

Language-based approach in achieving Sustainable Development Goals: A qualitative meta-analysis

Ester T. Rada

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

Abstract

Scholars of language believe that where there is no language there is no development, thus language is pivotal in the implementation of Sustainable Development Goals (SDGs). This study aims to explore a language-based approach to the achievement of SDGs. Studies and reports describe language theories such as Edward Sapir-Benjamin Lee Whorf Linguistic Determinism Theory, Geoffrey Leech's five characteristics of language, Lev Vygotsky Developmental Theory, Jim Cummins Principles of Language – Basic Interpersonal Skills/Cognitive Academic Language Proficiency and other relevant linguistic concepts vis-à-vis sustainability goals and enumerate how the SDGs can be translated into a plan of action through the language-based approach. Specifically, the study focuses on Goal 3- Good health and well-being, Goal 4 - Quality education, Goal 16 - Peace, justice, and strong institutions, and Goal 17 - Partnership for the goal. Qualitative meta-analysis was employed using a five-step synthesis approach: 1) Exploring the field and defining research questions 2) search, selection, and appraisal of studies (sampling procedure) 3) data extraction 4) aggregation and 5) synthesis to analyze data from reports, symposiums, and studies as the main sources of data. In the iterative analyses, aggregates of concepts were identified: 1) language 2) language users 3) inclusiveness, equality, and sustainability 4) Sustainable Development Goals and language-based approaches. Other concepts were extracted from data such as diversity of language, language and culture, multilingualism, plurilingualism, multiculturalism, multilinguality, mother tongue-based multilingual education, literacy and reading skills, communication disabilities, minority vs. dominant languages, language loss and language maintenance, rights language to health care, inclusivity, vulnerability, diversity, equality, global citizenship, transparency and integrity, nationalism, national unity and collective identity and their centrality in the development, implementation, and successful completion of the SDGs.

Keywords: language-based approach, language theories, multilingualism, qualitative meta-analysis, sustainable development goals

Background of the Study

“If you talk to a man in a language he understands, that goes to his head. If you talk to him in his language that goes to his heart,”

Nelson Mandela

Language is the primary means of communication between people to convey thoughts, feelings, intentions, and desires to others (Bonvillain, 2003 as cited in Mweri, 2020; Ezeh & Obiageli, 2020). Nwadike (2004 as cited in Ezeh & Obiageli, 2020) views language as the key to the heart of the people. "If we lose the key, we lose the people. If we treasure the key and keep it safe, it will unlock the doors of wealth or affluence," thus leading to national development. Tantamount to this, according to Nyasulu (2014 as cited in Mweri, 2020), ‘the role of language in socio-economic development cannot be overemphasized. Where there is no language there is no development...’

Language is indeed pivotal in the implementation of Sustainable Development Goals (SDGs). In September 2015, the Philippines and 192 other United Nations member states joined hands to work towards the achievement of the 17 Sustainable Development Goals (SDGs) by 2030. According to the Intrac blog, “the Sustainable Development Goals (SDGs) aim to put the most vulnerable populations first and to leave no one behind. This implies communicating in a multiplicity of languages, yet the SDGs are silent on language issues.” (2017 cited in Mweri, 2020, p. 17) Also, Ezeh and Obiageli (2020) noted that “little attention was given to the societal organs/medium that will assist the realization of these goals such as language.”

This study aims to fill in this gap in language issues and the achievement of SDGs by emphasizing the propositions, ideas, and programs proclaimed in symposiums, conferences, and reports as regards this purpose. Studies and reports deal with relevant language theories such as Edward Sapir-Benjamin Lee Whorf Linguistic Determinism Theory, Geoffrey Leech’s five characteristics of language, Lev Vygotsky Developmental Theory, Jim Cummins Principles of Language – Basic Interpersonal Skills/Cognitive Academic Language Proficiency and other related concepts on language vis-à-vis SDGs. This also hopes to pull together the suggested plans of action on SDGs using a language-based approach.

This study seeks to answer the problem: How can language-based approach help achieve Sustainable Development Goals (SDGs)? What are

the language theories that support sustainability goals? What are the plans of action contingent on these language theories vis-à-vis sustainable development goals? Specifically, it aims to describe language theories vis-à-vis sustainability goals and enumerate how the SDGs can be translated into a plan of action through a language-based approach. Specifically, the study focuses on the following: Goal 3 - Good health and well-being, Goal 4 - Quality education, Goal 16 - Peace, justice, and strong institutions, and Goal 17 - Partnership for the goal.

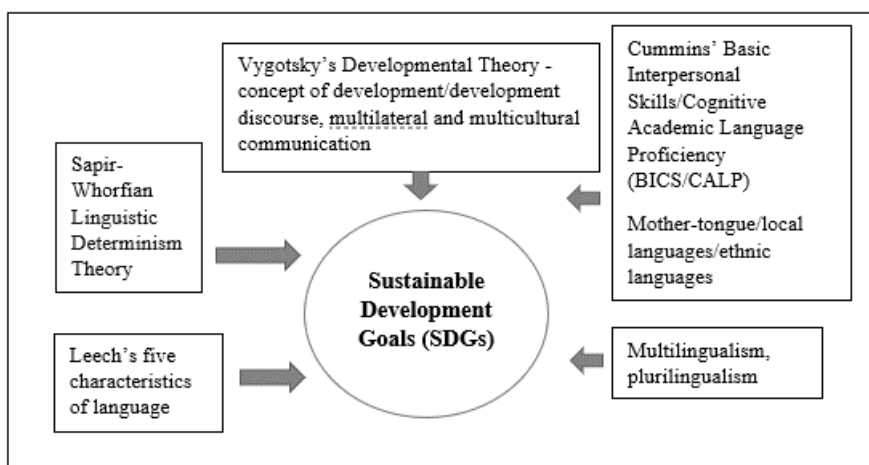
Conceptual Model and Operational Framework

Language, Development, and Sustainable Development

In the process of searching for studies for meta-analysis, the following language theories were derived.

