3.32	0.77
	Administrative Support	3.06	1.11
	Technical IT Support	3.00	0.93
Mean	Finance and accounting	3.03	1.10
	Library	3.14	1.01
	Central Office	3.29	0.95
	Student Affairs Office	3.28	0.89

Academic Life

As far as the faculty's academic life is concerned, the study is interested in: (1) the availability of different kinds of home infrastructure needed to ensure efficient study; and (2) the   faculty's self-reported computer skills. Both issues were also mentioned by Kamarianos et al. 2020, Sahu, 2020 and Baticulon et al., 2020 as cited in Aristovnik et al.,

2020). The results showed that only 13.2% have access to the computer, 11.4% have a desk and 11.1 have headphones and microphones. As to computer skills, results showed that only 19% are confident in browsing online information, 18% in using online collaboration platforms (Zoom, MS Teams, Skype, etc) and online communication platforms (e-mail, messaging, etc.).

Table 4.

Performance and Expectations

		Mean	SD
	Focus	3.16	0.94
	Improvement	2.91	0.97
Valid	Adaptation	3.32	0.73
	Mastery	3.18	0.83
	Difficulty	3.12	0.82

In view of the new teaching and learning environment, the respondents said that they have adapted well to the new teaching and learning experience (*M*=3.32), how to foster mastery of skills of students (*M*=3.18), find it more difficult to focus during online teaching in comparison to on-site teaching (*M*=3.16), how to figure out on how the students can do the most difficult classwork even on-site classes (*M*=3.12), and they noted improvement on their performance (*M*=2.91) as shown in Table 4.

Social Life

The implementation of health protocol, such as social distancing, resulted to the physical closure of higher education institutions thus putting the faculty in an unfamiliar situation. Despite the physical restrictions some people still try to keep their social life as close to 'normal' as possible. In this survey, faculty were asked about the frequency of their online communication with specific people during the COVID-19 pandemic. Faculty would first turn to the following social groups to talk about the COVID-19 crisis: a close family member (38%), a close friend (23%), colleague (14%), someone they live with (10%), a more distant family member (5.4%), etc. Pastor and church members were added when sick (1.5%) or depress (0.6%). In all aspects, close family members extend the most social support. Except on teaching issues, the colleagues from

own course are the closest person to communicate with. A family support system is still the best when it comes to fostering well-being. Prime, Wade, & Browne, (2020) used Walsh's (2015) family resilience framework in their study in conceptualizing family well-being concluding that resilience may be more likely if family well-being is preserved or enhanced during this time (p. 634).

Since social support is vital for the mental health, some studies noted that it should be efficiently offered and carefully maintained during this time (Cao et al., 2020; Elmer, et al., 2020; Zimet, et al., 1988 as cited in Aristovnik et al., 2020).

Emotional Life

Research has shown that emotions and caring relations play a major role in the online learning experience than in face-to-face contexts (Cleveland-Innes & Campbell (2012; Velasquez, Graham, & Osguthorpe, 2013 cited in Bozkurt et al, 2020). Also, Aristovnik et al. (2020) accounted in their study that the COVID-19 pandemic has significantly influenced the emotional well-being and thus mental health of people all around the world – either directly in terms of health issues or indirectly in relation to its economic and social consequences (p. 15). This is also true for faculty members. In this study, the frequency of the positive emotions felt by the faculty members since the outbreak of COVID-19 were as follows: hopeful (35%), joyful (18%), proud (11%) and relieved (5.8%). The negative emotions experienced by the faculty-members were anxiety (13%), frustration (7.6%), boredom (4.1%), hopelessness (1.7%), anger (1.2%), and shame (1.2%). This implies that institutions such as government, health sectors, higher education, and others should all collaborate on the process of designing timely and efficient psychological, social and financial support services for faculty-members (Aristovnik et al., 2020).

Significantly, the hopeful attitude of the respondents helps them cope with the challenges of online setting even in so short a time for preparation.

Personal Circumstances

The higher education faculty members are undoubtedly affected by the COVID-19 pandemic. In this study, most respondents have worries about personal physical health (17.6%), COVID-19 similar pandemic (13.6%), teaching issues (12.5%), personal mental health (11.9%) and personal finances (10.8%). As observed by Miller (2020 cited in Bozkurt, et al, 2020), COVID-19 has a profound impact on social, emotional, and

psychological aspects in individuals. Due to the pandemic, everyone is going through a great deal of anxiety. True to the results of the present study, concerns of faculty include physical health, family or financial responsibilities and safety of their loved ones and themselves among others (Jansen, 2020 cited in Bozkurt et al, 2020). When it comes to total monthly disposable income (before COVID-19 pandemic) and the capacity to pay overall living costs now, the respondents are uncertain.

Support Measures and Behavior

As noted, more than ever, it is during this time of pandemic that faculty members among others need support from different institutions. In this study, the faculty were asked, as to the level of satisfaction in dealing with the COVID-19 pandemic of the institutions. Results showed that only the university got a Very Satisfied rating (*M*=3.85) while the other institutions got a Neutral mark.

Table 5

Support Measures

	Mean	SD
Government	2.60	1.28
University	3.85	1.25
Banks	3.62	1.14
Hospitals	3.81	1.22

Emergency support for low-income, disability assistance and for seniors as well as deferred monthly payment via phone or email were deemed as the most important support measures by the government, university, or by a bank (17%).

General Views

Three important words emerged as the general views on COVID-19 as generated by NVivo QSR: life, time and changes (Table 6). This presented ambivalent themes. As to life, it ranges from social life, normal life to exhausting life. As regards time, past (spent) and present evokes uncertainty. Changes as well were assessed either as significant, positive

or negative. In the thematic analysis, spirituality also emerged as an important aspect to cope with the present situation. Emotions ranged from being hopeful to depressing.

Table 6.

NVivo Themes

life		time	changes
social life	normal life	spent time	significant change
		present times	negative changes
exhausting life			

Using Braun-Clarke approach to thematic analysis, six aspects were followed such as: 1) familiarization with the data, 2) initial coding generation, 3) searching for themes based on the initial coding, 4) review of the themes, 5) theme definition and labeling, and 6) report writing.

Table 7.

Thematic analysis – codes and sub-themes

Codes	Sub-themes and Narratives
Life (mentioned 25 times)	- **Impact on work and social life** - "Am very much affected with my work and my social life." - **Impact on emotions, finances and behaviors** - "It gives us more depression emotionally, financially and behaviorally because it affects our normal life." - **Impact on children – "**Children are more affected than adult." - **Impact on relationship with God - gives hope in prayer** – "I hope and pray it stops." - **Impact on life's priorities** - "The Covid 19 has taught what really matters in life."; "Life changing"; "Covid has taught people to live simple lives. Know their priorities." "This pandemic helped me to rethink and recalibrate my priorities in life. It also shaped me to me more positive in life." "Has transformed lives" - **Impact on lifestyle** - "lifestyle-changing"; "Exhausting"; "Life is really hard during this pandemic." - **Impact on perspective about life** - "The Covid 19 has taught … about mortality and meaning of life" *Ambivalence of life* - "made some positive and negative changes in my life"; "It brings us to negative as well as positive on our lives. "Though our health is at stake that make us scared, it gives us time to be bonded with our family." *Acceptance* - "Though unexpected, it's obviously the new normal we have to live it." "Covid 19 has greatly affected our lives and even with the vaccine, I think we will not be able to get back to the usual lives that we had" "This pandemic had a great impact in all areas of our lives" "It's a time for refreshing for a solitary life." "This Covid 19 serves as full of realization about life"

Table 7.

Continued

Codes	Sub-themes and Narratives
Change (8 times)	**Impact on the dynamics of life** - "positive and negative changes in my life" **Impact on well-being -** "Covid indeed brings about significant change in the way people do things. It affects the over-all well-being and the conduct of everyday chores. This is true in the academic sector. **Impact of community spirit and adaptive behavior**- However, with the help of the school and the whole community we are able to effectively adapt to these changes. We may not have the best alternative system today; this may not be perfect, but we really have to make the best result out of it."
Time (13 times)	**Impact on family relationship and finances** - "Spent time with family members, lost my job and got a new job with 50% pay cut"; "…it gives us time to be bonded with our family." "Though our health is at stake that make us scared, it gives us time to be bonded with our family." "Covid 19 pandemic more time with the family, more house improvement- repair, repaint, replace old appliances." "Before pandemic I had that hardship in commuting, lessen my time with my family and worked so hard before, now after the 10 months pandemic, I have shared my experiences to the members of the family that I, as the head of the family, should balance our time and effort to all our errands, works and family and especially do not forget the more time we have to communicate and God's time, like go to the church and know more our priorities in life." **Impact on resiliency** - "The human spirit is greatly challenged by the present times. We have to be strong..."

Table 7.

Continued

Codes	Sub-themes and Narratives
Spirituality	**Impact on relationship with God** - "Trust God." "Covid 19 has brought a lot of changes not only in our way of living but also with regards to our faith in God" "… especially do not forget the more time we have to communicate and God's time, like go to the church and know more our priorities in life." "I am a COVID 19 survivor. After seeing my results, I was so shocked because I am not with my family and at the same time unsure of what would happen to me. But I realized that I am stronger than this virus and I still got lots of things to fulfill in my life. I realized that was just a challenge to be stronger and greater and with God's mercy and guidance I am able to overcome everything." "Taught me to depend on God and be more simple and focused not on earthly matters" "This pandemic makes me value my spirituality more" **Impact on self-realization** - "This pandemic is an eye-opener for everyone, that there must be something to change in all aspects of humanity, starting with ourselves to the way we relate or interact with others and the environment because however great we are or whatever power we might have, we are still in no control of everything. Only God has."
Emotion	**Impact on the range of emotions** - "It gives us more *depression* emotionally…" "*Scared*" "It was chaos" "This has tested *patience and flexibility* especially with the setup in class. We have to stretch our patience and have maximum tolerance." "It's *hard*!" "The pandemic has been *stressful*" "It helped me explore unexplored territories in teaching and psychological services." "It created *fear, worry* and continues to hang over my head, praying always that it will end soonest." "Covid19 is a wake up call. It is actually a blessing in disguise. *Order disguised as chaos.*" "*fine*" "Sometimes I don't believe there is such" "It's *frustrating*"

Table 7.

Continued

Codes	Sub-themes and Narratives
Emotion	"On the bright side, it gives me time to *reflect and be grounded*" "It's a serious threat to mankind" "The present regime is not capable to handle this pandemic. Injustices everyday." "Mentally draining" **Impact on the self-efficacy -** "Working online is draining and more tiresome than face-to-face. Besides being a teacher, me and my colleagues do whole "productions" on a faulty app (or connection signal?) that is way beyond what is prepared by a teacher. We are program editors, floor managers, IT troubleshooters, camera men, video editors, directors, actors, layout artists, encoder, etc. etc. and we don't even get internet allowance nor a computer loan that would allow us to purchase the laptop of our preference! I also dislike the idea that students still pay so much for tuition with the school using the excuse that it is for "energy" or what not when they don't even hand us anything for that purpose! It is injustice!" **Impact on civic consciousness and resiliency** "It shakes the world but we'll continue to be hopeful at this season of pandemic. We'll get through this if we'll be united as one country (I'm hoping that each sector will do their part). "All we need is just a little patience & be law-abiding citizens." "Being resilient." "Covid-19 is bound to happen given how people treat, neglect, abuse the environment. I was hoping that we, somehow, learned our lesson but sadly, this hope seems to be far from reality, as we can still observe garbage (non-biodegradable) piling up like there is no tomorrow. Unrestrained mining, logging, quarrying operations continue on like they don't care. With all these unbridled human activities I think we haven't seen the worst yet. Notwithstanding the abovementioned, I choose to remain hopeful and try my best to educate my students on stewardship and environmental justice." "don't give up" "don't lose hope" "Still hopeful for a better 2021" "The Filipino is resilient. This too shall pass."

As to life as a code which was mentioned 25 times: faculty respondents narrated that this crisis affects normal life, makes people realize mortality and meaning of life, rethink and calibrate priorities: *"The Covid 19 has taught what really matters in life." "Covid has taught people to live simple lives. Know their priorities." "This pandemic helped me to rethink and recalibrate my priorities in life. It also shaped me to be more positive in life."*

The code of change (mentioned 8 times) is associated with life – whether personal or academic: *"Covid indeed brings about significant change in the way people do things. It affects the over-all well-being and the conduct of everyday chores. This is true in the academic sector. However, with the help of the school and the whole community we are able to effectively adapt to these changes. We may not have the best alternative system today; this may not be perfect, but we really have to make the best result out of it."*

Time (mentioned 13 times) also emerged as significant which is focused on the time spent with the family, more so, during the pandemic; also with the element of spiritual and emotional domain: *"Before pandemic I had that hardship in commuting, lessen my time with my family and worked so hard before, now after the 10 months pandemic, i have shared my experiences to the members of the family that I as the head of the family, should be balance our time and effort to all our errands, works and family and especially do not forget the more time we have to communicate and God's time like go to the church and know more our priorities in life."*

Spirituality also evoked as a theme which serve as a coping mechanism. A crisis such as this strengthens faith in God and makes humans value their spirituality more: *"Taught me to depend on God and be more simple and focused not on earthly matters" "This pandemic makes me value my spirituality more"*

On emotions which range from depressing, frustrating to being hopeful and seeing the situation as a blessing in disguise which evokes virtues of resiliency, patience and civic consciousness of the Filipinos: *"It shakes the world but we'll continue to be hopeful at this season of pandemic. We'll get through this if we'll be united as one country (I'm*

hoping that each sector will do their part)." "All we need is just a little patience & be law-abiding citizens."

Figure 3 shows the relationship between the original texts (narratives), codes and themes. The arrows obviously point out the codes and themes are interrelated and the original texts somehow overlap with the codes and themes. The pandemic is described as life-changing, lifestyle-changing or has transformed lives thus making connection between the concepts of life and change. Time is connected with family life and spiritual life. Positive emotions and faith in God strengthening spiritual life would make life adaptable to change. The narratives summed up the interconnectedness of all these codes and themes.

Figure 3.

Relationship between texts (narratives), coding and themes (Diagram based on Braun-Clarke approach on TA as cited in Howitt & Cramer, 2017)
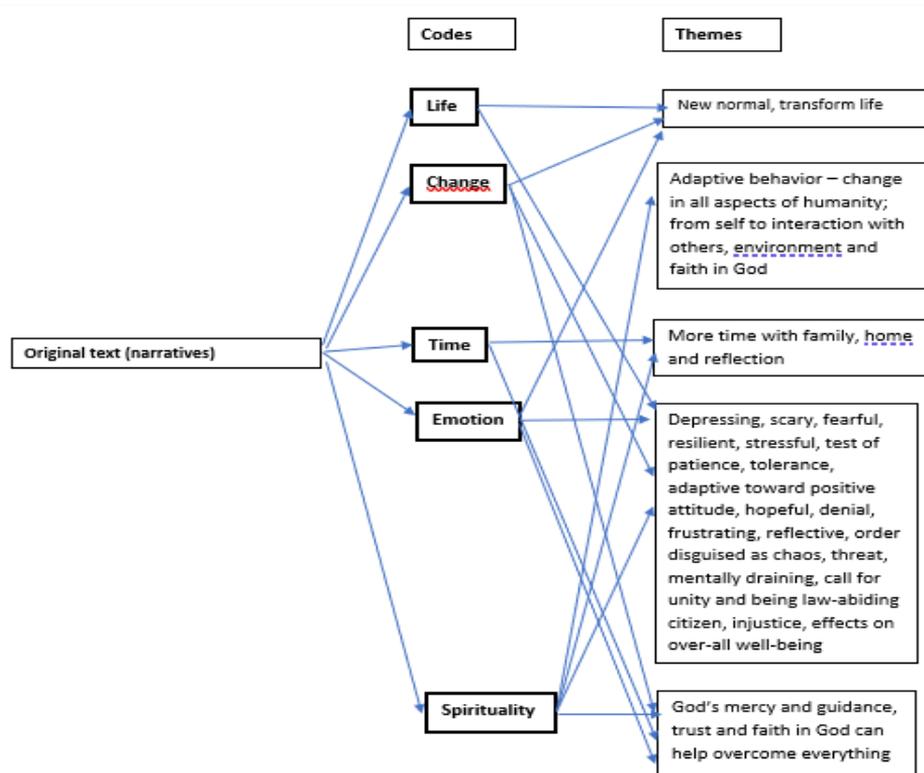
Table 8.

Convergent Themes and Quantitative Data

Qualitative Themes	Quantitative Data
- Life - new normal, transform life; impact on work and social life, on emotions, finances and behaviors, on children, on relationship with God, on life's priorities, on lifestyle, on perspective about life	Academic life – onsite/physical classes to online platforms Social Life – social support from family and colleagues Emotional life – hopeful attitude leads to adaptive behavior
Change - impact on the dynamics of life, on well-being, on community spirit and adaptive behavior – change in all aspects of humanity; from self to interaction with others, environment and faith in God	Academic work – work-from-home arrangement, infrastructure and skills; noted improvement on their performance, how to foster mastery of skills of students and how to figure out how the students can do the most difficult classwork even on-site classes, have adapted well to the new teaching and learning experience, difficulty to focus during online teaching in comparison to on-site teaching
Time - More time with family, home and reflection; impact on resiliency in the present time	In all aspects, close family members extend the most social support and time
Emotions - *impact on the range of emotions* - depressing, scary, fearful, resilient, stressful, test of patience, tolerance, adaptive toward positive attitude, hopeful, denial, frustrating; *impact on self-efficacy* - reflective, order disguised as chaos, threat, mentally draining; *impact on civic consciousness and resiliency* - call for unity and being law-abiding citizen, injustice, effects on over-all well-being	Mixed positive and negative emotions: hopeful, joyful, anxiety, and frustration Concerns on physical health, family or financial responsibilities and safety of their loved ones and themselves among others
Spirituality - *impact on relationship with God* - God's mercy and guidance, trust and faith in God can help overcome everything	Pastor and church members were added as support network when sick or depress

Convergent Analysis Between Qualitative Themes and Quantitative Data

Table 8 Also shows the interconnectedness of the qualitative themes and quantitative analysis. On the theme of life, this pertains to the new normal in the academic life, social life and emotional life which

extends to family life as children are also affected and also has impact on lifestyle. On the concept of change, significant change, both positive and negative change was noted depending on one's perspective about life during this pandemic thus, has repercussions on one's well-being, behavior and even community spirit. As regards time, most spent time has been with family in a work-from-home arrangement. Also, spiritual time is strengthened to foster resiliency in the face of this challenging time. On emotions, the qualitative narratives show more as compared to the results of the survey. The range of emotions generate self-efficacy to adapt to the present arrangement and even enhance civic consciousness and resiliency which characterizes Filipino trait. In spirituality dimension, even not enumerated as a choice, spiritual support by head of the church. i.e. Pastor and church members were added especially during time of sickness and depression.

Conclusions and Recommendations

The education sector is undoubtedly the most affected sector next to the health sector. This health crisis prompted the faculty to employ emergency remote teaching in order to survive and sustain education using available resources whether offline and/or online. The abrupt academic shift from onsite to online teaching with little preparation has caused an impact on the social, emotional and personal life of college faculty across fields of specialization. Due to the physical closure of higher education institutions, the majority of teaching and learning processes went online, thus, the researcher has attempted to illustrate what can be described as the life of faculty-members teaching in universities from academic, social, emotional, financial and other perspectives.

To start with, on the aspect of academic work and academic life, remarkably, despite the limited time and resources in the preparation, the faculty displayed an adaptive behavior. Even though, only a number have the accessible infrastructure and computing skills, teachers highlighted the positive aspects of distance education and give more weight to the importance of sustaining education. When comparing the workload before the transition from classroom to online, faculty reported that in the new learning environment their workload had become larger. But with the different support from administration on organization of lectures, technical and from students and others make the faculty adapt to the challenges. This indicates the importance of efficient communication from student body and higher education management. Available infrastructure and skills are

needed to efficiently work from home such as a good Internet connection, computer, a desk and other accessories. Therefore, this calls for intensive training prior to the start of the upcoming semesters. Hebebci, Bertiz, & Alan (2020) cited the study of Chao, Saj, & Tessier (2006) which concluded that one of the most important factors affecting the quality of distance education is the quantity and quality of learning and teaching resources and materials. This claim was supported by Lloyd, Byrne, and McCoy (2012) who posit that the effectiveness of distance education is closely related to pedagogical and material support in the process. According to Al-Samarraie et al. (2017) as well, educational materials that will attract students' attention are of great importance in ensuring continuity of learning in distance education. Also, according to Seaman (2009), low-quality materials can serve as the basis for negative views on distance education. Thus, it is prerequisite for teachers to enhance their skills in providing quality resources to ensure effective instruction.

Congruently, the social life of the faculty became limited to family members whom they get the most social support except on teaching issues which they rely on their colleagues from own course. This was supported in the narratives that they get to spend more quality time with family more than ever. Family support system can foster one's well-being amidst a crisis. This only strengthens the core Filipino values of close family ties more so in times of crisis even in virtual tete-a-tete, group chat and other forms of communication.

Notably, Boskurt (2020) cited that **"**surviving during the COVID-19 requires building support communities, sharing tools and knowledge, and listening to different voices. While it is advised that we keep our social distance, what is meant is keeping the spatial distance, not the transactional distance (Moore, 2013). Waddingham (2020) argues that "overwhelmed by the scale of things that are happening" (p. 104), we have to look after each other and make each other feel that nobody is alone in these traumatic times. Social media, during these times, played an essential role by facilitating a space where educators can meet, share, and exchange their knowledge."

Moreover, the above-mentioned quick and radical changes in teaching and learning processes have produced significant consequences for emotional health as well. Emotionally, the hopeful attitude of the respondents helps them cope with the challenges of online setting. As regards life circumstances, the pressing concerns of the faculty are worries

about personal physical health, COVID-19 similar pandemic, teaching issues, personal mental health and personal finances. Although, the respondents have sustained a regular teaching job they are uncertain as to their financial capacity if this crisis will prevail.

According to Cleveland-Innes & Campbell (2012 cited in Bozkurt et al, 2020), research has shown that emotions play a major role in the online learning experience itself, and not only during the transition to online learning. Velasquez, Graham, & Osguthorpe (2013 cited in Bozkurt et al, 2020) as well sustained that the online learning context is robust enough to allow for caring relations to emerge at even a deeper level than that experienced in face-to-face contexts. Significantly, the hopeful attitude of the respondents helps them cope with the challenges of online setting even in so short period of time for preparation. As maintained by Mather (2012 cited in Carstensen, Shavit, & Barnes, 2020) that the positivity effect reflects cognitive control and attending to and remembering positive information over negative—although not a conscious strategy—may well contribute to improved emotional experience.

Last but not least, when coping with the challenging situation faculty put forth their opinions on the role of different institutions, linked it with the solving of unprecedented situations (e.g. government, universities, banks, hospitals). They reported that they were most satisfied with the role of the universities in dealing with the pandemic.

There is no doubt that the COVID-19 pandemic has tested academic systems in the Philippine universities which had to rapidly transform traditional forms of education to exclusive online education.

The narratives as well of the faculty-members proved a point on how much this pandemic impacted their lives. They realized the ambivalence of life, aspect of change and time. These themes have helped them set their priorities and strengthen their spiritual life.

Finally, as the data collection was mainly conducted during a break in the first semester of online teaching while the experiences are still new, the unprecedented access to the survey participants was relatively limited.

Notwithstanding the above limitations, the findings of this survey may be important for the higher education institutions to look into their

own roster of faculty since to date only a few comparative studies that analyze the impacts of the COVID-19 pandemic on different aspects on the life of the faculty have been conducted. Therefore, the present study contributes to fill this gap and point to avenues for future research, such as: (1) focusing further empirical analysis on each studied aspect/element of the life of faculty separately and in more detail from different (comparative) perspectives on regional, national and/or institutional levels; and (2) extending a similar survey to other sector and other employees at higher education institutions by performing a study on the impact of the COVID-19 pandemic on their lives.

The general views of the faculty showed ambivalent themes on life, time and changes. Life was described as social life, normal life to exhausting life. As regards time, past (spent) and present evokes uncertainty. Changes as well were assessed either as significant, positive or negative. Spirituality also emerged as an important aspect to cope with the present situation. Emotions ranged from being hopeful to depressing. The narratives related impacts of emergency remote education on personal life circumstances more than what the figures show in the statistics.

Thus, a support program was designed with the academic, social and emotional aspects in the key result areas with proposed program and activities such as educational policy on the pedagogy of care, continuing digital literacy program, social support elements of emotional concern, instrumental aid, appraisal and the likes and also conduct of webinars, workshop series and fellowship activities for coping mechanisms.

Proposed Support Program

Given the above, the purpose of the present study is to propose a support program to help reframe and alleviate the impact caused by the pandemic in the academic, social, emotional life of the faculty.

On the academic front, the need for digital literacy arose as crucial in emergency remote education. The curriculum should be redesigned to foster technical know-how in addition to pedagogical and content knowledge (Bozkurt et al., 2020). To reiterate, only 13.2% of the respondents have access to the computer and only 19% are confident in browsing online.

Congruently, as purported by Bali (2020a cited in Bozkurt et al., 2020), educational policy should be in place to prioritize issues of care, empathy, and emotional/psychological support, and not only be limited to

classroom setting. As emphasized, the pandemic has shown the need for a 'pedagogy of care, over a need to teach the curriculum.' In order to protect the mental health of faculty-members as effectively as possible, governments, health professionals, higher education institutions, student organizations and other relevant institutions should all collaborate intensively on the process of designing timely and efficient psychological and financial support services for them. The findings suggest that many challenges lie ahead which would mean the support measures taken by the responsible stakeholders must be implemented as soon as possible and be as systematic, holistic and sustainable as possible in order to ensure a physically, psychologically and economically environment for our educators.

On the aspect of social support, according to Rathus (2012), the concept of social support can be defined in several ways, to wit:

- *Emotional concern:* listening to people's problems and expressing feelings of sympathy, caring, understanding, and reassurance.
- *Instrumental aid:* the material supports and services that facilitate adaptive behavior.
- *Information:* guidance and advice that enhance people's ability to cope.
- *Appraisal:* feedback from others about how one is doing. This kind of support involves helping people interpret, or "make sense of," what has happened to them.
- *Socializing:* conversation, recreation, etc. Socializing is beneficial even when it is not oriented toward solving problems (p. 238).

Researches implied that institutions should all collaborate on the process of designing timely and efficient psychological, social and financial support services for faculty-members. Apparently, the aspects of social support are interconnected with academic requirements on instrumental aid, appraisal, socialization and emotional concern as proven by the convergent themes and quantitative data in the results of the study.

Emotionally, the pandemic has obviously caused stress to the faculty among others. "Stress refers to experiencing events that are perceived as endangering one's physical or psychological well-being" (Nolen-Hoeksema, et al., 2009, p. 534). Both quantitative and qualitative data generated range of emotions, both positive and negative, which has impact on self-efficacy, civic consciousness and resiliency. Studies backed

up emotions and caring relations play a major role in the online learning experience more than in face-to-face set up Thus, coping skills are in order for survival.

Nolen-Hoeksema, et al. (2009) defined coping as the process of managing stressful demands. There are two forms of coping: problem-focused coping and emotion-focused coping. They particularly enumerated strategies for coping mechanisms such as defining the problem. generating alternative ways and weighing the costs and benefits of the alternatives, Choosing between these alternatives and acting on it are the final steps. Problem-focused strategies pertain to changing inward instead of changing the environment. *Emotion-focused coping,* on the hand*,* is a mechanism where negative emotions are managed that prevent the person to solve the problems. Some researchers have divided enumerated behavioral strategies and cognitive strategies (see Skinner, Edge, Altman, & Sherwood, 2003 cited in Nolen-Hoeksema, et al., 2009). Behavioral strategies include engaging in physical and seeking emotional support from friends. Cognitive strategies include temporarily setting the problem aside ('I decided it wasn't worth worrying about') and reducing the threat by changing the meaning of the situation ("Before pandemic I had that hardship in commuting, lessen my time with my family and worked so hard, now after the 10 months pandemic, I have shared my experiences to the members of the family…"). Cognitive strategies often entail reassessing the situation.

Table 9.

Support Program

Key Result Area Objectives	Strategies/Activities	Expected Outcome
Academic • To enhance the abilities of faculty-members to become flexible, adaptable, understanding and caring which would eventually redound to their relationship to students, co-faculty and administrators	• Educational policy on the pedagogy of care (care, empathy, and emotional/psychological support) • Critical digital literacy program (Redesigning the curriculum for technological knowledge in addition to pedagogical and content knowledge)	• Activities on mental health could be integrated in the modules; teachers may start first with these activities so that students will feel psychologically the "safe space" in the virtual classroom

Table 9.

Continued

Key Result Area Objectives	Strategies/Activities	Expected Outcome
• To improve technical-know-how on online remote teaching of faculty	• Teachers' continuing education (Training such as emergency remote education, virtual classroom management, and assessment and evaluation in online teaching)	• Digitally literate educators and enhanced learning of students • Technologically savvy educators as a lifelong learning process
Social • To foster better relations among faculty-members as together they cope with the effect of the pandemic	• Emotional concern – departmental/peer channel of communication at the disposal of any faculty anytime through messenger/virtual assistance	• Open line of communication among faculty-members virtually
	• Instrumental aid – faculty be given benefits or subsidy for computer and other equipment, interconnectivity allowance, electricity assistance and other materials and services	• Faculty with happy disposition since the needs are provided
	• Information – A 24/7 Help Desk that will help the faculty in technical matters/ library resources/ medical information	• 24/7 Help Desk for faculty is in place

Table 9.

Continued

Key Result Area Objectives	Strategies/Activities	Expected Outcome
Social	• Appraisal – A "kumustahan" with the immediate superior so that the faculty may know how he/she is doing in the virtual class • Socializing – Virtual "kamustahan", "kapihan", "kainan", where faculty members may enhoy informally each other's company	• *Appraisal system* for feedback from others about how one is doing fostering positive outcome is in place • *Periodic virtual program/activities* for socialization to be facilitated by Faculty Association are in place
Emotional • To equip faculty with coping skills to enhance adaptive behavior	• Mental health provider/health maintenance organization (HMO), also known as health card to include psychological counseling for emotion-focused coping and problem-focused coping and other therapy/coping mechanism as a regular health maintenance program • The Guidance and Counseling Department (GCD) and HRD play a significant role in coming up with concrete programs/activities from universities that will cater to the mental health of students and employees	• More emotionally stable faculty-member through mental health provisions/HMO • Positive appraisal of the situation by faculty-members

Table 9.

Continued

Key Result Area Objectives	Strategies/Activities	Expected Outcome
Emotional	• Licensed mental health professionals of the university from GCD and HRD may collaborate in conducting webinars, workshop series and fellowship activities that will help students and employees maintain positive mental health/well-being; foster emotional resilience, appropriate psychological interventions may be given to students and employees who are experiencing mental and emotional problems	•

Thus, Table 9 shows the proposed key result area objectives, strategies and expected outcome of the support program for faculty.

Finally, it is also recommended that the study be conducted to a more significant number of respondents and other areas of their life may be explored for further validation.

References

Aristovnik, A., Keržič, D., Ravšelj, D., Tomaževič, N., & Umek, L. (2020). A Global Student Survey "Impacts of the Covid-19 Pandemic on Life of Higher Education Students". *Global Database 2020*. http://www.covidsoclab.org/global-student-survey/globaldatabase/ *83*.

Bozkurt, A., Jung, I., Xiao, J., Vladimirschi, V., Schuwer, R., Egorov, G., Lambert, S. R., Al-Freih, M., Pete, J., Olcott, Jr., D. , Rodes, V., Aranciaga, I., Bali, M., Alvarez, Jr. A.V., Roberts, J., Pazurek, A., Raffaghelli, J. E., Panagiotou, N., de Coëtlogon, P., Shahadu, Brown, M., Asino, T. I., Tumwesige, J., Reyes, T. R., Ipenza, EB., Ossiannilsson, E., Bond, M., Belhamel, K., Irvine, V., Sharma, R. C., Adam, T., Janssen, B., Sklyarova, T., Olcott, N., Ambrosino, A., Lazou, C., Mocquet, B., Mano, M., & Paskevicius, M. (2020). A global outlook to the interruption of education due to COVID-19 Pandemic: Navigating in a time of uncertainty and crisis, *Asian Journal of Distance Education* (15), 1.

Carstensen, L. L. , Shavit, Y. Z. & Barnes, J. T. (2020). Age Advantages in Emotional Experience Persist Even Under Threat From the COVID-19 Pandemic. *Psychological Science*, *31*(11) 1374–1385 sagepub.com/journals-permissions. https:// doi.org/ 10.1177/ 0956797620967261www.psychologicalscience.org/PS

Creswell, J. W. & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research.* (2nd ed.)*.* Sage Publications, Inc. https://www.google.com.ph/books

Dilorio, C. K. (2006). *Measurement in health behavior: Methods for research and evaluation.* Wiley.

Hebebci, M. T., Bertiz, Y., & Alan S. (2020). Investigation of Views of Students and Teachers on Distance Education Practices during the Coronavirus (COVID-19) Pandemic. *International Journal of Technology in Education and Science.*

Howitt, D. & Cramer, D. (2017). *Research methods in Psychology.* (5th ed.). Pearson Education Limited.

Korkmaz, G. & Toraman, Ç. (2020). Are we ready for the post-COVID-19 educational practice? An investigation into what educators think as to online learning. *International Journal of Technology in Education and Science (IJTES), 4*(4), 293-309. ISSN: 2651-5369

Kraft, M. A., Simon, N. S. & Lyon, MA. (2020). *Sustaining a Sense of Success: The Importance of Teacher Working Conditions During the COVID-19 Pandemic*. Annenberg Brown University EdWorkingPaper No. 20-279.

Nicomedes, CJ. C. Arpia, HM. S., Roadel, RM.,Venus , CA. S., Dela Vega, AF, Ibuna, JM. T., & Avila, RM. A. *An Evaluation on Existential Crisis of Filipinos during the Covid-19 Pandemic Crisis.* https://www.researchgate.net/publication/341411489

Nicanor-Perlas, N. (18 April 2020). Covid-19 Pandemic: the Philippine Experience: The Case for a Precision Quarantine and Immunity *(PQI) Approach A Briefing Paper*. www.covidcalltohumanity.org

Nolen-Hoeksema, S., Fredrickson, B. L., Loftus, G. R. & Wagenaar, W. A. (2009). *Atkinson & Hilgard's Introduction to Psychology.* (15th ed), Wadsworth Cengage Learning.

Polit, D. F. & Beck, C. T. (2006). The Content Validity Index: Are you sure you know what's being reported? Critique and recommendations. *Research in Nursing and Health (29),* 489-497. www. interscience.wiley.com DOI: 10.1002/nur.20147

Prime, H., Wade, M. & Browne, D. T. (2020). Risk and Resilience in Family Well-Being During the COVID-19 Pandemic *American Psychological Association 2020, 75*, (5), 631–643 ISSN: 0003-066X http://dx.doi.org/10.1037/amp0000660

Rathus, S. A. (2012). *PSYCH.* (2nd Ed). WADSWORTH CENGAGE Learning. 238.

Stage, F. K. &, Manning, K. (Eds.). (2016). *Research in the college context: Approaches and methods* (2nd ed.) Routledge Taylor and Francis Group.

Talidong, KJ. B. & Toquero, CM. D. Philippine Teachers' Practice to
        Deal with Anxiety amid COVID-19. *Journal of Loss and Trauma
        International Perspectives on Stress & Coping, 25*, (6–7), 573–
        579 https://doi.org/10.1080/15325024.2020.1759225

The Correlation of Workplace Spirituality and Work Engagement among Faculty of the Senior High School of San Beda University-Manila

Jemville B. (Father Placid) Acta, OSB
Campus Ministry
San Beda University, Manila, Philippines
placidacta@sanbeda.edu.ph

Abstract

This study aimed to establish the degree of correlation of workplace spirituality and work engagement among the faculty of the Senior High School (SHS) of San Beda University–Manila. The correlational design was utilized to ascertain if there is a relationship existing between workplace spirituality (independent variable) and work engagement (dependent variable). The workplace components presented in the study are meaningful work, a sense of community, and alignment with organizational values. Work engagement was studied based on vigor, dedication, and absorption. Data were obtained through questionnaires that were sent to target respondents. The findings of the study established that there is a positive correlation between workplace spirituality and work engagement. The paper concluded with several implications and recommendations that will strengthen the workplace spirituality of faculty members that will benefit both the employee and the organization. The study also provided some suggestions for future researchers that will examine workplace spirituality in other industries.

Keywords: workplace spirituality, work engagement, education, meaning, values, community

Community is a fundamental feature of work in the Benedictine tradition. Workplace spirituality in an educational work environment and its relationship with work engagement. St. Benedict of Nursia, the founder of the Benedictine Order, significantly espoused the value of work and prayer, which is extensively laid down in the so-called *Ten Benedictine Hallmarks* that San Beda University adheres as the core of its corporate identity.

Building sustainable relationship founded on trust, creativity, and respect is a strength of any organization in realizing its goals. Workplace spirituality creates a space where employees can express their values and build healthy relationships with others. This allows them to promote the common good among their colleagues and stakeholders.

According to Giacalone and Jurkiewicz (2003, page 137), workplace spirituality is "a framework of organizational values evidenced in the culture that promotes employees' experience of transcendence through the work process, facilitating their sense of being connected to other in a way that provides the feeling of completeness and joy." Workplace spirituality contributes to strengthening one's faith and promoting value creation, which is manifested in motivation and loyalty to the organization.

Workplace spirituality has drawn many researchers, and organization leaders in the last decade (Hassan, Nadeem and Akhter, 2016). The increasing interest in workplace spirituality as a topic for research and a tool for organizational development signals a humanistic approach to management and leadership (Hudtohan, 2015). This is in reaction with the materialistic worldview. Spirituality is not limited to religion but is integrated in professional life that is value-based and faith-based (Hudtohan, 2015). Attitude and behavior play a significant role in appreciating work and not the form or kind of work done (Hassan, Nadeem and Akhter, 2016). Creating spiritually- based workplaces allows employees to be more creative, involved, and satisfied (Swanepoel and van der Walt, 2015). Thus, workplace spirituality plays a significant element in business that should not be overlooked (Mousa and Alas, 2016).

