Research Article

Integrating SDGs in the Developed Sample Teaching Guides in NGEC

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Abstract

The Sustainable Development Goals set for accomplishment in 2030 offer diverse opportunities in various sectors including the academe. The academe performing multiple functions may serve as a channel for attaining its targets. The paper content analyzed the topics among the core Social Science New General Education subjects as prospects for achieving applicable SDGs. The results of the analysis became the basis for the development of sample teaching guides integrating SDGs. The results revealed SDG 4- Quality Education SDG 5- Gender Equality, SDG 10- Reduced Inequalities, SDG 12- Responsible Consumption and Production, SDG 13- Climate Change, and SDG 16- Peace, Justice, and Strong Institutions are the most feasible for integration the Contemporary World, Ethics, Readings in Philippine History and Understanding the Self. Teaching Guides integrating SDGs characterized by the essential elements for the meaningful development of the learners are available and ready for use.

Keywords: New General Education Curriculum, Sustainable Development Goals, Higher Education Institutions

1. Introduction

Sustainable Development Goals (SDGs) based on the widened and deepened Millennium Development Goals are deemed achievable by 2030 [1]. The focus is more on lifelong learning and equal opportunities for all, where Higher Education Institutions play a crucial role [2,3].

The SDGs also tagged as Global Goals, agreed upon and adopted by the United Nations member states, are designed to be multidisciplinary and interdisciplinary [4,5]. Thus, accentuating the dynamic role of the academe as a channel to the achievement of the SDG targets [2,6,7].

Adhika & Shrestha, (2023) for instance, explored the role of the Nepalese Higher Education Institutions through the identification of gaps which include the restructuring of the current set-up for the inclusion of knowledge initiatives as support to the achievement of targets of the SDGs [2]. Additionally, Pakkan and associates (2023), highlighted the importance of cooperation among Higher Education Institutions (HEIs) in the recognition of SDGs at the core management of the universities [7]. Arsenault (2021) alternatively recognized the integration of SDGs is evident in the institutionalization of goals embedded in the strategic plans,

implemented among the curricular and co-curricular activities [6]. All of these capture the link between the promotion of quality education and sustainable development towards the improvement of the quality of life among people regardless of their status.

Numerous studies underscored the delicate role of the HEIs as one of the implementing arms in the attainment of the targets of the SDGs. The HEIs start with carefully crafted curricula and act as partners in the implementation of policies, programs, and activities promoting the achievement of a quality life. In the Philippines, the Commission on Higher Education (CHED) is ably supervising Higher Education Institutions all over the country. In 2013, CHED issued the Commission on Higher Education Memorandum No. 20, series of 2013- General Education Curriculum: Holistic Understandings, Intellectual and Civic Competencies updating the General Education Courses for a more responsive curricula offering.

Subsequently, recognizing the academe's delicate role in achieving the targets of the Sustainable Development Goals in 2030, this paper answered the central question of what are the topics in the New General Education Curriculum Social Science core subjects such as Contemporary World, Ethics, Readings in Philippine

History and the Understanding the Self feasible for integration of the relevant Sustainable Development Goals. The analyzed contents served as the basis for the development of sample Session Guides in teaching the specified Social Science core General Education Courses. The paper is a humble contribution of Bicol University as a Higher Education Institution in the Philippines to attaining Sustainable Development Goals.

2. Materials and Methods
Content Analysis as a research design guided the identification and examination of the topics among the Social Science New General Education Curriculum (NGEC) core subjects. Based on the memorandum issued by the Commission on Higher Education, among the 8 core NGEC, 4 of them are Social Sciences namely Ethics, Contemporary World, Readings in Philippine History, and Understanding the Self (CMO No. 20, series 2013). The Bicol University College of Social Sciences and Philosophy being a service college offers these Social Sciences NGEC core subjects. Using an Inventory Guide (IG), topics outlined in the syllabi were identified and analyzed as appropriate for the integration of relevant SDGs. The analyzed topics deemed apt for embedding the targets of SDGs served as the basis for the preparation of sample teaching guides with the identified entry points for integration.