Figure 1.

Language-based conceptual model towards the achievement of SDGs



Ezeh & Obiageli (2020) recognize the significant role language plays in creating, stating, interpreting, and understanding development goals as well as in its execution and evaluation process. Sapir-Whorfian Linguistic Determinism Theory, Leech's five characteristics of language, and Vygotsky's Developmental Theory were analyzed vis-à-vis SDGs. Vygotsky's Developmental Theory also was cited by Vuzo (2019) in his study of sustainable language education in Tanzania.

Sapir-Whorfian Linguistic Determinism Theory.

Edward Sapir introduced this theory in 1929 and was subsequently developed by Benjamin Lee Whorf purporting his idea of linguistic relativity which means that the way one thinks and expresses his thoughts influenced by his socio-cultural environment. Taking the SDGs into account from the prism of this theory, there is a strong relationship between language and culture, especially in the area of interpreting the goals through language (Ezeh & Obiageli, 2020).

Leech's five characteristics of language.

Geoffery Leech (1974 as cited in Ezeh & Obiageli, 2020) identified five main functions of language in society namely- informative, expressive, directive, phatic, and aesthetic. Each of these functions of language can be harnessed in the achievement of the sustainable development goals in the following ways: *“Creating the goals-* Language informs the thinking of the mind, thus, without language, the idea of the SDGs cannot be conceived. *Stating the goals-*The expression of the 17 developmental goals can only be expressed through language. It will be inconceivable that representatives of the 193 countries of the United Nations sitting in a conference have no means of presenting the mental conception of the 17 SDGs factually for adoption. Language plays this vital role. *Interpretation and understanding of the goals-* The criteria of clarity, coherence, and organization in any statements facilitate getting the message across. The language used must have the potential for audience interaction and involvement. The unitary role of language, therefore, is to achieve understanding, for active participation and unification of the speakers' plethora of ideas amongst peoples of diverse ethnic affiliations. *Executing the goals:* In the execution of the Sustainable developmental goals, the role of language is also eminent. At the symposiums on Language and the SDGs, the discussions were focused on the linguistic obstacles that could potentially stand in the way of achieving the SDGs. Language no doubt plays a significant role in the execution of these goals as intended. *Evaluating the developmental process and making amendments:* Language can be used as a measure of the effectiveness of the developmental process, taking cognizance of the setbacks and improving and building on viable goals. (pp. 59-60)”

Vygotsky Developmental Theory.

Language plays a role in mental development and development cannot be separated from its social context. Lev Vygotsky puts it, ‘A word (language) is a microcosm of human consciousness (thought). A goal can only be achieved if first conceived (Ezeh & Obiageli (2020). Vuzo (2019) emphasized what Vygotsky (1962) states "in learning a foreign language

[it] is contingent on a degree of maturity reached in the native language. The child can transfer to the new language the system of meanings he already possesses on his own. The reverse is also true - a foreign language facilitates the mastering of higher forms of the native tongue. This entails the building of good language foundation from the second language to other subsequent languages” (p. 12).

Mweri (2020) purported that people can be reached through their mother tongue which is crucial in the attainment of SDGs in support of Cummins’ Basic Interpersonal Skills/Cognitive Academic Language Proficiency theory and the concept of development.

Mother Tongue (MT).

People are recognized for their mother tongue or local languages. One’s individuality and community identity are manifested through the language they are born with. It is imperative to set about development goals through a language in which people have learned how to think and how communicate. Thus, these goals envisage a participatory approach to economic development and genuine participation in the development process that is dependent on two-way communication between the implementers of the SDGs and the people. Bonvillian (2003 as cited in Mweri, 2020, p. 14) asserts that the primary means of interaction between people is language. People use language to express their thoughts, feelings, intentions, and desires to others.

Studies suggest the importance of MT-based instruction for educational quality. Benson (2004), Trudell (2009), and Hanushek & Woessmann (2008) show a correlation between educational quality and economic development (cited in Mweri, 2020). Powel (2006 as cited in Mweri, 2020) argues that “If development is to be about life, it has to be able to connect with the languages in which its beneficiaries live.”

Basic Interpersonal Skills/Cognitive Academic Language Proficiency (BICS/CALP).

According to Jim Cummins (2003 as cited in Mweri, 2020), children who acquire a solid foundation in their mother tongue develop stronger literacy abilities in the school language. Further, Cummins posits that a child who begins his/her education in his mother tongue gains numeracy and literacy skills faster than one whose early and formative education is done in a foreign language. This is because MT learning and development and use are part of the process in which the child also learns values, culture, and worldview. This then gives them a chance to move gradually to another language. This approach, therefore, builds on the first

language to learn a second language. Quality education therefore would require that basic education is conducted in MT.

The concept of development.

Development is a form of social change that leads to progress, acquiring knowledge, and having access to resources for a decent living (Coetzee 2001 as cited in Mweri, 2020). It can be viewed from the individual and societal levels.

It is also important to note that communication is an important prerequisite of development, and this is manifested through language. Language must be seen to be communicating the intended meaning as a vehicle for achieving set goals. The language that provides people a definite shape to their emotions and thoughts (MT) is necessary to achieve this.