This study sought to determine the degree of correlation of workplace spirituality and work engagement among the faculty of the Senior High School (SHS) of San Beda University – Manila.

I did this by determining the level of spirituality among the Senior High School faculty in terms of meaning, community, and alignment of values. Second, I analyzed the degree of engagement among the Senior High School faculty in terms of vigor, dedication, and absorption. Lastly, I proposed courses of action on how to nurture the spirituality of the faculty to sustain their engagement.

As a member of the school administration and the monastic community, I would like to explore the level of spirituality in the school where I practice my ministry as an administrator and a priest. I also would like to know how workplace spirituality affects employee engagement, work behavior and interpersonal relations.

This study is also significant in strengthening academic research and understanding of workplace spirituality and how organizational leaders can use it to improve management policies. The faculty members of the Senior High School of San Beda University-Manila would be able to share their insights on this topic and hopefully have a better understanding of such subject, based on empirical data and scholarly work. The administration stands to benefit from this study's recommendations, the implementation of which will certainly improve work ethics, professional growth and other related management resolutions.

Spirituality is a person's reflection of his experiences individual's self-reflection through life that helped him realize his values and relationship with others. Thus, it is an encounter of self-transcendence, serenity and unity(Sheng and Chen 2012, p.49). Spirituality affects an individual's values and is manifested in his attitude and actions. (Aumann,1980).

Pokhariyal (2020) believes that life is temporal and there is more to what we have. He suggested three spiritual dimensions, i.e. vertical dimension, horizontal dimension and internal dimension. Vertical dimension refers to an individual's connection with the Supreme Being. The horizontal dimension is about an individual's relationship with his neighbor and to nature, the created world made by the Divine. Lastly, the internal dimension is about the person's relationship with himself which is done through personal reflection and examination of conscience. The vertical and horizontal spiritual dimensions are similar to the Christian teaching on the commandment of loving God and loving one's neighbor.

Spirituality is a way of life. It is not limited to an activity of piety but a disposition to be connected with God. Saint Benedict of Nursia (480-547A.D.), lived a life of *Ora et labora*—Prayer and Work. He wrote a rule for monks that is known for its discretion and moderation. The Rule of Saint Benedict is considered a collection of laws that Benedictine monks ought to follow to amend culpabilities and to preserve charity (RB Prologue v. 47). The rule organizes the daily activities of the monastery, with emphasis on prayers, meditation, meals, manual labor, study, rest, monastic leadership, and relations with people outside the monastery.

Müller-Stewens, Muff and Eberle (2016) emphasized that work is an important component of every monastic community. It is a participation in the creative power of God. It is a means of service to the least, the last and the lost. Work is a remedy for idleness, the enemy of the soul.

Work is considered a "calling wherein employees look for a sense of community in an organization based on respect, autonomy, development, inclusion and freedom of faith. (Harajli, 2020) Spirituality and work are not separate principles. St. Benedict values the balance between work and prayer. Work without prayer is an obligation; it is prone to distraction and tension. On the other hand, A life grounded on prayer involves connection. It is about being connected with God and with one's neighbor.   Spirituality must not be blind to the reality of the world. (Müller-Stewens, Muff and Eberle, 2016, p.56)

The interest in studying workplace spirituality is brought about by anxiety and man's search for meaning in the workplace. People are becoming busy with their professional work and less leisure time is spent with family and friends (Kumar, 2018).

Workplace Spirituality
Work is going through a reflective and insightful development (Mahipalan and Sheena, 2018). The changes in work patterns and the employee's social priorities have affected his work stability. (Kumar, 2018). Ashmos and Duchon (2000) defined workplace spirituality as "the recognition that employees have an inner life that nourishes and is nourished by meaningful work that takes place in the context of community." Workplace spirituality in the organization must be integrated with ethics, work value, and individual value (Jurkiewicz, 2002).

For this study, I used the three components of workplace spirituality recommended by Millman, Czaplewski and Ferguson (2003). Workplace spirituality is when one encounters (1) meaningful work in the framework of a (2) community and (3) alignment of personal values with the organization's (Millman, Czaplewski and Ferguson, 2003).

Other researchers proposed other components of workplace spirituality. Petchsawang and Duchon (2009) proposed five components of workplace spirituality, namely: connection, compassion, mindfulness, and transcendence. Saks (2011) suggested the three dimensions of workplace spirituality: transcendence, community, and spiritual values.

Kinjerski (2013, p.390) recommended that workplace spirituality involves four factors, namely: "engaging work, sense of community, spiritual connection and mystical experience. Engaging work is the positive feeling that allows the employees to experience meaningful work for a higher purpose. Sense of community is the feeling of closeness with others with a common principle. Spiritual connection is the relation with a transcendental being. Mystical experience is a sense of perfection, an experience of joy and bliss."

Hassan, Nadeem and Akhter (2016) proposed three dimensions of workplace spirituality, namely: engaging in work, community sense, and inner life connection. Bella, Quelhas, Ferraz and Bezerra (2018) suggested that workplace spirituality is centered on self-awareness, life purpose, and community engagement. Harajli (2020) recommended that the three-level of workplace spirituality are meaning, purpose and community.

Workplace spirituality is not limited to a particular religion. However, some activities may affect an employee's spiritual well-being. Meditation is a good eastern practice that requires patience and persistence. It can form a life of mindfulness that can be related to meaningful work, compassion for others, search for meaning, and transcendence (Petchsawanga and Duchon, 2012).

Effects of Workplace Spirituality

One's spirituality in the workplace is an added value to the community. It involves kindness, empathy, support of others, truth and trust of oneself and others. Absenteeism, stress, and attrition are lessened.

Employees tend to be tolerant, patient towards the work environment and dedicated to their work and loyal to the organization. (Hassan, Nadeem and Akhter, 2016)

A meaningful work includes the integration of one's values and the organizational values and goals, making one responsible for the community. Workplace spirituality increases one's concern for peers' well-being even beyond the workplace. (Hassan, Nadeem and Akhter, 2016)

Khan, Khan, and Chaudhry (2015), meanwhile express a concern that technology can be a challenge to workplace spirituality. By introducing technology in the workplace and replacing manpower with mechanical equipment, there is a significant loss of workplace spirituality particularly in meaningful work and belongingness in a community. Work becomes a routine instead of a means to enrich one's capacity and relationships to fulfill a particular goal.

Introducing spiritual practices in the school benefits employees and creates an encouraging workplace. Teachers feel valued and their full potentials are utilized for the advancement of the organization (Mousa and Alas, 2016). Reinforcing workplace spirituality in the academe boosts trust and job satisfaction. The faculty and employees are seeking more purposeful work; they value strong relationships among peers and collaboration in the organization (Hassan, Nadeem and Akhter, 2016). The teacher harmonizes his values as well as that of the organization to find his purpose and life goals (Aprilia and Katrilia, 2020).

Swanepoel and van der Walt (2015) believed that workplace spirituality must be carried out authentically and lived by employees and organizational leaders to experience optimum outcomes in the organization. By increasing workplace spirituality in the organization, there could be a significant improvement in organizational commitment and the performance of the human resource (Dehaghi, Goodrazi and Arazi, 2012).

Work Engagement
Schaufeli, W.B., Salanova, M., Gonzalez-Roma. V. & Bakker, A.B. (2002, page74-75) defined work engagement as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and

absorption. Rather than a momentary and specific state, engagement refers to a more persistent and pervasive affective-cognitive state that is not focused on any particular object, event, individual, or behavior. Vigor is characterized by high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence even in the face of difficulties. Dedication refers to being strongly involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge. Absorption is characterized by being fully concentrated and happily engrossed in one's work, whereby time passes quickly and one has difficulties with detaching oneself from work."

Kahn, in 1990, conceptualized Work Engagement in his pivotal work on personal engagement and disengagement. Personal engagement is "the simultaneous employment and expression of a person's 'preferred self' in task behaviors that promote connections to work and to others, personal presence, and active full role performances" (Kahn,1990, p.700). Moreover, Kahn (1990) suggested the three elements of meaningfulness, safety, and availability to understand the engagement of individuals and how people perceive themselves in their respective responsibilities.

Saks (2011) related workplace spirituality to employee engagement through four psychological conditions: meaningfulness in work, meaningfulness at work, safety, and availability.

Conceptual Model and Operational Framework

Conceptual Framework

This study focuses more on employee work attitudes and behaviors rather than the transcendent aspects of spirituality. Figure 1 presents a framework developed by Milliman, Ferguson and Ferguson (2003) on individual, group, and organization level. The individual level focus on the meaningfulness of work, its purpose and motivation. The group level is about interaction in the community wherein employees share a common commitment. Lastly, the organization level is about identifying oneself with the organizational goals, mission, and culture.

Figure 1.

Conceptualizing spirituality in the workplace: individual, group, and organization levels of interaction

Individual Level
Meaningful Work:
- Enjoy work
- Energised by work
- Work gives personal meaning and purpose

Group Level
Sense of Community:
- Sense of connection with co-workers
- Employees support each other
- Linked with a common purpose

Organization Level
Alignment w/ Organization Values:
- Feel connected to organization's goals
- Identify with organization's mission and values
- Organization cares about employees

Source: Milliman, Czaplewski & Ferguson, 2003, page 428

The core dimension of workplace spirituality proposed by Milliman, Czaplewski & Ferguson (2003) is meaningful work, sense of community and alignment with organizational values. Meaningful work on the individual level is having a sense of direction in one's activity. Through it, the individual tries to find energy and enjoyment in his day-to-day activity. The sense of purpose drives the individual to continue with what he is doing, despite the challenges that he might encounter. The second core dimension is a sense of community. This happens on the group level, i.e., in a particular workgroup, department or unit. The interpersonal aspect of work is given much credit. There is a common purpose that has to be achieved. This concerns interaction between employees and co-workers (Milliman, Czaplewski & Ferguson, 2003). The essence of community includes a deeper sense of connection, integration, opportunity to share opinions, caring and support. Lastly, alignment with organizational values

is about orienting our values in accomplishing the goals of the organization. There is a sense of organizational culture wherein employees can able to identify themselves with the larger organizational purpose. Part of alignment to organizational values is the employee's integrity and loyalty to the organization and going beyond monetary benefits. This also involves the employee's involvement in achieving the organizational goals by a high regard for ethics and the welfare of the stakeholders. Their commitment to their work is not only for personal reasons but for the common good.

Operational Framework

We will find below the schematic diagram of the components of workplace spirituality, i.e. meaningful work, sense of community, and alignment of values, and the components of work engagement, i.e. vigor, dedication, and absorption. Workplace spirituality is presented as a correlate of work engagement. Workplace spirituality and employee engagement share many similarities in their definitions and dimensions (Saks, 2011). Mahiplan and Sheena (2018, page 217) emphasized "workplace spirituality, if fostered, and engagement, if displayed, would mean that the workforce is motivated to contribute to the organization. Consequently, individuals identify themselves with the work they do, suggesting an inseparability between the two."

Figure 2.

The operational framework of the study

Workplace Spirituality   **Work Engagement**

Meaningful Work
Sense of Community
Alignment of Values

Vigor
Dedication
Absorption
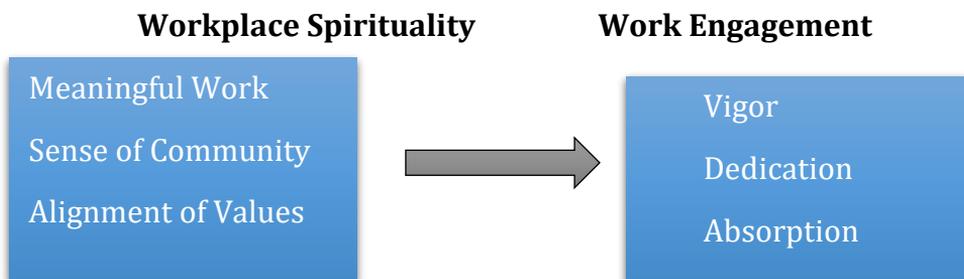
Hypotheses/Propositions

Null: There is no significant correlation between workplace spirituality and work engagement among the faculty of the Senior High School of San Beda University – Manila.

Alternative: There is a significant correlation of workplace spirituality and work engagement among the faculty of the Senior High School of San Beda University – Manila.

Methodology

Research Design and approaches

This study used descriptive and correlational research designs. Descriptive design is the systematic way of presenting the patterns of the participants and variables in the study. The correlational design is used to determine if there is a relationship existing between workplace spirituality (independent variable) and work engagement (dependent variable).

Sampling Design and Research Participants

Thirty-six (36) out of forty-two (42) faculty members of the Senior High School (SHS) of San Beda University-Manila for Academic Year 2020-2021 participated in this study. This represents 85.7% of the faculty members in the SHS. Six (6) new faculty members were hired this academic year. The criteria used to determine inclusion in the study are the following: (1) at least one year of teaching tenure in SBU-M, (2) active status (3) willingness to participate in the study, (4) faculty of Senior High School unit in SBU-M.

This study used a purposive sample. The inclusion of faculty members with one year of tenure is significant in this study since workplace spirituality develops through time. The trainings, seminars, academic engagements, and work experience of the tenured faculty contribute to the formation of workplace spirituality. The faculty members' sense of organizational culture and values are developed which may require a certain period to bud and mature. Faculty members with teaching load within the Academic year 2020-2021 are considered to have "active status". An email was sent to faculty members with active status (see Appendix 1) explaining the nature of this study with the assurance that this is voluntary and that data privacy will be upheld.

Method of Data Collection

Quantitative data were extracted using a survey questionnaire. A questionnaire was used to quantify the impact of workplace spirituality to work engagement. Furthermore, qualitative data were gathered through short comments in the questionnaire. Refer to the appendix for a copy of the questionnaire.

Survey questionnaires were e-mailed to thirty-six (36) target respondents using Microsoft (MS) Forms. The Office of the Prefect for Student Affairs and Guidance Counsellors assisted in reminding the respondents to accomplish the survey. All the questionnaires were submitted back after three days. I extracted the results through a summary report generated through MS Forms.

Measurement and Instrumentation

Workplace spirituality assessment developed by Millman, Czaplewski, and Ferguson (2003) was used in this study. It has a seven-point Likert scale from one (1) ("strongly disagree") up to seven (7) ("strongly agree"). Three components of workplace spirituality were included in the instrument, namely: meaningful work, sense of community, and alignment of values. Meaningful work has six statements (Ashmos and Duchon, 2000) and has a Cronbach alpha of 0.88. Sense of community is composed of seven statements (Ashmos and Duchon, 2000) and has a Cronbach alpha of 0.91. Lastly, the alignment of values has eight statements (Ashmos and Duchon, 2000) with a Cronbach alpha of 0.94.

Table 1.

Aspects of workplace spirituality and its corresponding questionnaire numbers

Aspects of Workplace Spirituality	Questionnaire no.	
Meaningful Work	1,2,3,4,5,6	(6)
Sense of Community	7,8,9,10,11,12,13	(7)
Alignment of Values	14,15,16,17,18,19, 20,21	(8)
	TOTAL	**21 Questions**

The Utrecht Work Engagement Scale developed by Schaufeli and Bakker (2003) was used in measuring the significance of work engagement. This scale is based on the theory of Scheufeli, Salanova, Gonzalez-Roma and Bakker (2002). This questionnaire determines three

aspects of work engagement, specifically: vigor (VI), dedication (DE), and absorption (AB) (Schaufeli and Bakker, 2003). There are 17 statements in this questionnaire that describe an employee's feeling about his work — measuring the degree to which people feel engaged, energized, and consumed by their work (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002).

Seven-point Likert scale, ranging from 0 ("never") to 6 ("every day"). In the same study, the scale has a reliability coefficient of 0.93 and the three subscales of the UWES yielded a Cronbach's alpha coefficient of 0.83 (vigour), 0.92 (dedication), and 0.82 (absorption), respectively. (Schaufeli and Bakker, 2003)

Analytical Methods

Interpreting the Mean Score

Listed below are the verbal interpretation of the scores generated from the study. It ranges from "Very Low" up to "Very High". I computed the verbal interpretation score range for workplace spirituality. Since 7 ("strongly agree") is the highest score used in the survey and there are five verbal interpretations. I simply divided 7 by 5. The quotient is 1.4. Thus, each verbal interpretation level has a deviation of 1.4. All component of workplace spirituality has the same score range.

The verbal interpretation for scores generated on work engagement was provided by the study of Schaufeli and Bakker (2003). The range varies per component of work engagement. The ranges are presented in Table 7.

Pearson correlation coefficient was used in analyzing the data of this study. SPSS v. 20 was used to determine common descriptive statistics like mean and standard deviation. A faculty statistician assisted me in analyzing the data.

Table 2.

Work Spirituality Verbal Interpretation (n=36)

Verbal Interpretation	Meaningful Work	Sense of Community	Alignment of Organizational Values	Total Score
Very Low	≤ 1.4	≤ 1.4	≤ 1.4	≤ 1.4
Low	1.41-2.80	1.41-2.80	1.41-2.80	1.41-2.80
Average	2.81-4.20	2.81-4.20	2.81-4.20	2.81-4.20
High	4.21-5.60	4.21-5.60	4.21-5.60	4.21-5.60
Very high	≥ 5.61	≥ 5.61	≥ 5.61	≥ 5.61

Table 3.

Work Engagement Verbal Interpretation

Verbal Interpretation	Vigor	Dedication	Absorption	Total Score
Very Low	≤ 2.17	≤ 1.60	≤ 1.60	≤ 1.93
Low	2.18-3.20	1.61-3.00	1.61-2.75	1.94-3.06
Average	3.21-4.80	3.01-4.90	2.76-4.40	3.07-4.66
High	4.81-5.60	4.91-5.79	4.41-5.35	4.67-5.53
Very high	≥ 5.61	≥ 5.80	≥ 5.36	≥ 5.54

Source: Schaufeli and Bakker, 2003, page 3 (n=36)

Schaufeli and Bakker (2003, page 38) recommended that in addition to means, the scoring percentages may also be compared. To make this possible, the scores on the dimensions of Work engagement have been recorded as follows:

- 0 to .99 → 1 (once a year or less)
- 1 to 1.99 → 2 (at least once a year)
- 2 to 2.99 →3 (at least once a month)
- 3 to 3.99 → 4 (at least a couple of times a month)
- 4 to 4.99 → 5 (at least once a week)
- 5 to 6   → 6 (a couple of times per week or daily)

Results and Discussion

This study sought to establish the relationship between workplace of spirituality and work engagement. Recent studies have verified similarities and significant connections between the two (Saks, 2011). An authentic practice of workplace spirituality will create a positive impact on the employee, his group, and the whole organization (Millman, Czaplewski and Ferguson, 2003). The sample size of this study (n=36) with its profile is discussed below. SPSS programme version 20 established the appropriateness for data analysis.

Table 4.

Demographic Profile of the Respondents (n=36)

Profile	Mean (SD)	N	%
Age	27.47 (5.47)		
Gender			
Male		18	50%
Female		18	50%
Years of Teaching Experience	7.37 (4.21)		
Number of Years in SBU	3.63 (1.91)		
Grade Level Handled			
Grade 11		17	47.2%
Grade 12		19	52.8%
Educational Attainment			
Bachelor's Degree		27	75%
With MA units		2	5.6%
Master's Degree		7	19.4%

Table 4 presents the demographic profile of the respondents in this study. The average age of respondents is 27 years old. There is equal distribution of male and female respondents. They have been teaching for an average of seven years and a majority of the respondents have been teaching for three years or more at San Beda University. 47.2% of the respondents handle Grade 11 students and 52.8% handle Grade 12 students. Three-fourths of the respondents finished their Bachelor's degree, 5.6% have MA (master's) units, and 17.9% have Master's degree.

Workplace Spirituality Scores

Table 5.

Descriptive Statistics of Workplace Spirituality (n=36)

Item	Mean	SD
Meaningful Work	**5.94**	**0.71**
I see a connection between work and social good	6.42	0.65
I understand what gives my work personal meaning	6.17	0.85
My work is connected to what I think is important in my life	6.17	0.81
I experience joy in work	5.72	1.03
I look forward to coming to work	5.70	0.92
My spirit is energized by my work	5.50	1.25
Sense of Community	**5.45**	**1.08**
I believe working cooperatively with others is valued	6.08	1.13
I feel part of a community	5.89	1.21
I believe people support each other	5.56	1.32
I feel there is a sense of being a part of a family	5.56	1.32
I think employees are linked with a common purpose	5.50	1.40
I believe employees genuinely care about each other	5.28	1.19
I feel free to express my opinions	4.28	1.80
Alignment of Values	**5.52**	**1.08**
I feel positive about the values of the organization (i.e. SBU)	5.91	0.91
I feel connected with the mission of the organization	5.70	1.21
My organization cares about whether my spirit is energized	5.58	1.80
My organization is concerned about the poor	5.58	1.27
I feel connected with the organization's goals	5.47	1.18
My organization has a conscience	5.42	1.27
My organization is concerned about health of employees	5.31	1.37
My organization cares about all its employees	5.19	1.41
Over-all	5.62	0.86

Table 5 shows the results of the survey given to our respondents on Workplace spirituality. The descriptive statistics presents that among the three aspects of Workplace spirituality, meaningful work got the highest rating with a score of 5.94, followed by alignment of values of 5.52 and sense of community had the lowest score of 5.45. The rating for meaningful work is very high, while alignment of values and sense of community got high ratings. The respondents value spirituality in an education work environment.

Significantly that connections between work and social good is highly regarded by the respondents. This affirms that the faculty members have a high sense of purpose in their teaching careers. A respondent stated, "Workplace spirituality has a great influence on my purpose and service as a teacher." Another respondent mentioned, "My profession is a vocation that calls us to lead the youth towards the path of goodness and holiness." Furthermore, another respondent appreciates the value of workplace spirituality as a way of transformation. He said, "finding meaning in what I do/work for is the thing that motivates me to give my 100%. This belief keeps me grounded in the sense that I'm doing what I do not because I'm compensated but because I believe that what I do may somehow change someone's life."

The values that the teachers have are grounded on the values of the organization. This creates a positive outlook and positive workplace environment. A respondent said, "*Ora et labora*, fully integrated into our work helps me to cope with anxiety in dealing with my daily teachings and connection with my students." Another respondent mentioned, "[The] community helps me to become closer to God and do my responsibility as a Catholic. This helps me to become a better teacher by instilling the values of the university." The respondents mentioned that they also struggle to adapt to the demands of their profession and to respond to the circumstances of the times. A respondent said, "This new normal that we are experiencing right now might give too much stress to everyone, especially during (sic) adjusting one's self to adapt on (sic) this current situation. It is important to create an environment with (sic) full of people that motivates everyone to become more productive and promote a community that shows love, care, and trust with everyone."

The sense of community had a high rating where cooperation is highly regarded. A respondent shared, "Being in a workplace with many amazing people gave (sic) you a way to communicate your hardships to a few you can rely on, and as a community, that someone can lend you an open ear." However, an openness to express one's opinion is an area for development. One respondent commented, "[Workplace spirituality] would be better achieved with the support and openness of the administrators." The sense of care towards employees is regarded with much esteem. A respondent commented, "I find that the SHS teachers genuinely care about one another and we celebrate each others' success."

Nonetheless, this study showed a Very High Over-all Score for workplace spirituality. This indicates that the respondents have high regard for spirituality. The culture in the school has greatly influenced the respondents to persevere in their work and to find value in what they do.

Work Engagement Scores

Table 6

Descriptive Statistics of Work Engagement (n=36)

Item	Mean	SD
Vigor	**4.49**	**0.68**
In my work I always persevere, even when things do not go well.	5.11	1.04
In my job, I feel strong and vigorous.	4.58	0.94
I can continue working for very long periods at a time.	4.42	1.02
In my job, I am very resilient mentally.	4.33	0.96
At my work, I feel bursting with energy.	4.31	0.95
When I get up in the morning, I feel like going to work.	4.19	1.01
Dedication	**4.85**	**0.7**
I am proud of the work that I do.	5.31	0.82
I find the work that I do full of meaning and purpose.	4.89	0.89
I am enthusiastic about my job.	4.83	0.91
My job inspires me.	4.81	0.98
I can continue working for very long periods at a time.	4.41	1.05
Absorption	**4.49**	**0.65**
Time flies when I'm working.	5.08	0.97
I am immersed in my work.	4.86	0.76
I get carried away when I'm working.	4.52	0.99
I feel happy when I am working intensely.	4.33	0.89
It is difficult to detach myself from my job.	4.13	1.10
When I am working, I forget everything else around me.	3.97	1.46
Over-all	**4.59**	**0.62**

Table 6 presents the descriptive statistics on the impact of the three elements of work engagement among the respondents. Dedication showed a high score for and average scores for vigor and absorption, respectively. This is an indication that respondents have a strong sense of involvement and enthusiasm in the workplace.

Pride of work had the highest score in this questionnaire with a mean score of 5.31. One respondent proudly mentioned, "Working as a teacher,

if it's your passion, is a fulfillment you can always get every single day." Perseverance in work has a high score under Vigor, while daily enthusiasm to go to work had an average rating. The respondents showed that they are happily engrossed with work that they do not notice how time flies. However, they remain aware of what is happening around them despite being engaged in their responsibility.

Overall, this study indicated that work engagement has an **Average rating**.

Table 7.

Correlation between Workplace Spirituality and Work Engagement

Variables	Vigor r coefficient (p value)	Dedication r coefficient (p value)	Absorption r coefficient (p value)	Work Engagement r coefficient (p value)
Meaningful Work	*0.493 (0.002)	*0.515 (0.001)	*0.475 (0.003)	*0.568 (0.000)
Sense of Community	*0.709 (0.000)	*0.582 (0.000)	*0.472 (0.004)	*0.599 (0.000)
Alignment of Values	*0.921 (0.000)	*0.369 (0.027)	0.286 (0.091)	*0.406 (0.014)
Workplace Spirituality	*0.895 (0.000)	*0.544 (0.001)	*0.448 (0.006)	***0.581 (0.000)**

*p value is significant at 0.05 level

Table 7 presents the correlation of workplace spirituality and work engagement. that vigor had the highest score in relation to the different aspects of workplace spirituality. The overall score of 0.581 indicates that workplace spirituality and work engagement show a positive relationships. Meaningful work brings a positive results to the organization. The organizational value contributes to the job satisfaction of employees (Hassan, Nadeem and Akhter, 2016). Workplace spirituality contributes to organizational sustainability (Bella, Quelhas, Ferraz and Bezerra, 2018).

The more teachers are motivated to teach and have a sense of purpose in what they do, the more that they can be involved in the community and the school environment (Mahipalan and Sheena, 2018).

The result of this study proved that the university has a significant role in upholding the high level of spirituality among the faculty. This being said, one can conclude that if an organization advocates spiritual values in the workplace, it will allow the employees to be more engaged in their respective responsibilities. This is an indicator that the programs for faculty training and development have positive effects on the culture, relationship and job satisfaction of teachers in the Senior High School. This positive outcome also satisfies the objective of this paper of presenting the level of spirituality and teacher engagement. The school management can use the results of this study in evaluating its programs. Improvements can be made as far as activities or programs affecting sense of community which involves communication and interaction among employees especially with their respective department heads are concerned.

This study confirms the importance of studying and introducing empirical measurements in spirituality in the university. These findings can be practically applied in the organization. Thus, the hypothesis that: there is no significant correlation between workplace spirituality and work engagement among the faculty of the Senior High School of San Beda University – Manila is not accepted. This study proved otherwise: that there is a significant correlation between workplace spirituality and work engagement.

Conclusion

This study attempted to present the correlation of workplace spirituality and workplace engagement among Senior High School Faculty of San Beda University. The results of the study clearly showed a positive correlation between workplace spirituality and work engagement among the Senior High School Teachers. Workplace spirituality of the teachers greatly affects teacher engagement in the workplace. Both workplace spirituality and work engagement are related to numerous positive outcomes at the individual level as well as group and organizational levels (Mahiplan and Sheena, 2018, page 217).

Workplace Spirituality is a significant channel to be connected to one's interior life. The moral life of an individual is shown through his thoughts, decisions, and behavior (Harajli, 2020). This study is an attempt to explore the relationship between workplace spirituality and work

engagement for the benefit of both the employees and the organization. Workplace spirituality in school affects meaningful life, meaningful work, interpersonal relationship, and the state of the working environment (Kumar, 2018).

Future researches on spirituality may explore this study's impact on non-teaching and support staff in the school. An organizational assessment may also be conducted on the impact of workplace spirituality and workplace engagement. This will measure how targets, goals, and outputs are achieved with workplace spirituality and work engagements as variables. Moreover, research may also be done to study the impact of workplace spirituality on other variables of business: profitability, corporate social responsibility or marketing impact. Workplace spirituality may also be explored in other industries like medical, hospitality, mass media or in banking and finance, where profit and trust have an important role in the industry's sustainability. Lastly, further studies can be done to establish more empirical tools to strengthen the findings of previous researches on workplace spirituality and work engagement.

Recommendations

Workplace spirituality is about recognizing the introspection of the employee that is nurtured by the meaning of work and manifested by his relations in the community (Saks, 2011). Teachers who consider their work as liability are likely to undergo unnecessary challenges in school and may experience burnout (Aprillia and Katiara, 2020). They must undergo regular faculty development programs to update their curriculum and to broaden their understanding of the nature of the teaching profession. The Office of the Principal, together with the vice principals, may formulate and implement such programs. More opportunities for dialogue and feedback must be provided to teachers by their respective academic heads. Furthermore, effective channels for communication must be in place to properly pass on information to teachers and their stakeholders.

The Campus Ministry Office may continue providing spiritual guidance to the teachers through conferences, recollections, and celebrations of the sacraments. Spiritual direction and *lectio divina* (sacred reading) and Bible sharing may also be introduced to nurture the spiritual needs of the teachers.

The Mission and Identity Office may re-introduce the organizational values particularly the Ten Benedictine Hallmarks with the corresponding practical applications to the day-to-day activities of the teachers. The Human Resource Management Office may provide enrichment programs to faculty members such as, but not limited to, wellness programs or workouts toward a balanced life, all for the enhancement of employees.

I would like to propose the following table, which outlines San Beda University's mission, vision, and organizational values. I included the column on relationships, which is an important component of workplace spirituality.

Table 8.

San Beda University's (SBU) mission, vision, and values correlated with relationship

Relationship Towards	SBU Mission	SBU Vision	Ten Hallmarks of Benedictine Education
God	*Fides* (Faith)	Wholly Christian	1. **Love** of Christ and neighbor 2. **Prayer**: A life marked by liturgy, *lectio* and mindfulness
Oneself	*Scientia* (Knowledge)	Fully Human	3. **Stability:** commitment to the daily life of this place, its heritage and tradition 4. ***Conversatio*:** the way of formation and transformation 5. **Discipline:** a way toward learning and freedom 6. **Humility:** knowledge of self in relation to God, others and creation
Others	*Virtus* (Virtue)	Truly Filipino and Globally Competitive	7. **Obedience:** a commitment to listening and consequent action 8. **Stewardship:** responsible use of creation and arts 9. **Hospitality:** openness to the other 10. **Community:** call to serve the common good

I attempted to identify an individual's key relationships inspired by Gospel of charity (see Matthew 22:37-38), namely: relationship with God, oneself and others. I tried to align these relationships with the mission, vision and Benedictine Hallmarks of Education or the corporate values advocated by the university.

The first row is about a relationship with God that is grounded on Faith. Faith is necessary to be wholly Christian. This is related to love of God and neighbor and prayer. God is the source of all goodness. He is the source and summit of our life.

The second row is about the relationship with oneself wherein knowledge is important. Fully human is about having a healthy mind and deep introspection that lead to finding one's purpose in life. The values associated with the self are stability, *conversatio*, discipline and humility. These values begin with one's understanding of who s/he is—humility. Humility comes for the Latin *humus* which means soil or ground. *Humus* is also the origin of the word human since man was created from the ground (see Genesis 2:7).

The last row is about relationships with others. The items listed there are related to virtues and to being truly Filipino and globally competitive. The values connected with this relationship are obedience, stewardship, hospitality, and community. These are values that reinforce our relationship with others. Community calls for the common good and aligning our values with that of the organization or group to which we belong.

This table is my attempt to apply the principles of workplace spirituality to the existing principles espoused by San Beda University. This can guide administrators in making decisions and in promoting healthy workplace spirituality in the University. This study proves that there is a significant level of spirituality among the University's human resources, but more can be done to strengthen and develop it. This table can be a springboard in developing programs aligned to the annual themes of the University. For example, concerning the theme for Academic Year 2020-2021 "Excellence in the Educational Mission," administrators may focus on relationship with others, giving special emphasis on growth in virtue and being competitive at a global scale. The values of stewardship and community can be a foundation in promoting excellence in the field of

education. Excellence is not only about being the best but also the ability to transform lives and to sustain efforts at transformation. Thus, I would like to recommend that this table be introduced in the next administration planning to create programs that will engage employees in developing their skills and relations in the University.

I also would like to recommend programs like mentoring, succession planning, and regular dialogue among employees and administration to ensure a sound working relationship and sustainability in the leadership of the school.

Workplace Spirituality is a significant channel to be connected to one's interior life. The moral life of an individual is shown through his thoughts, decisions, and behavior (Harajli, 2020). This study is an attempt to explore the relationship between workplace spirituality and work engagement for the benefit of both the employees and the organization. Workplace spirituality in school affects meaningful life, meaningful work, interpersonal relationship and the state of the working environment (Kumar, 2018).

Future researches on spirituality may explore this study's impact on non-teaching and support staff in the school. An organizational assessment may also be conducted on the impact of workplace spirituality and workplace engagement. This will measure how targets, goals and outputs are achieved with workplace spirituality and work engagements as variables. Moreover, research may also be done to study the impact of workplace spirituality on other variables of business: profitability, corporate social responsibility or marketing impact. Workplace spirituality may also be explored in other industries like medical, hospitality, mass media or in banking and finance, where profit and trust have an important role in the industry's sustainability. Lastly, further studies can be done to establish more empirical tools to strengthen the findings of previous researches on workplace spirituality and work engagement.

References

New American Bible. (Revised ed.). (2010). United States Conference of Catholic Bishops

Aprilia, E. and Katiara, O. (2020). Workplace spirituality and work engagement among High School Teachers in Banda Aceh. *Jurnal Psikologi*, *19*(1), 61-71.

Ashmos, D.P. and Duchon, D. (2000). Spirituality at work: a conceptualization and measure. *Journal of Management Inquiry*, *9*(2), 134-145.

Aumann, J. (1980). *Spiritual Theology*. Sheed and Ward.

Bella, R. L. F, Quelhas, O. L. G., Ferraz, F. T., & Bezerra, M. J. S. (2018). Workplace spirituality: sustainable work experience from a human factors perspective. *Sustainability. 10,* 1887. doi:10.3390/su10061887

Benedict (1981). In Fry, T., I. Baker, T. Horner, A. Raabe, & M. Sheridan (Eds.) *RB1980: The Rule of Saint Benedict in Latin and English with notes*. The Liturgical Press. (original work published in the sixth century A.D.)

Benedict XVI. (2005, December 25). Encyclical Letter. *Deus caritas est*.

Dehaghi, M. R., Goodarzi, M., & Arazi, Z. K. (2012). The effect of spiritual values on employees' organizational commitment and its models. *Procedia – Social and Behavioral Sciences, 62*, 159 – 166.

Du Plooy, J. & Roodt, G. (2010). Work engagement, burnout and related constructs as predictors of turnover intentions. *SA Journal of Industrial Psychology, 36*(1)*,* 910-922.

Giacalone, R., & Jurkiewicz, C. (2003). *Handbook of workplace spirituality and organizational performance*. Armonk, NY: M.E. Sharpe.

Harajli, D. A. (2020). Spiritual well-being of business school. *The Palgrave Handbook of Workplace Well-Being.* Palgrave Macmillan, Cham. 1-26. https://doi.org/10.1007/978-3-030-02470-3_80-1

Hassan, M., Nadeem A.B., Akhter, A. (2016). Impact of workplace spirituality on job satisfaction: Mediating effect of trust. *Cogent Business and Management.* https://doi.org/10.1080/23311975 .2016.1189808

Hudtohan, E. T. (2015). Elements of spiritually-driven management in a Catholic Business School: a literature review. *The Journal of Business Research and Development*. San Beda College Graduate School of Business. 43-79.

Jamison, C. (2006). *Finding Sanctuary: Monastic Steps for Daily Life.* Liturgical Press.

Jurkiewicz, C. L. (2002). The phantom code of ethics and public sector reform. *Journal of Public Affairs and Information.* l6. 1-19.

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *The Academy of Management Journal*, *33*(4), 692–724. https://doi.org/10.2307/256287

Karakas, F. (2010). Spirituality and performance in organizations: a literature review. *Journal of Business Ethics*, *94*(1) pp. 89–106. doi:10.1007/s10551-009-0251-5

Kassing, J.W., Piemonte, N.M., Goman, C.C. & Mitchell, C.A. (2012). Dissent expression as an indicator of work engagement and intention to leave. *Journal of Business Communication*, *49*(3), 237-253. https://doi.org/10.1177/0021943612446751

Khan,K. E., Khan S. E. & Chaudhry A. G. (2015). Impact of servant leadership on workplace spirituality: Moderating role of involvement culture. *Pakistan Journal of Science, 67*(1), 109-113.

Kinjerski, V. (2013). The spirit at work scale: Developing and validating a measure of individual spirituality at work. *Handbook of Faith and Spirituality in the Workplace: Emerging Research and Practice*, 383-402. doi: 10.1007/978-1-4614-5233-123.

Mahipalan, M. & Sheena (2018). Role of workplace spirituality and employee engagement in determining job satisfaction among secondary school teachers. *Journal of Management Research. 18*(4)*. 211-225.

Milliman, J., Czaplewski, A. J., & Ferguson, J. (2003). Workplace spirituality and employee work attitudes: An exploratory empirical assessment. *Journal of Organizational Change Management, 16*(4), 426-447.

Mousa, M. & Alas, R. (2016). Workplace spirituality and organizational commitment: A study on the public schools teachers in Menoufia (Egypt). *African Journal of Business Management, 10*(10)*, 247-255. doi: 10.5897/ABJM2016.8031

Müller-Stewens, G., Muff, M., & Eberle, T. (2016). The management of Monasteries. *Alliance for International Monasticism: English Language Bulletin, 110,* 47-57.