3. Results
NGEC core Social Sciences and the SDGs in the context of Quality Education
Among the 17 Sustainable Development Goals (SDGs) namely, (1) No poverty, (2) Zero hunger, (3) Good health and well-being, (4) Quality education, (5) Gender equality, (6) Clean water and sanitation, (7) Affordable and clean energy, (8) Decent work and economic growth, (9) Industry, innovation and infrastructure,(10) Reduced inequalities, (11) Sustainable cities and communities, (12) Responsible consumption and production, (13) Climate action, (14) Life below water, (15) Life on land, (16) Peace, justice and strong institutions, and (17) Partnership for goals, selected SDGs with direct reference to education were used as framework in the analysis of the content topics based on the review of the literature (Alm et al., 2021)

The following SDGs identified are feasible to be responded to in the academe: SDG 4- Quality Education, SDG 5- Gender Equality, SDG 10- Reduced Inequalities, SDG 12- Responsible Consumption and Production, SDG 13- Climate Change and SDG 16- Peace, Justice, and Strong Institutions [8]. Relating these SDGs to the Social Science core subjects of the General Education Curriculum necessitates the identification of specific topics to the specific targets of the relevant SDGs Table 1.0 captures the analysis in detail.

GEC Core Subjects	Specific Topics	Relevant SDGs
Contemporary World	The Structures of Globalization - The Global Economy - Market Integration - The Global Interstate System	SDG 4.7 Education for sustainable development and global citizenship
	Global Population and Mobility - The Global City - Global Demography - Global Migration	SDG 12.2 Sustainable Management and Use of Natural Resources
	Towards a Sustainable World - Sustainable Development - Global Food Security	SDG 12.5 Substantially reduce waste generation
Ethics	Part II. The Act C. Moral courage 1. Why is the will as important as the reason 2. Developing the will	SDG 16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all
	Part III. Frameworks and Principles Behind Our Moral Disposition Frameworks Justice and fairness: Promoting the common good 1. The nature of the theory 2. Distributive justice a. Egalitarian b. Capitalist c. Socialist	SDG 12.2 Sustainable Management and Use of Natural Resources SDG 12.5 Substantially reduce waste generation

Readings in Philippine History	Content and Contextual Analysis • Customs of the Tagalogs	SDG 10.2 Empower and promote the social, economic, and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion, economic or other status
	Content and Contextual Analysis • Kartilya ng Katipunan	SDG 5.1 End discrimination against women and children; SDG 5.2 End all violence against and exploitation of women and girls
	Content and Contextual Analysis • Alfred McCoy's Political Caricature	SDG 5.5 Ensure full participation in leadership and decision-making skills; SDG 16.5 Substantially reduce corruption and bribery in all forms
	Controversial and Conflicting Views • Cavite Mutiny	SDG 16.1 Reduce all forms of violence and related death rates everywhere
	Social, political, economic, and cultural issues in Philippine history • Agrarian Reform Policies	SDG 12.2 Sustainable Management and Use of Natural Resources SDG 13.3 Build knowledge and capacity to meet climate change
	Social, political, economic, and cultural issues in Philippine history • Taxation	SDG 4.4 Increase the number of people with relevant skills for financial success
Understanding the Self	Unpacking the Self a. The Physical Self	SDG 5.6 Universal access to reproductive rights and health; SDG 5.1 End discrimination against women and children; SDG 5.2 End all violence against and exploitation of women and girls
	Unpacking the Self b. Sexual Self	SDG 5.6 Universal access to reproductive rights and health; SDG 5.1 End discrimination against women and children; SDG 5.2 End all violence against and exploitation of women and girls
	Unpacking the Self c. The Material/Economic Self	SDG 12.8 Promote universal understanding of sustainable lifestyles
	Unpacking the Self f. The Digital Self	SDG 5.1 End discrimination against women and children; SDG 5.2 End all violence against and exploitation of women and girls

Table 1.0 Relevant core Social Science GEC specific topics for integration of specific SDG targets

For the Contemporary World, three essential topics were identified to be directly responsive to 2 Sustainable Development Goals, specifically SDG 4- Quality and Inclusive Education and SDG 12- Responsible Production and Consumption. Dominant among the SDG targets relevant to the content topics in the Contemporary World are SDG 12- Responsible Production and Consumption.