According to Manyozo (2006 as cited in Mweri, 2020) the fact that any development would involve the coming together of stakeholders in some form of dialogue, then the language of the people holds the key to sustainable development. Surprisingly language issues have always been neglected in development discourse. It is a fact that one can only participate actively in a social change if one has the access and right (to a language), individually and collectively

Multilingualism and the concept of plurilingualism (mother tongue plus two other languages) were put forth by the study by Stein-Smith (2016) and the study language group and the United Nations (2017) stating that these concepts foster and encourage global citizenship and a sustainable world. Vuzo (2019) also in his study of sustainable language education in the Tanzanian context advances the idea that multilingualism should be promoted in his country stressing the importance of being multilingual and competent in communication strategies which greatly contributes to interconnectedness in modern life. Vuzo posits that multilinguality can be sustained only if languages are in complementary relationships in the country.

Multilingualism.

The United Nations has been proactive in promoting its policy of multilingualism, with 6 official languages representing its nearly 200 members. The United Nations Academic Impact (UNAI), with its core value of a "shared culture of intellectual social responsibility," has taken the UN policy of multilingualism to university students around the world, especially through its principle #6, "a commitment to encouraging global citizenship through education."

Preparing future generations of global citizens will require a multilingual and multicultural framework - the United Nations is ideally situated to play a leading role (Stein-Smith, 2016). The study emphasized that multilingualism is essential for effective communication, understanding of other cultures, and the development of global citizenship values.

Methodology

Timulak (2009 as cited in Drape, Rudd, & Lawrence, 2020) described meta-analysis as a concise and comprehensive picture of findings across studies that investigate the same general research topic. Also, Schreiber, et al., (1997 as cited in Drape, Rudd, & Lawrence, 2020) proposes that qualitative meta-analysis is characterized by "the aggregating of a group of studies to discover the essential elements and translate the results into an end product that transforms the original results into a new conceptualization" (p. 314). Finfgeld (2003 as cited in Drape, Rudd, & Lawrence, 2020) as well, characterized qualitative meta-analysis as "a new and integrative interpretation of findings that is more substantive than those resulting from individual investigations" (p. 894). The present study examined data from symposiums, reports, reviews, and studies about its objectives in a comprehensive manner using this method to consolidate concepts and recommendations on how a language-based approach can achieve sustainable development goals.

Further, the methodological approach for this study employed and modified Nowak's five-step synthesis approach (2011 as cited in Ollinger 2012) to suit the context of the present study: 1) Exploring the field and defining research questions 2) Search, selection, and appraisal of studies (sampling procedure) 3) Data extraction 4) Aggregation 5) Synthesis. In the present study, qualified samples had to: (1) describe the linguistic theory or concepts vis-à-vis SDGs and (2) discuss recommendations for the achievement of SDGs, particularly on SDG#3, 4, 16, and 17. Other data sources include reports on the impact of COVID-19 and reviews on the implementation of SDGs to put the concepts in context.

The study was approved by the university Institutional Review Board for a qualitative design.

Results and Discussion

A summary of each study's key data, including the respective reference, research question, the study's context of origin (if available), its focus, method, data, and major findings in reverse chronological order is presented in Table 1. Take note that reports and reviews about SDGs were also included.

Table 1.
Summary of sources of data

Reference	Research question	Context of origin	Focus	Method	Data	Major findings
The Sustainable Development Goals Report 2021 United Nations Department of Economic and Social Affairs in collaboration with more than 50 international agencies			This report reveals the devastating impacts of the crisis on the SDGs and points out areas that require urgent and coordinated action.		Uses the latest available data and estimates in collaboration with more than 50 international agencies	<p>SDG 3 – Reports showed how the pandemic has halted or reversed progress in health and shortened life expectancy.</p> <p>SDG 4 - COVID-19 Reports showed that grades 1 through 8 fell below minimum reading proficiency levels in 2020</p> <p>SDG 16 – Reports on child trafficking and labor, human rights, and bribery are alarming</p> <p>SDG 17 -Immense need for connectivity is reported</p>
The role of language in achieving the world's Sustainable Development Goals (SDGs) Ezeh, Nnenna Gertrude (Ph. D) Prof. Udaba Regina Obigeti (Ph. D) <i>European Journal of English Language and Literature Studies</i> Vol.8, No.6, pp.53-61, September 2020 Published by ECRITD- UK		Nigeria	This paper seeks to assess the role of language in the attainment of the SDGs, considering that people have diversified languages, to achieve collaborative partnership by the year 2030.	Qualitative research based on Sapir-Whorfian theory of language, with Leech's five characteristics of language	Journal articles	<p>Language indeed plays a significant role in several aspects such as the following:</p> <ul style="list-style-type: none"> -Research to combat diseases -Linguistic strategies for a more effective medium of instruction toward quality education -Language used to formulate and enforce equitable and fair judicial acts to promote peace in societies for sustainable development

Table 1.