Petchsawang, P. & Duchon, D. (2009). Measuring workplace spirituality in an Asian context. *Human Resource Development International, 12*(4)*, 459-468. doi:10.1080/13678860903135912

Petchsawang, P. & Duchon, D. (2012). Workplace spirituality, meditation, and work performance. *Journal of Management, Spirituality & Religion, 9*(2), 189-208. doi:10.1080/14766086. 2012.688623

Pokhariyal, G.P. (2020). Importance of Spirituality and Happiness at the Workplace. *International Journal on World Peace, 37*(3), 65-73.

Pradhan, R.K, Jena, L.K, & Soto, C.M. (2017). Workplace Spirituality in Indian Organizations: Constructions of Reliable and Valid Measurement. *Business: Theory and Practice*, *18*, 43-53. https://doi.org/10.3846/btp.2017.005

Saks, A. M. (2011). Workplace spirituality and employee engagement. *Journal of Management, Spirituality & Religion*, *8*, 317-340.

Saks, A. M., & Gruman, J. A. (2014). What Do We Really Know About Employee Engagement? *Human Resource Development Quarterly*, *25*(2), 155–182. https://doi.org/10.1002/hrdq.21187

Schaufeli, W.B., Salanova, M., Gonzalez-Roma. V. & Bakker, A.B. (2002). The measurement of engagement and burnout and: A confirmative analytic approach. *Journal of Happiness Studies*, *3*, 71-92.

Schaufeli, W.B. & Bakker, A.B. (2003). The Utrecht Work Engagement Scale (UWES). *Test manual*. Utrecht University, Department of Social and Organizational Psychology.

Sheng, C.W. & Chen, M.C. (2012). Workplace Spirituality scale design – the view of oriental culture. *Business and Management Research, 1*(4), 46-62. https://doi.org/10.5430/bmr.v1n4p46

Swanepoel, H. & van der Walt, F. (2015). The relationship between workplace spirituality and work-related attitude. *African Journal of Business and Economic Research*, *10*(1), 95 – 116.

The Extent of Sustainability Practices in San Beda University: The Basis for Action Plan Formulation

Christian Bryan S. Bustamante
College of Arts and Sciences
San Beda University, Manila, Philippines
cbustamante@sanbeda.edu.ph

Rulina B. Viloria
College of Arts and Sciences
San Beda University, Manila, Philippines
rviloria@sanbeda.edu.ph

Abstract

Higher educational institutions play an important role in the realization of SDGs as an institution and as a member of a society. San Beda University launched the realignment of its programs and projects with the Sustainable Development Goals (SDGs) starting the academic year 2019-2020. An Office was created to oversee the promotion and realization of the SDGs in the University's programs and projects. This study was conceptualized primarily to look into the extent of implementation, promotion and realization of SDGs in the University's programs and projects. The University is in infancy stage when it comes to the implementation of SDG. However, at this stage it has demonstrated practices that are aligned with SDGs particularly with SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth), SDG 10 (Reduced Inequalities), SDG 16 (Peace, Justice, and Strong Institutions), and SDG 17 (Partnership for Goals). But it has to overcome and improve on particularly in the areas of faculty research citation, formulation and implementation of policies and programs on Climate Action (SDG 13), documentation of pertinent information that will demonstrate commitment to reducing inequality (SDG 10), and the documentation of programs and activities that fall under other SDGs.

Keywords: Sustainability, Sustainable Development Goals, Higher Education

In 2015, the United Nations launched the 2030 Agenda for Sustainable Development. The 2030 Agenda for Sustainable Development identified "comprehensive, far-reaching and people-centered set of universal and transformative Goals and targets" (UN 2015). It also recognized the need for eradicating poverty "in all forms and dimensions" as the "greatest global challenge and an indispensable requirement for sustainable development" (UN 2015). The 2030 Agenda for Sustainable Development also expressed the commitment of the global community to "achieve sustainable development in its three dimensions – economic, social and environmental – in a balanced and integrated manner" (UN 2015). It envisions a global society in 2030 that put an end to "poverty and hunger; to combat inequalities; to build peaceful, just and inclusive societies; to protect human rights and promote gender equality and the empowerment of women and girl; and to ensure the lasting protection of the planet and its natural resources" (UN 2015). Furthermore, the 2030 Agenda for Sustainable Development resolved to "create conditions for sustainable, inclusive and sustained economic growth, shared prosperity and decent work for all" (UN 2015).

The realization of the Goals and targets of the 2030 Agenda for Sustainable Development demands a "transformation of the financial, economic and political systems that govern societies to guarantee the human rights of all" (UN 2020). It also requires an "immense political will and ambitious action by all stakeholders" (UN 2020).

The Philippine government has implemented programs and projects for the promotion and realization of the 2030 Agenda for Sustainable Development. The Goals and targets of the 2030 Agenda are operationalized into "work-life balance, a comfortable, secure and peaceful life" for every Filipino (NEDA 2019). For the year 2019, emphasis has been on the implementation of programs and projects aligned with SDGs 4 (Quality Education), 8 (Decent Work & Economic Growth), 10 (Reduced Inequalities), 13 (Climate Action), 16 (Peace, Justice and Strong Institutions) and 17 (Partnership for Goals). Sustainability and inclusivity are the goals and principles that guide the Philippine government's development strategies for the country (NEDA 2019). Sustainability goals are implemented by adopting a whole-of-government and whole-of-society approach (NEDA 2019). This means that it is not the sole responsibility of the government to realize the sustainable goals but of all sectors in the society.

In the academic year 2019-2020, San Beda University launched the realignment of its programs and projects with the Sustainable Development Goals (SDGs). An Office was created to oversee the promotion and realization of the SDGs in the University's programs and projects. At the end of academic 2019-2020, there is a strong need to review and document the implementation, promotion and realization of SDG in the University. This study was conceptualized primarily to look into the extent of implementation, promotion and realization of SDGs in the University's programs and projects.

Research Problem and Objectives

This is the first study conducted on SDG practices at San Beda University. Hence, this study was conceptualized primarily to look into the extent of implementation, promotion and realization of SDGs in the University's programs and projects. The research question focused on the following: what is the extent of sustainability practices of San Beda University? More specifically, the authors aimed to achieve the following objectives:

1. To investigate the sustainability practices of San Beda University in realizing specific Sustainable Development Goals (SDGs) that fall within the following sustainable development dimensions: environmental, economic, social/cultural, and institutional/educational/political.
2. To identify the challenges experienced by the University in promoting and achieving the abovementioned SDGs.
3. To recommend the formulation of an action plan that will strengthen and sustain the role of the University in the promotion and achievement of SDGs.

Theoretical Background and Literature Review

This study is anchored on the humanist and sustainable perspectives of development.

The 1970s saw a paradigm shift in the perspective of development. This shift was marked by the "dethronement of GNP" (Todaro, 1994: 15) which carried the slogan, "redistribution from growth". This means that development in this era focused more on the "reduction and elimination of poverty, inequality, and unemployment within the context of a growing economy" (Todaro, 1994: 16, Seers, 1974).

This perspective of development focused on the human person, not on GNP and industrialization, as the means and end of development. The challenge to development, from this perspective, is to "improve the quality of life." Quality of life calls for higher income, better education, higher standards of health and nutrition, less poverty, a cleaner environment, more equality of opportunity, greater individual freedom, and richer cultural life (Todaro, 1994: 16). In the words of Dudley Seers (1974: 6), the universal aim of development is "the realization of the potential of human personality." The key questions to ask about development are:

> What has been happening to poverty? What has been happening to unemployment? What has been happening to inequality? If all three of these have declined from high levels, then beyond doubt this has been a period of development for the country concerned. If one or two of these central problems have been growing worse, especially if all three have, it would be strange to call the result "development," even if the per capita doubled (Seers,1974:6).

Pope Francis recently called for a notion of sustainable development that is based on the principle of common good. The principle of the common good "summons to solidarity and a preferential option for the poorest of" members of the society (Laudato Si, 158). Solidarity means that all human beings are interdependent. No one can exist without the other. In the context of the common good, humans should not only look after their personal needs and interests. It is also their moral responsibility to provide charity to others particularly to the least members of the society, the poor. Institutions as well as individuals are given authority and wealth to look after the welfare of other members of the society who are in need. Pope Francis also emphasized that it is not only the responsibility of the institutions and individuals to look after the welfare and needs of their generation but also of the generations to come. He called this as intergenerational solidarity (Laudato Si, 159). It means that the present generation should not only look after the common good of their generation but also of the next generations by preserving the natural environment. Pope Francis stressed that sustainable development cannot be separated from intergenerational sustainability (Laudato Si, 159). Intergenerational sustainability is not an option (Laudato Si, 159). It is the "basic question of justice, since the world we have received also belongs to those who will follow us" (Laudato Si, 159).

In 2015, the United Nations (UN) adopted the 2030 Agenda for Sustainable Development. To achieve sustainable development, it recognizes the need to eradicate hunger and poverty in all its forms and dimensions and ensure that all "human beings can fulfill their potential in dignity and equality and in a healthy environment." It is determined to "protect the planet from degradation" so that it can "support the needs of the present and future generations". The Agenda for Sustainable Development ensures that "all human beings can enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature." Seventeen sustainable goals have been identified to ensure that the vision of the 2030 Agenda will be realized. These are: end of poverty, zero hunger, good health and well-being, quality education, gender equality, clean water and sanitation, affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, reduced inequality, sustainable cities and communities, responsible consumption and production, climate action, life below water, life on land, peace and justice strong institutions, and partnership to achieve goals.

The Role of HEIs in SDGs

Weiyou and Ka (2020) examined how the eight University Grant Committee (UGC) – funded public universities in Hong Kong responded to the United Nations (UN) Sustainable Development Goals (SDGs) by using collective efforts to assess the policies and selected practices adopted to achieve and promote the sustainable development advocated by UN.

The article argued that the promotion of UN SDGs should go beyond sustainability accounting and practices. Fundamental transformations in the university governance anchored on the integration of UN SDGs in its systems, process, policies, and programs are essential and critical in the promotion of SDGs. Such transformations should result in the creation of an ecosystem for achieving the SDGs beyond the narrow definition to a broad notion of sustainable development. This would involve addressing the negative consequences of massification, privatization, and internationalization of higher education. Developing resilience and risk management are becoming increasingly important toward enhancing sustainability in university governance.

The same article (Weiyu and Ka, 2020) also presented that the success of the achievement and promotion of UN SDGs by the eight Hong Kong Universities can be attributed to the establishment of the Hong Kong Sustainable Campus Consortium (HKSCC) which serves as a sharing

platform and advisory organization to the eight participating universities to promote sustainability practices in their campuses, including research, teaching, and knowledge transfers. The HKSCC developed exemplary sustainability practices that led to the successful achievement and promotion of SDGs. These are the collective power through group working of eight universities, excellent performance of self-guaranteed sub-committee, and the good relationship with the government maintained by regular and effective reporting activities. The HKSCC also experienced challenges in the process of promoting the SDGs. These challenges are the need for re-affirmation of the value of sustainability in higher education institutions, the dilemma of the management, the lack of involvement of academics, and the lack of external validation. Despite these challenges, the HKSCC still did well in integrating eight universities into higher education sector to negotiate with business and the social sector to meet sustainability goals. The self-generated and voluntary sub-committees or working groups, guided by the "bottom-up" perspective, also played a significant role in the sustainability practices across eight universities. However, the HKSCC merely focuses on the environmental side of sustainability practices and is less engaged in the social impact side.

The authors of the article recommended that university leaders pay particular systematic attention and priority placement in their institutional plans, organizations, and budgets. Furthermore, they recommended the changing of the ecosystem and ecologies of universities as the key toward successful higher education sustainability.

Flinder, et. al. (2019) reviewed the existing literature to provide an integrative conceptualization of the impacts of higher education institutions (HEIs) on sustainability development goals (SDGs). The article defined impacts as the HEI's effects on its stakeholders, the natural environment, the economy and society. Impacts, as it was further explained, are to be understood as the effects that an HEI has outside of its organizational or academic boundaries – namely, its stakeholders, the natural environment, the economy and society. This includes the impacts of the HEI as an organization caused by activities in the core elements: education, research, campus operations, outreach, campus experiences, institutional framework and assessment and reporting. The authors clarified that outreach activities (e.g., community teaching) are not regarded as impacts because they take place within the sphere and under the direct control of the HEI and should not be confused with their potential effects (e.g., contribution to school and career achievements).

The main question of the Flinder et al. (2019) article was, "what themes are addressed within the literature of the impacts of HEIs on SD?" Along this line, the article identified the following themes as: outreach activities, assessment and reporting, non-academic impacts, impacts of education on SD, campus operations, campus experiences and societal challenges, and the last is generalist.

In the first theme, *outreach activities*, the main emphasis of the studies is on school collaborations and the support of small business and the local community. In the second theme, *assessment and reporting*, studies applied a variety of different approaches, such as simulations and input-output models to examine socio-economic impacts of HEIs. In the *non-academic impacts of research*, the third theme, articles addressed impacts on policy, research uptake in business practice, societal impacts and the impacts of co-creation research. In *impacts of education* on SD, articles focused on sustainable lifestyles, economic impacts, and distance learning and impacts on culture. The theme category of *campus operations* focused on the impacts of campus operations on the natural environment. In *campus experiences* and *societal challenges,* studies focused on alcohol policy, staff training and community involvement, and green campus. The group of studies under the last theme**,** *generalist*, cannot be classified in any of the themes identified above.

The literature's definition of a sustainable university always refers to environmental, economic, and social concerns that universities should have on their activities, as well as the obligation of "leading by example": a university should "minimize the negative environmental, economic, societal, and health effects generated in the use of their resources" (Velazquez et al., 2006) ; a university must protect both human and ecosystem health and well-being, and apply knowledge gained to address today's and tomorrow's ecological and social challenges (Cole, 2003); efforts for energy resource conservation, waste reduction, and the promotion of social justice and equity must be transferred to society (Alshuwaikhat and Abubakar, 2008). Notable is Cortese's (2003) definition, which confirms Findler's 2019 study that the impacts of a higher education institution on sustainable development are based on the following themes or dimensions: education, research, campus operations, and community outreach. Lozano (2003) added a fifth dimension, claiming that the first four must be assessed and reported on.

Tilbury (2019) argued that the success of achieving and promoting SDGs in HEIs requires a rethink of the national (and international) higher education frameworks and processes for quality assurance and enhancement. It is important to seek different pathways to embed SDGs in educational quality codes and frameworks. That is why there is a need to work with qualified professionals such as quality assessors, quality agencies, accrediting bodies and curriculum reviewers.

Tilbury (2019) emphasized quality assurance and enhancement as a pathway to integrate SDGs in HEIs because for him, HEIs can best address the SDGs if they revise the "how" or pedagogical and assessment approaches as well as the "what" or content and learning outcomes. He further explained that HEIs must model SDGs in their management, practice and relationships with the community so that students will have a lived experienced of SDGs.

Gual (2019) had a similar argument with Tilbury by giving emphasis on teaching and learning as an essential strategy to a successful achievement and promotion of SDGs in HEIs. Gual explained that what HEIs really need to do is to change what is being taught and also how it is learned. HEIs have to question the goals and methods of their teaching, research, and assessment results, not based on the number of students and papers published but rather on real impact on improving the lives of people and the planet.

That is why for Gual (2019), the first thing that needs to be done is to change the outlook of knowledge, and to be aware of the consequences that arise from what people do. Secondly, teachers and students need to understand and address the SDGs by generating new knowledge, skills and motivations to achieve a true education for sustainable development. There is a need to focus on academic and vocational knowledge on SDGs, with much more holistic training in values. Thirdly, HEIs need to cooperate with one another, with development and non-government organizations,and with other sectors of the society to find resources, technologies and spaces for social, technological and economic innovation, to improve living conditions in towns and communities that suffer from inequality and risk.

Jorgensen (2019) also had similar observation with Tilbury (2019) and Gual (2019). SDGs, according to Jorgensen, gave a sense of relevance and purpose to HEIs by directly linking research to the large community

beyond the academia and by giving a sense of purpose and belonging to a greater mission. Jorgensen explained that the achievement of SDGs is also linked to the need for investments in education, research, and innovation. The SDGs are interconnected. Hence, achieving them requires integrated implementation of programs and activities.

Dimensions of Sustainable Development in HEIs

Alexio et al. (2018) pointed out a number of relevant studies on the engagement of HEIs in implementing sustainability practices. The authors provided examples of sustainability practices in various dimensions (e.g., environmental, economic, social, and institutional) that have been integrated into HEI core activities (e.g., education, research, operation, commitment engagement, and governance/culture)

Three pillars of SD dimensions have been identified: economic, social, and environmental (Albareda-Tiana et al., 2017; Amaral et al., 2015; Sammalisto et al., 2015). However, other SD pillars, particularly, institutional and cultural, are becoming more common (Lozano, 2008; Disterheft et al., 2013; Leal Filho et al., 2015). Meanwhile, other authors point to four SD dimensions proposed for sustainability practices and sustainable development practices and implementation in higher educational institutions: environmental, economic, social/cultural, and institutional/educational/political (Lozano, 2011; Alonso-Almeida et al.; 2015, Larrán Jorge et al., 2015; Aleixo et al., 2016).

SD's *economic dimension* entails economic viability and addressing economic needs (e.g., concern about economic performance, plans to improve energy efficiency and budget for practices promoting SD).   SD's *environmental dimension* proposes incorporating environmental concerns into the organization's strategy (e.g., construction of sustainable buildings on campus, separation of waste and its forwarding for recycling, and equipment to generate renewable energy). SD's *social and cultural dimension* refers to actions taken by either an organization's human resources or the surrounding community (e.g., policies promoting equality and diversity, developing and participating in recreational, cultural or sports activities, concerns and initiatives for social inclusion, and cultural or scientific initiatives targeting the outside community). The *institutional, educational, and political dimensions* of SD refer to how institutions shape their behavior and values, as well as how various stakeholders perceive the SD approach and objectives (e.g., SD included in the HEI mission, vision and values; concern with ethical issues; and HEI

has curricular units on SD).   Table 1 below summarizes the main sustainability practices in HEIs along the dimensions mentioned above:

Table 1.

Dimensions and Sustainability Practices in HEIs

DIMENSIONS	PRACTICES
Environmental	Declarations and actions related to HEIs involvement in environmental issues and resource scarcity (environment and management of natural resources; prevention of pollution; protection of environment and biodiversity; restoration of natural habitats; ecological footprint; non-renewable resources; depletion of materials; degradation).
Economic	Declarations and actions related to the direct economic impact and financial sustainability of HEIs (financial situation; results; efficiency, poverty reduction and market economy).
Social/Cultural	Declarations and explanation of policies and procedures concerning human rights (labor practices and decent work; human rights; quality of life; occupational health and safety; the equity dimension; training of employees; involvement in social issues and action within HEI community
Institutional/Educational /Political	Declarations and explanations on the HEI views, values, strategy, transparency in governance and ethical commitments. Also declarations and partnerships on national and international criteria for promoting sustainable development. Practices in education, research, university operations (e.g. certifications), community outreach and assessment and reporting were also considered.

Note: Adapted from Aleixio et al.2016

In summary, the various literature discussed above had illustrated that the success of the implementation of SDGs in higher educational institutions is a function of university governance by integrating the SDGs on their systems, processes, policies, and programs. Furthermore, the said literature emphasized that the implementation and integration of SDGs in the higher educational institutions' core elements – education, research, campus operation, outreach, campus experience, institutional framework, assessment, and reporting – must have impacts outside the organizational/academic boundaries.

On the other hand, other literature suggests that the success of SDG implementation in higher educational institutions can be realized by rethinking the national and international higher education frameworks and processes for quality assurance. There is a need to rethink the frameworks on teaching and learning as well as on the relevance and purpose of higher educational institutions' research programs to the larger community beyond the boundaries of the academic institutions.

Operational Framework

The theoretical background and literature review led the authors of this study to craft an operational framework (cf. Figure 1) by which the research objectives can be answered. First, the authors investigated the extent of sustainability practices of the San Beda University that are aligned with SDG #4 (Quality Education) ; SDG #8 (Decent Work and Economic Growth); #10 (Reduced Inequalities); #16 (Peace, Justice and Strong Institutions; and #17 (Partnership for Goals). Then, these sustainability practices were examined in relation to the dimensions for sustainable development. Correspondingly, the authors identified the challenges encountered and recommended an action plan in relation to education, research, campus operations, community outreach and assessment and reporting for possible consideration by the University administration as well as units and offices concerned.

Figure 1.

Operational Framework

SUSTAINABILITY PRACTICES WITHIN THE DOMAINS OF:		
A. Environmental	SUSTAINABLE DEVELOPMENT GOALS	Goal 4: Quality Education
B. Economic		Goal 8: Decent work and Economic Growth
C. Social / Cultural		Goal 10: Reduced Inequalities
D. Institutional / Educational / Political		Goal 13: Climate Action
		Goal 16: Peace, Justice and Strong Institution
		Goal 17: Partnership for Goals
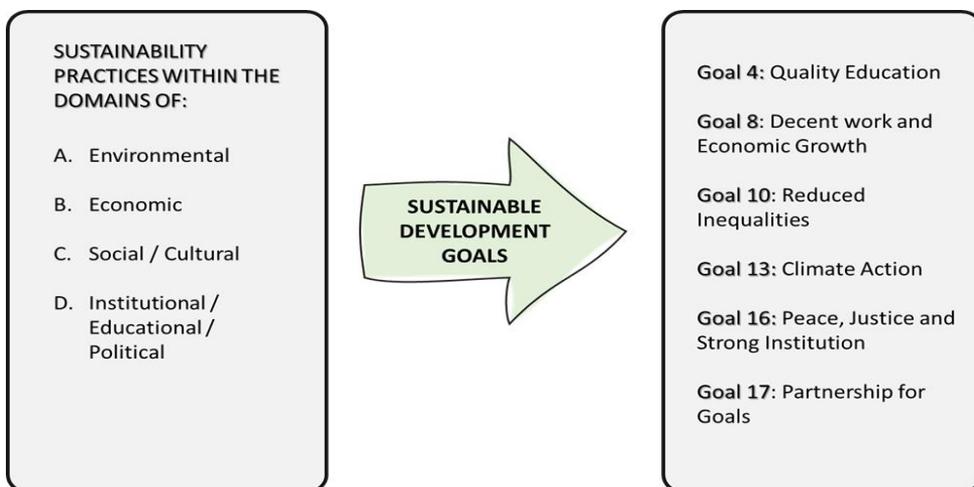
Methodology

This study used a qualitative exploratory research design and utilized the survey, interview and document analysis as research methods. The researchers gathered data on how SDGs were integrated, implemented and realized. The data gathered were based on the organizational classification of the University, specifically, academic units, non-academic units, and organizations, which were analyzed on how SDGs were integrated, implemented and realized in the core elements of the University. Interviews and documents were used as a means of gathering data and information from each unit, office, or organization.

Respondents were determined based on the organizational classification of the University, as shown in Table 2 below. The table also indicates the respondents interviewed and the type of documents analyzed as a source of information. The heads of each unit or organization were interviewed, thus making a total of twenty (20) respondents.

Table 2.

Organizational Classification, Number of Respondents and Documents Analyzed

Organizational Classification	Number of Respondents	Type of Document/s Analyzed
1. ACADEMIC UNITS		
College of Arts and Sciences College of Medicine College of Law College of Nursing Basic Education Department Graduate School of Business Graduate School of Law Graduate School of Liturgy	1 for each academic unit, in particular the Heads of the Academic Units *Total of 8 respondents*	Faculty Manual Student Handbook Memoranda Annual Reports MOAs

Table 2.

Continued

Organizational Classification	Number of Respondents	Type of Document/s Analyzed
2. NON-ADACEMIC UNITS Human Resource Office Accounting Office Placement Office Community Engagement Center Instructional Media Center Library Governance and Quality Assurance Office Office of Linkages and International Affairs Office for Research and Innovation Office of Vice President for Administration	1 for each academic unit, in particular the Heads of the Non-Academic Units *Total of 10 respondents*	Employees Manual Annual Reports Memoranda MOAs
3. ORGANIZATIONS SBU Employees Association SBU Union	President of each organization *Total of 2 respondents*	Annual Reports

The survey instrument was adapted from "THE Impact Rankings Methodology 2021 Version 2.0" to verify the presence of specific indicators for the identified SDGs.   The instrument, in google form, was sent through email during the early part of December 2020 until the early part of February 2021. The survey questionnaire focused on the programs implemented by the offices and no personal information were involved. After the survey, interviews were conducted with the heads of the different units, offices and organization to verify, deepen and discuss their responses. Interviews were held either through phone call or face-to-face. The authors ensured that personal information gathered was treated with utmost care and confidentiality.

Research Limitation

This study is limited to qualitative research through survey, interview, and document analysis. It focused only on selected academic and non-academic units in the San Beda University due to the restrictions brought by the Covid-19 pandemic. During the conduct of this study, there were times when the University shifted to work from home due to the declarations of Enhanced Community Quarantine (ECQ) or Modified

Enhance Community Quarantine (MECQ). It made the gathering of data very challenging. Hence, the researchers decided to conduct the interviews of selected offices concerned through email, face to face, or phone call, and requested the said offices to submit documents for evaluation and analysis.

Results and Discussion

This section is organized based on the results from the implementation of sustainability practices of the University in the attainment of the six identified SDGs such as #4 (Quality Education), #8 (Decent Work and Economic Growth), #10 (Reduced Inequalities), #13 (Climate Action), #16 (Peace Justice and Strong Institution), and #17 (Partnership Goals). Further, initiatives, projects, activities and program of the University were listed according to the four dimensions of sustainable development (environmental, economic, social/cultural, and institutional/educational/political.

On SDG #4: Quality Education

Education is one of the best means, if not the only means, to get out of poverty. Access to quality education equip individuals with the knowledge and skills required in order to be productive and to contribute to providing solutions to the problems of the society. It is also essential in improving people's quality of life.

Table 3.

Sustainability Practices Related to SDG #4: Quality Education

PRACTICES IN RELATION TO DIMENSION	INITIATIVES/PROJECTS/ ACTIVITIES/PROGRAM
Environmental *Participation and involvement in environmental issues*	Health, Environment Advocacy Seminars and Research Endeavors
Economic *Annual and semestral activities on education and lifelong learning that are open to public*	Seminars on Livelihood, (Marketing and Packaging, Business Efficiency) Business and economic research endeavors
Social/Cultural *Development and participation in individual's holistic development*	Mobile Obstetrics Monitoring for Moms Literacy and Spirituality Seminar
Institutional/ Educational/Political *Public access to the University Library's vast collection of learning resources*	Street Law Series and Free Legal Consultation

Table 3 reveals that San Beda University contributes to quality education in the Philippine society by allowing public access to the University Library's vast collection of learning resources. Policies and guidelines are being implemented to ensure that these resources are accessible not only to members of the University but also to the public in need of knowledge and information. Through its Community Engagement Center (CEC), the University implements annual and semestral activities on education or lifelong learning that are open to the public. These activities are (1) street law series and free consultation; (2) seminar on livelihood, i.e., marketing and packaging, business efficiency; (3) mobile obstetrics monitoring for moms; and health, environment advocacy, literacy and spirituality seminar. The street law series and a free consultation is an activity implemented by the CEC in coordination with the Legal Aide Bureau of the University's College of Law that provides free legal services to the public and to the University's partner communities. The livelihood seminar is also carried out with partner communities by the CEC and College of Arts and Sciences Business Cluster. While activity on mobile obstetrics for moms is implemented in partnership with the Municipality of Bauko in Mountain Province by the CEC and College of Medicine.   Lastly, the seminars on health, environment, literacy and spirituality are implemented by the CEC in coordination with the College of Arts and Sciences Liberal Arts and Sciences Cluster. All of these activities are beneficial to the public. But the street law series and free legal consultation is the most lauded program since it offers free legal services which are expensive in the country.

On SDG #8: Decent Work & Economic Growth

"Decent work in safe and stable conditions is a vital component of helping people out of poverty, with the related aspects of reducing hunger and increasing health" (THE, 2021). San Beda University as an employer has demonstrated commitment to good employment practices as evidenced by financial, medical, and educational benefits received by regular employees. These are sick, vacation and emergency leave benefits, longevity pay, education subsidy, medicine allowance, clothing subsidy and clothing loan, laundry allowance, transportation allowance, rice, subsidy, marriage, birth and burial benefits, meal discount, health care benefits, resignation benefits, retirement benefits, medical and dental services, performance bonus and Christmas cash gift. These benefits are on top of the statutory benefits: 13th -month pay, parental leave (RA 8972), special leave for women (RA 9710), violence against women and children leave (RA 8187), and paternity leave (RA 8187).

Table 4.

Sustainability Practices Related to SDG #8: Decent Work and Economic Growth

PRACTICES IN RELATION TO DIMENSION	INITIATIVES/PROJECTS/ ACTIVITIES/PROGRAM
Environmental	n/a
Economic *Pronouncements and actions related to financial sustainability of the University*	Initiated financial, medical, and educational benefits received by regular employees on top of the statutory benefits
Social/Cultural *Pronouncement and implementation of policies and procedures concerning labor rights, quality of life and work health and safety*	
Institutional/ Educational/Political *Announcement and statements on University's views, values, and legal commitments*	

Table 4 shows that the University has written policies on tenure, promotion, workdays, work hours, meal and rest periods, Saturday afternoon off, school holiday, suspension of work, salaries and wages, overtime work, night differential pay. The duties and responsibilities of academic and academic support personnel as well as the employees' code of discipline and process of conduct of investigation are also written in the manuals. The University has also clear guidelines on the implementation of anti-sexual harassment act. This is to protect all members of the University from possible sexual abuses and advances.

Table 5.

Sustainability Practices Related to SDG #10: Reduced Inequalities

PRACTICES IN RELATION TO DIMENSION	INITIATIVES/PROJECTS/ ACTIVITIES/PROGRAM
Environmental	n/a
Economic *Participation and active involvement related to the stakeholders/partners of the University for their economic and financial sustainability*	Livelihood seminars and conduct action researches to help uplift the lives of the poorest poor
Social/Cultural *Human rights declarations and explanations of policies and procedures (labor practices, quality of life, health and safety)*	Free medical consultation through the mobile obstetrics monitoring for moms Initiated employment benefits, opportunities and protection to all regardless of gender and background
Institutional/ Educational/ Political *Human rights declarations and explanations of policies and procedures (legal rights)*	Conduct of free legal consultation to the poorest members of the society through the Street Law Series

On SDG #10: Reduced Inequalities

Inequalities can be in a form of gender, economic, health, political and social. Table 5 reveals that San Beda University has activities and policies that contribute to the reduction of inequalities in the society. These are the conduct free legal consultation to the poorest members of the society through the street law series and free consultation program as well as the free medical consultation through the mobile obstetrics monitoring for moms. The different livelihood seminars are also intended to help uplift the lives of the poorest of the poor and thereby reducing inequalities. The University also contributed to the reduction of inequality through its employment benefits and practices that provide various benefits to its employees, provide equal employment opportunity to all regardless of gender and background as well as protect its employees from possible sexual abuses.

Table 6.

Sustainability Practices Related to SDG #13: Climate Action

PRACTICES IN RELATION TO DIMENSION	INITIATIVES/PROJECTS/ ACTIVITIES/PROGRAM
Environmental *Active participation and involvement in health and environmental issues and adherence and compliance on government rules and guidelines for environmental care and protection*	Water safety and survival training to its partner communities through the CEC Seminar on community-based disaster risk reduction and management towards safe and resilient communities Research publications and presentations related to environmental issues

On SDG #13: Climate Action

Climate action refers to the actions implemented in order to "reduce the impact of climate change, especially amongst the poorest who will be the most affected." Table 6 shows that the University regularly conducted water safety and survival training for its partner communities through the CEC. It also provides seminar on community-based disaster risk reduction and management towards safe and resilient communities.

Table 7.

Sustainability Practices Related to SDG #16: Peace, Justice, and Strong Institutions

PRACTICES IN RELATION TO DIMENSION	INITIATIVES/PROJECTS/ ACTIVITIES/PROGRAM
Institutional/ Educational/ Political *Enhanced networking and linkages effort for best practices in law education as well as other professional practices for the promotion of peace and justice* *Transparency in governance, ethics and values, programs and policies*	Training and formation of law students to eventually practice their profession to and become promoters of peace and justice Formal partnership with government and private sectors for the promotion of peace and justice Formation of BOT whose members comprise of Benedictine monks, alumni, school administrators and industry practitioners Pro-active student governments

On SDG #16: Peace, Justice, and Strong Institutions

Universities are expected to support strong institutions in their respective countries and promote peace and justice (THE, 2021). San Beda University has demonstrated this by producing graduates in the discipline of law. Table 7 shows that for the last three academic years (2017-18, 2018-19, 2019-2020), the University has produced 543 graduates in doctor juris and 94 in master/doctor of laws. This is 22% of the total number of graduates for the last three academic years. The University is one of the producers of lawyers in the country as well as public officials who are serving in all branches of the government as well as in both local and national government.

As an institution, the University has governance measures with the presence of a Board of Trustees (BOT) composed of Benedictine monks, alumni, and some alumni who are administrators and faculty of the university. The University also has student government bodies that represent the interests of the students to the administration. Policies and procedures on the engagement of other stakeholders with the University are in place to ensure that programs of the University are aligned with the needs and demands of the society. The collaboration of the University through its faculty and administrators with the government particularly in the area of law is also in place. This collaboration resulted in meaningful activities that are beneficial to the community. These are the blood donation program in partnership with Philippine Blood Center and the legal and paralegal services in partnership with Barangay San Antonio, Quezon City, Manila Social Welfare and Development, Sinag sa Sais Community Center.

On SDG #17: Partnership for Goals

Partnership for goals refers to Universities support for "SDGs through collaboration with other countries, the promotion of best practices and the publication of data and evidence" (THE, 2021).

Table 8.

Sustainability Practices Related to SDG #17: Partnership for Goals

PRACTICES IN RELATION TO DIMENSION	INITIATIVES/PROJECTS/ ACTIVITIES/PROGRAM
Social/Cultural *Pronouncements and actions related to poverty reduction, health and safety measures, and other social issues*	Seminars and trainings on volunteerism, basic survival, food security, nutrition and livelihood
Institutional/ Educational/ Political *Formal partnerships, networking, collaborations and linkages to promote sustainable development and sharing of best practices in knowledge creation, research, assessment and certifications*	Research and seminar-fora in collaboration with partner schools abroad (ex. RENPER) Organizing transformational leadership training-seminar with foreign participants like SEED Membership in professional organizations Accreditation and certification for quality management and assurance

Table 8 indicates the sustainable practices of the University in the attainment of SDG#17. San Beda University's Office for Linkages and International Affairs (LIA) is responsible for storing the research works in partnership with foreign institutions. In cooperation with its international partner institutions, the University's LIA also organizes the Asean Learning Network (ALN) Social Enterprise for Economic Development (SEED) and Regional Network on Poverty Eradiaction (RENPER). The former is a "cross-cultural Transformational Leadership Program" organized by the University in collaboration with ALN. It immerses foreign and local faculty and students in depressed communities to conduct research on how to help improve the lives of the people in the said communities. The latter, on the other hand, "creates opportunities for high impact international fora on poverty eradication." The University in cooperation with the members of RENPER in South and South East Asia organizes fora that will lead to the understanding of the plight of the poor, causes of poverty as well as solutions that will result in poverty alleviation.

The University's CEC also implements programs and activities on teaching the next generation to adopt sustainability in their lives. These

are the seminars and trainings on volunteerism, basic survival, food security, nutrition, and livelihood.

Challenges and Recommendations

The University is in its infancy stage of integrating SDGs in its academic and non-academic programs as well as activities.   The establishment of an SDG Office will further strengthen and solidify San Beda's contribution to the achievement of SDGs in the society that it serves and within the institution. There are some challenges that the University has to address.   One of the challenges for the University is the documentation of cited research works in the areas of quality education and lifelong learning, decent work and economic growth, reduced inequalities, and climate action. Another challenge is the documentation of first-generation students, student employment placement, student and employee with disabilities. The crafting and implementation of policies and programs on climate action also need to be improved including the and documentation of research and activities in other SDGs.

For the University to further strengthen and sustain its implementation of SDGs, these SDGs must be integrated in the University's strategic objectives. Indicators must be formulated and identify that will guide offices concerned on the implementation of SDGs. Offices and units within the University must conduct activities annually or semestral that are aligned with the SDGs. Offices and units must submit their annual activity plan pertaining to SDGs. The University must also evaluate the performance of offices and units based on the SDG objectives and indicators.

Plan of Action

The challenges identified can be further overcome by the University by formulating plan of action on the following:

1. The University must further strengthen its research program aligned with the SDGs.
2. The University must review academic and non-academic activities in the light of the SDGs.
3. The University must produce research articles aligned with any of the SDG published in journals indexed using Elsevier's ASJC classification and the proportion of published articles must appear in the Top 10% of journals according to the Citescore metric.

4. The University must formulate and implement innovative policies and programs on Climate Change (SDG 13) and document pertinent information that will demonstrate commitment to reducing inequality (SDG 10).
5. The University must formulate a system that will document all programs and activities that fall under any of the SDGs.

Conclusion

Based on the findings from this study, San Beda University has practices that are aligned with SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth), SDG 10 (Reduced Inequalities), SDG 13 (Climate Action), SDG 16 (Peace, Justice, and Strong Institutions), and SDG 17 (Partnership for Goals). In SDG 4, the University has contributed to quality education by providing public access to its vast collection of learning resources as well as implementing on lifelong learning that is open to the public. In SDG 8, the University has demonstrated commitment to good employment policies and practices and providing financial, medical, and educational benefits to regular employees. In SDG 10, the University has implemented activities and policies that contribute to the reduction of inequalities in the society such as through employment benefits and practices to employees and free legal and medical services to the poorest of the poor. In SDG 13 (Climate Action), the University conducts water safety, survival training , and community-based disaster risk reduction and management for communities. In SDG 16, the University also showed support to peace, justice, and strong institutions by producing graduates in the discipline of law, maintaining strong governance in the Board of Trustees (BOT), student government bodies, and stakeholder engagements. Lastly, in SDG 16, the University's Office for Linkages and International Affairs (LIA) maintains research works in partnership with foreign institutions and through the University's Community Engagement Center (CEC)'s training programs.

Some challenges identified in the implementation of the SDG may be overcome through a Plan of Action suggested in this study.