Most of the content topics are along globalization which is very relevant to managing the world's resources and reducing waste.

It can be noted, however, that other SDGs are tacitly related to the topics outlined in the syllabus issued by the Commission on Higher Education. For example, in the topic "The Structures of

Globalization" SDG 1-No poverty, and SDG 2-Zero hunger, can be integrated upon discussion of the sub-topics of "The Global Economy", and "Market Integration". These topics are comprehensive to include current issues on why the world needs to respond to the challenges of poverty and hunger which are basic factors affecting the quality of life of any individual.

The issues of poverty and hunger are similarly intertwined with other SDGs such as SDG 3-Good health and well-being, SDG 6-Clean water and sanitation, SDG 7-Affordable and clean energy, SDG 8-Decent work and economic growth, SDG 11-Sustainable cities and communities and SDG 12-Responsible consumption and production. The enumerated SDGs are likewise feasible for integration on the topics "Global Population and Mobility" and "Towards a Sustainable World". The multifaceted nature of the Contemporary World as a Social Science core NGEC aligns with the multidisciplinary strategy in the attainment of the targets of SDGs.

Meanwhile, Ethics, as another core Social Science General Education Curriculum subject, shares the most dominant SDG is similar to the Contemporary World. This is SDG 12- Responsible Production and Consumption. It suggests the connections among the core Social Science NGEC subjects. Other SDGs that may be integrated among the content topics of Ethics as NGEC core Social Science subject are SDG 1-No poverty, SDG 2- Zero hunger, SDG 5-Gender equality, SDG 8-Decent work and economic growth, and SDG 10-Reduced inequalities. These identified SDGs are captured in the course description wherein the subject aims to guide the learners in making moral decisions guided by the dominant moral frameworks and by the moral-reasoning model. Subsequently, the alignment between the topics and the identified SDGs suggests the connection to the day-to-day activities of ordinary people. It reflects the relevance and responsiveness of the NGEC.

In the same way, the Readings in Philippine History as another NGEC core Social Science subject, reflects a varied connection to SDGs as shown in the summary table. Five SDGs are identified to be responsive to the topic contents. It shows that even though past events are discussed, they are connected to present-day situations. The course deals with the same Philippine historical events in the old curriculum however, explores using a different perspective thus, dealing with the same historical events with a novel meaning.

Regarding Understanding the Self, the most dominant SDG is on Gender Equality. Aside from gender equality, SDG 10- Reduced inequalities in the same way feasible in the integration among the content topics as outlined in the syllabus. As indicated in the course description, Understanding the Self explores the nature of one's identity, in as much as anything that affects the development and maintenance of identity for better understanding. The topic contents similarly highlight this specific Social Science core NGEC's responsiveness to the target learners.

The analysis of the content topics of the four Social Science core subjects in the New General Education Curriculum (NGEC) suggests that specific SDGs are attainable through the curricula offered. The NGEC as explained in the memorandum issued was designed for the leaders to develop a wide range of understanding for them to be holistically developed. And, this is likewise by the multidisciplinary and interdisciplinary scopes and strategies for the attainment of the targets of SDGs.

Developed Sample Teaching Guides with structured integration of relevant SDG targets

The sample Teaching Guides (TGs) are reflective of the salient parts of an instructional material (IM), which are the Target Learners, Course Title, Content/Topic, Specific SDG Target, Learning Outcomes Procedure (Motivation, Presentation, Assessment), and Synthesis. The prepared TG as Instructional Material reflects the indispensable elements the International Institute of Educational Planning (IIEP) identified. These vital elements are 1) explicitly communicating conceptual goals with direct links to proposed activities; 2) providing knowledge and support to help understand and implement teaching plans; 3) reinforcing pedagogical content knowledge; 4) offering practices and understandings of relevant pedagogical activities; 5) presenting alternatives and freedom of choice; and 6) engaging teachers in ongoing reflection [9].