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Reference	Research question	Context of origin	Focus	Method	Data	Major findings
Sustainable Development Goals: Reaching People through Their Mother Tongue Jefva Mweri <i>Linguistics and Literature Studies</i> 8(1): 14-25, 2020	How does diversity in language use affect the passage of messages from one person to another, given that language is a culture-based system of symbols that people use for purposes of encoding and decoding information? How do the SDGs that are framed in a language that is foreign to a huge population of the world, reach the grassroots so that they can be translated into a plan of action?	Kenya	This paper examines the role of MT or local languages in the achievement of SDGs. It examines the power of language as a tool of development.	Literature review	Literature-based	Since MT or local languages are the means people communicate, concerted efforts by government or state and non-state players are important to develop local solutions to the SDG's challenges.
The Philippines' Voluntary National Review on the Sustainable Development Goals Celia M. Reyes, Jose Ramon G. Albert, Aubrey D. Tabuga, Arkin A. Arboneda, Jana Flor V. Vizmanos, and Carlos C. Cabaero Discussion paper series no. 2019-10 Philippine Institute for Development Studies November 2019		Philippines	This paper aims to facilitate the sharing of experiences, including successes, challenges and lessons learned, to accelerate the implementation of the 2030 Agenda.	Discussion paper	A vast array of institutions from the public and private spheres.	In the language context, studies show that among the macro-skill in communication, poor reading skill leads to poor grades in school. More so, communication skill is one of the future skills that account for sustainable livelihoods. Literacy and numeracy skills are the cornerstones to a student's academic and future professional success. NAT results showed that Grade 6 and 10 students are proficient in Filipino in the aspects of problem-solving, information literacy, and critical thinking. This justifies the implementation of Mother Tongue-Based Multilingual Education (MTB-MLE) , with 18 major languages ¹⁶ as languages of instruction enabling students from non-dominant language communities to build a strong educational foundation in the language they know best.

Table 1.

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Reference	Research question	Context of origin	Focus	Method	Data	Major findings
Implementation of sustainable language education in the Tanzanian context: a critical review Dr. Mwijuma Vuzo School of Education, University of Dar es Salaam, Dar es Salaam, Tanzania African Education Indices, Volume 11 No. 1, June 2019. ISSN 2276-982X	The paper accentuates the hurdles in attaining proper and sustainable language education such as lack of clear distinction between foreign languages and second languages in language teaching, improper implementation of competency-based language teaching, issues in language teacher training, multilingual language learning, and general language competence.	Tanzania	The paper gives an overview of sustainable language	Literature-based, position paper	Objective facts from scientific research that are cited and subjective views accrued from personal experience as a researcher in the area of language in education	There are weaknesses in language competencies which are largely attributed to poor teaching and learning infrastructure and poor teaching methods and minimal use of appropriate use of language in ordinary surroundings. One of the issues noted in this regard is the lack of ability to use the language for both teachers and students in the different levels of education.
The Importance of Speech, Language, and Communication to the United Nations Sustainable Development Goals: A Summary of Evidence Hussain, N., Jagoe, C., Mullen, R., O'Shea, A., Sutherland, D., Williams, C., & Wright, M. (2018).		Launched in 2014, the International Communication Project (ICP) advocates for people with communication disability (associated with speech, language, and communication impairments), as well as their families, caregivers and communication professionals.	This report was prepared by the ICP to demonstrate the need to address communication disability as part of any effort to deliver the United Nations' Sustainable Development Goals (SDGs), particularly SDGs 1, 3, and 4.	Summary of Evidence	Theoretical	SDG3 - Healthcare is highly dependent on good communication and those with communication disability are at a disadvantage when it comes to access and safety encounters, for example, medication errors, delay in treatment SDG4 - Quality education should encompass the language skills needed for literacy and learning. Those with communication disabilities are deprived to learn these skills which may impact their educational attainment thus they are at risk of educational failure, if without appropriate adjustments to support an inclusive communication environment in healthcare

Table 1.

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Reference	Research question	Context of origin	Focus	Method	Data	Major findings
Challenges of foreign language teaching and sustainable development implementation in higher education Bačkūnaitienė Asta 10.2478 /vtr-2018-0004 <i>Vocational Training: Research and Realities</i> , Vol. 29, No. 1, 2018 44		Lithuania	The present paper investigates the involvement of pedagogues at the tertiary level in the realization of sustainable development ideas at main universities in Lithuania. Authors underline the importance of HE in ensuring the implementation of sustainable development ideas in practice at university.	Drawing on literature analysis of various authors (Rowe, 2004; Galkutė, 2005; Tilbury, 2011; Wiek et al., 2014) the four-dimensional (economical, environmental, social and institutional) concept of sustainable development has been determined.	The research was planned and performed in 5 universities in Lithuania, in which the respondents studying English (the average age of participants was 22 years old) expressed their opinions on the sustainable development topics and usefulness of sustainable development competence.	The results of the research demonstrate that students are more engaged in topics and materials on sustainable development, and it is challenging for pedagogues to constantly update their materials, to apply innovative English as a foreign language teaching strategies related to sustainable development in the foreign language classroom. Therefore, the research findings with the embedded elements for sustainable development competence development encourage educators to search for innovative ways of English as a foreign language teaching in higher education.
Language, the Sustainable Development Goals, and Vulnerable Populations at the Church Center for the United Nations, 777, United Nations Plaza, New York, on 11 and 12 May 2017 Final Report	For whom are what languages a resource?	The symposium was attended by some 110 academics, diplomats, NGO representatives, and UN officials, and sponsored by several organizations.	This final report examines the implications of language for the treatment of vulnerable populations and vis-a-vis the development, implementation, and successful completion of the SDGs.	Case studies	The symposium's presenters, many of them language professionals and experts who have devoted their life's work to the understanding of the role of language in society, examined individual communities, development projects, and best practices. They highlighted the crucial role language plays in facilitating or hindering sustainable development, especially concerning vulnerable populations, a largely heterogeneous group of primary stakeholders in the achievement of the SDGs.	It is only by engaging in a collective multilingual discourse , by listening to the primary stakeholders of the SDGs (those whose lives would be most improved by their achievement), that development blueprints, action plans, and development agendas become inclusive, equitable, and sustainable

Table 1.