References

Aleixo, A.M., Azeiteiro, U. M., & Leal, S. (2018). The implementation of sustainability practices in Portuguese higher education institutions. *International Journal of Sustainability in Higher Education, 19*(1), 146-178, https://doi.org/10.1108/IJSHE-02-2017-0016

Alshuwaikhat, H.M. and Abubakar, I. (2008), An integrated approach to achieving campus sustainability: assessment of the current campus environmental management practices. *Journal of Cleaner Production*, *16*(*16*), 1777-1785.

Amaral, L.P., Martins, N. and Gouveia, J.B. (2015), Quest for a sustainable university: a review. *International Journal of Sustainability in Higher Education*, *16*, 155-172.

Cortese, A.D. (2003). The critical role of higher education in creating a sustainable future. *Planning for Higher Education*, *31*(3), 15-22.

Disterheft, A., Caeiro, S., Azeiteiro, U.M. & Filho, W.L. (2013), Sustainability Science and Education for Sustainable Development in Universities: A Way for Transition. In S. Caeiro, W. Leal Filho, C. Jabbour and U.M. Azeiteiro (Eds.) Sustainability Assessment Tools in Higher Education Institutions: Mapping Trends and Good Practices Around the World. *Springer International Publishing*. 3-28.

Findler, F., et. al. (2019). The impacts of higher education institutions on sustainable developments: A review and conceptualization. *International Journal of Sustainability in Higher Education*. *20*(1), Emerald Publishing Limited, 1467-6370. https://www.doi.org/10-1108/1JSHE-07-2017-0114.

Francis. (2015). *Laudato Si*. Paulines Publishing House.

Gual, C. (2019). Ready to house a real impact on achieving the sustainable development goals (SGDs)? *Implementing the 2030 Agenda at the Higher Education Institutions: Challenges and Responses*. Global University Network for Innovation.

Jorgensen, T. (2019). Universities to achieve the SDGs and approach the next hurdle. *Implementing the 2030 Agenda at the Higher Education Institutions: Challenges and Responses*. Barcelona: Global University Network for Innovation.

Leal Filho, W., Manolas, E. and Pace, P. (2015), The future we want: Key issues on sustainable development in higher education after Rio and the UN decade of education for sustainable development. *International Journal of Sustainability in Higher Education*, 16, 112 - 129.

Lozano, R. (2011). The state of sustainability reporting in universities. *International Journal of Sustainability in Higher Education*, 12, 67-78.

Lozano-Ros, R. (2003). Sustainable development in higher education. *Incorporation, assessment and reporting of sustainable development in higher education institutions*, Lund University.

National Economic Development Authority. (2019). *The 2019 voluntary national review of the Philippines: Review of the status of the implementation of Sustainable Development Goals in the Philippines focusing on empowering people and ensuring inclusiveness and equality*.

Sammalisto, K., Sundstrom, A. and Holm, T. (2015). Implementation of sustainability in universities as perceived by faculty and staff e a model from a Swedish university. *Journal of Cleaner Production* 106, 45-54.

Tilbury, D. (2019). Beyond snakes and ladders: Overcoming obstacles to the implementation of SDGs in higher education institutions. *Implementing the 2030 Agenda at the Higher Education Institutions: Challenges and Responses*. Global University Network for Innovation.

United Nations. (2020). *The Sustainable Development Goals Report 2020*.

United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development*.

Velazquez, L., Munguia, N., Platt, A. and Taddei, J. (2006), Sustainable
    university: what can be the matter?. *Journal of Cleaner
    Production. 14*(9 &11), 810-819.

Weiyou Xiong and Ka Ho Mok. (2020). Sustainability practices of higher
    education institutions in Hong Kong: A case study of a
    sustainable campus consortium. *Sustainability* 2020, 12, 452;
    https://www.doi.org//10.3390/su12020452, www.mdpi.com/
    journal/sustainability.

The Philippine Electricity Power Market Supply Options: Challenges and Policy Implications for Greening Economic Growth, Climate Resiliency, and Low Carbon Future

Edilberto B. Viray, Jr.
College of Arts and Sciences
San Beda University, Manila, Philippines
eviray@sanbeda.edu.ph

Celedonio B. Mendoza, Jr.[+]
College of Arts and Sciences
San Beda University, Manila, Philippines
cmendoza@sanbeda.edu.ph

Abstract

Over the past few years, energy security and sustainable development have moved up the global agenda. Energy is what makes an economy run. There is a strong correlation between economic development and energy consumption. Energy security plays an important role in all economic sectors in attaining the long-term vision of inclusive economic growth and development of the economy. The attainment of this vision is difficult as it is challenged by the need to build energy infrastructures that are not only responsive to the growing demand but can withstand the maximum credible natural disaster. One of the primary objectives of sustainable development is to make people without access to enough energy be able to meet their needs through the provision of stable, reliable, clean, safe, and affordable energy services. This research will use the Granger Causality test to analyze the causal relationship among the endogenous variables among (1) GNI per capita; (2) GHG Emissions; and (3) Herfindahl-Hirschman Index (HHI) between energy-economic development and the influencing factors of power supply security indicators. In the end, this paper expects to suggest that the paper electric power development plans in the country also have implications for the path that would lead the country to what is known as a green economy. It is in this background that

energy security and economic growth development are intertwined by public policy. In a broader development sense, public policy draws in the active involvement of the community in identifying problems. Anchored deeply in the national development agenda, the local community develops its own sets of development goals and pushes itself towards realizing this long-range vision. Hence, the output of public policy supported by strategic planning will require effective monitoring and evaluation of programs. This remains to be both a challenge and priority for both the national and local governments.

As the world continues to move forward, the countries in it are all dealing with their individual growth and development in all kinds of economic, political, cultural, and technological aspects. The war of economic supremacy continues as all countries are all prepared to have massive productions for domestic prosperity and a higher level of progress. With this, countries are pressured wherein it resulted in a not so favored "trade war" between the two giants, the United States of America (USA) and its close rival, the People's Republic of China. This so-called "trade war" distress its neighbor countries and other industry that upshot to a more unstable and recessionary effect to the industry and economy of both countries. But this narrative was immediately scrapped as the world agonized and endure the effect of the recent global pandemic '2019 novel coronavirus' or '2019-nCoV,' and later on called as COVID-19. The new virus was linked to the same family of viruses as a severe acute respiratory syndrome (SARS) and some types of a common cold that resulted in countries lockdown for months that prohibits 85% to 90% of industries to shut down all their operations. For a while, due to the pandemic, all productions were halted that lowered the Gross Domestic Product (GDP) of top countries and problems with supplies arise. After those "dark period" of pandemic, the world has immediately awakened the power of "digital economy" that provides a number of avenues to continue the operations of various industries following the strict protocols provided by the government to prevent the colossal spread of the said deadly virus.

As the new normal arise in several economies, the reliance and demand for energy in the world was predominantly increases as the optimization of " the digital economy" came early in most of the industries and countries. As economic activity across the nations slowly pick-up after a more relaxed protocols as energy played a vital role in it as its demand increases rapidly over the period. Energy has clearly a significant role in each country's sustainable and economic development that's why campaigns, research and development on energy have heightened to further promote more power accessibility and options to all and policy implications that will provide provisions for stable, reliable, clean, safe, and affordable energy supplies to an entire nation. Moreover, in the Philippines, the government has launched its very own "Energy Agenda" as it embarked on its 2016-2030 sectoral energy roadmaps that will provide guidance and direction to see progress in this particular sector.

In addition, all economies in the world are committed to meet and achieve somehow the "Sustainable Development Goals of 2030" whereas

this whole energy research has its own role and contribution on the following chosen SDGs namely, SDG4: Quality Education, SDG8: Decent Work and Economic Growth, SDG10: Reduced Inequalities, SDG13: Climate Action, SDG16: Peace, Justice and Strong Institutions and SDG17: Partnerships for the Goals.

Over the past few years, energy security and sustainable development have moved up the global agenda. Energy is what makes an economy run. There is a strong correlation between economic development and energy consumption. Energy security plays an important role in all economic sectors in attaining the long-term vision of inclusive economic and growth development of the local economy. The attainment of this vision is difficult as it is challenged by the need to build energy infrastructures that are not only responsive to the growing demand but can withstand the maximum credible natural disaster. One of the primary objectives of sustainable development is to make people without access to enough energy be able to meet their needs through the provision of stable, reliable, clean, safe and affordable energy supplies.

Based on relevant data of economic and social development in the Philippines, the authors will analyze the status of the electricity market and determined power supply security indicators (quality, reliability, security and affordability of the supply of electricity) which affect the energy-economic development in the Philippines: energy intensity and efficiency. This paper will emphasize a model to analyze the correlation between energy-economic development and the influencing factors of power supply security indicators. In the end, this paper expects to suggest that the Electric Power Development in the country also has implications for the path that would lead the country to what is known as a green economy.

The diversification of supply is considered as another measure of energy security for a country. The Herfindahl-Hirschman Index (HHI) is used as an indicator to measure the supply diversity index for power generation. HHI is an economic concept applied to assess market share or market concentration. A well-diversified power generation mix means that the country will be more resilient to changes in terms of supply interruption or price escalation as the impact of such would be lessened given the share of each technology or fuel to the mix. The HHI ranges from 0.0 to 1.0 with a higher index means high concentration (or highly not diversified), while a low index translates to low concentration (highly diversified).

The researchers observed that on average, over the last ten years since 2010 based on energy the available data, the profile of the country's total power generation production using all technologies are as approximately as follows: coal (49.8 %), oil-based (4.5%), natural gas (21.7%), hydro (21.7%), geothermal (11.2%) and other renewable energy (3.4% which includes solar, wind and biomass).

Energy economics researchers and experts like Kanchana and Unesaki (2014) used the HHI to describe and measure the degree of diversity of primary energy supply in the study on "ASEAN Energy Security: An Indicator-based Assessment. The study assessed the energy supply security of the ASEAN member states and examined how it evolved over the past decade. Likewise, Tufail, Ibrahim and Melan (2018) affirmed that a commonly used method of measuring the degree of diversification is HHI. On the other hand, the Asia Pacific Energy Research Center (APERC, 2017) also used the HHI as one of the sub-indicators for the development of an overall Energy Security Index. HHI has been widely applied in the electric power industry through the quantification of diversification. The diversity score is defined as a measure of the degree of diversification for a given portfolio.

It is in this background that energy security and economic growth development are intertwined by public policy. In a broader development sense, public policy draws in the active involvement of the community in identifying problems. Anchored deeply in the national development agenda, the local community develops its own sets of development goals and pushes itself towards realizing this long-range vision. Hence, the output of public policy supported by strategic planning will require effective monitoring and evaluation of programs. This remains to be both a challenge and priority for both the national and local governments.

Research Problem

Generally, the researchers sought to answer the question: What is the dynamic relationship of energy-economic development and the influencing factors of power supply security indicator?

Specifically, the researchers aimed to determine the:

1. Performance of the Philippines in terms of Gross National Income (GNI) per capita from the year 1985 to 2019;
2. The situation of the Philippines in terms of Power Supply options;

3. Trend in the Greenhouse Gas (GHG) emission from the electric power industry;
4. Significant causal relationship among the endogenous variables; and
5. Policy implications of the results of the study.

Review of Related Literature

The Philippines energy future and low-carbon development strategies

According to Mondal et.al (2018), the country's essential energy supply comprises 60 percent petroleum derivatives and 40 percent environmentally friendly power. The portion of oil in the complete energy supply-blend is critical, at about 31 percent in the year 2014. The country's independence in essential energy supply has been diminishing lately. The sustainable power share declined from 43 percent in 2012 to 40 percent in 2014. All out essential energy supply and last energy utilization were 36.01 million tons of oil-same (mtoe) and 22.36 mtoe in 2006 and with expansion to 47.5 mtoe and 28.57 mtoe in 2014. On the other hand, all imported energy was 14.26 mtoe in 2006 and has expanded to 20.86 mtoe in 2014; this addresses a portion of 44 percent in the essential energy-blend. About 75 percent of non-renewable energy source request is met through importation. Coal imports also expanded around two-overlay somewhere in the years 2006 and 2014. Fuel utilization by the Philippine power sector also consumes 46 percent of all essential energy. The nation's interest supply viewpoint in the years 2015 and 2030 shows an extra 7-gigawatt (GW) limit needed to satisfy the normal power supply by the year 2030.

Furthermore, the country's power sector depends generally on fossil-fuels by 77 percent and is required to expand its utilization of coal-based plants to fulfill future energy needs, which would adversely influence the environment. Coal utilization in the power sector also expanded from 7 million tons (mt) in 2006 to 15.5 mt in 2014. As dependence on coal-based power generation continues to expand, greenhouse gases (GHG) were also expected to rise eventually. Carbon dioxide (CO_2) emissions from coal power plants added up to 26 mt and are projected to increment to 92 mt of CO_2 each year if all arranged coal plants will be done on time.

The nation has been enduring power blackouts or deficiencies, especially throughout the summer season since the 1990s. Power request during those periods was about 25.6 GWh in 1991 and expanded to 53 GWh in 2003 and 77.3 GWh in 2014. Demand for energy supply in the

country is expected to double in the coming years. That is why energy shortage adversely affects the economic stand of the country. Energy flow difficulties in the power sector in the Philippines incorporate an inventory request hole described by neglected interest, high power cost; under-investment; decreased independence; and expected high development of GHG emissions levels. A national renewable energy program was embraced to drastically expand (three-overlay) the life of sustainable power advances expected by the year 2030; this development will considerably relieve GHG emissions from the power sector.

Moreover, to assist with the diminishing worldwide environmental change (Climate Change), the public authority of the Philippines has made a promise to restrict the future development of GHG emissions by carrying out the elective arrangement choices, for example, carbon charges, improvement of energy proficiency in both age and utilization, broadening of the energy supply-blend, and sped up the advancements of sustainable power. The nation plans to diminish emissions by about 70 percent from various areas, like energy, transport, waste, ranger service, and industry by 2030, contrasted with the same old thing situation of emission levels in between 2000 and 2030.

The possible approaches to address these difficulties are to incorporate broadening of the energy supply-mix and consideration of climate change moderation technique in energy advancement and foundation support. These endeavors should uphold the national economic progress through job creation, expanded food security and lower poverty. On the other hand, the renewable energy capability of the Philippines is somewhat high and could add to the inventory of current dependable energy benefits and further developed overall energy security. The government's energy reform agenda features the significance of access to a more dependable energy supply, utilizing native energy assets while limiting imported petroleum products in an ideal and practical manner. The government's energy reform agenda highlights the following: (1) ensuring energy security, (2) achieving optimal energy pricing, (3) diversifying sources of fuel, and (4) developing a sustainable energy system.

Greening Economic Growth

According to Astana (United Nations, 2011), the term "green economy" can be characterized and perceived diversely and inside various settings. In their Green Economy Drive, the United Nations Environment Program (UNEP) characterized the term within a "broad economic, social and environmental agenda": a green economy is "one that results in improved human well-being and social equity, while significantly reducing

environmental risks and ecological scarcities." Others, for example, the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) defined green economy as a policy that centers "environmentally sustainable economic progress to foster low-carbon, socially inclusive development." On the other hand, Organization for Economic Cooperation and Development (OECD) characterized "green growth" as "fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which well-being relies." These definitions are viable with the view progressively upheld by the United Nations framework that "greening the economy" can be an apparatus to achieve sustainable development and possible reduce the problem of poverty. In this specific situation, green economy supposedly is at the heart of reestablished endeavors to consider environmental and social contemplations within the standard of economic decision-making as discussed in the United Nations Conference on Sustainable Development in Rio and beyond.

In addition, according to Soderholm (2020), the "green economy" is another vision for development and advancement; one that can produce economic turn of events and enhancements in individual's lives in a manner that is reliable with progress together with economic and social prosperity. Another important part of a green economy methodology is to support progress and the possible integration of sustainable technologies. As we pursue this goal (sustainable technology for green economy) for a country and the world, challenges will be expected to rise eventually, and these will be lessening with the presence of proper policies and understanding and cooperation of all leaders in the world regarding the importance of green economy. On the other hand, the extension and the nature, the cultural difficulties that emerge as an outcome of the climate and environmental dangers are uncertain and diverse as the main authors focus on its five important challenges to sustainable technological change: (1) dealing with diffuse – and ever more global – environmental risks; (2) achieving radical – and not just incremental – sustainable technological change; (3) the advent of green capitalism: the uncertain business-as-usual scenario; (4) the role of the state: designing appropriate policy mixes and (5) dealing with distributional concerns and impacts.

Soderholm (2020) also concludes that in socio-technical transitions, multi-disciplinary research is must to further understand sustainable technology to promote green economy. Thus, it is important to make more collaborations between natural scientist and engineers together with other social sciences disciplines like economics, management,

political science and support more research on sustainable entrepreneurs and transition studies. In addition, the study also suggests that the public sector should make a bigger role in "green innovation." As the government together with private sector has all the power to craft and implement policies that will make way to promote "green innovation" through technology-specific sustainability policies or green industrial policies. And finally, Soderholm suggested to conduct follow up research and impact assessments that will entail all possible theories and strategies that might help to create more policies to achieve the "green economy."

Climate Resiliency

According to Miola, et. al (2015), the term "resilience" was basically given as flexible, sturdy and pliant but applicable to the concept of natural, environmental and social capital. As a natural sciences term, according to Holling (1973), ecological resilience was conceptualized first that involves persistence, resistance, and transformation. Resilience in biological terms is characterized as the greatness of unsettling influence that can be retained before the framework changes its construction by changing the factors and cycles that control behavior. It contends that a specific level of variance in a framework may really work on the framework's capacity to face with change.

Resilience's point of view has been integrated with economics as it counts generic shocks and extreme events that might affect the whole economy. So basically, economic resilience is identified as capability of the economy to manager, expand and rebuild given all the macroeconomic shocks; and it also considers microeconomic effects on the welfare of household and issues of the firms. Moreover, another thing to integrate is the level of community, as it results in the concept of social resilience as it characterized the ability of the communities to survive all the possible shocks to their social infrastructure. A system with resilience provides the community pride, dependence, comfort and security as it easily manages the possible problems that might arise and will surely survive the test of time. That's why climate resiliency has the same impact as social and economics, as a nation or country survives the test of weather and climate changes. A lot of shocks might happen during climate change as it affects production, livelihood and food supply & security of a certain nation. That's why, the presence of sustainable development programs will help craft policies and regulations in order to cope up, survive and handle climate change and make a nation a climate resilient country.

Green House Gas effect

According to University Corporation for Atmospheric Research (UCAR) is that energy from the sun that advances toward the earth can experience some difficulty bouncing it back to space. The "greenhouse effect" impacted these energies waylaid in the environment, assimilated, and delivered by greenhouse gases. These greenhouse gas helps the earth to keep its warm temperature and make sure it is livable for every humankind; but, too much of it is bad as it made the earth warmer and can create a lot of natural disaster like typhoon, drought and more that may kill a lot of every living kind on earth.

Moreover, the greenhouse effect showed that solar energy assimilated at earth's surface is emanated once again into the air as warmth. As the warmth clears its path through the atmosphere and back out to space, greenhouses gases assimilate a lot of it. For what reason do greenhouse gases still absorb heat? Greenhouse gases are more unpredictable than different gas particles in the environment, with a structure that can assimilate heat. They emanate the warmth back to the world's surface, to another greenhouse gas or outside the space.

Furthermore, there are several types of greenhouse gases given the major ones, carbon dioxide, water vapor, methane, and nitrous oxide. These gas particles are made of at least three atoms. The particles are held together freely enough that they vibrate when they ingest heat. Ultimately, the vibrating atoms discharge the radiation, which will probably be consumed by another greenhouse gas. This cycle keeps heat close/trapped to the world's surface. The vast majority of the gas in the climate is nitrogen and oxygen, which can's assimilate warmth and add to greenhouse effect.

Although there is only little amount of greenhouse gases has seen on earth, but it has a significant effect when it comes to the climate. At some point during this century, the measure of greenhouse gas carbon dioxide in the environment is now twofold. Other greenhouse gases like methane and nitrous oxide are also expanding. Moreover, the amount of greenhouse gas suddenly expands as petroleum derivatives are scorched, followed by other pollutants that continue to poison the environment. Given the various sources of gases (for instance, livestock discharge methane gas as they processed food and concrete is produced using limestone-it significantly discharges carbon dioxide), it shows an impactful increase of greenhouse gas on earth.

Conceptual and Theoretical Framework

Figure 1.

The Conceptual and Theoretical Framework of the study

Source: Adapted from OECD, 2014.
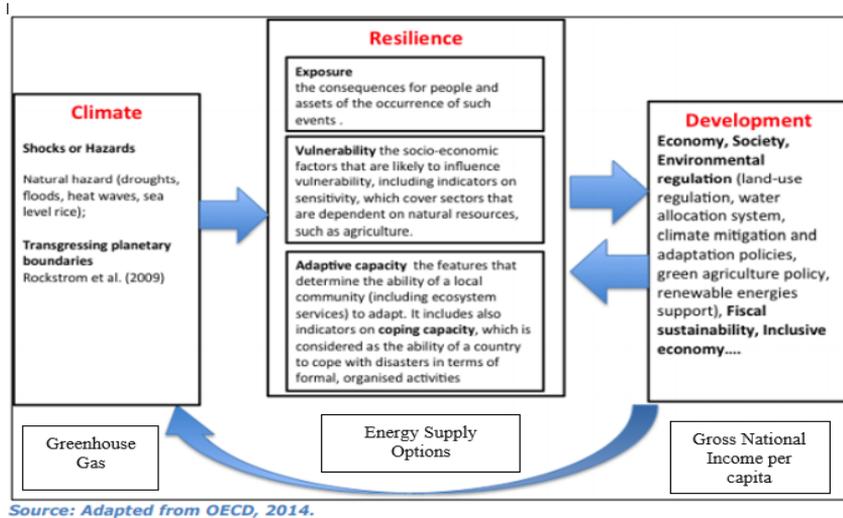
The diagram in Figure 1 shows the building blocks from which the study is founded. In the study we used (1) GNI per capita to represent income; (2) GHG Emissions to relate to climate change; and (3) Herfindahl-Hirschman Index (HHI) to represent the resiliency of power supply options. Edomah (2018) supports this framework as it gives some insights into key aspects of energy supply economics (HHI). It also provides some insights on the business and regulatory dynamics in the energy sector, as well as their impact on energy supply; the economic and financial analysis of energy projects, as well as how they influence investment decisions. That over the medium and long term, the effects of power supply options (HHI) will improve income (GNPPC) and will reduce GHG emissions significantly.

Environmental Kuznets' Curve

According to Stern (Encyclopedia of Energy, 2004) EKC is named for Simon Kuznets, who "hypothesized that income disparities will increase and decrease as economic growth and development happens." The presence of several pollutants, like carbon dioxide, sulfur, and nitrogen oxides, are firmly coupled to the utilization of energy. Thus, the EKC is a

"model of the relationship among energy utilization, economic growth and the climate."

The EKC is an important "empirical phenomenon" stresses by Stern but, struggles in statistics as shown in most of EKC literature. The history of EKC epitomized what can go wrong given the presence of a bad econometrics, done easy way. The EKC's diagnostic statistics was being panned by many, as it was not being given proper attention and interpretation. Other statistical properties have been utilized in analyzing EKC with the likes of serial dependence, and random walk trends in time series, and few tests of model adequacy together with econometrics, wherein its main goal is to examine relationships of variables and their correlations. For instance, applying econometrics plus supporting evidence, the result shows an alarming issue of pollution being addressed and making some solutions by developing economies.

The environment Kuznets curve (EKC) is a "hypothesized relationship between various indicators of environmental degradation and per capita income," according to Stern. This shows an expectation that continued economic growth will cause an increase in pollution emissions and decline in the quality of environment, but examining the other indicators of per capita income this trend reverses in which it considers that economic growth might lead to an environmental improvement instead. As it clearly related to the study wherein the authors used the following variables with GNI per capita to represent income, GHG emissions to relate it to climate change and HHI Herfindahl-Hirschman Index that will represent the resiliency of power supply options.

Methodology

In this study, the Granger Causality Test is used to analyze the interaction of the three selected endogenous variables of the study. This specifically includes the following steps: (1) Conduct of the unit root test for all the variables; (2) describe the selection of lag order, model construct and the robustness test; (3) measure the granger causality of the specified variables.

The researchers utilized Ordinary Least Squares (OLS) method or Maximum Likelihoods. Based on the objectives of the study, the econometric model of the study can be expressed as:

Eq$_1$: GNIPC = β_0 + β_1(GNIPC $_{T-1}$) + β_2(HHI $_{T-1}$) + β_3(GHG $_{T-1}$) + e

Eq$_2$: HHI = β_0 + β_1(GNIPC $_{T-1}$) + β_2(HHI $_{T-1}$) + β_3(GHG $_{T-1}$) + e

Eq$_3$: GHG = β_0 + β_1(GNIPC $_{T-1}$) + β_2(HHI $_{T-1}$) + β_3(GHG $_{T-1}$) + e

Where:

GNIPC = Gross National Income per capita

HHI = Herfindahl-Hirschman Index

GHG = Greenhouse Gas emissions

t-1 = Single Year Lag

B$_0$ = Constant term (intercept)

B$_1$, B$_2$, B$_3$ = Partial regression coefficient; each regression coefficient represents the amount of deviation of the group identified in the dummy variable from the mean of the reference category

Granger Causality

The study used Granger Causality Test to examine the causal relationships among the given variables like GNI per capita to represent income, GHG emissions to represent climate change and HHI Herfindahl-Hirschman Index to represent resiliency of power supply options. Under this system, an endogenous variable can be treated as exogenous. In addition, performing the Granger Causality testing in this study to explore the direction of causality among the variables from GNPIC, GHG to HHI (Granger, 1969). It is a technique for determining whether one time series is useful in forecasting another. For instance, if a variable X is found to be helpful for predicting another variable say, Y, then X is said to Granger cause.

Impulse Response Function

In order to probe the dynamic relationship between variables gross national income per capita (GNIPC), greenhouse gas emission (GHG) and Herfindahl-Hirschman Index (HHI) in the estimated model, impulse response functions are employed in this section. An impulse response function also shows the dynamic impact of the endogenous variables to standard deviation shock.

Unit Root Test

The results of ADF and DFGLS test provide sufficient reason to accept the conclusion that the level series is a non-stationary sequence. The test results will suggest if that null hypothesis of a unit root in first-order difference can be rejected for all variables at the 1%, 5% or 10% significance level.

Determining the Lag Order for the Vector Autoregression Model

In order to construct the VAR model, the optimum number of lags is needed. The optimum lag length can be determined either by using the Akaike Information Criteria (AIC), the Schwartz Information Criteria (SC), Final Prediction Error (FPE), and Likelihood Ration (LR) or by the Hannan-Quin Information Criterion (HQ). A * sign, located on the upper right of the value, will indicate the lag order selected by the criterion.

Results and Discussion

The Causal Relationship between GHG Emissions, GNI per capita and HHI of power supply options

Table 1.

Variables of the study

Indicators	1985	2000	2010	2019	1985-2019*	1985-2000
GNI per Capita[1]	520.0	1,150.0	2,370.0	3,850.0	6.1%	5.4%
HHI of power supply options[2]	0.28	0.27	0.25	0.36	0.7%	-0.2%
GHG[3] from Power Systems	6.3	21.4	31.3	61.4	6.9%	8.6%

Sources: Philippines Department of Energy; World bank open data portal
*/*Annual average growth rate*

---

[1] The GNI per capita is the dollar value of a country's final income in a year, divided by its population. It should be reflecting the average before tax income of a country's citizens. Source: World bank open data

[2] Herfindahl-Hirschman Index is calculated by squaring the share of each technology/fuel to total power generation, and then add each share to get the total. For energy security indicator purposes, the HHI is modified such that the range of high concentration (highly not diversified) was adjusted from its original of >0.25 to 1.00. A higher HHI means a high concentration in one or few sources. HHI of below 0.10 is considered low concentration (highly diversified), 0.10-0.19 is moderately diversified, 0.20-0.49 is somewhat diversified, 0.50-0.99 is highly not diversified (dominant fuel in the mix), and 1.0 is not diversified.

[3] Greenhouse gas emission. The unit of measure used in a GHG inventory is Million tonnes of carbon dioxide equivalent.

Table 1 illustrates the development of the three variables from 1985-2019 for the research: Gross National Income (GNI) per capita which are as follows: From the year 1985 GNI per capita is USD 520.0, it has improved 35 years later to USD 3,850 in 2019 which is an equivalent of 6.1% growth. The Philippines has made substantial efforts over the past three decades to build a modern and globally competitive economy. Administration after another made significant progress in implementing its own economic platforms and pushed through with its own structural reforms.

Table 2.

Gross Power Generation by Plant Type in GWh

Plant Type	Milestone Years				Annual Average Growth Rate		
	1985	2000	2010	2019	1985-2019	1985-2000	2010-2019
Total	15,869	45,290	67,743	106,040	5.7%	5.8%	5.1%
Oil Based	2,040	9,185	7,101	3,789	1.8%	-5.7%	-6.7%
Hydro	5,553	7,799	7,803	9,613	1.6%	1.4%	2.3%
Geothermal	4,929	11,626	9,929	10,272	2.2%	-0.8%	0.4%
Coal	3,347	16,663	23,301	46,849	8.1%	7.1%	8.1%
Natural Gas	0	17	19,518	20,549		60.5%	0.6%
Other Renewables							
Solar	0	0	1	1,203			114.5%
Wind	0	0	62	1,096			37.7%
Biomass	0	0	27	1,015			49.5%

Relative to power supply market development, table 2 illustrates the performance of the country. It can be observed that the country's Gross Power Generation from all plant type in 2019 went up by 106,040 MWh from 15,869 MWh in 1985 which is equivalent to an average annual growth of 5.7%. On a per power plant type basis, Power plants burning oil from 2010 to 2019 experienced a decline. From 7,101 MWh in 2010, it decreased to 3,789 MWh which is equivalent to an average annual decline of 6.7%. On the other hand, gross generation from other power plant types somewhat did not improve significantly except for the emerging renewable technologies (Solar, Wind and Biomass) and coal power plants. The researchers, however, observed that gross generation from coal-fired power plants are experiencing growth that is higher than 5%. It can be observed that coal-fired power plants in 2019 went up by 46,849 MWh from 3,347 MWh in 1985 which is equivalent to an average annual growth of 8.1%. Table 2 serves as the basis for the computation of the HHI.

The Causal Relationship among GHG Emissions, GNI per capita and HHI

   Unit Root Test.

   It is important to note that before anything else it is absolutely necessary to have examined the series if it has unit roots and determine the degree of integration. The ADF unit root test is frequently used test for stability analysis of the series. Based on the initial results of the Augmented Dickey-Fuller (ADF) unit root test, all variables have no unit root in 1st level the H_0 hypothesis, established as "unit root" in the level values of the variables, was not rejected, and thus was accepted. Therefore, the data it is non-stationary which suggests unreliability due to the unpredictable movements of the dataset.

   The test results are shown in Table 3.

Table 3.

ADF Test Results

Variable	ADF P-Value	Decision
GNI Per Capita	test without constant (0.974)	Reject H_0
	test with constant (0.9875)	The dataset is stationary at
	with constant and trend (0.842)	the 1st level
HHI of power supply options	test without constant (0.5836)	Reject H_0
	test with constant (0.1502)	The dataset is stationary at
	with constant and trend (0.842)	the 1st level
GHG Emissions from the energy sector	test without constant (1.000)	Reject H_0
	test with constant (0.9999)	The dataset is stationary at
	with constant and trend (0.9986)	the 1st level

Note: Estimates by the authors using GRETL

   Estimation of the VAR Model.

   The first issue of the VAR model is to determine Lag Intervals for Endogenous. The larger the Lag Intervals for Endogenous is, the more it can entirely reflect the dynamic nature of the model. But in this case, more parameters will be needed to be estimated to constantly reduce freedom degrees of the model. This is a contradiction in the selection of proper Lag Intervals for Endogenous. There are many methods that can determine optimal lag period for the VAR model. In comprehensive consideration of selecting Lag Intervals for Endogenous, this paper adopted Lag Length Criteria and Ar Roots Graph to determine Lag Intervals for Endogenous, as shown in Table 3. When creating a VAR model, identifying the proper lag length is very important. The right lag length not only ensures the parameters in the VAR model have a strong explanatory power, but also

that they maintain a balance with the degrees of freedom. In this research, we choose optimal lag order as dictated by the sequential modified likelihood ratio test statistic (LR), Final prediction error (FPE), Akaike criterion (AIC), Shwarz Bayesian criterion (SC) and Hannan-Quinn (HQ) information criterion.

Table 4.

Test for Lag Order

Var System, Maximum Lag Order 2				
The asterisks below indicate the best (that is, minimized) values of the respective information criteria, AIC = Akaike criterion, BIC = Shwarz Bayesian criterion and HQC = Hannan-Quinn criterion				
Lags	loglik	p(LR)	AIC	BIC	HQC
1	-183.30207		11.83649	12.380674	12.019591
2	-167.50450	0.00023	11.424515*	12.37638*	11.744943*

Note: Estimates by the authors using GRETL

Figure 2.

The inverse unit roots.

VAR inverse roots in relation to the unit circle
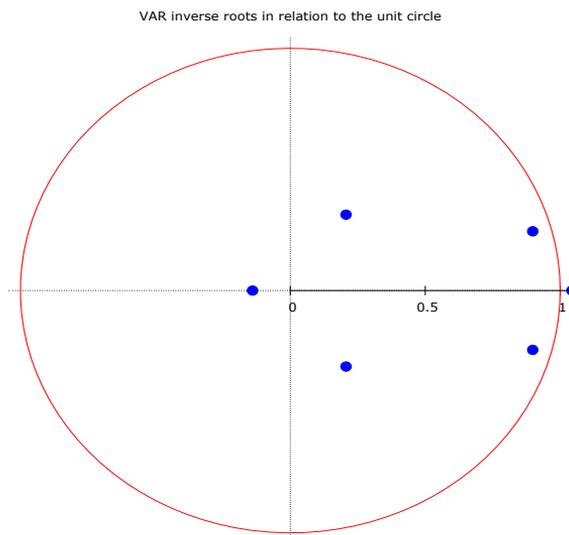
Figure 2 shows the position of the inverted roots in the unit circle. All of the roots need to be placed in the unit circle. When the figure is examined, it is obvious that the created model does not have any problems in terms of stability.

Figure 3.

Impulse response function
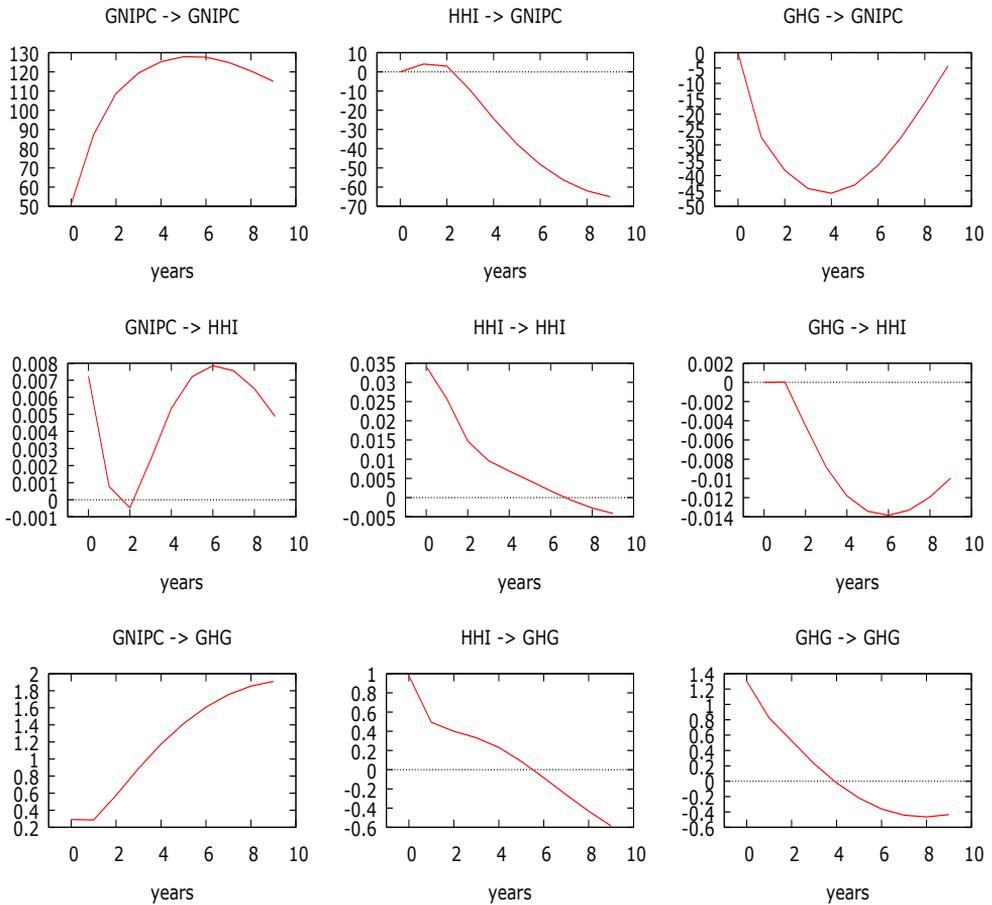
On the other hand, figure 3 shows the impulse reaction function for the following g variables: gross national income (GNI) per capita, diesel price (HHI) and greenhouse gas (GHG) emissions. It presented the movements of its curves in accordance with the interaction of its three variables with interchanging the dependents and independent variables to clearly find the different dimensions of each variables test together.

Granger Causality Results at lag order 2

Table 5.

Granger Causality Results

	Null Hypothesis (Ho)	P value	Conclusion
$GNIPC_{T-2}$	$GNIPC_{T-2}$ Does not Granger Cause HHI	0.0249***	Accept
	$GNIPC_{T-2}$ Does not Granger Cause GHG	0.0182***	Accept
	$GNIPC_{T-2}$ Does not Granger Cause GNIPC	0.0002***	Accept
HHI_{T-2}	HHI_{T-2} Does not Granger Cause HHI	0.0000***	Accept
	HHI_{T-2} Does not Granger Cause GNIPC	0.2195	Accept
	HHI_{T-2} Does not Granger Cause GHG	0.1596	Accept
GHG_{T-2}	GHG_{T-2} Does not Granger Cause GNIPC	0.0123***	Accept
	GHG_{T-2} Does not Granger Cause HHI	0.9450	Accept
	GHG_{T-2} Does not Granger Cause GHG	0.0002***	Accept

*/Significant at ***99%, **95% and *90% level of confidence*
Note: Estimates by the authors using GRETL

Table 5 presents the Granger causality test is used primarily to determine whether there is an association between two variables and to analyze whether the relationship is unidirectional or bidirectional. If the P value is greater than 0.05 then there is no evidence to reject the null hypothesis however if the P value is less than 0.05 then there is an evidence to accept the null hypothesis.