The prepared TGs consider the topics specific to the NGEC core Social Science subjects. A set of Learning Outcomes adapted from the CHED-designed curriculum is guided by SMART- Specific, Measurable, Achievable, Realistic, and Time-scaled. One of the crucial points to be considered is that there has to be an elaboration of a prior organization and progression related to each activity before it transitions to another subject matter.

These essential elements of an IM may come in handy for beginning or seasoned faculty. Any faculty can implement them since the step-by-step process is clearly outlined for easy implementation. These prepared TGs, however, are not prescriptive. Anyone who may use them is welcome to modify and innovate. They are prepared simply as guides. The modification may suit the nature of the learners, the learning environment, and even the challenges the faculty and the learners face.

These TGs are similarly aligned to the New General Education Curriculum designed by the Commission on Higher Education (CHED). The Learning Outcomes (LOs) were adopted from the curriculum prepared by CHED The aligned T.G.s with the CHED curriculum capture the reality which will holistically develop the learners. The prepared TGs are similarly guided by the principle of teaching, which is to connect every step in the teaching and learning processes proficiently.

4. Findings

The paper is meant to identify and analyze the specific SDGs likely for integration into the teaching of the Contemporary World, Ethics, Readings in Philippine History, and Understanding the

Self as Social Science New General Education Curriculum core subjects. Based on the identified and analyzed content topics, sample Teaching Guides were developed structurally integrating appropriate SDGs.

The most commonly identified SDGs related to the content topics of the NGEC Social Science core subjects affirmed the study of Chaleta and company (2021) where SDG 5- Gender equality, SDG 16- Peace, Justice and Strong Institutions repeatedly recognized related to the implemented curriculum. In contrast, the said study includes SDG 10-Decent work and economic growth among the most mentioned SDGs yet, in the present study the said SDG was not identified to be commonly related among the topics of the NGEC Social Science core subjects [8].

Additionally, SDG 4-Quality education was found to be the most recurrently referenced among the SDGs in the Higher Education Institutions curricula [10]. In the same way that interdisciplinary course offerings were responsive to SDG 3-Good health and well-being, SDG4- Quality education, SDG 8-Decent work and economic growth, SDG 9-Industry, innovation and infrastructure, and SDG 16-Peace, justice and strong institutions in the university curriculum in the context of Taiwan [11].

While the attainment of the targets of the SDGs used both interdisciplinary and multidisciplinary strategies, the interdisciplinary perspective contributes to the development of the learners' thinking and anticipatory competencies which is also the aim of the NGEC (CMO No. 20, s. 2013) [12,13].

The analysis of the content topics of the NGEC core Social Sciences affirms the findings of previous studies that most of the courses addressing SDGs are from the social sciences, and humanities [13,14].

The integration of relevant SDGs in the curricula affirms the important role of the HEIs in the achievement of targets in 2030. Furthermore, consistency in the integration of SDGs in the HEI curricula has been an affirmation of the implementation of the interdisciplinary and multidisciplinary strategies toward the feat of the targets [15,16]. It similarly contributes to the improving awareness of the academe's role in achieving the targets [14]. Moreover, the analyzed data revealed the substantial efforts of the HEIs in implementing SDGs through improved curricula offerings [17]. The active involvement of the HEIs in the implementation of SDGs, as shown by the revitalized curricula, indicates the readiness of the learners who, at the same time, are stakeholders in adopting a new mindset for world transformation [18]. Moreover, this is the overall aim of the Sustainable Development Goals.

5. Conclusions
The four core Social Science New General Education Curriculum subjects are platforms for attaining selected Sustainable Development Goals through structured integration both in contents and pedagogy. Although the focus of content analysis

is on the topics, analysis may be explored on the feasibility of integration along pedagogy. The prepared Teacher Guides structurally integrating appropriate SDGs provide the entry points for integration.

Recommendations
Based on the results, the following recommendations are offered: (1) try out the prepared Teacher Guides as a form of validation, (2) use the results as basis for the preparation of proposals for Research and Extension projects, and (3) consider the results as a basis for curricula review.

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