Continued

Reference	Research question	Context of origin	Focus	Method	Data	Major findings
The Place of Indigenous Languages in Sustainable National Development in the twenty-first Century: The Nigerian Perspective Augustine Uka Nwanyanwu <i>International Journal of English Language and Communication Studies</i> Vol. 3 No.3 2017 ISSN 2545 - 5702	How far we can build the capacity of Nigerian languages so that they can be relevant in the ongoing dialogue for Nigeria's sustainable development agenda?	Nigeria	The focus of this paper is to explore the extent to which the indigenous languages can bring about revival and vigor in Nigeria's quest for development. The major argument in this paper is that sustainable development is mediated through local knowledge, inculcated through the indigenous languages. This paper takes up the issue of the link between Nigerian languages and sustainable development.	Case studies	The symposium's presenters, many of them language professionals and experts who have devoted their life's work to the understanding of the role of language in society, examined individual communities, development projects, and best practices. They highlighted the crucial role language plays in facilitating or hindering sustainable development, especially concerning vulnerable populations, a largely heterogeneous group of primary stakeholders in the achievement of theSDGs.	It is only by engaging in a collective multilingual discourse , by listening to the primary stakeholders of the SDGs (those whose lives would be most improved by their achievement), that development blueprints, action plans, and development agendas become inclusive, equitable, and sustainable
Language, the Sustainable Development Goals, and Vulnerable Populations at the Church Center for the United Nations, 777 United Nations Plaza, New York, on 11 and 12 May 2017 Final Report	For whom are what languages a resource?	The symposium was attended by some 110 academics, diplomats, NGO representatives, and UN officials, and sponsored by several organizations.	This final report examines the implications of language for the treatment of vulnerable populations and vis-a-vis the development, implementation, and successful completion of the SDGs.			

Table 1.

Continued

Reference	Research question	Context of origin	Focus	Method	Data	Major findings
The role of language and culture in sustainable development Prof. Djénéba TRAORE 30th - 31st October - 1st - 3rd November 2017 International Conference of the Consortium for Comparative Research on Regional Integration and Social Cohesion (RISC)	Can we together in interaction formulate realistic solutions able to improve or resolve this situation? Will we be able to solve the world's problems peacefully and sustainably? What kind of the role can play in languages and cultures in this process?	West Africa Institute	This aims at rising interactive discussions as regards the link between Language and Culture to Sustainable Development. It will be interesting to find out how they are used (or not) as means for social and economic development worldwide	Reflection paper	Annexes of SDGs and reports from the conference	Development According to UNESCO, language is important because: "Through language people communicate, share meaning and experience their sense of individual and community identity. <i>The Role of Culture in Sustainable Development.</i> Culture can be defined as "the sum of attitudes, customs, and beliefs that distinguishes one group of people from another. Culture is transmitted, through language, material objects, ritual, institutions, and art, from one generation to the next." No culture is superior to another one. Cultures play a major role in social cohesion and resilience.
For function or transformation? A critical discourse analysis of education under the Sustainable Development Goals. Nigel Brisset, Radhika Mitter <i>Journal for Critical Education Policy Studies</i> , 15(1). Article - March 2017 https://www.researchgate.net/publication/314243582 <i>Journal for Critical Education Policy Studies</i> Volume 15, Number 1 ISSN 1740-2743	To what extent does the SDG4 function within as opposed to against the prevailing neoliberal agenda?		This paper aims to present a cautionary note to the euphoria surrounding SDG4 by exposing the extent to which SDG4, is inconsistent with the discourse of transformative education that deliberately challenges social and economic structures that define our contemporary world.	Critical discourse analysis - educational transformation and utilitarianism	<i>Transforming Our World - 2030 Agenda for Sustainable Development</i> , as the focus of the analysis. Other data include: Education for All (EFA), The Earth Summit Agenda 21 (Chapter 36), Incheon Declaration, United Nations Decade of Education for Sustainable Development 2005 – 2014	Findings show that despite the transformative language used throughout the Agenda, SDG4 primarily espouses a pro-growth model of development and a utilitarian approach to education. There must be a shift in the dominant educational discourse so that issues of social and environmental justice are placed at the heart of educational priorities.

Table 1.

Continued

Reference	Research question	Context of origin	Focus	Method	Data	Major findings
The Role of Multilingualism in Effectively Addressing Global Issues: The Sustainable Development Goals and Beyond Kathleen Stein-Smith, ISSN 1799-2591 <i>Theory and Practice in Language Studies</i> , Vol. 6, No. 12, pp. 2254-2259, December 2016	How can international educators best prepare students for an increasingly multilingual world and a workplace where multilingualism is the norm rather than the exception?		Multilingualism is essential for effective communication, understanding of other cultures, and the development of global citizenship values.	Literature-based position paper	ELAN (Ecole et Langues Nationales en Afrique) program, launched by a collaborative partnership including the Organisation Internationale de la Francophonie (OIF), the 2016 Symposium on Language and the Sustainable Development Goals, organized by the Study Group on Languages, and the United Nations, and the Many Languages One World Essay Contest and Global Youth Forum (MLOW), organized by the United Nations Academic Impact and ELS Educational Services	To foster and encourage global citizenship and a sustainable world, society needs to view multilingualism as normal and desirable, and the government, educators, and the private sector need to work together to develop the learning opportunities, accessible to all, and the curricula to make multilingualism a reality.
The English Language and Sustainable Development in Nigeria Ifeyinwa Obiegbo <i>Open Journal of Political Science</i> Vol.05 No.02 (2015),	Importance of the English language in sustainable development	Nigeria	The importance of the English language as a veritable tool for sustainable development	Literature-based position paper	Journal articles, the constitution in Nigeria and situational contexts	Unlike others that capitalize on native languages over foreign languages, in the case of Nigerian context English is the language that fosters national unity in education, in the economy, and on the social front as the multiplicity of ethnic languages instills pride per group; choosing a national language is not feasible to respect each ethnic language since no language is subservient to other ethnic languages.