According to the results, two order lag values of the var system suggested that all the variables can be explained by its own trend. GNIPC is granger caused by all the variables. Relative to the causal relationship of all variables GNI per capita is granger caused by all variables. It is interesting to note that HHI is not being granger caused by any variable. In terms of GHG emissions, it is granger caused only by GNIPC.

As an integral part of VAR analysis, a decomposition analysis is performed. It is found out that during the fifth period (year) HHI's changes can explain itself by 89.99%, GHG by 9.51% and GNIPC by a 1.49%.

Over the next ten year-period, under business-as-usual scenario to 86.99% (HHI), 15.12% (GHG) and 9.05% (GNIPC) respectively.

Relative to GNIPC, it is found out that during the same fifth period (year) GNIPC's changes can explain itself by 88.15%, HHI by 1.20% and GHG by a 10.64%. Also, over the next ten year-period, also under business-as-usual scenario to 82.99% (GNIPC), 15.12% (GHG) and 6.82% (HHI) respectively.

In terms of GHG, it is found out that during the same fifth period (year) GHG's behavior can explain itself by 39.21%. It can also be explained by HHI by 22.09% and GHG by a 39.21%. Over the next ten year-period, also under business-as-usual scenario to 82.99% (GHG), 15.12% (GHG) and 22.09% (HHI) respectively.

Conclusions

Based on the analysis of the results and discussions, the researchers concluded the fol

- The HHI is valuables for the appraisal of energy supply choices for the Philippines which will give a case to the need to dimmish coal fuel reliance later and empower ventures on the power market utilizing other stockpile alternatives.
- Under the same old thing situation, it is normal that over the course of the following ten years, GNIPC and GHG are relied upon to improve fundamentally. HHI will likewise see some minor upgrades.
- The speculation that GNIPC does not granger cause HHI and GHG is dismissed. It implies that HHI and GHG are critical variables of GNIPC.
- The theory that HHI do not granger cause GNIPC and GHG is acknowledged. It implies that HHI and GHG of are not critical elements of GNIPC.
- The theory that GHG does not granger cause HHI is dismissed. It implies that HHI is huge factor of GHG.
- The theory that GHG does not granger cause GNIPC is acknowledged. It implies that HHI is a huge factor of GHG.

- The hypothesis that GNIPC does not granger cause HHI and GHG is rejected. It means that HHI and GHG of are significant factors of GNIPC.
- The hypothesis that HHI does not granger cause GNIPC and GHG is accepted. It means that HHI and GHG of are not significant factors of GNIPC.
- The hypothesis that GHG does not granger cause HHI is rejected. It means that HHI is significant factor of GHG.
- The hypothesis that GHG does not granger cause GNIPC is accepted. It means that HHI is a significant factor of GHG.

Recommendations

The findings of this research study served as the bases of the researchers for the recommendations:

- Sustain the progress of the country's economic growth and development in terms of gross national income per capita (GNIPC) by empowering the specific sectors concern and the implementations of right and better policies that will highlight its innovation, progress, and development.
- Adopt policies and monitor its implementation on gas emission (GHG) for a sustainable planet.
- Develop electric power as a green economy for a better life and clean environment of the present and the future generation.
- Explore including other variables connected to greenhouse gas emission, gross national income per capital and Herfindahl-Hirschman index that might expand discussion and create more research for policy implication on climate change.
- Explore the study more using Vector Autoregression or VAR to measure the relationships of all the endogenous variables.

References

Astana, K. (2011). *Greening the economy: mainstreaming the environment into economic development*. https://sustainable development .un.org/content/documents/796unece2.pdf

Aslan, T., Ayşe, A., & Fatma, Z. (2013). *The Impact of Electricity Consumption on Economic Development in*. Istanbul University School of Economics.

Edomah, N. (2018). Economics of Energy Supply. 10.1016/B978-0-12-409548-9.11713-0..

Elahee, K. (2004). *Access to Energy: The Key to Poverty Alleviation*. Retrieved March 06, 2015, from International Research Foundation for Development Research: http://irfd.org /events/wfsids/virtual/papers/sids_kelahee.pdf

Energy Policy and Planning Bureau - Department of Energy Philippines . (2014). *Philippine Energy Plan 2012-2030*. Department of Energy.

Gradl, C., & Knobloch, C. (2011). *Energize the BoP! Energy Business Model Generator for Low-Income Markets (A Practitioners Guide)*. Enterprise Solutions for Development (ENDEVA).

Gujarati, D. (2003). *Basic Econometrics* (4th Ed.). McGraw-Hill.

Hamilton, C., Kellett, J. & Moore, T. (2021). *Resourcing A Low Carbon Future*.

Hossain, Mondal et al. (2018). The Philippines energy future and low-carbon development strategies. https://www.sciencedirect.com /science/article/pii/S0360544218300458

International Atomic Energy Agency. (2005). IAEA.(2005). *Energy Indicators for Sustainable Development: Guidelines and Methodologies*. IAEA.

International Energy Agency. (2013). *World Energy Outlook 2010*. Paris. IEA.

Kanchana, K. & Unesaki, H. (2014). *ASEAN Energy Security: An Indicator-based Assessment. Energy Procedia*. *56*. 163–171. 10.1016/j.egypro.2014.07.145.

Leuschner, P. (2014). *The Effect of GDP per capita on Renewable Energy Production in China.* University of Colorado Boulder.

Mendoza Jr, C. B., Cayonte, D. D. D., Leabres, M. S., & Manaligod, L. R. A. (2019). *Understanding multidimensional energy poverty in the Philippines*. Energy Policy, 133, 110886.

Modi, V., McDade, S., Lallement, D., & Saghir, J. (2005). *Energy Services for the Millennium Development Goals*. The International Bank for Reconstruction and Development/The World Bank/ESMAP.

Modi, V., McDade, S., Lallement, D., & Saghir, J. (2005). *Energy Services for the Millennium Development Goals.* United Nations Development Programme.

Navarro, A., Sambodo, M. T., & Todoc, J. L. (October 2013). *Energy Market Integration and Energy Poverty in the ASEAN.* PIDS Discussion Paper Series.

Pasternak, A. D. (October 2000). *Global Energy Futures and Human Development: A Framework for Analysis*. Department of Energy.

Phillips, M. (n.d.). *Why electricity demand is linked to GDP*.

Söderholm, P. (2020). *The green economy transition: the challenges of technological change for sustainability*. https://sustainableearth. biomedcentral.com/articles/10.1186/s42055-020-00029-y

Stern, D.I. (2004). *Environmental Kuznets Curve: Encyclopedia of Energy*. https://www.sciencedirect.com/topics/earth-and-planetary-sciences/environmental-kuznets-curve

Stiglitz, J. E., Sen, A., & Fitoussi, J.-P. (2009). *Report by the Commission on the Measurement of Economic Performance and Social Progress*. Institut national de la statistique et des études économiques (INSEE).

University Corporation for Atmospheric Research (UCAR),
        https://scied.ucar.edu/learning-zone/how-climate-
        works/greenhouse-effect.

U.S. Energy Information Association. (2013, March 22). *Today in
        Energy*. Retrieved February 28, 2014, from U.S. Energy
        Information Association - Independent Statistics and Analysis:
        http://www.eia.gov/todayinenergy/detail.cfm?id=10491

Wen Center for Social Research Method. (n.d.). *Research Methods
        Knowledge Base*. Retrieved March 15, 2015, from
        http://www.socialresearchmethods.net/kb/convdisc.php

World Business Council for Sustainable Development. (2012). *Business
        solutions to enable energy access for all (The WBCSD Access to
        Energy Initiative).* WBCSD publications.

Zou,Xiaohua (2018). *VECM Model Analysis of Carbon Emissions, GDP,
        and International Crude Oil Prices*. https://doi.org/10.1155/2018/
        5350308

Development and Psychometric Evaluation of Faculty Evaluation for Online Teaching (FEOT)

Gil P. Soriano
College of Nursing
San Beda University, Manila, Philippines
gsoriano@sanbeda.edu.ph

Abstract

With the shift of the instruction from the traditional Face-to-face instruction to online, there is a need to develop a valid and reliable instrument that is responsive to the current demands of instruction. Hence, the objective of the study was to develop and evaluate the psychometric properties of the Faculty Evaluation for Online Teaching (FEOT) among University Students. A descriptive methodological study was used and a convenience sample of 2985 students were employed. The 20-item FEOT confirmed the four-factor loadings following the domains in the Denison Framework for Teaching. The factor loadings of the items were between 0.619 to 0.791 while the CFA model revealed a $\chi 2/df = 2.35$, root mean square error of approximation= 0.071, comparative fit index= 0.962, goodness of fit index=0.957, Tucker-Lewis index= 0.956, incremental fit index= 0.962, and standard root mean square residual= 0.023. The overall Cronbach's alpha of the instrument was 0.923 while the sub-domains have Cronbach's alpha of 0.906 for Planning and Preparation, 0.942 for Classroom Environment, 0.929 for Instruction and 0.921 for Professional Responsibilities indicating high reliability and the item-total correlations ranges from 0.764 to 0.868. At the item level, 60.60% of the ratings had a CVI of greater than 0.78. The FEOT was shown to be valid and reliable in assessing the competencies of faculty members in an online environment.

Keywords: Faculty evaluation, online teaching, psychometric properties, reliability, validity

The success in which an educational institution provides an atmosphere that allows students to effectively achieve worthwhile learning goals, including adequate academic standards, has been described as the quality of education (Gordon & Partington, 1993). Central to the achievement of these learning goals are the support of teachers and the student-faculty relationship. Research revealed the support of faculty members in the classroom has a positive impact on the success of students (Lee, 2007). It was also discovered that the student-faculty relationship is a critical component of teaching effectiveness (Soriano & Aquino, 2017). According to Walsh and Maffei (1994), the student-faculty relationship has three effects on education: first, a good student-nursing instructor relationship increases both student and nurse educator educational experiences; second, a strong relationship improves student assessments of faculty; and third, a strong relationship enhances student learning. However, these will become a challenge as we face the "new normal", where Face-to-face learning is minimized, and the delivery of instruction will be done in an online classroom.

Despite the rapid advances and exponential growth in information, communication, and technology that have paved the way for online education around the world in recent years, e-learning or online learning was not the ideal or preferred method of teaching and learning in a developing country like the Philippines before the COVID-19 pandemic. Due to the continued rise in COVID-19 cases and the pandemic's non-linear evolution, schools, colleges, and universities around the world are increasingly adopting a more versatile learning scheme in the delivery of training, such as e-learning or online learning (Oducado & Soriano, 2021). However, at present, higher educational institutions are faced with the problem of transitioning from the traditional face-to-face instruction to online classroom. Thus, it is important that faculty members are adept in navigating through the use of different technologies in order to become effective in the delivery of online instruction.

Several pieces of training have been given in order to assist teachers in the preparation of their online learning modules, however, one important factor which is critical in the success of online classroom is teacher performance. According to Stronge (2010), teacher evaluation is a structured and standardized method of evaluating teacher results. It serves as a focal point in determining effective and ineffective teachers since they are mandated to perform effectively so that students will be able to meet the learning outcomes (Ngoma, 2011).

Successful teachers are supposed to be knowledgeable about their subjects, have excellent teaching skills, adhere to performance expectations, share professional expertise with their colleagues, care deeply about their students' progress, and possess unique attributes that define their effectiveness (Akram & Zepeda, 2015). Further, the rapid expansion of online learning necessitated the creation of teacher evaluation tools tailored specifically to the demands of the online classroom.

While there is a large body of research on faculty assessment in traditional contexts, there have been fewer studies on the self-reported perceptions of evaluation processes among online faculty members. The existing evaluation scales, such as those used in traditional instructional contexts, have been questioned as a result of the rapid rise of online education (Berk, 2013; Eskey & Schulte, 2012; Hathorn & Hathorn, 2010; Mandernach et al., 2005; Rothman et al., 2011; Schulte, 2009; Tobin, 2004). As these evaluation methods were put to the test, concerns grew that their accuracy, effectiveness, and sufficiency in the online classroom might be questioned (Berk, 2013). In the online context, Creasman (2012) discovered a number of changes in instruction. The asynchronous style of environment, non-linear forums that allow students to participate in several discussions at once, student-teacher interactions, and an increasing volume of information are examples of such variations. As a result, while developing and conducting assessments for online instructors, the intricacies of the online environment must be considered (Berk, 2013). With these, there is a need to develop a valid and reliable instrument that is responsive to the current demands of instruction.

The objective of the Study

The objectives of the study were to:
1. Determine the validity of the Faculty Evaluation Instrument for Online Teaching in terms of:
    1.1 Content Validity
    1.2 Construct Validity
2. Analyze the reliability of the Faculty Evaluation Instrument for Online Teaching in terms of:
    2.1 Internal consistency reliability
    2.2 Item-total correlation
3. Develop a valid and reliable Faculty Evaluation Instrument for Online Teaching

Theoretical Framework

Measures of teacher performance have changed from teacher action to student achievement, and from clinical supervision to assessment, in tandem with broader shifts in education policy over the last few decades. Based on her experiences at the Educational Testing Service, Danielson published her groundbreaking thesis, Enhancing Professional Practice: A Framework for Teaching, in 1996. The Danielson Framework for Teaching is focused on student achievement and evaluation in assessing the competence of teachers. This model is consists of four domains namely: 1) Planning and Preparation, 2) the Classroom Environment, 3) Instruction, and 4) Professional Responsibilities.

The model is based on core principles such as what students should understand, the meaning of learning and how to promote it, the purposeful nature of teaching, and professionalism's nature. The model also has a variety of important features, including being comprehensive, research-based, public, generic, structure-coherent, and independent of any particular teaching methodology (Danielson, 2007). Further, Danielson's model (see Table 1) captures the multifaceted nature of teaching, provides a structure for teacher self-assessment and reflection, and provides a language for dialogue regarding teacher competence (Marzano et al., 2011)

Danielson (2007) further discussed how the structure should be used for supervision and assessment, emphasizing the value of a straightforward, research-based concept of teaching that represents the "professional wisdom" of those who will be implementing the method. (p. 177).

Table 1.

A Blueprint for Teacher Evaluation: Components of Professional Practice

Domain 1: Planning and Preparation	Demonstrating Knowledge of Content and Pedagogy
	Demonstrating Knowledge of Students
	Setting Instructional Outcomes
	Demonstrating Knowledge of Resources
	Designing Coherent Instruction
	Designing Student Assessments

Table 1.

Continued

Domain 2: Classroom Environment	Creating an Environment of Respect and Rapport
	Establishing a Culture for Learning
	Managing Classroom Procedure
	Managing Student Behavior
	Organizing Physical Space
Domain 3: Instruction	Communicating with Students
	Using Questioning and Discussion Techniques
	Engaging Students in Learning
	Using Assessment in Instruction
	Demonstrating Flexibility and Responsiveness
Domain 4: Professional Responsibilities	Reflecting on Teaching
	Maintaining Accurate Records
	Communicating with Families
	Participating in the Professional Community
	Growing and Developing Professionally
	Showing Professionalism

Materials and Methods

Study Design

This study utilized a descriptive-cross sectional study using an online survey method in order to evaluate the psychometric properties of the Faculty Evaluation for Online Teaching (FEOT).

Sampling and Setting

The study included a total of 4971 students who were recruited through convenience sampling. Eligibility criteria included those who have been oriented with the use of Canvas, the official Learning Management

System (LMS) of the University, who have been enrolled during the period of August 2020 to February 2021, and an undergraduate student.

Recruitment of the participants was done by posting the letter of invitation and the link to the online survey through their Canvas accounts.

Procedure

The study secured ethical clearance from the San Beda University-Research Ethics Board (SBU-ERB) with Protocol No. 2020-023. The permission to conduct the study was granted by the Vice President for Academics (VPA) and communicated through the Information and Communications Technology Center (ICTC) who facilitated the posting of the invitation and the link to the online survey to the respondents' Canvas accounts. The purpose of the study as well as the inclusion criteria, and risk were explained in the letter of invitation.

Instrument

The purpose of the FEOT is to assess the competencies of the faculty members in terms of the conduct of online instruction. The instrument was developed in two phases (Figure 1). In the first phase, an extensive literature review was conducted in order to generate the initial set of items for the instrument. Keywords which includes the combination of the words "assessment" and "evaluation" with "online teaching", "online education", "online instruction", "e-learning", and "online course" were used in different online databases such as PubMed, Google Scholar, ProQuest, EBSCO, Science Direct, and Scopus. Published literatures from 2010 to 2020 were evaluated. The searched items were evaluated and loaded following the Denison's Framework for Teaching. A total of 33 items were generated from the comprehensive review of the literature. An expert panel of six faculty members and four university administrators were asked for feedback. The expert rated each of the 33 items for relevance using the content validity index method following the method described by Polit et al. (2007).

After establishing the final list of items, initial reliability testing was conducted among 150 students for pilot testing of the instrument for clarity and feasibility. Preliminary analyses revealed a Cronbach's alpha coefficient of 0.837 for Planning and Preparation, 0.907 for Classroom Environment, 0.863 for Instruction, and 0.877 for Professional Responsibilities whereas the entire scale got an alpha coefficient of 0.961. This sample's FEOT mean was 4.41 (SD=11.69).

In the second phase of the study, the psychometric properties of the instrument were assessed which includes the content validity, construct validity and internal consistency reliability.

Figure 1.

Stages of the development, validity, and reliability testing of FEOT

| Stage 1 : Literature review | → | Stage 2: CVI Evaluation of items by an expert panel | → | Stage 3: Initial Reliability testing | → | Stage 4: Psychometric evaluation of FEOT |
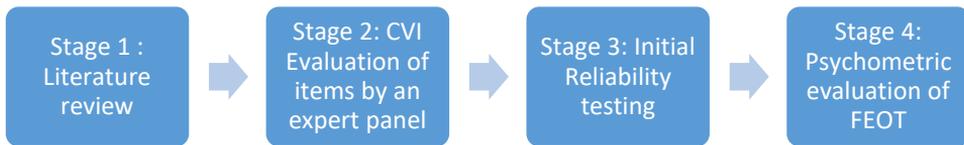
Data Analysis

The SPSS version 21.0 was used for data management and statistical analysis (IBM Corporation, Armonk, NY). Internal consistency was calculated using Cronbach's alpha coefficient, as well as item-total correlations, to determine the FEOTs reliability among the university students. The appropriate parameters were an item-total correlation of greater than 0.30 (Ferketich, 1991) and a Cronbach's alpha coefficient of greater than 0.70 (Polit & Beck, 2014 as cited by Soriano & Calong Calong, 2019). Further, the Item-Content Validity Index (I-CVI) and Scale- Content Validity Index (S-CVI) were assessed. Additionally, a modified Kappa index was computed to estimate the I-CVI.

A confirmatory factor analysis (CFA) with maximum likelihood estimation was used to confirm the instrument's factor structure following the Denison's Framework for Teaching. The variances of the variables were set to 1 which provided the identification in the analysis. In order to approximate the model fit, the following values were used: relative chi-square ($\chi2/df$) ≤3, (b) root mean square error approximation (RMSEA) ≤0.08, (c) comparative fit index (CFI) ≥0.90, (d) goodness of fit index (GFI) ≥0.95, (e) Tucker–Lewis index (TLI) ≥0.90, (f) Incremental fit index (IFI) ≥0.90, (g) standardized root mean square residual (SRMR) ≤0.08 (Kline, 2016).

Results

Sample

The study included 2895 students in the study after deleting cases not meeting the inclusion criteria. On average, majority of the participants were 20 years old (64.23%), male (54.24%) and were Level 1 students (72.45%)

Content validity

Content validity is the degree to which items or measures adequately represent a given construct. An expert panel consisting of six members determined the content validity of the instrument. A total of 10 experts were employed which consists of six faculty members and four university administrators.

Table 2.

I-CVI and S-CVI of FEOT

Item	No. of ratings of 3 or 4	I-CVI[a]	p_c [b]	$k*$ [c]
Planning and Preparation	**S-CVI= 0.92**			
1.Provides key learning information such as learning outcomes, course objectives, and/or standards as well as instructional materials (e.g. videos, PowerPoint, web-based resources) and references	10	1.00	0.001	1.00
2. The module completion requirements and/or prerequisites are utilized to provide course structure, pacing and flow.	9	0.90	0.010	0.90
3. The schedule of synchronous (online class in a real-time/live) and asynchronous (online class given to students to complete on their own time/not being delivered in person/real-time) activities are indicated in the student modules and course syllabus	8	0.80	0.044	0.79
4. Communication expectations for online discussions, email, and other forms of interaction are clearly stated	6	0.60	0.205	0.50
5. Provides clarity on what the students are supposed to accomplish / achieve in terms of learning.	6	0.50	0.205	0.50

Table 2.

Continued

Item	No. of ratings of 3 or 4	I-CVI[a]	p_c [b]	$k*$ [c]
Planning and Preparation		**S-CVI= 0.92**		
6. Instructional materials were presented to us in a format appropriate to the online environment, and are easily accessible to and usable to student	9	0.90	0.010	0.90
7. Organizes course content in a clear, methodical, and logical manner from one topic to another.	6	0.60	0.205	0.50
Classroom Environment		**S-CVI= 0.95**		
8. Learning activities include student-student interaction (e.g. discussions, constructive collaboration and peer reviews)	8	0.80	0.044	0.79
9. Provides class expectations such as participation rules, etiquette expectations, code of conduct, late work and make-up work; and technology requirements.	9	0.90	0.010	0.90
10. Provides accessible text and images in files, documents, LMS pages, and web pages to meet the needs of students.	6	0.60	0.205	0.50
11. Creates a safe and positive online learning environment in the classroom.	6	0.60	0.205	0.50
12. Creates a schedule for meaningful and active involvement of students in online sessions and activities.	8	0.80	0.044	0.79
13. Online activities in the course have kept the students more interested and motivated to study their lessons.	8	0.80	0.044	0.79
14. Provides opportunities that promote student engagement and active learning.	8	0.80	0.044	0.79
15. Learning activities include student-teacher interaction (e.g. teacher is actively engaged in authentic conversations and provides quality feedback)	9	0.90	0.010	0.90

Table 2.

Continued

Item	No. of ratings of 3 or 4	I-CVI[a]	p_c [b]	k* [c]
Instruction		**S-CVI= 0.95**		
16. Utilizes a variety of assessments methods (e.g., discussions, individual and/or group assignments and quizzes) in the delivery of the course	10	1.00	0.001	1.00
17. Opportunities for course feedback were present and available to students throughout the duration of the course.	8	0.80	0.044	0.79
18. The grading criteria and policies were reflected in the syllabus and were clearly explained.	6	0.60	0.205	0.50
19. Assessments were appropriately aligned with the learning outcomes and course objectives	6	0.60	0.205	0.50
20. Online course content has developed a deep understanding of different topics/lessons	6	0.60	0.205	0.50
21. Various opportunities for collaborative work, research, projects, and laboratory work among students were provided.	6	0.60	0.205	0.50
22. Provides formative assessments that will give opportunity to build knowledge and skills on a step-by-step basis.	8	0.80	0.044	0.79
23. Uses plenty of visual, media, interactive tools, and learning activities	6	0.60	0.205	0.50
24. Communicates and responds to students in a timely manner (e.g. SMS, email, chats and other feedback tools) to establish online presence in the course as well as to check on students' academic and other concerns	8	0.80	0.044	0.79
25. Conducts online classes confidently	8	0.80	0.044	0.79
Professional Responsibilities		**S-CVI= 0.93**		
26. Supports learners in understanding online security and computer safety	8	0.80	0.044	0.79
27. Acknowledges sources of data/information by citing the author/publisher	6	0.50	0.205	0.50

Table 2.

Continued

Item	No. of ratings of 3 or 4	I-CVI[a]	p_c [b]	$k*$ [c]
Professional Responsibilities		S-CVI= 0.93		
28. Uses school-appropriate, clear, and concise language to communicate	6	0.50	0.205	0.50
29. Comes to class well-prepared	8	0.80	0.044	0.79
30. Respects the time and engagement of the student.	9	0.90	0.010	0.90
31. Demonstrates compassion, care and emotional support.	9	0.90	0.010	0.90
32. Counterchecks that students attending synchronous classes are officially enrolled in the course.	8	0.80	0.044	0.79
33. Reminds student regarding data privacy and security policies of the schools	6	0.60	0.205	0.50

[a]I-CVI (content validity index) = number of experts providing a rating of 3 or 4/number of experts

[b]p_c (probability of chance occurrence) = [N!/A!(N-A)!] × 0.5N, N = number of experts; A = number of experts agreeing on a rating of 3 (quite relevant) or 4 (highly relevant)

[c]$k*$ (modified kappa) = (I-CVI-pc)(1-pc)

The content validity index (Grant & Davis, 1997) was determined by dividing the number of items with a relevance rating of 3 or 4 on a 4-point Likert-type scale by the total number of items and then expressing the result as a percentage. The index was then calculated and was graded on a four-point Likert scale, which was interpreted as (1= not relevant to 4= highly relevant). With more than 5 experts, the I-CVI should not be lower than 0.78 (Polit & Beck, 2006).

In addition, the I-CVI was estimated using a modified Kappa index (Polit et al., 2007). The modified Kappa (k*) is an index of agreement among experts that indicates beyond chance that the item is relevant, clear, or another characteristic of interest (Polit et al., 2007). The formula suggested by Polit et al. (2007) was used in the estimation (Table 2). Fleiss (1981) and Cicchetti and Sparrow (1981) proposed standards were employed to interpret k*.

Based on the findings, the instrument had an I-CVI of 0.60 to 1.00 and an S-CVI ranging from 0.92 to 0.95. Twenty out of 33 items (60.60%) had a rating of 0.78 or higher and were included in the final version of the FEOT.

Internal Consistency Reliability

The corrected item-total correlations for all 20 items ranged from 0.764 to 0.868, suggesting that each item's internal consistency with the composite score from the other items was moderate to high.

Table 3.

Factor Loading, Cronbach's alpha, and Item-Total Correlations for the FEOT (n=2895)

Item	Factor Loadings	Corrected Item-Total Correlation	Cronbach's α if item deleted
Planning and Preparation			
Item 1	0.711	0.790	0.922
Item 2	0.788	0.837	0.922
Item 3	0.651	0.778	0.922
Item 6	0.714	0.800	0.922
Classroom Environment			
Item 8	0.633	0.773	0.922
Item 9	0.662	0.804	0.922
Item 12	0.778	0.854	0.922
Item 13	0.785	0.864	0.922
Item 14	0.775	0.856	0.922
Item 15	0.791	0.865	0.922
Instruction			
Item 16	0.705	0.828	0.922
Item 17	0.762	0.857	0.922
Item 22	0.782	0.868	0.921
Item 24	0.695	0.822	0.922
Item 25	0.701	0.827	0.922

Table 3.

Continued

Item	Factor Loadings	Corrected Item-Total Correlation	Cronbach's α if item deleted
Professional Responsibilities			
Item 26	0.724	0.814	0.922
Item 29	0.715	0.832	0.922
Item 30	0.729	0.817	0.922
Item 31	0.735	0.821	0.922
Item 32	0.619	0.764	0.922

The overall Cronbach's alpha of FEOT was 0.923 which demonstrates a high internal consistency reliability. Specifically, the Cronbach's α for each of the sub-scales 0.906 for Planning and Preparation, 0.942 for Classroom Environment, 0.929 for Instruction, and 0.923 for Professional Responsibilities.

Table 4.

Cronbach's alpha coefficients of the FEOT (n=2895)

Item	Items	Cronbach's alpha
Planning and Preparation	4	0.906
Classroom Environment	6	0.942
Instruction	5	0.929
Professional Responsibilities	5	0.921
Over-all	20	0.923

Confirmatory Factor Analysis

The study confirmed the four-factor model of the FEOT. The CFA model output with factor loadings and standardized estimated is shown in Figure 2.

Table 5.

Model Fit Parameters for the FEOT (n=2985)

Model	X²/df	RMSEA	CFI	GFI	TLI	IFI	SRMR
Acceptable Values	≤3.00	≤0.08	≥0.90	≥0.95	≥0.90	≥0.90	≤0.08
Index Values	2.35	0.071	0.962	0.957	0.956	0.962	0.023

Figure 2.

Confirmatory Factor Analysis of FEOT
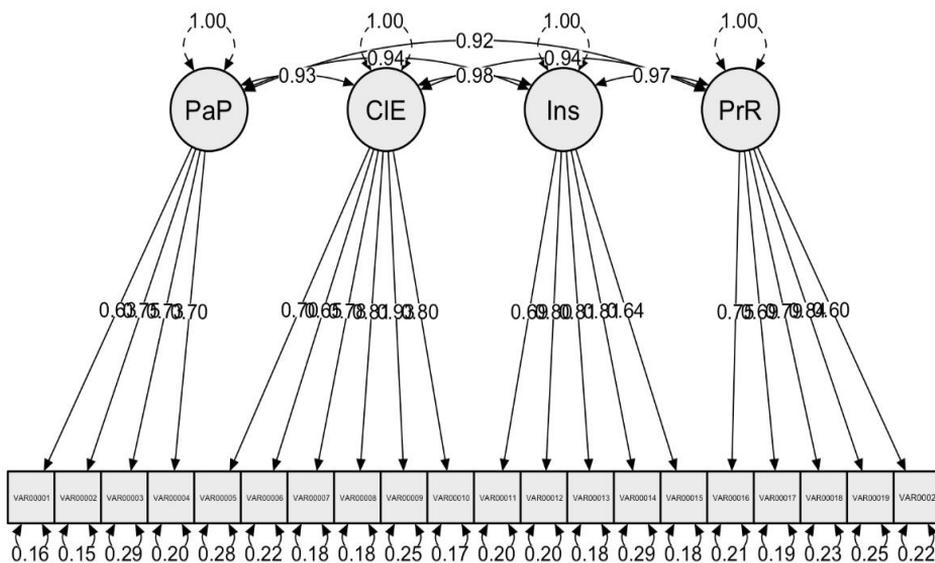
The 20 items were loaded on four sub-scales following the Denison Framework for Teaching with factor loadings ranging from 0.619 to 0.791. The result of CFA revealed a $\chi 2/df = 2.35$, RMSEA = 0.071, CFI = 0.962, GFI=0.957, TLI = 0.956, IFI = 0.962, and SRMR = 0.023.

Discussion

The objective of the study was to develop and evaluate the psychometric properties of the Faculty Evaluation for Online teaching (FEOT). The study was conducted because the faculty evaluation instrument being used by the selected University prior to the shift in online teaching was insufficient for assessing the specific needs and demands that online instructors face. Faculty members must be assessed on key competencies for effective online teaching, such as teacher response rate and availability, frequency and quality of presence in the online classroom, facilitation of written discussions, accessibility of instructor-created supplementary material, and overall management of the administrative aspects of the course (Madernach et al., 2005).

To determine the psychometric properties of the FEOT, the content validity, construct validity, and internal consistency reliability were assessed. For the content validity, a panel of 10 experts was formed following the recommendation of Lynn (1986). Afterward, the content validity index was computed. In the study, two measures of content validity index were measured, the I-CVI and the S-CVI. According to Polit and Beck (2006), I-CVI refers to the proportion of content experts who assign an item a significance rating of 3 or 4, while S-CVI refers to the "proportion of items given a rating of quite/very relevant by raters involved," (Waltz et al., 2005, p. 155). In term of content validity, 60.60% of the items had an I-CVI of 0.78 and higher. and an S-CVI ranging from 0.92 to 0.95 indicating that they are content valid (Polit & Beck, 2006)

The internal consistency of the FEOT among University students was found to be acceptable (α=0.923). Similarly, the Cronbach's α for the four sub-scales were 0.906 for Planning and Preparation, 0.942 for Classroom Environment, 0.929 for Instruction, and 0.923 for Professional Responsibilities. These values exceed the recommended Cronbach's alpha coefficient for an instrument (0.70). Similarly, the four sub-scales of FEOT yielded an acceptable value of more than 0.70 (Polit & Beck, 2014 as cited by Soriano & Calong Calong, 2019). Furthermore, items in the FEOT had an adequate item-total correlations ranging from 0.764 to 0.868 which is greater than the recommended value of 0.30. (Ferketich, 1991). The result of confirmatory factor analysis revealed that the factor structure of the instrument is valid and has a good model fit following the recommendations of Kline (2016).

Limitation of the Study

One of the study's drawbacks is that it used convenience sampling and that the participants were recruited in Manila, which limits the findings' generalizability. An item to participant ratio of 1:74, however, allowed for the statistical findings to be robust. In addition, convergent validity, predictive validity and reliability tests were not performed, necessitating the use of additional measures in future studies.

Conclusion

The FEOT has been shown to be a valid and reliable tool for evaluating the competencies of faculty members in an online environment. As a result, this instrument can be used to provide University administrators with a reliable measure of their professional and teaching competence. This can also be seen as a base for designing in-service training programs in enhancing the capability of faculty members in conducting and developing strategies for online learning environment.

References

Akram, M. & Zepeda, S. (2015). Development and Validation of a Teacher Self- assessment Instrument. *Journal of Research and Reflections in Education, 9*(2), 134-148.

Berk, R. A. (2013). Face-to-face versus online course evaluations: A "consumer's guide" to seven strategies. *Journal of Online Teaching and Learning*, *9*(1), 140-148.

Burns, N. & Grove, S.K. (2009). *The practice of nursing research appraisal, synthesis, and generation of evidence* (6th ed.). Saunders

Cicchetti, D. V., & Sparrow, S. A. (1981). Developing criteria for establishing interrater reliability of specific items: Applications to assessment of adaptive behavior. *American Journal of Mental Deficiency*, *86*(2), 127–137.

Costello, A. B., & Osborne, J. W. (2003). *Exploring best practices in Factor Analysis: Four mistakes applied researchers make*. Paper presented at the Paper presented at the annual meeting of the American Educational Research Association.

Creasman, P. A. (2012). *Considerations in online course design*. The IDEA Center. http://www.theideacenter.org/ sites/default/ files/idea_paper_52.pdf

Danielson, C. (2007). *Enhancing Professional Practice: A Framework for Teaching.* Association for Supervision and Curriculum Development (ASCD).

Eskey, M. T., & Schulte, M. (2012). Comparing attitudes of online instructors and online college students: Quantitative results for training, evaluation and administration. *Online Journal of Distance Learning Administration*, *15*(5).

Ferketich, S. (1991). Focus on psychometrics. Aspects of item analysis. *Research in Nursing & Health*, *14*(2), 165–168.

Fleiss, J. (1981). *Statistical methods for rates and proportions.* John Wiley & Sons

Gordon, G. & Partington, P. (1993). *Quality in Higher Education: Overview and Update.* USDU Briefing Paper Three. Sheffield: Universities Staff Development Unit

Gözüm, S., Tuzcu, A., & Kirca, N. (2016). Validity and Reliability of the Turkish Version of the Nurse Cultural Competence Scale. *Journal of Transcultural Nursing, 27*(5), 487-495

Grant, J. S., & Davis, L. L. (1997). Selection and use of content experts for instrument development. *Research in Nursing & Health, 20*(3), 269–274.https://doi.org/10.1002/(sici)1098-240x(199706)20:3 <269::aid-nur9>3.0.co;2-g

Hathorn, L., & Hathorn, J. (2010). Evaluation of online course websites: Is teaching online a tug-of-war? *Journal of Educational Computing Research*, 42(2), 197-217 https://doi.org/10.2190/EC.42.2.d

Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th ed.). The Guilford Press.

Lee, C. J. (2007). Academic help seeking: Theory and strategies for nursing faculty. *Journal of Nursing Education*, *46*(10), 468-475. https://doi.org/10.3928/01484834-20071001-07

Li, H.C. & Lopez, V. (2007). Development and validation of a short form of the Chinese Version of the State Anxiety Scale for Children. *International Journal of Nursing Studies*, 44(4): 566-73

Madernach, B. J., Donnelli, E., Dailey, A., Schulte, M. (2005). A Faculty Evaluation Model for Online Instructors: Mentoring and Evaluation in the *Online Classroom. Online Journal of Distance Learning Administration*, *8*(3). https://www.learntechlib .org/p/193203/

Marzano, R. J., Frontier, T., & Livingston, D. (2011). *Effective supervision: Supporting the art and science of teaching*. Association for Supervision and Curriculum Development (ASCD).

Ngoma, S. (2011). *Improving teacher effectiveness: an examination of a pay for performance plan for boosting student academic achievement in Charlotte-Mecklenburg Schools*. http://files. eric.ed.gov/fulltext/ED518815.pdf.

Oducado, R. M. & Soriano, G. (2021). Shifting the Education Paradigm amid the COVID-19 Pandemic: Nursing Students' Attitude to E-Learning. *Africa Journal of Nursing and Midwifery*, *23*(1), 1-14. https://doi.org/10.25159/2520-5293/8090

Polit, D & Beck, C. (2006). The Content Validity Index: Are You Sure You Know What's Being Reported? Critique and Recommendations. *Research in Nursing & Health*. *29*, 489-497. https://doi.org/10.1002/nur.20147

Polit, D. F., Beck, C. T., & Owen, S. V. (2007). Is the CVI an acceptable indicator of content validity? Appraisal and recommendations. *Research in Nursing & Health*, *30*, 459-467. https://doi.org /10.1002/nur.20199

Rothman, T., Romeo, L., Brennan, M., & Mitchell, D. (2011). Criteria for assessing student satisfaction with online courses. *International Journal for e-Learning Security*, *1*(1-2), 27-32.

Schulte, M. (2009). Efficient evaluation of online course facilitation: The "quick check" policy measure. *The Journal of Continuing Higher Education*, *57*, 110-116

Soriano, G. & Aquino, M, G. (2017). Characteristics of a Good Clinical Teacher as Perceived by Nursing Students and Faculty Members in a Philippine University College of Nursing. *International Journal of Nursing Science, 7*(4), 96-101

Soriano, G. P., & Calong Calong, K. (2019). Construct validity and reliability of caring nurse patient interaction scale-nurse among Filipino nurses. *International Journal of Caring Sciences,* 12(2), 1017-1022.

Stronge, J. H. (2010). *Teacher effectiveness = student achievement: What the research says. Eye On Education*

Tabachnick, B.G. & Fidell, L S. (2007). *Using Multivariate Statistics* (5th ed.) Pearson Education. Inc.

Tobin, T. J. (2004). Best practices for administrative evaluation of online faculty. *Online Journal of Distance Learning Administration*, *7*(2).

Walsh, D. & Maffei, M. (1994). Never in a class by themselves: an examination of behaviors affecting the student-professor relationship. *Journal on Excellence in College Teaching*, *5*, 23-49.

Waltz, C. Strickland, O. & Lenz, E. (2005). *Measurement in nursing and health research* (3rd ed.). Springer Publishing Co.

Analyzing Inclusivity in Pope Francis' *Fratelli Tutti* (On Fraternity and Social Friendship) and its Implications to Catholic Education

James Loreto C. Piscos
College of Arts and Sciences
San Beda University, Manila, Philippines
jpiscos@sanbeda.edu.ph

Abstract

During the many issues that confront the world today ranging from the Covid-19 pandemic to various forms of discrimination that result to hate crimes and other forms of marginalization, Pope Francis issued a social teaching entitled *Fratelli Tutti*, On Fraternity and Social Friendship. This encyclical draws inspiration from St. Francis' concept of *fraternitas* and human solidarity. The study employed an analysis inspired by Paul Ricoeur's hermeneutical framework which consists of the world behind the text, the world of the text, and the world before the text, to examine its content, context, and application. The research analyzes the document itself, its structure, genre, style of writing and key social encyclical concepts namely human dignity, solidarity and the common good against the backdrop of a "*throw-away culture*", an individualistic understanding of freedom and exclusivity. The document educates people to cross borders and build bridges through new ways of encounter. The encyclical assesses current events, lays out the gospel value of inclusivity, presents new perspectives to walk the talk, inspires authentic conversion and calls everyone to action. *Fratelli Tutti* brings the message of social friendship that can be applied in the context of Catholic education to enrich its three pillars namely instruction, research, and extension.

> *Keywords:* fraternity, social friendship. Human solidarity, human dignity, common good, cross borders

Background of the Study

A papal encyclical clarifies, amplifies, condemns, or promotes societal issues from general concerns like peace and human rights to climate change, labor, and social justice. (Rice, 2015) It serves as an ideological apparatus to raise the level of awareness among people, and addresses those concerns and realities.

Ubi Primum (1740) is considered the first papal encyclical written by Pope Benedict XIV "On the Duties of Bishops" that reminds them to fulfill their duties as shepherds of the flock and fulfill Jesus' last instructions to "*feed my lambs, feed my sheep*" (John 21:17). Prelates are told to inspire the clergy to be dedicated to their ministry, establish seminaries to "*educate candidates to piety, integrity of life, and the canonical discipline from an early age.*"

Since then, there have been close to 300 encyclicals published. The most notable of them that had a great impact on society before Pope Francis' pontificate were *Rerum Novarum* (1891), *Providentissimus Deus* (1893), *Pascendi Dominici Gregis* (1907) *Casti Connubii* (1930), *Pacem in Terris* (1963) *Humanae Vitae* (Paul VI 1968) and *Redemptor Hominis* (1979) (Beale, 2013).

Pope Leo XIII wrote the encyclical *Rerum Novarum* on Capital and Labor to address workers' right, urbanization and industrialization in the midst of the revolutionary changes of the time. It sketched out a social teaching on property rights founded on man being made in the image of God. It mediated the extremes of socialism and *laissez faire* in capitalism (Leo the XIII, 1891).

In honor of the 40th anniversary of *Rerum Novarum,* Pope Pius XI issued the encyclical *Rerum Novarum* on Reconstruction of the Social Order (1931). It affirmed *Rerum Novarum* as the Magna Carta of the Church's activities in social matters and further advanced its teachings on the Church's rights to interfere in economic matters if it affects the moral dimensions of Christian life.

These social encyclicals (*Rerum Novarum and Quadragesimo Anno*) made a stand against violation of human dignity and rights in the entire range of economic process. It guided to live a humane life to find

solution to difficult problems of human solidarity, labor exploitation and further advanced the ideas propelled by Leo XIII.

The encyclicals *Providentissimus Deus* on the Study of Holy Scripture (1893) and *Pascendi Dominici Gregis* on the Doctrine of the Modernists (1907) tackled how the Church dialogues with the modern world in contrasting styles. Pope Leo XIII promoted Catholic education in *Providentissimus Deus* and opened the door for ordinary Catholics to read the Holy Book. He set a pioneering example that it is not the monopoly of the clergy to interpret them alone. This followed after Pope Leo XIII encouraged the incorporation of history and archaeology in biblical studies. Aubert (1998) described the pope to be "*an intellectual sympathetic to scientific progress and to the need for the Roman Catholic Church to demonstrate itself open to such progress*".

Pascendi Dominici Gregis, "On the Doctrine of the Modernists" (1907) had a contrasting approach in its way of dealing with the modern world. The encyclical written by Pope Pius X condemned modernism and its errors to be dangerous in Christian life. It protected Catholic doctrine from changing its contents due to its discourses with the modernists, be it philosophers, historians and other disciplines which was previously opened by Pope Leo XIII. Pope Pius X only open its doors if "*the advance of science and every other department of knowledge may be promoted under the guidance and teaching of Catholic truth.*" (Pius the X, par #57)

Casti Connubii, On Christian Marriage (1930) and *Humanae Vitae* on Regulation of Birth (1968) shared the same theme on the papal position in the issue of life and contraception. *Casti Connubii* by Pope Pius XI came as a reaction to the Lambeth Conference of the Anglican Church that reversed its position on contraception, and declared that it is not sinful (Beale, 2013). The Catholic Church for its part took a conservative stand taking a firm argument against artificial birth control method along with abortion and eugenics (Pius XI, 1930). Pope Paul VI reiterated the doctrine about life and contraception when he wrote the *Humanae Vitae* in the midst of its growing popularity in the late 1960's. It has a solid basis for its claim using these doctrines: God is the author of life, procreation is the heart of marriage, affirm the dignity of the woman, responsible parenthood, promotion of natural method and the claim that artificial birth control is the formula for cultural disaster (Paul VI, 1968) and (McGuire, 2019).

Pacem in Terris or Peace on Earth (1963) and *Redemptor Hominis* or the Redeemer of Man (1979) tackled issues about world peace, common good, harmony and deeper understanding of human person in contemporary world. John the XXIII issued *Pacem in Terris* after the Cuban missile crisis in the 1960's that sowed division and threatened human solidarity. *Redemptor Hominis* was the first papal encyclical of Pope John Paul II after he assumed the Papal office in 1978. Given the challenges of the Cold War, and the polarization brought about by their ideologies, he accepted some of Marx's concepts of economic alienation such as the dehumanization in human labor. However, he rejected the Marxist's notion of utopia depriving human being of private ownership. Pope John Paul II was critical of any economic system that made work more important than the human person (Stevens: 1994). Attuned to the spirit of Vatican II Council (1963-65), John Paull II read the signs of the times taking the trajectory of the conciliar document, *Gaudium et Spes* (1965) which is to see, judge and act. Christ penetrated the depth of human consciousness and the true source of joyful and fulfilled existence. (John Paull II, 1979). Thus, it rejects the Marxist's religious alienation and proclaimed Christ, the Redeemer of human history.

Papal encyclicals are venues for the Church to respond to the realities of the world. These social encyclicals at times provided contrasting views to certain issues such as the way to deal with modernism, contraception, and artificial birth control. But amidst the Church's inconsistencies on its stand, she opens door for collaboration and dialogue with social realities that are favorable to growth and the promotion of sustainable development.

The current pope, Francis, was elected to the papacy in 2013 when his predecessor Benedict XVI resigned from his post. Jorge Mario Bergoglio (born 1936) was the man of many firsts. He was the first from the Americas, from the Southern sphere, and outside Europe since Syrian Gregory VIII in the 8th century. He was the first Jesuit to be installed in the papacy and the first to take the name of Francis. In 2013 he was named Person of the Year by Time magazine and nominated for Nobel Peace Prize in 2014 (Stefon, 2016). He is the 266th pope who made progressive stance in support of scientific big bang and evolution theory. He visited Myanmar in 2017 in the middle of the humanitarian crisis about Rohingyan migrants who are displaced stateless individuals. In 2019, he convened a summit in the Vatican to solve the problem of sexual abuses in the Church. This came

after August 2018 where the jury from Pennsylvania reported the actions of more than 300 priests considered to be "sexual predators" (Biography, 2018).

His pontificate has been characterized by humility and creating spaces for discourse and empowerment in support of marginalized people around the globe. He is engaged in political diplomacy and environmental advocacy which have not yet been dealt with thoroughly by those who were ahead of him. His latest encyclical, *Fratelli Tutti*, On Fraternity and Social Friendship (2020) provides hope to a world that has been struggling to survive amidst the Covid 19 pandemic. In an era of difficult challenges, education serves to open doors for possibilities to better relationships and respect of diversities towards solidarity and inclusivity. The inclusivity narrative in this latest papal encyclical is the subject of inquiry for this research, and how it can engage discourses on social justice in on the context of Catholic education.

Catholic education and the integration of social justice and values for the promotion of humane and dignified life under the tutelage of Pope Francis has been a promising venture that can deal with on immediate issues that divide and exclude people. Education is the best tool for change and brings to wholeness a fragmented global community.

Review of Related Literature

Among early studies and commentaries are the works of Horan and Moss. Horan (2020) in his *Relationship leads us to peace: Three key Franciscan themes in 'Fratelli Tutti'* unpacked the core concepts of Pope' Francis' *Fratelli Tutti* which he identified. These are the concepts of *fraternitas*, crossing borders, building bridges, peacemaking and reconciliation which are mostly inspired by the medieval saint, St. Francis of Assisi. Horan deconstructed the usual idea of fraternity to be exclusively for men by going into the context of what it means during Francis of Assisi's time and Pope Francis' situation. For St. Francis, the word "brother" or frater speaks about "*familial ties with all people and creatures.*" It is a disposition or value in one's inclusive attitude to other people embracing even strangers and individuals different from you. Pope Francis cited the power of inclusivity in *fraternitas* to strengthen freedom and equality in this quote:

> *"Fraternity is born not only of a climate of respect for individual liberties, or even of a certain administratively guaranteed equality. Fraternity necessarily calls for something greater, which in turn enhances freedom and equality"* (Paragraph 103).

Moss (2020) relates *Fratelli Tutti* to Lincoln's biographer Carl Sandburg who carried the ideas of inclusivity through openness, tolerance, and dialogue. Both Francis and Sandburg advocate and criticize religious prejudice and racism.

Friel (2020) dissects *Fratelli Tutti* in his article entitled, *Fratelli Tutti and the Crisis of Liberalism.* He made a thorough study on how inclusivity radiates in the encyclical by the Pope's manner of criticizing the system of exclusivity in the context of liberalism. In his analysis, Pope Francis emphasized these concerns in his rhetoric like *dark clouds over a closed world*, *envisaging and engendering an open world* and establishing radical personalism to be the foundation for solidarity where "*social friendship and universal fraternity necessarily call for an acknowledgement of the worth of every human person, always and everywhere*." He proceeds to articulate how Francis profoundly explores f*raternitas* and inclusivity through dialogue and friendship in society and the service of fraternity in our world.

Bell (2020) re-appropriated the papal encyclical in his article *Fratelli Tutti: Pope Francis' Encyclical and Implications for Labour Law* where he argues how Francis highlighted the dignity of human person and social dialogue to be significant foundations in firming his stand on the ethical debate on the future of work. Bell cited the progressive stand of the Catholic church on human labor and social justice from *Rerum Novarum* to the revolutionized concepts of the present pope.

The reviews and critique on *Fratelli Tutti* might increase in the following months given the many avenues it offers in the area of inclusivity. The writings about how inclusivity can resonate in academic context and Catholic education in particular are yet to be developed.

There have been a plethora of papers that analyze the mindset and worldview of Francis. Most notable of them are Cheney's Be Revolutionary: Some Thoughts from Pope Francis, O'Reilly's Pope Francis' Reforms and Villafana's Environmental Mobilization.

Cheney's Be Revolutionary Some Thoughts from Pope Francis (2020) provided a diverse range of Pope Francis' worldviews and guiding principles. These embodied how the pope addresses various issues in the world. These are about war industry, plunder of nature, worship of money, religious freedom, superficial culture, discarding of people, cost of consumerism, trickle- down economics, superficial culture and nature of peace.

O'Reilly's Pope Francis' Reforms (2020) seeks to showcase the political will of the pontiff to clean the mess within his ranks in the Catholic hierarchy while witnessing at the same time the message of his teachings on solidarity, environment and common good. Villafana (2018) in his Environmental Mobilization: Pope Francis' Encyclical represents Francis' profound reflection on the throw-away culture and his concern for the sustenance of the environment through mobilizing people to work together in solidary for nature. This was captured in his opus, *Laudati Sì*.

There is abundant literature on the works, philosophy and the person of Francis which shows how he impacted the world in various spheres. The area on the implications of his social teachings in Catholic education is not yet adequately explored.

Theoretical Framework / Philosophical Underpinning

The research employs a reading of a papal encyclical by analyzing its key concepts on inclusivity inspired by Paul Ricoeur's interpretative model. The study's conceptual framework utilizes its general processes in analyzing the document. This is as follows:

Figure 1.
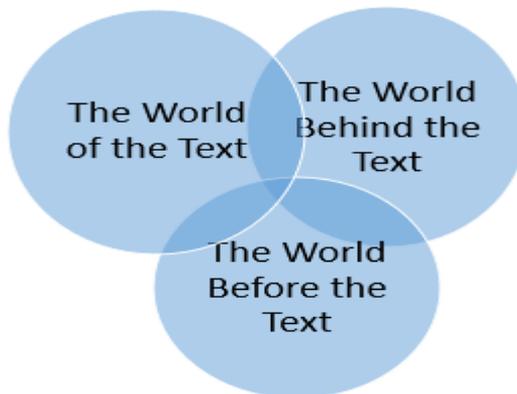
The world of the text represents the examination of the contents of the text itself including the structure of the encyclical, the sub-parts and their inter-relationships, the keywords and dominant terms and the recurring themes of the narrative. It involves comparative criticism that

allows inter-textual study between the themes exposed in *Laudati Sì* and *Fratelli Tutti*, and extracts issues on social order, the common good, and human dignity.

The world behind the text represents the background of the author, his ideologies and influences, and a set of experiences that propelled the theme of his work. In this part, the study traces the consistencies of Pope Francis' thoughts about inclusivity in all his encyclicals. A look at his experiences from his immediate past can shed light on this segment of the analysis. A blending process with the world of the text is delivered to achieve the contextual meaning of his writings. This is called the text-context dialogue.

The world before the text, otherwise known as the world of the readers today, is the application and implication of the contextual meaning derived from the blending process of the world of the text and the world behind the text. It shall be appropriate how these meanings shall be applied and integrated to certain global concerns. The research identified Catholic education as the venue for such implication and re-appropriation. This portion is called context-to-context dialogue that aims to sketch possibilities on how the inclusivity narrative in *Fratelli Tutti* is integrated into the Catholic education. Based on the discussions presented that are gleaned on Ricoeur's hermeneutic, the author designed this conceptual framework:

Figure 2.

Analyzing Inclusivity in Pope Francis' Fratelli Tutti and
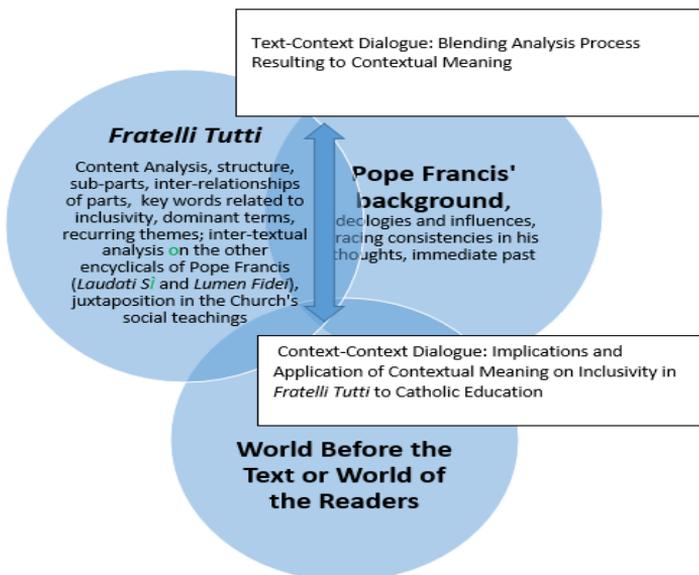
Methodology

The research employs e-library work. It examines papal encyclicals written primarily by Pope Francis and his predecessors. It engages text-context and context–context dialogue to determine the key concepts related to inclusivity and compare Pope Francis' thoughts on social issues in his previous encyclical *Laudati Sì* or Praise be to you- On Care for Our Common Home (2015). It traces also the consistencies in his social encyclicals (*Fratelli Tutti, Laudati Si*) about inclusivity and relates this narrative to the bigger context of Church's social teachings. Finally, the results of the study sketch possibilities on how *Fratelli Tutti's* core ideas and meanings on inclusivity can be integrated into Catholic education.

The analysis is guided by Ricoeur's hermeneutical method: the world of the text, the world behind the text, and the world before the text and their blending processes that resulted to text-context and context-context dialogue.

This is a qualitative research based on primary sources which engages in an examination of inclusivity inspired by Ricoeur's interpretative model. From these results, a consequent implication to Catholic education is drawn.

Analyzing Inclusivity in Pope Francis' *Fratelli Tutti*

The World Behind the Text: Reading the Context of *Fratelli Tutti* in the Document

St. Francis of Assisi (c. 1181-October 3, 1226) influenced the Pope's encyclicals from *Laudati* Sì where he was inspired by the saint's fraternal love, simplicity and joy [principally: Solicitude for God's creation] to *Fratelli Tutti* which captured his thoughts on fraternity and social friendship (no. 2). Pope Francis took from St. Francis the openness of heart without borders embodied in the latter's visit to Sultan Malik-el-Kamil in Egypt during the height of the Crusade. The pope drew out key concepts in his encyclical a model of how one's attitude can avoid hostility and conflict through fraternal subjection (no.3). The title *Fratelli Tutti* was borrowed from St. Francis' admonitions to his monks which literally means "*all brothers and sisters*" (no.1) (Vatican, 2020).

Eight hundred years later, the Pope did the same thing as shown in his visit to the Grand Imam Ahmad Al-Tayyeb in Abu Dhabi on April 2,

2019. The language of inclusivity articulated in *Fratelli Tutti* also came as a result of these engagements in dialogue, collaboration and listening to people of various faith traditions. In doing so, Francis walked the talk to work together with various leaders of other religious traditions for peace, freedom and rights which go beyond religion, gender, race, or social status. His encounters with them allowed an open conversation and mutual respect to achieve a lasting harmonious relationship of peoples around the world (no.5). They signed the document *"Human Fraternity for World Peace and Living Together"*. In its introduction, it states:

> "*Faith leads a believer to see in the other a brother or sister to be supported and loved. Through faith in God, who has created the universe, creatures, and all human beings (equal on account of his mercy), believers are called to express this human fraternity by safeguarding creation and the entire universe and supporting all persons, especially the poorest and those most in need.*" (Human Fraternity, 2019, 1)

This invites "*all persons who have faith in God and faith in human fraternity to unite and work together*". For Pope Francis, "*it is more than mere diplomatic gesture but a reflection born of dialogue and common commitment*" (no. 5).

Chapter One is an assessment of the current state of our world. It describes the immediate context of *Fratelli Tutti* captured in its title, "*Dark Clouds Over a Closed World*". The pope provides the setting of his narrative from shattered dreams of integration such as that of the European Union and of Latin America, the lack of strategic plan surrendering to the preference for instant and quick profits, globalization and progress without a shared roadmap, pandemics and other calamities in history, and the illusion of communication (no. 10-50).

Francis discussed how conflicts and disregard for a common good happened due to the imposition of a single cultural model imposed by a global economy that unifies people but "*does not make us brothers*" (no.12; Benedict XVI, 2009:655). Such a situation also paved the way for the end of historical consciousness, fading political, economic and intellectual independence caused by the drive of limitless consumption and expressions. Respect for traditions and unique histories and stories had been lost and replaced by the promises of economic powers and quick profits. In this set-up, a throw-away culture continues not only with dispensable objects and food but also with human beings themselves (no.

18-19). The term throw-away culture was previously introduced in *Laudati Sì* to emphasize the empty individualism and the lack of care for the environment, the world, and our people.

Pope Francis and the Grand Imam Ahmad agreed that "*there exists moral deterioration and weakening of values and responsibility*" that resulted in "*feeling of frustration, isolation and desperation.*" Today's world sees globalized indifference, many forms of injustice, and perversions that dehumanize and destroys our universal human rights and commit affronts to human dignity including terror attacks, war, gender, racial or religious persecutions. This is amidst the fact that we witness globalization and progress but without a shared roadmap on how to keep and value personal well-being and the prosperity of the larger human family where creativity, respect for diversity and integrity thrives (no.29-31).

In the course of Francis' writing, the Covid-19 erupted and became a pandemic. In such context, the Pope incorporated his reflections on how the pandemic exposes our false securities. He described how various countries responded to the crisis, their inability to work together where despite our hyper-connectivity, we ended up in fragmentation (no. 7). *Fratelli Tutti* also came as a by-product of the Pope's view about the "*frenzy of texting*" where real wisdom is replaced by instant knowledge. There is a selective way of presenting the truth without giving a bigger picture of what the issue is all about. The world is dominated by superficiality in the way we communicate to others while "*silence and careful listening disappear*" (no. 49).

Six months after the release of *Fratelli Tutti* on March 5, 2021, Pope Francis embarked on a historic four-day trip in Iraq meeting officials, religious leaders and ordinary Iraqis of all faiths. He visited the Grand Ayatollah al-Sistani, the spiritual leader of Iraq's Shia community, and prayed in the ruins of the four Churches destroyed by ISIS in the ancient city of Ur, Erbil, the capital of Iraq's Kurdistan region, and Mosul (BBC, 2021). Indeed, his actions represent his call to end division, violence and extremism that came as a result of the lack of social friendship and fraternity that is inclusive, respectful, and open to love beyond borders grounded on human dignity that transcends all forms of cultural (including gender and race), economic, geographical, ideological and religious differences.

The World of the Text: Structure, Style and Key Concepts of the Document

Structure of the Text

Fratelli Tutti is composed of a brief introduction and eight chapters that tackle the following:

> *Fratelli Tutti* – no. 1-2
> Without Border- no.3-8
> Section 1: Assessment
> > Chapter 1: Dark Clouds Over a Closed World - no. 9-55
> Section 2: Scripture
> > Chapter 2: A Stranger on the Road – no. 56-86
> Section 3: Conversion
> > Chapter 3: Envisaging and Engendering an
> > > Open World – no. 87-127
> > Chapter 4: A Heart Open to the Whole World – no. 128-153
> Section 4: Action
> > Chapter 5: A Better Kind of Politics
> > Chapter 6: Dialogue and Friendship in Society – no. 154-197
> > Chapter 7: Paths of Renewed Encounter – no. 225-270
> > Chapter 8: Religions at the Service of Fraternity in our
> > > World – no. 271-287

The chapters are grouped into four main sections: assessment, scripture, conversion, and action. Each chapter is composed of paragraphs that are numbered for easy tracking. The social encyclical contains 287 paragraphs.

Genre and Style of Writing

The genre is that of a social encyclical, a document that addresses the situation and needs of society, and engages the Church with the realities of the world. A social encyclical is issued by the pope which consists of foundational principles, namely dignity of human person, the common good, subsidiarity and solidarity (Gjani, 2020).

Like other social encyclicals, the style of writing shows the pope's advice concerning certain issues confronting the world, along with his reflections ranging from intensely personal issues such as too much texting and the illusion of communication that place people at the risk of losing contact with concrete reality "*blocking the development of authentic*

personal relationship" (no. 43) to calling on the United Nations regarding financial and global institutions to "*avoid power being co-opted only by a few countries*" at the expense of the weaker ones (no. 173).

The Pope employed direct descriptions of the state of world's events in his narrative and incorporated a few metaphors and symbols to address the conditions of the world, like dark clouds, a stranger on the road, inspired by the parable of the Good Samaritan, and an open heart.

Key Social Encyclical Concepts in the Document
Human dignity and human rights serve as important values in shaping social action. The pope highlighted that all human beings share the same innate human dignity (no. 22) and that all are born with the same dignity (no. 118). The differences of people due to race, religion, social status, gender, religious beliefs should not be the basis of the privileges that some have over the rights of others (no. 118) because human persons share an equal dignity (No. 22). The pope also used this to invoke limits on the rights of private property (no. 120) and to enjoin people to build healthy relationships based on it that allow personal growth and self-expression (no.162).

Fraternity and social friendship take center stage in the document given that its spirit is that of inclusivity. Human fraternity and fraternal love were articulated well in the pope's meeting with the Grand Imam Ahmad where both produced the document, *"Human Fraternity for World Peace and Living Together".* Francis expressed that *Fratelli Tutti* is aimed at forming a new "*vision of fraternity and social friendship that will not remain at the level of words*" (no. 6). Fraternity is intertwined with freedom and equality since it recognizes the worth of every human being. Freedom without responsibility is licentiousness. To do whatever we want without reference to our responsibility towards others manifests a shallow understanding of liberty and a complete disregard for its richness based on the respect for human dignity and, most of all, on its impact on the common good (no. 103, 106). The cry that everybody is equal is simply a sloganeering and an empty declaration unless we exert conscious effort to cultivate fraternity that gives an opportunity for every person to give the best of themselves and integrate their capacities in an open and inclusive society. (no. 97, 104, 110)

Solidarity is another concept of the social encyclical that speaks about "being one" and which usually has its concrete expression in service to others. Solidarity takes preference in the care for the vulnerable sectors

of society for them to be included and be part of the bigger system (no. 114-115).

Openness and dialogue are important terms connected to inclusivity and fraternity. Conflicts and tensions could be easily resolved by fruitful exchange based on mutual respect and listening from the heart. Exclusivity in our close associates and network can be overcome by deconstructing the limits of our doors to a certain group of people. Openness and dialogue entail overcoming self-interests and proceeding to the world of the unknown where we come in contact with people of different backgrounds, traditions, situations, and religious beliefs. The encyclical extends the scope of charity and fraternal love to opening doors and bridging the gaps caused by differences in view of building together a global harmony characterized by mutual respect for one's dignity, peace, justice, forgiveness, solidarity, common good, joy, social friendship and fraternity (no. 198-205)

Highlights on the Meaning of Inclusivity Using Text-Context Dialogue

Fratelli Tutti is a social encyclical whose framework was inspired by Franciscan spirituality. It expanded the theme of *Laudati Sì* on the *Care for our Common Home* to fraternity and social friendship through inclusivity of people that are isolated due to differences in religion, gender, race, social and economic status. It was meant to conscientize and raise everyone's level of awareness of the value of human dignity as the main basis for inclusiveness.

Like any social encyclical in the modern period, it contains the fundamental principles, namely the dignity of the human person, the common good, and solidarity. The document provides a model for Catholic Education in its approach to inclusivity which constitutes the four sections of the document namely: assessment, scripture, conversion, and action.

The assessment component is shown in Chapter 1 where it provided the context for the need for fraternity and social friendship to what the pope calls the "*dark clouds over a closed world*". Amidst globalization and progress, the world remains fragmented and people are isolated from each other. There have been initiatives towards unification as in the case of Europe and Latin America. But their dreams were shattered because the society they created became more globalized to a single cultural model, but lacked the integration needed to make them brothers (no.12). The world still experiences hostility and conflict because

of empty individualism, of taking control over people causing despair and hopelessness, of exclusivity in exercising one's rights at the expense of others, and of superficiality in relationships (no. 13, 15). This is aggravated by apathy and indifference which obstruct authentic relationship, advance individualism and create separation and suffering of the most vulnerable groups in society, the poor and the marginalized (Horan, 2020).

The Pope boldly pointed out how the Covid-19 pandemic exposed our false security that amidst our economic progress, globalization, advanced technology, and digital communication, we witness the fragmentation that aggravates problems that affect us. We have seen how various countries responded to the problem to save their own people, but manifested their inability to work together towards global solidarity in addressing the crisis. We have advanced digital media but virtual reality cannot satisfy our search for authentic interpersonal relationship where we can experience concrete gestures of reaching out and listening to each other's stories (no. 43). The progress of globalization has not been experienced equally nor has it been able to unite humanity. The world wide web has not adequately built bridges. Instead, we have erected a culture of walls and throw-away practices that lack the flavor of fraternity.

The scripture section provides the foundation of the pope's teaching about fraternity and social friendship has taken from what Jesus said in the gospel in answer to the question, "*Who is my neighbor?*" Pope Francis took us to the challenge of inclusivity in the Parable of the Good Samaritan (Luke 10:25-37), the story that demonstrates how social friendship or *fraternitas* demands love, care, and respect. Chapter two of the encyclical shows the neighbor without borders who helped the stranger on the road. Pope Francis enumerated various characters of the story that could represent different reactions of people in the way they deal with the victim. It was the Samaritan who exhibits the Christian notion of relationship that goes beyond the limits and qualifications we set to isolate ourselves from solidarity with others. Pope Francis admonishes us that until it affects us directly, like the rest of the characters in the Good Samaritan narrative, we are accustomed to looking the other way, simply pass and ignore situations (no. 56-86). He calls on everyone to be interdependent and interconnected and challenges us to cross the border and build bridges. *Fraternitas* includes an open disposition or value to view and relate with others including strangers and those who may be very different from you (Horan, 2020).

The third section of the document speaks about conversion which is dealt with in chapters 3 and 4. Pope Francis proposed a new approach that is open where he outlined in the said chapters the "*envisaging and engendering an open world*" and the "*heart open to the whole world*". In chapter 3, he outlined a way to turn away from individualism and bordered societies to solidarity and universal love that promotes persons. "*Social friendship and universal fraternity call for an acknowledgment of the worth of every human person*" (no. 106). The pope reiterated that *"we can rise to the challenge of envisaging a new humanity only if we accept the great principle that there are rights born of our inalienable human dignity*" (no. 127). Chapter 4, the "heart open to the whole world," means that we need healthy and enriching exchanges. Many times we set values that exclude and even hate others which limit and block fruitful dialogues. *Fratelli Tutti* admonishes excessive nationalism which highlights exclusivity among themselves and forgetting they are part of a larger human family (no. 141).

Finally, the active component of the document is found in Chapters 5 to 8 where it proposes a way to go using social friendship and fraternity in society. It calls us to restructure our relationships. The first reform is how to do a better kind of politics (chapter 5), dialogue and friendship in society (chapter 6), paths of new encounter (chapter 7) and religion at the service of fraternity in our world (chapter 8).

A better kind of politics is that which works for the common good, be it at the local or international level. The politics we need is the one that commits to truth, charity, moral responsibility and strive to remove social and economic exclusion (no. 177-184).

Everyone must commit to dialogue and social friendship. Authentic social dialogue is needed to listen, know, and learn from those different from us in order to build a humane and inclusive society. Hopefully, we can recover kindness and the joy in acknowledging others towards the path of forming the culture of encounter away from consumerist individualism that brings people to injustice (no. 198-224). Paths of new encounters in social friendship, fraternity, and inclusivity start with the art of peacemaking which is rooted in the wisdom of St. Francis about how peace can be achieved especially when the poor and the marginalized are prioritized. Peace can heal open wounds but this requires reconciliation and forgiveness. Pope Francis cited that "*it is no easy task to overcome the bitter legacy of injustice, hostility, and mistrust left by the conflict. It can only be done by overcoming evil with good and by cultivating those virtues*

which foster reconciliation, solidarity and peace." (no. 243) The final chapter of the encyclical appeals to everyone to become agents of reconciliation, promoters of the common good and cooperators in putting religion in the service of fraternity in our world (no. 272-287).

Implications of the Contextual Meaning of Inclusivity in Fratelli Tutti to Catholic Education

Basic education in the Philippines recently revised the curriculum (August 2020) that merged Values, Good Manners and Right Conduct, and Christian Living into one subject. Prior to that, they were treated differently especially in Catholic schools. Its envisioned outcome is "*a Christ-centered person who loves, discerns, and acts for the common good*" (CEAP, 2020). It places human dignity at the center of Christian spirituality and the core foundation of all the values.

The theme of inclusivity in *Fratelli Tutti* offers a plethora of implications to Catholic education in the areas of curriculum and instruction, research, and extension. The themes of human dignity, common good, and solidarity in the social encyclical are essential building blocks in character formation and therefore should permeate the curriculum. The curriculum should integrate these core values that are also embodied in every academic institution's vision-mission and objectives. In the language of Pope Francis, the implementation should not be at the level of the head and only be expressed in words. Teachers should include in their learning plan motivational stories, lessons and group works the various narratives of authentic human relationships based on solidarity, common good, and human dignity. These inspiring accounts should not be exclusively about the lives of saints but also about certain individuals or communities who impacted and influenced their societies with the spirit of *fraternitas* and social friendship. Success stories of dialogue should be cultivated more in classroom discourses where students are brought in contact with concrete people who have had such open encounters, rather than present them in mere abstract categories. Societal issues, discord and conflict that are direct the infringements on the given values should also be tackled to avoid repeating the said mistakes. These initiatives can be evaluated in the formative and summative assessments which review how questions and tasks are formulated within the language of inclusivity and social friendship. Performance rubrics shall consist of items that deal with how human solidarity, common good, and human dignity are incorporated in order that learners can imbibe them in their daily lives.

Research is a fertile ground to discover more about people and their well-being. Social conflicts are better understood when we start to see things from many angles including the perspectives of those who are totally different from us. It is from this vantage point that *fraternitas* and social friendship can become a more enriching discourse.

Research collaborations among people of various backgrounds can be a bridge to social friendship. Catholic schools should keep an open communication to link with local and international universities regardless of religious and cultural backgrounds to create programs that can advance projects based on sustainable development goals (SDGs). The networks of academic institutions promoting inclusivity for the common good are the best strategies to realize research studies directed to address the problems that confront the world today. The partnerships can be in various forms, from faculty and student cooperation, faculty-faculty team effort, and academe-corporate world or government agency. The approaches can be inter-disciplinary and multi-disciplinary. But all these research engagements are geared toward a common goal, that is, to create a better and humane world. Research promotes inclusive, sustainable, and total human development.

Extension or outreach is an important pillar in the academe since this is the venue where research findings can be applied especially if it is based on SDGs. Using the concept of *fraternitas*, people in the communities should be treated as active doers and not mere recipients of any projects. Inclusivity is ensured when the beneficiaries are part of the decision process from the planning stage, implementation to evaluation period. Various stakeholders should vigorously take their role in achieving SDGs and promoting empowerment, human dignity and common good. Extension engages the community and the world where higher educational institutions (HEIs) facilitate the achievement of quality life using their expertise and resources to help people help themselves. It is here where they (HEIs) become relevant and realize their contributions in creating a just and humane society. This is the essence of Catholic schools' participation in the larger mission which is "*to cross borders and build bridges*" as expressed and unpacked in *Fratelli Tutti*.

Conclusion

Fratelli Tutti came in the midst of recent world events where Pope Francis, being a world leader, used this social encyclical as his platform to personally share his views and reflections about social friendship. The document is about being "*all brothers and sisters*" that embodies inclusivity, common good and solidarity founded on the dignity of the human person. This is an attempt to offer new paths of encounter to dialogue even to people who are totally different from us. To be a witness to what he wrote, or to walk the talk, so to speak, Pope Francis engages in dialogue and collaboration to achieve human fraternity with leaders of different religious traditions. This trajectory has been inspired by St. Francis who also influenced him in his previous encyclical *Laudati Sì* that connects us to our common home. This encyclical continued the path to unity and cross the borders that divide humanity.

Fratelli Tutti offers a lot of implications on education as the seed bed of character formation. Catholic educational institutions should take into account how the three pillars of the academe namely instruction, research, and extension represent f*raternitas* and build bridges that can truly be in solidarity and attuned with the spirit of inclusivity and social friendship that can heal and unite the world. Hope springs when the culture of walls is dismantled, and we start to appreciate our humanity that binds us all.

References

Aubert, R. (1998). *Leo XIII*. https://www.britannica.com/biography/Leo-XIII#ref77088 on 8 November 2020.

BBC (2020). *Pope Francis on Iraq visit calls for end to violence and extremism.* https://www .bbc.com/news/world-middle-east-56282 598.

Biography Newsletter (2018). *Francis*. https://www.biography.com/ religious-figure/popefrancis.

Beale, S. (2013). *7 Papal Encyclicals That Changed the World.* https://catholicexchange. com/7-papal -encyclicals-that-changed-the-world.

Bell, Mark. (2020) *Fratelli Tutti: Pope Francis' Encyclical and Implications for Labour Law.* https://uklabourlawblog.com/ 2020/10/22/fratelli-tutti-pope-francis-encyclical-and implications-for-labour-law-by-mark-bell/.

Benedict the XIV. (1740). *Ubi Primum, "On the Duties of Bishops" in Papal Encyclicals Online*. https://www.papalencyclicals.net/ ben14/b14ubipr.htm on 7 November 2020.

Cheney, G. (2020). *Be Revolutionary: Some Thoughts of Pope Francis*. https://www. academia.edu/15265042/Be_Revolutionary_Some_ Thoughts_from_Pope_Francis.

Fallible Man (1986). trans. C. A. Kelbley. Fordham University Press.

Francis. (2020) *Fratelli Tutti, On Fraternity and Social Friendship*. http://www.vatican.va/content/francesco/en/encyclicals/ documents/papa-francesco_20201003enciclica-fratelli-tutti.html.

.Friel, C. (2020) *Fratelli Tutti and the Crisis of Liberalism*. https://www.academia. edu/44346648 /Fratelli_Tutti_and_ the_Crisis_of_Liberalism on 12 November 2020.

Gjani, M. (2020). *Aletheia*. https://aleteia.org/2020/10/04/what-is-a-social- encyclical-popes-new-letter-is-part-of-this-treasury/ on 2 Maech 2021.