Table 1.

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Reference	Research question	Context of origin	Focus	Method	Data	Major findings
Rights Language in the Sustainable Development Agenda: Has Right to Health Discourse and Norms Shaped Health Goals? Lisa Forman, Gorik Ooms, and Claire E. Brohan <i>Int J Health Policy Manag.</i> 2015 Dec; 4(12): 799-804. Published online 2015 Sep 29. doi: 10.15171/ijhpm.2015.171	Has the right to health discourse and norms shaped health goals?		This aims to assess whether the use of the right to health language was associated with health goals and targets proposing UHC, given our belief that this concept has a strong affinity with the normative prescriptions of the right to health	Content analysis involving a word-frequency count of rights language (search terms included "human rights," "right to health," "right to development," and "sexual and reproductive health and rights").	"International Covenant on Economic, four most significant reports issued through the post-2015/SDG negotiation process including Social and Cultural Rights; "Universal Declaration of Human Rights," and "General Comment 14".	Each report proposes similar overarching health goals: 'Maximize Healthy Lives,' 'Ensure Healthy Lives,' 'Achieve Health and Well-being at All Ages,' and 'Ensure Healthy Lives and Promote Well-being at All Ages.' This finding suggests that the express use of right to health language 'frames' policy responses by implicitly guiding actors toward a universalistic impetus in health and healthcare.
Local Languages of Instruction as a Right in Education for Sustainable Development in Africa Zehlia Babaci-Wilhite <i>Sustainability</i> 2013, 5, 1994-2017; doi:10.3390/su5051994	Why is a country like Tanzania, which was at the forefront of Africa's liberation struggle, which proclaimed the Arusha Declaration that ushered in its development path and which in its policy documents and proclamations wanted the people to be the masters of their destiny, unable to resolve this language problem?	Africa	The article explores the consequences of linguistic choices for quality education, self-determined development, and children's rights in education.	The case study is grounded in an extensive review of theory and practices on the relationship between the language of instruction, learning, and rights in education.	Curriculum change in Zanzibar Zanzibar, which has a school system autonomous from that of the Tanzanian mainland The official background for the changes was an evaluation of the 1996 to 2006 Zanzibar Education Master Plan (ZEMAP) Midterm Review, the Education for All (EFA) Assessment, and the Zanzibar Education Sector Review, at the Ministry of Education (MoE), Culture and Sports, in 2003.	There is no doubt that Zanzibar requires education reforms to improve quality learning. There is a substantial body of research as mentioned in the study, which shows that students learn more quickly and effectively when taught in a familiar language than when first taught in a foreign language. Quality education should be regarded as a human right. Fundamental freedom and quality education will not be achieved through the medium of a foreign LoI. The most significant contribution of this article is in demonstrating the links between language choice, quality learning and rights in education. Using a local (indigenous) language satisfies the rights criteria of availability, accessibility, acceptability, and adaptability.

Table 1.

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Reference	Research question	Context of origin	Focus	Method	Data	Major findings
Sustainable development and the maintenance of Pakistan's indigenous languages Joan L. G. Baart Conference on the state of the social sciences and humanities: current scenario and emerging trends Islamabad, September 26-27, 2003	Why do some people give up speaking and transmitting their inherited language, even if this is one of the major languages of the world and their group is the most powerful in the country, While others hold on to their language, even if they are surrounded by more dominant groups and languages?	Pakistan	This conference paper uncovers factors that underlie the phenomena of <i>language loss and language maintenance</i> in Pakistan. Language loss and language maintenance are closely connected with the subject of sustainable development. Languages need communities of people who speak to them and pass them on to the next generation. Communities can only exist where there is a viable living environment and a means of subsistence.	Case studies of indigenous languages in Pakistan: Punjabi, Kohistani, causes of language loss, development and maintenance of languages	Ethnologue, personal communication, and situations involved	One of the conclusions of the paper is that good, sustainable development is concerned with the empowerment of local communities, and that efforts towards this purpose should build on the local cultures and languages and the knowledge encoded in them, rather than replace them.

The overarching research question pertains to the diversity of languages and the capacity of local languages to be relevant to the achievement of SDGs. The focus of studies results from specific to broad concepts of the diversity of language, language and culture, multilingualism, plurilingualism, multiculturalism, multilinguality, mother tongue-based multilingual education, literacy and reading skills, communication disabilities, minority vs. dominant languages, language loss and language maintenance, rights language to health care, inclusivity, vulnerability, diversity, equality, global citizenship, transparency and integrity, nationalism, national unity and collective identity and their relevance to SDGs. Notable is the contrasting studies of the relevance of the English language to fostering national unity (Obiegbu, 2015) against the study on indigenous languages that promote multiculturalism (Nwanyanwu. 2017) in the Nigerian context.

In the iterative analyses, aggregates of concepts were identified: 1) language 2) language users 3) inclusiveness, equality, and sustainability 4) Sustainable Development Goals and language-based approaches. Some key findings are discussed in Table 2.

Table 2.