History as Narrative and Practice, interview with P. Kemp. (1985). Philosophy Today (fall).

Horan, D. (2020) i*Relationship leads us to peace: Three key Franciscan themes in 'Fratelli Tutti'.* National Catholic Reporter**.** file:///C:/Users/Admin/Downloads/Relationship_ Leads_us_ to_Peace_Three_Key%20(1).pdf on 12 November, 2020.

Laudati Si, Ptraise be to You- On Care For Our Common Home. (2015) http:// www. vatican.va/content/francesco/en/encyclicals/ documents/papa-francesco_20150524_ enciclica - laudato-si.html on 11 November 2020.

Leo the XIII. (1891). *Rerum Novarum, "On Capital and Labor".* http://www.vatican.va/ content/leo-xiii/en/encyclicals/documents/ hf_l-xiii_enc_15051891_rerum-novarum.html on 7 November, 2020.

Lumen Fidei, The Light of Faith. (2013). http://www.vatican.va/content /francesco/en/ encyclicals/documents/papa-francesco_20130629_ enciclica-lumen-fidei.html on 11 November 2020

.Mcguire, J. *7 Basic Points: Humanae Vitae Summary*. https://www.hli. org/resources/7-basic-points-humanae-vitae-summary/ on 10 November 2020.

Moss, W. (2020). *Reading Pope Francis's "Fratelli tutti" through Carl Sandburg*. https://www. academia.edu/44418894/Reading_Pope_ Franciss_Fratelli_tutti_through_Carl_Sandburg on 12 November 2020.

O'Reilly, P. (2020). Pope Francis' Reforms. https://www.academia.edu /search?utf8=%E2% 9C%93&q=Pope+Francis+thoughts on 12 November, 2020.

Paul the VI. (1968). *Humanae Vitae*. http://www.vatican.va/content/paul-vi/en/encyclicals/   documents/hf_p-vi_enc_25071968_humanae-vitae.html on 10 November 2020.

Piro, I. (2020). *Fratelli tutti: Short summary of Pope Francis' Social Encyclical*. https://www.vaticannews.va/en/pope/news/2020-10/fratelli-tutti-pope-fraternity-social-friendship-short-summary.html on 11March 2021.

Pius XI. (1930). *Casti Connubii, "On Christian Marriage".* http://www.vatican.va/content/pius-xi/en/encyclicals/documents/ hf_p-xi_enc_19301231_casti-connubii.html   on   10   November 2020.

Popova, G. (Ed) (2019). *Philosophical Hermeneutics: Between Gadamer and Ricoeur – Chavdar Dimitrov.NotaBene 45*. https://www. researchgate.net/publication/335004013_ Philosophical_ Hermeneutics_Between_Gadamer_and_Ricoeur on 11 November 2020.

Providentissimus Deus, "On the Study of Holy Scripture". (1893). https://www. papalencyclicals.net/leo13/l13provi.htm   on   8 November 2020

Quadragesimo Anno, "On the Reconstruction of Social Order". (1931). http://www.vatican.va/ content/pius-xi/en/encyclicals/documents /hf_p-xi_enc_19310515_quadragesimo-anno.htm on 7 November 2020.

Rice, D. (2015). *The Papal Encyclical: What is an encyclical?* USA Today. https://www.usatoday. com/story/news/world/2015/06/16/ pope-francis-encyclical/28814437/ on 6 November 2020.

Ricoeur, P. (1979). Response to My Friends and Critics. – In: C.E. Reagan (ed.). *Studies in the Philosophy of Paul Ricoeur*. Ohio University Press.

Stefon, M. (2016). *Francis in Britannica*.
       https://www.britannica.com/biography/Francis-I-pope/additional-
       info#history on 10 November 2020.

Stevens, M. (1994) *Redemptor Hominis in The New Dictionary of Catholic
       Social Thought*. In Dwyer, J. (Ed). Liturgical Press: 817-822.

The Model of the Text: Meaningful Action Considered as a Text. (1984).
       Social Research 51.

Villafana, A. (2018). *Environmental Mobilization: Pope Francis'
       Encyclical*. https://www. academia. edu/31950900/
       Environmental_Mobilization_Pope_Francis_Encyclical on 12
       November 2020.

.

The Perception on the Implementation of Flexible Learning in the Time of Covid 19

Margarette C. Cayetano
College of Nursing
San Beda University, Manila, Philippines
mcayetano@sanbeda.edu.ph

Pocholo U. Autencio
College of Nursing
San Beda University, Manila, Philippines
pautencio@sanbeda.edu.ph

Abstract

The rapid spread of Corona Virus 2019 known as COVID 19 has brought disturbance to a large number of people's lives and economic stability. It has greatly challenged the people's holistic way of life with uncertainties considering the significant public health risks COVID-19 poses. This pandemic has affected the global educational systems which led to delve into advanced teaching-learning tools or modalities that would help bring about the transition from the usual face-to-face mode to flexible learning. The objective of this study was to find out the perception of the respondents on the implementation of Flexible Learning in the delivery of nursing education programs as the basis for the recommended course of actions in the schools of nursing. This is a descriptive-quantitative study, which utilized a self-rated standardized questionnaire—The flexibility questionnaire developed by Bergamin et al., (2012). The questionnaires were purposively administered to a total of sixty-six (66) respondents composed of the deans, coordinators/program heads, and faculty members of selected nursing schools in Metro Manila. The results had shown that the respondents agreed to all indicators mentioned in the survey tool. It has therefore shown in this study that respondents desired an approach to flexible learning in which teaching and learning could exercise regulation and jurisdiction.

Keywords: Flexible Learning, COVID 19, Time Management, Teacher Contact, Content

Background of the Study

Flexible learning is designed towards achieving the desired outcome of providing a suitable learning environment that best complements the learning needs, patterns, and styles of students, utilizing both technological and non-technological tools and/or modalities. The United Nations Education Agenda for the year 2030 encourages all nations to develop well-balanced schooling frameworks that offer Flexible Learning Pathways for their students. Across a number of countries, various schools are resorting to advanced flexible learning spaces to improve academic performance, as an alternative to the traditional classroom settings.

Moreover, the emergence of the COVID-19 pandemic which has begun in December of 2019 has caused major impact as well as disruptions to a great number of people, organizations, and institutions worldwide. Subsequently, this pandemic has affected educational systems globally, resulting in the nearby closures of several educational institutions, schools, colleges, and universities. In effect, these have led to an immediate response to look for other innovative teaching-learning tools and/or modalities that would facilitate the transition from the previous method of teaching to innovative teaching.

In addition, this pandemic has brought about enormous insufficiencies and imbalances in the education systems—from the internet and online accessibility, technological gadget and device, and the supportive environments needed to focus on learning, up to the misalignment between resources and needs. Even further, teachers across the education levels—from basic education to higher education, also had to become accustomed to new educational models and methods of delivery of teaching, for which they may not have been trained.

Locally, as per CHED Memorandum Order (CMO) No. 04, Series of 2020, the Commission on Higher Education disseminated Guidelines on the Implementation of Flexible Learning to be applied by the public and private Higher Education Institutions (HEIs) beginning the academic year 2020 to 2021 and may be extended upon consultation with the partners concerned and upon review of the Commission. This document has contained pertinent data and recommendations for the application of

flexible learning and teaching both for the undergraduate and graduate programs.

This study was conceived to determine the perception of the respondents concerning the implementation of Flexible Learning in the delivery of nursing education programs as the basis for the recommended course of actions in the schools of nursing. It is in this regard that flexible learning can certainly ensure the continuity of the inclusive and accessible process of receiving or giving systematic instructions when the use of traditional modes of teaching is not capable of being done during the presence of widespread crises—such as in the case of COVID-19 pandemic.

Likewise, it is also hoped that this study would serve as one of the bases for sustaining the value offered by various educational institutions to remain relevant, and constantly reinventing and innovating their learning environments that would expand and complement the delivery of learning and that would enhance the student-teacher relationship. Lastly, considering the challenges and the magnitude of the crisis posed by the COVID-19 pandemic in the education system, this study may serve as a source of insight and realization towards policy experiences, data, and analyses, which could pave the way toward the establishment of relevant educational policy modifications.

Considering the continuously changing situations of our learners, educators, and learning institutions, this and other related studies could provide us a better understanding of possible or available options that would allow customizations of teaching and learning delivery modes that are more responsive to students' needs towards quality and equitable education. These give the academic institutions possible alternatives for their educators to select from, as to whichever delivery mode would be most suitable to them considering the learning content, timetable, and accessibility.

Corona Virus 2019

The COVID-19 pandemic isn't simply impacting networks legitimately, but its monetary outcomes have greatly affected the existence of a greater number of families and people. The prompt ailments, financial effect, and unsettling influence of the social and the whole structure over

the world is aggravating a huge widespread passionate medical crisis (Ghebreyesus 2020).

Similarly, Daniel (2020), expresses that Coronavirus is the best test that government- funded training frameworks have at any point stood up to. Various legislatures have requested many schools to stop face-to-face lessons for the majority of students, anticipating that they should shift to flexible learning and virtual instructing.

According to United Nations Policy Brief: COVID 19 (2020), the COVID emergency has incited an intermittence of existing wellbeing frameworks over the globe, which have negative impacts and affect enthusiastic prosperity in coming months, and for specific years.

In the same manner, where families are restricted in their homes by COVID-19, guardians and watchmen may have significantly on edge with regards to their monetary future, thus, learning at home isn't simple, particularly for students who have decrease motivation. Such place usually has deficiency on the devices and network that more luxurious families underestimate which increases the issue (Daniel 2020).

Literature Review

Flexible Learning
According to Shurville et al. (2008), flexible learning is a group of instructive methods of reasoning and frameworks, concerned about giving students expanded decision, ease, and personalization in meeting the demands of the student. In addition, flexible learning help students to make decisions as to where, when, and how learning happens.

This can be supported by the study of Cassidy, A. et al., (2016). According to this study flexible learning is an informational approach that permits individuals for flexibility of the time, place, and audience, which includes technological and non-technological parameters.

Based on the study by Tucker, R. & Morris, G. (2012), the ability to use flexible education into instructing models by the professionals in the different disciplines, the procedure utilizes different flexible learning tools to explain the inclinations of students to overcome any issues between the student desires for adaptability and their instructor's eagerness as well as

capability to give teachings inside the restrictions in the academic setting. The findings recommend an educated beginning stage for teachers and other inventive disciplines from which to cross the challenges innate to deal with flexibility in a relentless technological world.

Additionally, flexible learning as an idea can have numerous implications for various people and associations. The names—open learning, distance learning, and flexible learning are sometimes given the same connotations (Wade et al. 1994, Lewis 1995, Jones & Rushford 1996). While open learning refers to portray a modality that is flexibly intended in singular necessities, Lewis & Spenser (1986) clarify flexible learning as frequently used in the arrangement that attempts to eliminate obstructions which hinder participation in greater conventional level for additionally proposes a student-centered way of thinking. Whereas, distance-learning has comparable qualities with other modalities, this infers topographical distance between the student and the giving organization. Typically, the learning can occur with the guide of self-instruction bundled by many resources which may include modules and videos.

Likewise, the broad features of flexible learning made it difficult to find the real meaning. Palmer emphasized the scope of using the components of flexible learning that can result to the end that almost any instructing and learning design could profess to be adaptable in some respect; hence he mentioned that people should be prudent in using the term flexibility. However, the insufficient knowledge about the meaning and proper understanding of flexible learning has resulted in confounding blended instructive typologies, such as distinguishing the part in a course that is conveyed in a non-customary manner is just like being adaptable, or comparing distance schooling with flexible learning (Palmer, 2011). In addition, Hart (2000) also emphasized the importance to set apart "flexible delivery" which is digital or low-cost driven strategies from the real "flexible learning" which is the educational objective. Hart explained the eight primary principles in the implementation of policy in flexible learning. These were: (1) Flexible access—learners are allowed to work independently and to attend classes at any time; (2) Recognition of prior learning—allows approval for formal or informal education, such as experiences and trainings in the work setting; (3) Flexible content—simple, structured courses with content that can be managed and controlled like modules; (4) Flexible participation—capable to engage in any activity;

(5) Flexible teaching and learning methods—where students are given the freedom in how, when and where they learned; (6) Flexible resources—available materials that can be used for flexible learning; (7) Flexible assessment—the manner and form of student performance that demonstrate how well they learned and applied the learning in a variety of contexts; (8) Ongoing evaluation—consists of different forms of assessment of flexible learning in the curriculum including the utilization of resources that ensure the importance of developing or revising the modules and elements in the courses as necessary (Hart, 2000).

Therefore, learning may not always be flexible considering it coordinates a portion of the attributes above. The critical components of really flexible education are the flexibility of figuring out how to students' requirements and conditions and the educator's job as somebody who screens, coordinates, and manages activities towards objectives of data obtaining growing aptitude, and personal growth (Paris & Paris, as cited in Bergamin et al., 2012).

Autonomy in and control over one's learning process can be seen as a condition for self-regulated learning. There are several categories and dimensions for flexible learning; following professional publications, time, location, lesson content, pedagogy method, learning style, organization, and course requirements are all elements to consider. Using these categories and the dimensions of flexible learning, ten experts revised the comprehensibility of these items that led to a solution with three fixed factors: flexibility of time management, teacher contact, and content. Bergamin et al. (2012) developed and validated a questionnaire for an open and distance learning setting. The results show the positive effects of flexible learning on self-regulated learning strategies. Generally, groups that have high flexibility in learning indicate that they use more learning strategies than groups with low flexibility.

In the said study, the means of the relevant scales, factors of flexible learning—(FTM) flexibility of time management, (FTC) flexibility of teacher contact, and (FC) flexibility of content, and learning strategies (C) cognitive, (MC) metacognitive, and (RB) resource-based were calculated. They have used the classification criterion percentiles to divide the sample into three mostly equal groups (high, medium, and low flexibility) and calculated an ANOVA to analyze the differences. Moreover, a nonparametric Kruskal-Wallis one-way analysis of variance

when a Levene's test indicated non-homogenous variances across groups was utilized. To evaluate the direction of the differences, Tukey's HSD post hoc analysis was applied.

Given that they have postulated a positive relationship between flexible learning and self-regulated learning strategy, they formulated the hypotheses as follows: Perceiving high flexibility in learning of (H1) time management, (H2) teacher contact, (H3) content, and (H4) the overall score of flexibility in learning provides significant positive effects on the reported cognitive, metacognitive, and resource-based learning strategies.

Conceptual Framework

This study on flexible learning was guided by the concept of Bergamin et al., (2012), that flexible learning coincides with the ability of the students to appreciate what, when, and how learning occurs. This implies beforehand learners are required to possess skills of autonomous and self-regulated learning to engage effectively in learning activities in terms of time, pace, and content. That means to say, the primary role of the educators is to help learners develop the ability to be "self-directed" when offering flexible learning (Sadler-Smith & Smith, 2004).

In the study conducted by Bergamin, et al., (2012), the concept of flexible learning in open and distance learning (ODL) was looked into and its relationship to learning strategies in the context of self-regulation was examined. Their argument was based on the fact that flexible learning is a core issue for distance education along with other recently introduced learning strategies in schools. They expected to obtain a set of indicators that enable students to engage in flexible learning by using self-regulated learning strategies.

The three (3) factors of flexible learning—(FTM) flexibility of time management, (FTC) flexibility of teacher contact, and (FC) flexibility of content were evaluated in a traditional learning setting as well as in an open and distance education program, to determine its overall perceived flexibility. Each of the three factors was further examined based on the three (3) learning strategies: (C) cognitive, (MC) metacognitive, and (RB) resource-based.

Utilizing hypermedia and new e-learning environments, Bergamin, et al., (2012) have seen the realization and possibility of flexibility in distance learning which distinguishes modern distance learning from the traditional on-campus tuition. It is in this perspective that self-regulation of learning has become a relevant concern. Wherein, it was asserted that students in an e-learning environment would have to be highly self-regulated to be effective learners. It was proposed that self-regulation is a critical factor for the success of learners working in online learning environment.

In the light of the aforementioned discussions about flexible learning, the researchers were led to the scheme as proposed by Bergamin et al. (2012) that aimed to clear the air with an empiric investigation about the relationship between flexible and self-regulated learning in open and distance universities, to serve as the guiding model of the study. It emphasized flexibility in learning which provides the individual's opportunities for volitional control and a collection of strategies and promotes persistence in the face of difficulties.

Operational Framework

Figure 1 Operational Framework
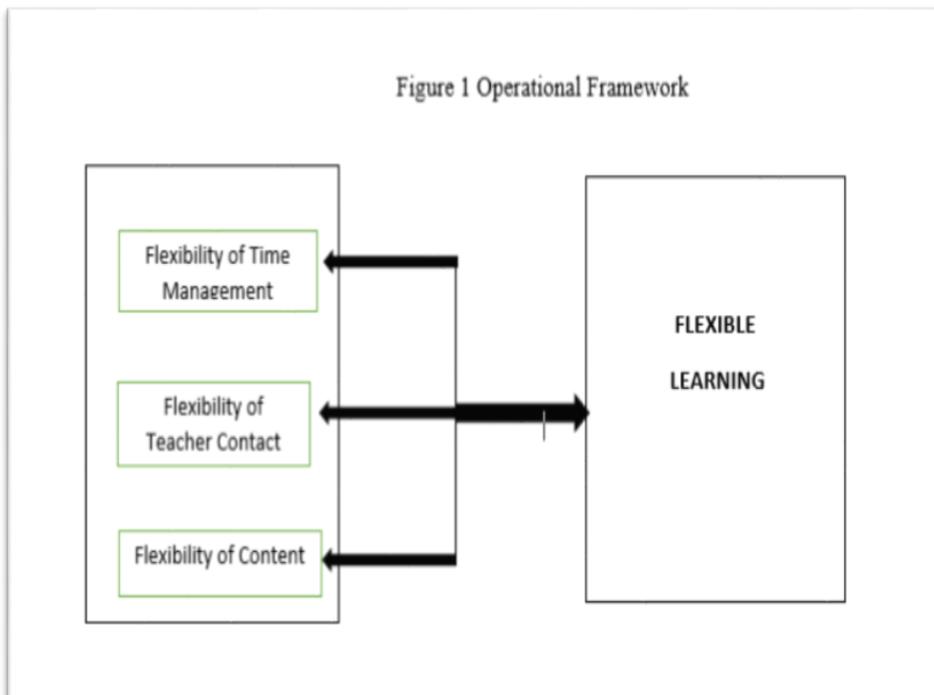
In the current study, employing the concepts of Bergamin et al., (2012) the researchers primarily focused on the perceived flexibility of (FL) flexible learning based on its three (3) factors—(FTM) flexibility of time management, (FTC) flexibility of teacher contact, and (FC) flexibility of content, among nurse educators—comprised of Academic Deans, Level Heads/Coordinators, and Faculty Members, in selected educational institutions in Metro Manila. Wherein, each of the three factors was assessed based on sets of related statements or scenario that would measure respective flexibility according to the perception of the respondents.

Research Methodology

Research Design and Approach. A Quantitative descriptive design was used in this study. This research design was utilized to describe the perception of the respondents on the implementation of Flexible Learning. Data were gathered with the use of self-rated standardized questionnaires.

Research Participants. The participants of the study were the deans, coordinators/program heads, and faculty of different nursing schools in Metro Manila.
Sampling Design. The research utilized the Convenience sampling method over a non-representative subset of a larger population. Convenience sampling enables the researchers to relatively easy get a sample especially in this time of pandemic. The researchers constructed the sample to determine the perception of the respondents and have surveyed only whoever is available online that finally resulted for a total of 66 sample size. Inclusion criteria include at least one (1) year of teaching experience.

Data Collection. The researchers secured the approval from the Ethics Board of San Beda University. The researchers also sought permission from the respondents thru online. Data gathering took place from February to March 2021. Survey questionnaires were distributed to the participants. The participants were informed about the objectives, the potential risks, and benefits of participation in the study. The participants were given ample time to give their responses to the study. The consent of the participants was obtained before data collection.

Collected documents were secured, kept confidential, and were only accessible to the researchers. The collected documents will be destroyed after five (5) years from the date of publication. The study was presented during the San Beda University Research Summit last April 2021.

Measurement and Instrumentation

The Flexibility questionnaire was developed by Bergamin et al., (2012), to measure flexibility. The participant's perception of flexibility was indicated for each item on a 5-point Likert scale where 1= Strongly Disagree; 2 = Disagree; 3= Neutral; 4= Agree and 5=Strongly Agree. The questionnaire has three dimensions: the flexibility of time management, the flexibility of teacher contact, and the flexibility of content. The pilot study was done and base on the results of the questionnaire reliability, it was excellent. Table 1 shows the Questionnaire Reliability Analysis.

Table 1.

Computed Value of Cronbach Alpha of the Questionnaire Items

Items	Cronbach alpha	Remarks
Flexibility of Time Management	0.819	Good
Flexibility of Teachers Contact	0.889	Good
Flexibility of Content	0.904	Excellent
Overall	0.943	Excellent

Note: Acceptable if Cronbach alpha is greater than the 0.70 minimum value

The table shows the computed value of Cronbach's alpha. The value of alpha for items Flexibility of Time Management (0.819), and Flexibility of Teachers Contact (0.889) are "Good" while item Flexibility of Content has a value of (0.904) which is "Excellent". The overall value of alpha of all the items combined is 0.943 which is excellent, indicates that this questionnaire tool used in this study has passed the reliability test.

Data Preparation and Analysis

The data gathered from the participants were encoded utilizing a Microsoft Excel spreadsheet. The Flexibility questionnaire was utilized to determine the perception of the respondents on the implementation of flexible learning in the delivery of nursing education programs according to the three key areas. The average score of the respondents was computed using descriptive statistics, particularly Weighted Mean.

Results

Dimensions of Flexible Learning

The following tables show the perception of the respondents toward flexible learning according to the three (3) identified the key areas: Table 1—flexibility of time management, Table 2—flexibility of teacher contact, and Table 3—flexibility of content, in the delivery of nursing education programs.

Table 2.

Respondents' Perception of Flexibility of Time Management

Indicators	Weighted Mean	Verbal Interpretation
flexibility of time management can decide when to teach	4.27	Agree
flexibility of time management can define the learning pace	4.24	Agree
flexibility of time management can repeat the subject matter at will	4.09	Agree
flexibility of time management can arrange the learning time	4.12	Agree
Overall Weighted Mean	4.18	Agree

Table 2 shows the respondents' perception of the flexibility of time management. It is shown in that all indicators such as "flexibility of time management can decide when to teach", "flexibility of time management can define the learning pace", "flexibility of time management can repeat the subject matter at will" and "flexibility of time management can arrange the learning time" are all interpreted as "Agree" having a weighted mean of 4.27, 4.24, 4.09 and 4.12, respectively. The overall weighted mean is 4.18 interpreted as "Agree". This implies that in general, respondents often highly prioritized flexibility of time management particularly goal setting, prioritization, organization, and management of stress. Wherein, almost every time it matters to them to have short- and long-term goals. They are also likely to assess what needs to be achieved within a given timeframe, and rate tasks according to their importance. They are often well-organized and are likely to maintain an up-to-date calendar and keep a tidy work or study environment. Likewise, they often see the need to find healthy ways to manage the pressures of work while maintaining productivity to make working and/or teaching more efficient.

Table 3.

Respondents' Perception of Flexibility of Teacher Contact

Indicators	Weighted Mean	Verbal Interpretation
flexibility of teacher contact can contact the teachers at any time	3.82	Agree
flexibility of teacher contact can use different ways of contacting their teachers	4.30	Agree
Overall Weighted Mean	4.06	Agree

Table 3 shows the respondents' perception of the flexibility of teacher contact. It is shown that all indicators are both interpreted as "Agree". These indicators are *"flexibility of teacher contact can contact the teachers at any time"* and *"flexibility of teacher contact can use different ways of contacting their teachers"* has a weighted mean of 3.82 and 4.30. The overall weighted mean is 4.06 interpreted as "Agree" which implies that flexibility of teacher contact is likely to create a safe learning environment

with supportive relationships and value for teamwork. This likewise often ensures that communication between teacher and student helps improve the teaching and learning process.   Almost every time, effective communication can have an impact on the students' academic progress, feelings of self-worth, perceptions of school, and their career.

Table 4.

Respondents' Perception of Flexibility of Content

Indicators	Weighted Mean	Verbal Interpretation
flexibility of content can focus the topics of the class	4.21	Agree
flexibility of content can prioritize topics in teaching	4.32	Agree
flexibility of content can choose different learning forms, which includes on-campus study, online study, and self-study	4.26	Agree
flexibility of content can study topics of special interest	4.18	Agree
Overall Weighted Mean	4.24	Agree

Table 4 shows the respondents' perception of the flexibility of content. It is stated from the table that all indicators such as *"flexibility of content can focus the topics of the class", "flexibility of content can prioritize topics in teaching", "flexibility of content can choose different learning forms, which includes on-campus study, online study and self-study"* and *"flexibility of content can study topics of special interest"* are interpreted as "Agree" having a weighted mean of 4.21, 4.32, 4.26 and 4.18, respectively. The overall weighted mean is 4.24 interpreted as "Agree" which implies that flexibility of content has high priority toward motivating the learners by arousing curiosity; thereby simultaneously developing subject and language competency, along with cultural awareness, and essential and innovative skills. This dimension likely provides the learners/students the tools, training, information, and support

they need to create and enhance learning relevance and efficacy—either through school-provided and/or personal technology, which offers choices about where, when, and how learning occurs.

Discussion

Based on the results of this study, there were different ways of contacting teachers. Learners can contact their teachers at any time. The teachers have an important part in the implementation of the online learning environment. Instructing in an online course includes more than duplicating study hall methodologies in an alternate structure (University of Washington, 2004).

Likewise, the flexibility of content can have many options and may be applied by using different learning modalities which can be on-campus study, online study, and self-study.

Nonetheless, according to Daniel (2020), the most significant alteration, for those accustomed to educating in lecture rooms continuously, is to impose asynchronous learning. For the majority parts of learning and educating, teachers and students do not need to communicate at the same time. Asynchronous provides educators flexibility in getting ready for the learning resources and empowers students to get the requests at home. Asynchronous learning operates best in computerized designs. Educators do not require to distributing the learning materials at a set period, they might post online for on-demand access. The teachers can extract the course materials using wikis, web diaries, and email at their convenience. Educators may guard student's collaboration occasionally and making online plans for students with explicit requirements and queries. Making an asynchronous progressed study will give educators and students more space to move around.

Furthermore, flexible learning is not a method of study but a principle to be valued. Hence, it ought to be noticed that while technology is a definite crucial component for flexible learning, it does not only refer to the utilization of technologies to meet the requirements in the learning climate (Li & Wong, 2018).

Conclusions and Recommendations

It appears in this study that respondents have a big deal of inclination towards flexible learning. The concepts and applicability of flexible learning may have several meanings and relevance among different individuals, organizations, institutions, and societies. On the same regard, because of this undertaking that the teaching and learning processes and strategies are progressively being explored and liberated beyond the boundaries of time, pace, and place of study.

The commitment towards learning might depend on the students but the duty to set an appealing, stimulating, and responsive flexible learning climate as well as to upgrade the range of abilities for students— such as basic reasoning, group work, and relational abilities, is eventually the duty of the instructor and the educational organizations and institutions. Thus, the researchers would like to recommend to the administrators to provide a learning management system that will promote and give quality education to the learners in the time of the pandemic.

For the teachers, the researchers would like to recommend more opportunities to effectively engage in the flexible learning process using both technological and non-technological tools.

The minimal quantity of participants in this study may nevertheless be regarded as its limitation. For this reason, to further enhance and strengthen the findings of the study, it would be recommended to conduct the same study over a bigger population and among a wider group of participants across different courses or programs.

References

Ally, M. (2004). Foundations of educational theory for online learning. In T. Anderson (Ed.), *The theory and practice of online learning*. 15–44. Athabasca University Press.

Arbaugh, J. B. (2000). Virtual classroom characteristics and student satisfaction with Internet-based MBA courses. *Journal of Management Education*, *24*(1), 32–54. doi:10.1177/105256290002400104.

Barnard, L., Lan, W. Y., To, Y. M., Paton, V. O., & Lai, S.-L. (2009). Measuring self-regulation in online and blended learning environments. *The Internet and Higher Education*, *12*(1), 1–6. doi:10.1016/j.iheduc.2008.10.005.

Bergamin, P.B., Werlen, E.,Siegenthaler, E., & Zizka, S. (2012). The relationship between flexible and self-regulated learning in open and distance universities. *International Review of Research in Open and Distance Learning. 13*(2), 101-103.

Daniel, J. (2020). *Education and the Covid 19 pandemic. Viewpoints/ Controversies*. https://doi.org/10.1007/s11125-020-09464-3.

Ghebreyesus, T. (2020). Addressing mental health needs: an integral part of COVID 19 response. *World Psychiatry. 19*(2), 129-30.

Hart, I. (2000). Learning and the "F" word. *Educational Media International*, *37*(2), 98-101. doi:10.1080/095239800410388.

Lewis, R. & Spencer, D. (1986). *What is Open Learning?*. Council for Educational Technology.

Moran, L., & Myringer, B. (1999). Flexible learning and university change. In K. Harry (Ed.), *Higher education through open and distance learning: World review of distance education and open learning*.157–171. Routledge.

Palmer, S.R. (2011). The lived experience of flexible education –theory, policy and practice.   *Journal of University Teaching and Learning Practice. 8*(3), 16.

Sadler-Smith, E., & Smith, J. P. (2004). Strategies for accommodating individuals' styles andpreferences in flexible learning programmes. *British Journal of Educational Technology*, *35*(4), 395–412. doi:10.1111/j.0007-1013.2004.00399.

Shurville, S., O'Grady, T. and Mayall, P. (2008). *Educational and institutional flexibility of Australian Educational Software*. Campus-Wide Information Systems, Emerald Group Publishing Limited. *25*(2), 74-84.

Tucker, R. & Morris, G. (2012). By Design: Negotiating Flexible Learning in the Built   Environment. *Discipline Research in Learning Technology*, Co-Action Publishing. *20*(1).

United Nations. (2020). *Policy brief: COVID 19 and the need for action on mental health.*

Harnessing San Beda University's Organizational and Dynamic Capabilities to Flourish Amid the Pandemic

Divina M. Edralin
Graduate School of Business
San Beda University, Manila, Philippines
dedralin@sanbeda.edu.ph

Abstract

Amid the context of the COVID 19 pandemic, I described briefly how San Beda University harnessed its organizational and dynamic capabilities towards enabling our institution to flourish. I utilized the Appreciative Inquiry approach to recount our experiences, on how the interaction of technology, physical facilities, structure, people, and systems capabilities empowered us to manage this COVID-10 crisis and feel triumphant. My narrative data were based on the research-based internal individual stakeholders' evaluation feedback, and unit level performance assessment results, ISO audit data, formal and informal meetings with fellow administrators, and administrative reports submitted to the BOT from March 2020 until March 2021. Given the new normal, and with our mission and strategies serving as north star to guide us, we adopted a crisis management model, which considered two crucial major factors that influenced our ability to flourish sustainably to reach our dream. These are our organizational capabilities, and our dynamic capabilities. Our one academic year journey, and a continuing one, amidst this COVID-19 pandemic, gave us many learnings about being responsible school administrators and how to flourish as an academic community during a pandemic crisis. First, we learned the value of sensing and shaping limited opportunities and countless threats, as well as taking the opportunities no matter how limited. Second, we competently learned that we must utilize with due diligence our organizational and dynamic capabilities for the common good of all our stakeholders. Finally, we learned from our experience that we need to be engaged as a community working collaboratively, transparently, and resolutely to sustainably pursue our role as an educational institution caring for peoples and protecting our planet.

In the past years, higher education had been disrupted by several converging forces like the Industrial Revolution 4.0, unsustainable rise in the cost of college education, poverty, changing demands and values of consumers, and more recently, the emergence of the global COVID-19 pandemic. Unlike the other disruptors of education, this deadly virus had practically caught everyone by surprise, causing unimaginable devastation and misery, like deaths, closure of businesses, unemployment, and negative effects on the quality of life, such as health and well-being of people.

In the Philippines, our COVID-19 total cases to date were 611, 618 with 12,694 deaths (DOH, 12 March 2021). It is forecasted to keep on increasing this month due to the UK and South African COVID-19 variants that had reached our country. Due to the pandemic, there were 865 private schools nationwide that did not operate, affecting 4.488 teachers and 58,327 learners (August 2020). This is aside from the temporary business closures of 83,000 companies, many of which are small businesses, causing 3.8 million Filipinos jobless (October 2020). Clearly, COVID-19 has seriously undermined our culture, systems, and institutions, deterring our people and our country to sustainably prosper harmoniously.

In response, the Philippine Administration, approved stimulus packages to support job creation, poverty reduction, development, and economic growth, as well as adopted and implemented intensive measures to control and mitigate the spread of these viruses. In particular, schools were closed which led to the cancellation of all campus events, especially the face-to-face classes, to protect the teachers, students, non-teaching personnel, and administrators from COVID-19. But these had most notably resulted in the disorientation of, and disturbance in, providing continuing education to the students. To cope with this disruption, our University had moved swiftly to address this global pandemic to minimize its effects on the quality of our education, quality of life of our students-teachers-personnel, and the continuity of San Beda in the long run.

It is in this context that I describe briefly how San Beda University (SBU) harnessed its organizational and dynamic capabilities towards enabling our institution to flourish amid the pandemic situation. Using the Appreciative Inquiry approach to recount our experiences, I want you to appreciate how the interaction of technology, physical facilities, structure, people, and systems capabilities empowered us to manage this COVID-10

crisis and feel triumphant at this point. My narrative data were based on the research-based internal individual stakeholders' evaluation feedback, and unit level performance assessment results, ISO audit data, formal and informal meetings with fellow administrators, and administrative reports submitted to the BOT from March 2020 until March 2021. Given the new normal, and with our mission and strategies serving as north star to guide us, we adopted a crisis management model, which considered two crucial major factors that influenced our ability to flourish sustainably to reach our dream. These are our organizational capabilities, and our dynamic capabilities.

SBU in Brief

San Beda University was established in 1901 by monks of the Order of St. Benedict, also known as the Benedictines. We acquired our university status only 3 years ago. We are headed by a Rector-President who is a Benedictine monk.

SBU as a Catholic educational institution, is committed to the Christian formation of the Bedan Community as its service to the Church, the Philippine society, and the world. It envisions itself as a distinguished academic community that transforms its members to become fully human, wholly Christian, truly Filipino, and globally competitive.

SBU offers graduate degree programs in the field of Business, Law, and Liturgy, undergraduate degree programs in Arts, Accountancy, Business Administration, Economics, Humanities, Information Technology, and Science, as well as Basic Education from pre-school to senior high school. These programs are taught by an aggregate of highly qualified and dedicated fulltime and part-time faculty; and administratively supported by long-serviced non-teaching personnel. As of this semester, we have a total enrollment of 8,200 in our two campuses, located in Manila and Rizal.

SBU is ISO 9001 certified and has PAASCU Level I and Level III accredited programs. The College of Law had been given the recognition of Excellence in Legal Education; and our Philippine Regulatory Commission had listed our College of Law and the College of Medicine

among the top 10 Universities with high passing rates in the licensure examinations in the Philippines.

Locally, SBU is a member of the CEAP, PACU, PAASCU, and ACUP. Internationally, SBU is a member of the ALN, AUAP, ASEACCU, FHNW, RENPER, ASEACCU, and SALT networks.

SBU's Experience in Flourishing during the Pandemic

Based on the study of Jakubik (2017), "teamwork, working environment, team spirit, communication, cooperation, collegiality, collaboration, people, customers, know-how, professionalism, products, motivation, sharing, feedback, and work atmosphere are the forces that make organizations flourish" (p.69). The findings of Jakubik (2017) further asserted that "discovering what provides joy and happiness for people in work serves as a strong basis for them to dream, design and maximize their own and their organization's destiny in the future" (p.61).

With the rapid spread of the hazardous COVID-19 pandemic, we resolved to respond quickly and efficiently to its ill-effects to endure and continue with minimal hurdles our institutional mission of transformative Benedictine Catholic education for the young and professionals. In the midst of the pandemic, we never lost track of our goal as stated in the SBU Strategic Plans to become a "Digital Global University" in 10 years' time and reaffirmed commitment in responding to the UN Sustainable Development Goals (SDG).

Given the new normal, and with our mission and strategies serving as north star to guide us, we adopted a crisis management model, which considered two crucial major factors that influenced our ability to flourish sustainably to reach our dream. These are our organizational capabilities, and our dynamic capabilities. Though conscious of being a small player in the education industry, we were raring to venture into global markets and face uncertainty and risks that will trigger a process of learning and adaptation (Lu & Beamish, 2001).

Organizational capabilities, as we had adapted from the definition of Chandler (1990), is a school's collective physical facilities, adopted technology, and skills of human capital, in particular, the abilities and

expertise of top management layers. It is the organizational ability to perform coordinated tasks, and utilize organizational resources, for the purpose of achieving a particular end result (Helfat, 2003).

Dynamic capabilities, as we had adopted from the definition of Teece et al., (1997) and Helfat et al.,(2007), is the school's competence in terms of authentic collaborative relationship, passion for education excellence, quality of humanistic management, and redesigned performance management, to purposefully create, extend, or reconfigure and transform our resource base that already exists in the school, in order to respond to the changes due to the pandemic.

Flourishing means sustainably achieving our institution's immediate performance outcomes during the academic year amidst the COVID-19, and other affirmative meaningful actions we intend to undertake in spite of the pandemic and beyond.

Figure 1.