Aggregates of concepts

Language

- Speech
- Communication, inclusive, multi-directional communication
- Reading proficiency
- Dominant (foreign) vs. minority languages (low-prestige), migrant languages
- Official language (English/prestigious) vis-à-vis national/ethnic languages
- Mother tongue
- Multilingualism, Plurilingualism
- Medium of instruction
- Medium of formulating and enforcing acts

Language users

- Vulnerable people
 - permanently settled refugees/migrants,
 - temporarily settled refugees/migrants, and
 - indigenous or heritage language minorities
 - People with communication disability
 - Those with speech, language, and communication impairments; which are difficulties communicating with others in their preferred language
 - Students/Learners across levels
 - Local and global stakeholder
-

Table 2.*Continued***Inclusiveness, Equality, and Sustainability**

- Mutual understanding
- Compromise
- Use of common language
- peaceful coexistence through a shared vision and shared goals
- multicultural framework toward global citizenship
- communication skill is one of the future skills that account for sustainable livelihoods
- sustainable development as development that “meets the needs of the present without compromising the ability of future generations to meet their own needs
- ...good, sustainable development is concerned with the empowerment of local communities, and that efforts towards this purpose should build on the local cultures and languages and the knowledge encoded in them, rather than replace them.”
- impact of Covid-19

Sustainable Development Goals and language-based approaches

- SDG3 – Health and well-being
 - Good communication for information dissemination and treatment
 - Universal health coverage to include speech and language therapy and audiology services (3.8)
 - Culturally and linguistically appropriate care
- SGD4 – Quality education
 - Individualized sustainable development solutions to challenges of vulnerable populations
 - Linguistically aware efforts at multilateral communication and information dissemination to uncover the root causes of vulnerability
 - Access to quality education should be understood to encompass the language skills needed for literacy and learning. Appropriate adjustments should be done to support an inclusive communication environment, especially, for those with communication disabilities who are at risk of educational failure
 - Use of the skills learned from MT so that children can learn other languages for wider communication
 - Interdisciplinary approach to foreign language education on the college and university level, developing an open online repository of teaching materials and providing a forum where scholars and practitioners can share experiences and best practices both regularly through social media
 - Assessment of the linguistic strategies adopted for quality education and evolvment of a viable medium of communication and education
 - Literacy and numeracy skills are the cornerstones to a student’s academic and future professional success (4.6)

Table 2.*Continued*

-
- SDG16 – Peace
 - Local languages can increase the participation of people in society, reduce their exclusion from all institutions and raise awareness in their communities about the realities of conflict
 - Language serves as a medium for formulating and enforcing judicial acts
 - SDG17 – Partnership
 - Through local languages partnerships between governments, the private sector, and civil society can be established for a clear understanding of the SDGs and their implementation
 - Incorporation of language or multilingualism into the discussion of sustainability and sustainable development for the participants and experts to communicate smoothly
 - Knowing one's MT well is a matter of pride, boosts one's confidence, and creates awareness in the individual's mind while also helping one connect with their cultural identity, as well as has commercial benefits as the international businesses go the local way, the importance of mother tongues has exponentially increased.
 - Before development can come to a people, there must be a means of communication and language quickly comes to play. The international community can easily and comfortably be reached because of the prestigious language. A language is a tool for sustained national development. The love of a country has to be manifested through the language that everybody can understand lest the ethnic agenda be implied.
-

Language.

One significant aggregate of concepts emphasizes language and its different contexts. The terminologies of speech, language, and communication were delineated in the study by ICP (Hussain et al, 2018). Language is more encompassing than speech which refers only to sounds and appropriate voice, pitch, volume, and intonation while communication, on the other, is the manner of expressing thoughts and feelings, whether verbal or non-verbal. Since the mantra of SDGs is to ‘leave no one behind’, those with communication disabilities should also be given attention.

One of the macro-skills in communication is reading. A discussion paper by the Philippine Institute of Development Studies (Reyes et al, 2019) shows that poor reading skill leads to poor grades in school. More so, communication skill is one of the future skills that account for sustainable livelihoods. Literacy and numeracy skills are the cornerstones to a student's academic and future professional success. NAT results

showed that Grade 6 and 10 students are proficient in Filipino in the aspects of problem-solving, information literacy, and critical thinking. This is supported by the report of the Department of Economic and Social Affairs in collaboration with more than 50 international agencies that reading proficiency among macro-skills of communication accounts for literacy skills.

The significance of dominant language vis-a-vis minority language/s was compared. English is considered a dominant language for its value in global communication, economy, education, and technology. But the value of local languages, better known as the mother tongue (MT), cannot be discounted. Based on studies, mother tongue fluency facilitates cognitive development as well as intellectual development, critical thinking, and literacy skills. Over and above these skills, based on Cummins' BICS/CALP theory, MT develops stronger literacy abilities in the school language, connects to one's values, cultural identity, and pride, and boosts confidence. MT as well becomes an instrument for dialogue between international business and the local stakeholders making the local language a key to sustainable development. This justifies the implementation of Mother Tongue-Based Multilingual Education (MTB-MLE), with 18 major languages,¹⁶ as languages of instruction, enabling students from non-dominant language communities to build a strong educational foundation in the language they know best.

Multilingualism or multiplicity of languages or plurilingualism, “mother tongue + 2”, are significant in the following context (Stein-Smith, 2016): Felt at the international and global level and societies and organizations; essential to effectively communicate issues and addressing situations whether in education, environment and health; critical in communicating ideas and underlying subtext and goal; offer insights into other culture which is key to the interdisciplinary area of global understanding and intercultural competency; and part of personal cultural identity, shaping worldview and values and empowerment

Language indeed plays a significant role in several aspects such as the following (Ezeh & Obiagli, 2020): Research to combat diseases; linguistic strategies for a viable medium of communication and education, toward quality education; and language serves as a medium of formulating and enforcing judicial acts based on equity and fairness in promoting peaceful and inclusive societies for sustainable development.