SBU Flourishing Model Amid the Pandemic
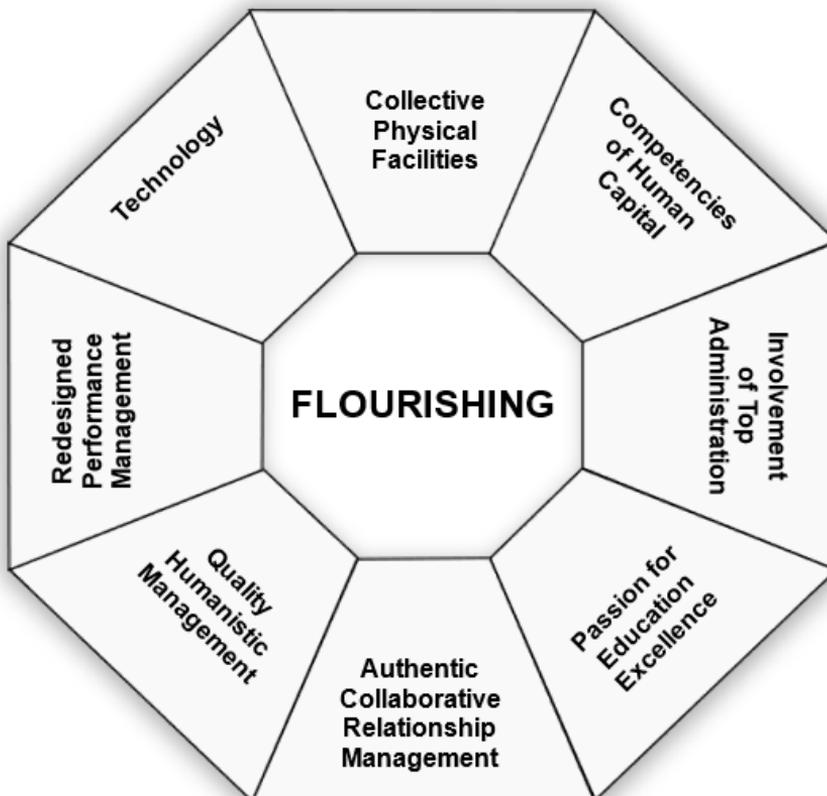
Organizational Capabilities

Technology

Embracing and leveraging high-level information technology to address the problem of unreliable and slow access to internet connectivity, was our main approach for our technology. We poured in a large investment on this organizational factor to ensure that we acquired and/or improved information technology for the right reasons. Specifically, to implement the flexible learning approach, we subscribed to CANVAS and GENYO for our official school Learning Management System (LMS) and embedded in CANVAS, LABSTER and PANOPTO to conduct online classes; developed our own School Management System (SMS) instead of subscribing to a 3rd party vendor every year; boosted mobile signal (Smart Telecom) using Distributed Antenna System (DAS); are currently upgrading our IT software security infrastructure equipment, as well as our computer units in all offices; installed WIFI Access Points and Switches for a stable Internet Connection in various Hallways and Study Areas; and integrated ZOOM and MS Teams as additional Online Video Conference options in our CANVAS.

To help towards the efficient and effective use of our information technology, we improved our HELPDESK/ Technical Support Hotlines for Faculty and Students and made provision for lending of computer units to SBU Faculty who need ODL-ready computer units. More importantly, using our technology, we were able to establish a common, official communication channel, and ensure that everyone in the school community can access this readily.

Collective Physical Facilities

Construction, renovation, and retrofitting were the key approaches to our collective physical facilities in our two campuses located in Manila and Rizal. We also allocated a big portion of our University budget on this organizational factor to ensure that our physical facilities stand on the pillars of safety, quality, efficiency for meaningful learning, healthier work practices, and more environmentally friendly spaces in the campus. Last year, we modernized our main Library in the Manila campus located in four floors of the new 8-storey building to support flexible learning. We also converted classrooms for the Graduate School of Business into Smart

Classrooms conducive for flexible learning, and renovated other rooms, offices, and common spaces in accordance with the health and safety protocols of IATF and the LGU. We constructed digital multimedia/recording rooms with the industry-standard editing software and equipment. Currently, we are now retrofitting our facilities (i.e., classrooms, laboratories, eating/dining/communal areas, library, isolation room for symptomatic individuals, comfort rooms, stairways/corridors, and entry/exit gates) based on the guidelines issued by the Commission of Higher Education in order to be allowed to conduct limited face-to-face classes for specialized laboratory courses in Medicine and Nursing for our students aged 20 years old and above.

Competencies of Human Capital

Based on the number of courses that we offer across Academic Units, our 172 Basic Education teachers are all fulltime and LET passers, of whom 2% have masters' degrees, while 19% have doctoral degrees, and an average teaching experience of 8 years. To ensure their readiness for ODL based on the flexible learning approach, they were given extensive in-house training on the use of our University Learning Management System (GENYO and REDCANVAS), planning and preparation, classroom environment, instruction, and professional responsibilities. Regular continuing online in-service trainings for faculty development related to their physical, mental, intellectual, and spiritual wellness were also provided to them during the entire academic year.

Moreover, we have a total complement of 440 fulltime and part-time faculty in the college and graduate levels. Those teaching in the college are all masters' degree holders, and 60% of them have doctoral degrees. Those teaching in the doctoral are all doctoral degree holders. Their average teaching experience is 17 years, and all our graduate faculty have professional industry experience of at least 10 years.

To ensure their readiness to teach virtually before we rolled out our full online classes, we required all of them to attend an online 4-module training conducted synchronously and asynchronously, which included how to use our University-adopted LMS (CANVAS), module preparation for instruction, student assessment, and the pedagogy on how to effectively teach online.

We also provided follow up sessions via regular Zoom and/or MSTeams, training with external experts, as well as coaching and mentoring by our certified faculty champions or trainers, on any topic that are related to ODL, while webinars on research, health, and spiritual well-being were mostly facilitated by external resource persons, guidance counselors, and OSB monks. For the technology enhancement skills, we had always given priority to our new or more senior faculty who are digital immigrants.

Our 250 regular non-teaching personnel are all College degree holders, except for the maintenance crew. Those assigned to administrative work had been given trainings on specific technology skills they needed to perform their tasks, like how to use MSTeams and Zoom, Data Security and Threat Management, and Live Streaming Upskilling. This is aside from the webinars on health and safety protocols, mental well-being, ISO process, risk disaster management, and recollection that they are required to undertake during the year.

We had observed that in their entire service to SBU, our faculty and personnel had proven able to acquire new skills and knowledge quickly and continually, which is vital to our success in this era of the pandemic. The majority of our current faculty have shown their aspiration, self-awareness, curiosity, motivation to acquire knowledge/skills, and openness to new ideas to be effective learners to become effective teachers, and also that they will not be left behind in our efforts to flourish in this new normal.

Involvement of Top Administration

Out top administration is composed of the Rector-President; the Vice Presidents for Academics, Administration, Finance, Research, and International Linkages; and the Academic Deans. We also created our Crisis Management Team and a written memo on the SBU Contingency Measures in Response to the Covid-19 Pandemic was issued by our Rector-President.

 Although we worked from home, especially during the first six months of the COVID-19 lockdown in Manila, the top administrators acted with urgency and were more deeply involved in steering clear directions in almost all facets of the school's operations, while remaining focused on

our strategic goals. At this time, their primary concern was to adequately ensure SBU's readiness to conduct Online Distance Learning (ODL) to achieve the best possible teaching and learning environment, as well as outcomes for our students at all levels, while simultaneously continuing with our research, community engagement, and internationalization activities.

Part of the SBU clan culture is that our top administrators are considered to be parent figures and mentors, so they patiently and actively inquired reflective questions and listened in a friendly manner to faculty, personnel, students, parents, and alumni, and in that way encouraged prompt dialogues and conversations so people were inspired, shared a lot of themselves, invigorated to learn and offer new ideas and other options to survive in these hard times. Many of our programs, projects, and activities under our Operational Plan and Learning Continuity Plan (as required by CHED) were generated from these consultations, small group huddles, and regular council/committee meetings, done via Zoom, Viber, email, and MSTeams online platforms. It was during the first two months of the lockdown when we had very frequent close collaborations through various types of long meetings at all levels across internal and external stakeholders to map out our SBU Operational and Learning Continuity Plans.

Our top administrators, specifically our Rector-President, emphasized to all administrators, first of all, the value of spending time to understand the broader context of the pandemic, accurately assessing the situation, and fully appreciating the underlying challenges that this pandemic will bring about. Second, to come up with creative and innovative solutions that can be implemented immediately and quickly transfer the knowledge to other concerned stakeholders. Then, establish and conduct reflective post assessments to learn from experience and reconfigure what has to be done better for us to likely flourish. We were made to realize that the phases of transition from the normal to the "new normal" about adopting new ways of working, learning, interacting, and being, be it in a year or more.

During this entire school lockdown period, the top administrators' communication was transparent. This means we were provided with honest and accurate descriptions of reality; being as clear as humanly possible about what they know, what they anticipate, and what it means for people

in a compassionate way. The Rector-President, in his inspirational messages during meetings and homilies, always conveyed profound appreciation to the faculty, students, personnel, and other administrators for all that we had done and what we were about to do together as a community, to thrive sustainably. These messages were always founded on hope, faith, and zeal, which is part of our Benedictine Catholic education hallmark values.

Dynamic Capabilities

Authentic Collaborative Relationship Management

In SBU, we value authentic relationships because they are a powerful way to bring joy to our lives, someone to lean on, comfort us, and provide counsel, especially to our young students and faculty during this pandemic. Concretely, we utilized the social media and our high technology on campus to celebrate milestone achievements, birthdays, community prayers, and even feast days. We also hold one-on-one online counselling and "how are you doing" sessions practically 24/7 for our students, especially those who are at-risk. This gave them a sense of belonging and a sense of security knowing that there are people they can run to when they need them.

We also emphasized the importance of intimate and tight interaction by almost having daily conversations with our internal stakeholders, which contributed to our sustained morale and performance throughout the year. The insights we gained from our deep-seated social relationships enabled us to enhance quick response times and strengthened our coordination capabilities to streamline our school processes, expand our support services, and immediately address complaints.

Our collaborative relationship is founded on open communication, teamwork, respect for others, honesty, and humility are our binding factors. In the midst of confusion, fear, anxiety, and stress, we did not falter in looking for feasible strategies to continue our academic, research, community engagement, internationalization, and SDG activities even on a limited scale. We became pragmatic in our approach and opted for quality rather than quantity.

Passion for Education Excellence

SBU has a very deep passion and determination to achieve education excellence based on our 10-year Strategic Vision for 2018-2028. We adopted the ISO 9001 management system standards, PAASCU accreditation standards, and CHED ISA criteria for accreditation as our business excellence models, which we embedded in our academic, research, community engagement, and internationalization plans and practices, not merely for compliance, but to sustain our stakeholders' satisfaction, school performance, and succeed in the competitive business of education arena. We are focused on our future direction, but quickly responsive to the challenges of the pandemic.

We fully recognized that one of our competitive advantages is the quality and variety of the degree programs that we offer in the market. In fact, even during the pandemic, we applied for approval of new programs in Information Science, Computer Science, and Accounting Information System. For quality, we made sure that our curriculum offerings are attuned to current conditions by modifying its contents and, this time, integrated the ESD critical issues in relevant subjects.

We also believed that people are the most valuable assets in our institution. Therefore, we are fully committed to giving priority, to the continuing training and development of our faculty and personnel for their behavioral and technical upskilling and retooling to teach, do research, and publish their work in reputable peer-reviewed indexed journals in their respective fields more effectively.

Our passion for education excellence during this pandemic was also our sure guarantee that all academic and administrative support services are relevant and responsive to the needs of our students and faculty, and that the SDGs we integrated with our university strategies serve a core role across our institutional governance systems.

Quality Humanistic Management

We anchored our quality humanistic management on fulfilling our commitment/promise, and building of trust and reliability, to our students and their parents, that their studies will be completed on time based on

their curriculum; that the quality of instruction will be at par or even better; that the health and well-being of the students will be as equally important, and that there would be no increase in tuition and fees. In fact, we returned a percentage of their unused miscellaneous fees, and gave a 2% discount on full payments of tuition and fees last Academic Year when we shifted to ODL.

In order to continue all our programs and services, we had shifted until now to work from home, flexible work arrangements, and redesigned some jobs through socio-technical enrichment. Even with the 8% decrease in enrollment this academic year, we did not displace any of our regular faculty and personnel. We had also given the full monthly compensation that each one was entitled to on time. We had even advanced a portion of their 13th month pay during the first quarter of the lockdown to help alleviate the economic impact of the pandemic. We had also extended laptop loans interest-free to faculty who wanted to upgrade or acquire their own computer device for ODL and research purposes. We ensured that everyone at home and those reporting for work on a skeletal work complement basis in the campus were safe and free of COVID-19.

Most importantly, we highly supported and prioritized the well-being of the members of the academic community. This covers physical, mental, and social health. We believe that it is essential to our human resources productivity and positive engagement. We also consider that well-being is a necessary requirement of effective teaching and learning. To concretize our support, we provided a holding environment where people would feel safe and have some sense of certainty during uncertainty. We still innovatively celebrated online our important school events like Graduation, Employee Service Recognition, Public Lectures, Christmas, and the Feast of Sto. Nino to keep us in touch and feel the community spirit. We made sure our students would feel connected to others and were experiencing safe and trusting relationships through the programs of the Homeroom advisers, Guidance Counselors, Dean of Student Affairs, and Prefects, in close collaboration and teamwork with the parents of the young ones.

Redesigned Performance Management

Conditions during the pandemic had prompted us to modify our traditional way of utilizing our performance management system to measure outcomes based on the snapshot and developmental approach. We had since identified three objectives at the root of our redesigned performance management: (1) to recognize, (2) to see, and (3) to stimulate performance.

At the individual level, we focused on our three major stakeholders, who are the students, teachers, and personnel. We had since used comparative snapshots of the summative assessments based on the actual student online class performance and faculty evaluation records, together with the online cross-sectional surveys for accountability, teamwork, engagement, and satisfaction indicators. These outcome behavioral snapshot indicators were all new to our performance feedback system.

Academic achievement, attendance rate, drop-out rate, discipline referrals, and satisfaction were our student key performance indicators. Taken together, these were also new to our performance feedback system. Then, classroom performance (using a new validated Faculty Evaluation Instrument for Online Classroom Teaching), attendance in trainings related to Online Distance Learning, engagement, and satisfaction, were our teacher key performance indicators. We used accountability, teamwork, engagement, and satisfaction as our administrator and personnel key performance indicators.

At the institutional level, the performance of each academic, research, linkages, finance, and other support services units were assessed in terms of the key performance indicators guided by their mandate, and the specific performance targets based on the priorities that we had set during this pandemic, and which they had included in the Annual Evaluation and Planning Forms. The outcomes of these unit performance assessments were presented during the Year-End and Mid-Year Evaluation and Planning Conferences done via Zoom. In-between, monitoring via Viber, email, or zoom of valuable brief conversations at the moment, about actual units' performance by their respective top administrators were purposely done, and frequent progress reports were rendered during council meetings of each cluster.

Flourishing Outcomes

Our one-year encounter with the disturbing COVID-19, made SBU flourish, filled with renewed hope, optimism, and faith, by harnessing our organization and dynamic capabilities optimally and prudently. The complexity of the challenges we faced and are still facing right now demands solutions that reach beyond one individual. Looking back, what had we accomplished in a year's time struggling under uncertainty?

Our records (BOT Reports, Units' Evaluation Reports) show the following outcomes of our synergistic and collaborative efforts:

1) **Organizational Readiness for ODL-** based on the flexible learning approach recommended by the CHED, our readiness dimensions encompassed the teacher, learner, curriculum/instruction, technology, logistics, learning environment, and finance indicators. We moved from a satisfactory level when we started in July 2020, to a very satisfactory degree by the end of February 2021.

2) **Students** - their overall performance based on the five indicators was very satisfactory. Particularly, their academic achievement based on their grades at the end of the semester had a mean of 85 % (high average), average attendance rate was 96% (Outstanding), average drop-out rate was 2% (very satisfactory), average of discipline referrals was less than 1% (outstanding), and average satisfaction was 4.25 (very satisfactory).

3) **Teachers -** their overall performance based on the four indicators was very satisfactory (4.16). Specifically, their average classroom performance was 4.39 (very satisfactory), average engagement was 4.43 (very satisfactory), and average satisfaction was 4.28 (very satisfactory).

4) **Administrator and personnel -** their overall performance based on the four indicators were very satisfactory (4.47). Their average ratings were: on accountability 4.49 (very satisfactory), on teamwork 4.45 (very satisfactory), on engagement 4.50 (outstanding), and on satisfaction 4.44 (very satisfactory).

5) **Support Services -** their overall performance based on the 10 indicators of the 18 support services units was very satisfactory (4.48). They rated outstanding on Improved Quality (4.60), Expanded kind and variety (4.62), on Increased quantity/number/volume (4.51), on New programs and services (4.54), on Streamlined internal processes (4.53), and on Increased utilization of technology (4.63). They also scored very satisfactory on Timeliness (4.30), Speed (4.33), Redesigned work and job description (4.42), and Addressed clients' complaints (4.36).

6) **Community Engagement** – some of the completed projects during the pandemic were on: Distributed Protective Kits to Pedicab Drivers, Street Vendors, and Parking Attendants; Donated 210 sacks of Rice (@5kilos per sack) for SBU Agency workers; Distributed Material Assistance to SBU Employees affected by typhoons; Conducted various Donation Drives for Typhoon Victims in Oas, Albay; Isabela Province, Cagayan Province, Pasig City, and Cainta, Rizal; Distributed Cash Assistance to Severely Affected SBU Employees by the typhoons; Distributed Vitamins to SBU Employees; Launched the Gulayan sa Bakuran; and Organized the Catholic Bishops' Conference (CBCP) Alay Kapwa donation boxes for distribution.

7) **Linkages and International Affairs -** some of the completed activities done in cooperation with the partner network or institution during the pandemic were: International Webinar on Excellence in Educational Mission through Partnerships; Initiatives for Poverty Reduction and Community Development; Cross Cultural and Conflict Management International Virtual Course 2020; Folklore 2021-Symphony of the World; International Webinars on Urban Farming and Mushroom Cultivation; The International E-Colloquium on Language and Humanities; Global Symposium on Service E-Learning in Higher Education; and the ATU-NET Student Leader Forum 2020 (ATU-NET SELF2020) on The Great Reset: The New World and Society.

8) **Research -** internally funded, publicly disseminated in Research Conferences, and published in our Bedan Research Journal, our faculty's 20 empirical research related to SDG on good health and well-being; decent work and economic growth; sustainable cities

and communities; climate action; life on land; and peace, justice, and strong institutions.

9) **SDGs and EDS -** when the COVID-19 virus erupted, which limited our in-person social interaction, decreased our financial resources, and resulted in many government restrictions on school operations, we recalibrated our SDG response actions to only four (4) of the goals: #3-health and well-being; #4-quality education; #16-justice, peace, and strong institutions; and #17-partnerships for the goals; with special focus on Education for Sustainable Development critical issues on climate change, disaster risk reduction, biodiversity, and sustainable consumption and production.

We had also done with earnest efforts affirmative actions such as: (1) developed an SBU Education for Sustainable Development (ESD) Guiding Principles; (2) integrated in the Basic Education and College Curriculum, the four ESD issues and pedagogy based on their relevance in selected Programs at various levels; (3) offered subjects/courses on Disaster Risk-Reduction and Climate Change at the Graduate School, and involved faculty who are teaching and/or consulting in grassroots education on these issues; (4) advocated and supported interdisciplinary researches, publication, and instructional materials development for online teaching related to the four ESD issues and SDGs; (5) reinforced the implementation of the Waste Management Program (i.e. separate waste bins for recyclable, non-biodegradable, and biodegradable wastes); (6) implemented the 4 R's of green living "Refuse, Reduce, Reuse, and Recycle" policy in the entire campus; (7) implemented paperless or online transactions for all accounting and administrative services; (8) conducted continuing webinars on Mental Health and Well-being for students, faculty, personnel, and parents; (9) revised SBU Guidelines and Student Handbooks on Health and Safety Protocols based on recent IATF resolutions on COVID-19; and advocated positive action about quality education, climate change, biodiversity, and disaster risk reduction through Public Lecture Series and streaming of video clips and music via smart monitors; and (10) acquired more enriched print and online resources collection on ESD issues.

Conclusion

Our one academic year journey, and a continuing one, amidst this COVID-19 pandemic, gave us many learnings about being responsible school administrators and how to flourish as an academic community during a pandemic crisis. What made our organization flourish are the positive experiences of the people during their day-to-day work. The other significant contributors are the meaning, purpose, and high level of engagement that people experience that impels them to face challenges and innovate in order to flourish.

First, we learned the value of sensing and shaping limited opportunities and countless threats, as well as taking the opportunities no matter how limited. It means that dynamic capabilities link management's ability to sense and then seize opportunities, navigate threats, and combine and reconfigure specialized and co-specialized assets to meet changing customer needs (Teece, 2007, as cited in Acosta, 2021). There are three main fundamentals pillars of dynamic capabilities: (1) to sense and shape opportunities and threats, (2) to seize opportunities, and (3) to maintain competitiveness through enhancing, combining, protecting, and, when necessary, reconfiguring and transforming the business enterprise's intangible and tangible assets (Teece, 2007, as cited in Acosta, 2021). Therefore, we learned the need to act quickly to recalibrate and transform our tangible and intangible assets to respond to the challenges of the turbulent conditions to answer the needs of our stakeholders and achieve our goals.

Second, we competently learned that we must utilize with due diligence our organizational and dynamic capabilities for the common good of all our stakeholders. If we give more authority to people and knowledge workers, because if we succeed in this then people will be more involved, energized, motivated, and empowered to develop their organizations and to more successfully face the issues involved in ongoing change in the business environment (Jakubik, pp.69-70).

Finally, we learned from our experience that we need to be engaged as a community working collaboratively, transparently, and resolutely to sustainably pursue our role as an educational institution caring for peoples and protecting our planet. Flourishing during the pandemic is having a safe

environment where people's health and well-being are of primary concern. Where despite the many challenges brought about by the pandemic, the institution became more agile, resilient, resourceful, and more importantly optimistic that there will be better things to come if sustainable practices are implemented resolutely.

References

ABS-CBN News (2020, September 14). *65 private schools suspend operations this school year*. https://news.abs-cbn.com/news /09/14/20/865-private-schools-suspend-operations-this-school-year.

Acosta, R. (2021).*The influence of supply chain management capability to the internationalization performance of PhilExport companies*. (Unpublished). Doctoral dissertation. De La Salle University.

Alisjahbana, A. S. (2020, August 20). *Sustainability in the era of COVID-19 in Asia-Pacific* [Speech]. United Nations ESCAP. https://www.unescap.org/speeches/sustainability-era-covid-19-asia-pacific

Australian Institute for Teaching and School Leadership (2020, August 7). The role of school leadership in challenging times. *https://www.aitsl.edu.au/Research/Spotlight/The-Role-Of-School-Leadership-In-Challenging-Times.*

El Keshky, M. E. S., Basyouni S. S., & Al Sabban, A. M.(2020, November 12). Getting through covid-19: The pandemic's impact on the psychology of sustainability, quality of life, and the global economy – a systematic review. *Frontiers in Psychology*. https://doi.org/10.3389/fpsyg.2020.585897.

Garvin, D. A., Edmondson, A. C., & Gino, F. (2019). Is yours a learning organization? *Harvard Business Review*, pp.87-93.

Ghosh, A. (2020, August 13). *From promise to action: Sustainability at the heart of COVID-19 recovery* [Speech]. UN EP. https://www.unep.org/news-and-stories/speech/promise-action-sustainability-heart-covid-19-recovery

Helfat C., & Peteraf, M. (2003). The dynamic resource-based view: Capability lifecycles. *Strategic Management Journal, 24*: 997-1010.

Helfat, C.E., & Raubitschek, R.S. (2000). Product sequencing: Co-evolution of knowledge, capabilities and products. *Strategic Management Journal, 21*(10-11), 961. Chandler A. 1990a. *Scale and Scope: The Dynamics of Industrial Capitalism*. Harvard University Press.

Jaffer, Z. (2021, March 4). Going beyond green: The evolution of sustainability in a post COVID-19 world. *https://www.facilitiesnet. com/green/article/Going-Beyond-Green-The-Evolution-of-Sustainability-in-a-Post-COVID-19-World--19052*

Jakubik, M. (2017). Flourishing organizations. *Systemics, Cybernetics and Informatics, 15* (6), 61 -72.

Kerrissey, M. J., & Edmondson, A. C. (2020). What good leadership looks like during this pandemic? *Harvard Business Review*, 2-7.

Lu, J., And Beamish, P. (2001). The internationalization and performance of SMEs. *strategic management Journal*, 22, 565-586.

Remchukov, M., & Rozhok, D. (2020, 16 October). Why COVID-19 is a litmus test for corporate attitudes to sustainability. *https://www.weforum.org/agenda/2020/10/covid-19-litmus-test-sustainability/*

Teece, D. J. (2018). Business models and dynamic capabilities. *Long Range Planning*, *51*(1), 40-49 https://doi.org/10.1016/j.lrp.2017. 06.007

Teece, D. (2007. Explicating dynamic capabilities: the nature and micro foundations of (sustainable) enterprise performance. *Strategic Management Journal 28* (13), 1319–1350.

Teece, D., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal* 18(7): 509–533.

UN Environment Programme. (2020, April 6). UNEP Statement on COVID-19. https://www.unep.org/news-and-stories/statements /unep-statement-covid-19?_Ga=2.16007860.302376858.1615195 130-254298406.1615195130

United Nations. (n.d.). Coronavirus global health emergency. *https://www.un.org/Coronavirus.*

UC Berkley. (n.d.). Staying environmentally sustainable - COVID-19 pandemic recovery. *https://sustainability.berkeley.edu/News/ Staying-Environmentally-Sustainable-Covid-19-Pandemic-Recovery.*

The Contributors

Jemville B. Acta is a Benedictine monk of the Abbey of Our Lady of Montserrat, Manila. He is also the Executive Director of the San Beda College Benedictine Educational Foundation and the Coordinator of the Campus Ministry Office of San Beda University. He earned his Master's in Business Administration from the Graduate School of Business of San Beda University.

Pocholo R. Autencio is a faculty member and the current Administrative Office of the College of Nursing of San Beda University. He is one of the pioneer batch of graduates of the College of Nursing. A registered nurse and physical therapist by profession who was invited to be part of the teaching force of the institution. As a nurse-educator and researcher he has been actively involved in several research workshops, symposia, and for a as participant and presenter. He has been passionate about cognitive, behavioral, emotional, and spiritual well-being, as well as holistic health and development of individuals.

Maria Angela RJ. Balance is one of the Licensed Social Workers of the Community Engagement Center and a part-time Instructor of National Service Training Program (NSTP) Department of the College of Arts Sciences of San Beda University Manila. She has a 20 years of experience in community organizing and development. In 2015, she was chosen as one of the Facilitators of Social Enterprise for Economic Development (SEED) Philippines organized by SBU. She assisted the group assigned in Barangay Leseb, Bauko, Mountain Province. In December 2017, during the 1st ALN SBC Social Enterprise for Economic Development International Conference (1SEEDIC), she presented a research paper entitled Business Development Strategies for the Women Entrepreneurs of Barangay Leseb, Bauko Mountain Province

Christian Bryan S. Bustamante is a seasoned administrator, scholar, and professor. Currently, he is the Dean of the College of Arts and Sciences and Full Professor of the Department of Social Sciences and the Humanities, San Beda University. He is also the Director of Governance and Quality Assurance Office and the University's Data Protection Officer. As a Foucauldian scholar, Prof. Bustamante has engaged with other international scholars and researchers locally and abroad. Most noteworthy were his engagements as a Visiting Scholar at the *Catholic University of America McLean Center for the Study of Culture and Values* in 2012 and 2018 and Invited Presenter during the *1st Vallendar Summer*

Seminar on Education in the Global Context in 2014 at the Catholic University of Vallendar in Vallendar, Germany. His scholarly works on the ideas of the French philosopher Michel Foucault revolving around public policy, power relations, biopower, religion, and *realpolitik* has been published by internationally indexed academic journals locally and abroad. Prof. Bustamante earned his Doctor in Philosophy major in Philosophy *magna cum laude* and Master of Arts in Philosophy *magna cum laude* from the *Royal and Pontifical University of Santo Tomas* in 2010 and 2006, respectively. He also earned a Master of Public Administration major in Public Policy and Program Administration from the *University of the Philippines-Diliman* in 2000. In 1997, he earned his AB Philosophy and Human Resource Development Degree *with Academic Distinction* from the College of Arts and Sciences of the then *San Beda College.*

Margarette C. Cayetano is a Registered Nurse and a graduate of Master of Arts in Nursing. She is presently the Level II Coordinator as well as a Faculty of the College of Nursing of San Beda University. Prof. Cayetano has been connected in San Beda University for fifteen (15) years. She is currently enrolled in Pamantasan ng Lungsod ng Marikina and have earned 24 units in Doctor of Philosophy major in Educational Leadership and Management. Prof. Cayetano is also a License Professional Teacher (LPT). She was a former Clinical Instructor of United Doctors Medical Center (UDMC) for eight (8) years.

Maria Eliza P. Cruz is an Associate Professor of the Department of Natural Sciences of San Beda University, Manila. She is also a Graduate Professor of the College of Education of the National University and The National Teachers College. She is the 2013 recipient of the Tanglaw Academic Excellence Award for the Doctor of Education Program of NTC, the 2013 Training Grantee of the *La Main A La Pate Foundation* and the French Embassy to Manila to the 4th Inquiry- Based Science Education Training at France June of 2013 and the 2016 recipient of the FEU Publication Award.

Zernan L. de Ramos is a faculty of San Beda University (SBU). He finished his degrees BS in Chemical Engineering and MBA in the University of Santo Tomas and Ateneo Graduate School of Business, respectively. He has conducted studies on product-package development during his engagement in the Department of Science and Technology (government sector) and San Miguel Corporation (private sector). He is active in technical advising and business livelihood mentoring for

community partners and students of SBU. He works on variety of research studies on local-ethnic foods, corporate social responsibilities, and technology transfer projects for small and medium enterprises.

Arvin P. Dizon is a Faculty of the IBED-SHS of San Beda University, Manila and Pamantasan ng Lungsod ng Maynila. He is currently taking up Graduate Studies major in Science Education at National Teachers College. He has garnered a certificate from DLSU Senior High School Certificate Program.

Divina M. Edralin is the Director of the Research and Development Center, as well as a faculty of the Graduate School of Business of San Beda University. She is also currently a Professorial Lecturer at the Management and Organization Department of the Ramon V. del Rosario College of Business of De La Salle University. Dr. Edralin is a research/management consultant and trainer of schools, business firms, international organizations, government institutions, NGOs, and trade unions. She has written several books like Collective Bargaining in the Philippines and published many articles in SCOPUS/ISI Indexed Journals related to trade unions, decent work, and human resource management, human behavior, and entrepreneurship.

Ma. Emperatriz C. Gabatbat is currently the Co-chair and faculty member of the Theology Department, College of Arts and Sciences of San Beda University. She obtained her Masters in Religious Education at Mother of Life Center, Novaliches. She is a doctoral candidate in Applied Cosmic Anthropology at Asian Social Institute, Manila. She is one of the authors of Character Formation for Nation Building and Pagpapakatao series published by Sibs and Phoenix. She is also one of the authors of books on cosmic anthropology published by the Asian Social Institute. She has attended conferences and presented papers both here and abroad.

Celedonio B. Mendoza Jr. (Joncy) is a full-time faculty of the Department of Economics in San Beda University. He took his Master of Applied Business Economics in University of Asia and the Pacific and Bachelor of Arts in Economics in San Beda University. He previously worked at the Department of Energy as a Science Research Specialist II under the Planning Division – Energy Policy and Planning Bureau and at Taylor Nelson Sofres (TNS) Philippines as a Research Executive.

Ronald M. Pastrana is EVP/ Dean, School of Business at LCCM. He is a Professorial Lecturer at the Graduate School of Business of San Beda

University and formerly Technical Advisor, Business Consulting Group and Co-Practice leader in Corporate Finance of Arthur Andersen & Co. SC., USA. A member of the Technical Panel on Business and Management (policy advisory body of the Commission on Higher Education), Dr. Pastrana has written books in management and presented numerous papers in the Philippines, Asia-Pacific and EU and a member of the Scientific Committee of ICEBE/ICEI based in Germany.

James Loreto C. Piscos holds a doctorate degree in Philosophy major in History cognate in Anthropology, University of the Philippines-Diliman through a Missio-Aachen Germany Scholarship and CHED Dissertation Grant. He is a full professor and professorial chair awardee of SBU alumni association. His "*Post-Structuralist Reading of Popular Religiosity*" received the best paper award in the 2016 *Tiripon* International Conference. His "*Justice Issues in 16th Century Philippines*" was delivered in the 2017 Sixteenth Century World Conference, Milwaukee, USA, while "*Church-State Politics in 16th Century Philippines*" was presented in National Research Council of the Philippines. His published articles are in Scientia international journal.

Ester T. Rada has degrees both in Doctor of Philosophy in Filipino-Translation at De La Salle University-Manila (With High Distinction) and Master of Science in Psychology at Centro Escolar University, Manila. Presently, she is an Associate Professor at San Beda University, Manila and has been teaching for more than 20 years. She has presented and published papers in multidisciplinary contexts in local and international conferences and publications. Her research interests include translation studies, personality psychology and Filipino psychology.

Noel D. Santander is a full professor of the Department of Theology, College of Arts and Sciences, San Beda University, Manila. He is also a special lecturer in the Applied Cosmic Anthropology Course, a post-graduate program of the Asian Social Institute, an Asian graduate school of social transformative praxis towards justice, peace and integrity of creation. Dr. Santander gives seminar-workshops on different psi potentials and functions in different higher education institutions. He has written Christian Living books for K-12 program and published several research articles in the university journal related to cosmic anthropology, psi phenomena, theology, and spirituality.

Gil P. Soriano earned his Bachelor of Science in Nursing (BSN) degree from Pamantasan ng Lungsod ng Pasay and his Master of Health Professions Education (MHPEd) from the University of the Philippines Manila under a UP Presidential Scholarship Grant. He is the Level 3 Coordinator and Community Coordinator of San Beda University-College of Nursing. Currently he is pursuing his Dual Doctorate (DD) Program, PhD in Nursing in Silliman University and PhD In Health Sciences in Tokushima University, Japan. He has presented researches in various national and international research fora an d has published a number of research articles in reputable/indexed journals focusing on Public Health, Caring Science, and Nursing Pedagogy.

Rulina B. Viloria is currently the Chairperson of the Department of Economics at San Beda University. She completed her bachelor's degree in Applied Economic at the Polytechnic University of the Philippines while she earned her Master of Science in Economics degree at Asian Social Institute. Currently, she is a candidate for Doctor in Business Administration at San Beda University. Prior to teaching, she has a short stint at a government institution and almost five years of her professional life was spent in development work and social research at Asian Social Institute. She started her teaching profession in 1988 where she was privileged to teach in schools like Asian Social Institute, St. Scholastica's College and San Beda University. She spent most of her for teaching at San Beda University. She has published research articles in reputable academic journals and has been a paper presenter in various conferences, both local and international. Just recently, together with other authors, they were able to publish a book in Managerial Economics and Health Economics. Likewise, she is a founding board member of the Council of Economics Educators in the Philippines and a member of the Philippine Economic Society.

Edilberto B. Viray Jr. (June) earned his Master's Degree in Applied Economics at De La Salle University; Bachelor's degree in Development Economics from San Beda University with Academic Distinction. At present, he's a full-time professor in San Beda University. He won Ten Outstanding Young Employees of Metro Manila (TOYEMM) and The Most Innovative Employee of the Year Award; He was also named as the "Outstanding Business Educator in the field of Economics," by the PCDEB; and Dangal nang Bayan Awardee for Outstanding Educator and Author by 40th People's Choice Global Award.

Guidelines for Authors

Editorial Objectives

The objective of the Bedan Research Journal (BERJ) is to publish empirical, theoretical, and policy-oriented researches on various field of studies such as arts, business, economics, humanities, health, law, management, politics, psychology, sociology, theology, and technology for the advancement of knowledge and promote the common good of humanity and society towards a sustainable future. The BERJ also aims to reach scholars, students, policy-makers, and other researchers from various fields to use the information published in each of the BERJ issue and/or contribute relevant scholarly work that are worth publishing. Since the BERJ is the major academic journal of San Beda University, the articles published are expected to meet the standards are within the ethical standards and rigors of quality research. BERJ is a double-blind peer-reviewed multidisciplinary international journal published once a year, in April, both online and printed versions.

Editorial Policies

In consonance with the objectives of the Bedan Research Journal, the following policies set:

1. Articles submitted must be the results of original research and should not have been previously published or considered for publication in any other journal.
2. Articles must be submitted with a cover letter to the Editor-in-Chief at dedralin@sanbeda.edu.ph and to the Editorial Assistant at rsalapong@sanbeda.edu.ph.
3. All submitted articles will be subjected to editor evaluation (which includes the scientific quality of the article content, completeness, and plagiarism) for the feasibility of the further peer-reviewing process.
4. It is the responsibility of the author/s to ensure that the article has good quality of English, copy-edited, and has undergone Research Ethics Review.
5. The final authority to determine the worthiness of the research for publication lies on the BERJ Editorial Board.

Manuscript Guidelines and Review Process

BERJ uses double-blind peer review, wherein both the author/s and the reviewer/s are not known to each other. Papers are reviewed by invited experts from the various disciplines and possibly by an Advisory Board Member. Below is the review process for each manuscript submitted for publication:

1. A review manuscript should observe the guidelines in accordance with the Publication Manual of the American Psychological Association, sixth (6th) edition (APA style and format guidelines).
2. The manuscript should contain 8000 to 10,000 words or should not exceed 25 pages, inclusive of text, tables, figures, references and appendices.
3. The manuscript should be typed with Times New Roman 12 pt. font, double-spaced, on 8x11inch page size, with a margin of one inch on all sides. The left- and right-hand margin should have justified alignment.
4. All references and/or content notes must be placed at the end of the text.
5. Abstracts should be 250-300 words with 5 keywords.
6. The Editor-in-chief sends the research manuscripts to blind peer reviewer/s together with the official BERJ Research Evaluation Form.
7. The peer reviewer is given 3 weeks to review the research manuscript and return the filled-up Evaluation Form to the Editor-in-chief.
8. The Editor-in-chief will then send the reviewed research manuscript to the author/s to comply with the corrections, comments and other instructions indicated by the peer reviewers.
9. The research manuscript is considered approved for publication upon recommendation of the peer reviewers. However, the final authority to determine the worthiness of the research for publication lies on the BERJ Research Journal Editorial Board.
10. The author/s should also submit a short profile (50-100 words) for inclusion in the section "The Contributors". It should include the complete name of the author, academic and/or professional affiliations, and educational background.

THAT IN ALL THINGS GOD MAY BE GLORIFIED

BEDAN RESEARCH

JOURNAL