Language users.

Another aggregate of concept's points to the users of the language. The word "vulnerable" has been used several times across SDGs. In a symposium (UN final report, 2017), vulnerable groups were categorized into three: 1) permanently settled refugees/migrants, 2) temporarily settled refugees/migrants, and 3) indigenous or heritage language minorities.

In a study by Mweri (2020), it is contention between dominant language (foreign) vis-à-vis minority languages being used as the medium of instruction/communication in the educational and societal systems such as in government. Especially, for speakers of low-prestige languages (minority languages), inequality is reinforced through the institutionalization of legal, economic, educational, and social discrimination in the form of languages of education and government that are inaccessible or difficult to access.

Further, it has been proposed that "in the formulation and implementation of sustainable development policy, the individual circumstances of each of these and other vulnerable populations must be addressed – indeed must constitute the guiding principle in development efforts." In effect, the root causes of vulnerability of these groups must be tracked through linguistically aware efforts at multilateral communication, thus, facilitating individual, community, and state ownership of the Sustainable Development Goals.

Inclusiveness, Equality, and Sustainability.

Another significant aggregate of concepts is the delineation of the spheres of inclusivity, equitability, and sustainability. Inclusive education should provide accessible, diverse media of instruction and communication in our educational system to accommodate vulnerable people.

SDG3 - Healthcare is highly dependent on good communication and those with communication disabilities are at a disadvantage when it comes to access and safety in healthcare encounters, for example, medication errors, and delays in treatment (Hussain et al, 2018)

SDG4 - Quality education should encompass the language skills needed for literacy and learning. Those with communication disabilities are deprived to learn these skills which may impact their educational attainment thus they are at risk of educational failure, if without appropriate adjustments to support an inclusive communication environment.

Inclusivity invites the process of increasing participation of society, citizens taking a genuine interest in what their government is doing and raising awareness in their communities about the realities of conflict and the importance of peaceful and just societies. This involvement is possible through the help of schools, clubs, teams, and organizations to promote peace and justice. The importance of peaceful coexistence is a reality that can be communicated effectively through local languages that are understood by each society.

SDGs, particularly, 4, 16-17 can be attained in the context of inclusivity and sustainability by acknowledging the importance of peaceful coexistence through a shared vision and shared goals, placing people at the center which means using local languages that are understood by each society

Sustainable development would require a multilingual (in a mother tongue or second language) and multicultural framework in primary, secondary, and tertiary education to prepare future generations of global citizens

Inclusiveness, equality, and sustainability goals can be achieved by building an educational foundation through language and communication, literacy as well as numeracy skills with the use of the MTB-MLE approach that accounts for sustainable livelihoods, academic, and future professional success.

Sustainable Development Goals and language-based approaches.

SDG #3

- WHO in 1948 defined health as a "State of complete physical, mental, and social wellbeing, and not merely the absence of disease or infirmity."
- Healthcare is highly dependent on good communication and those with communication disabilities are at a disadvantage when it comes to access and safety in healthcare encounters, for example, medication errors, delay in treatment
- "Universal health coverage" should include access to speech and language therapy and audiology services (3.8)
- A higher likelihood of information dissemination about disease prevention and treatment, and emerging health issues reaching the target recipients when MT is used
- Funding of professional education in developing countries with a particular emphasis on developing culturally and linguistically appropriate care

SDG #4

Inclusive, equitable, and sustainable education should provide accessible, diverse media of instruction and communication in our educational system to accommodate vulnerable people

The following interventions were proposed to address communication disabilities:

- Development of speech and language therapy and audiology services and professions
- Funding for developing culturally and linguistically appropriate care
- Funding for research to determine the global scope of communication disability
- Usage of alternative means of communication which include low-tech (e.g., picture-based communication books or boards) or high-tech (e.g., speech-generating devices) system

SDGs also cater to all youth and adults, hence the following:

- The earliest instruction takes place in the local mother tongue (Cummins' BICS/CALP Theory)
- Interdisciplinary approach to foreign language education at the college and university level
- Develop an open online repository of teaching materials
- Provide a forum where scholars and practitioners can share experiences and best practices both through social media and in-person at national conferences regularly every 12 to 18 months

SDG #16

Increasing participation in society and reducing their exclusion from all institutions and raising awareness in their communities about the realities of conflict can be communicated effectively through local languages that are understood by each society.

Language serves as a medium of formulating and enforcing acts (Sapir-Whorfian Linguistic Determinism Theory) against threats of international homicide, violence against children and women, human trafficking, and sexual violence to promote peaceful and inclusive societies for sustainable development

SDG #17

A successful sustainable development agenda requires partnerships between governments, the private sector, and civil society. These inclusive partnerships built upon principles and values, a shared vision, and shared goals that place people and the planet at the center, are needed at the global, regional, national, and local levels. Governments can mobilize to reach their people through local languages for a clear understanding of the SDGs and their implementation.

A successful partnership involves mutual understanding and compromises through a common language or languages (Vygotsky's Developmental Theory). These inclusive partnerships give rise to principles, values, and shared vision that ensure sustainability in all aspects of life.

A key aspect of this future, and the potential benefits of increased global sustainability, is multilingualism. Preparing future generations of global citizens will require a multilingual and multicultural framework - the United Nations is ideally situated to play a leading role.

Figure 2.

Final Conceptual Model

Language + User + Concepts of Inclusiveness, Equality and Sustainability = Sustainable Development Goals and language-based approaches.

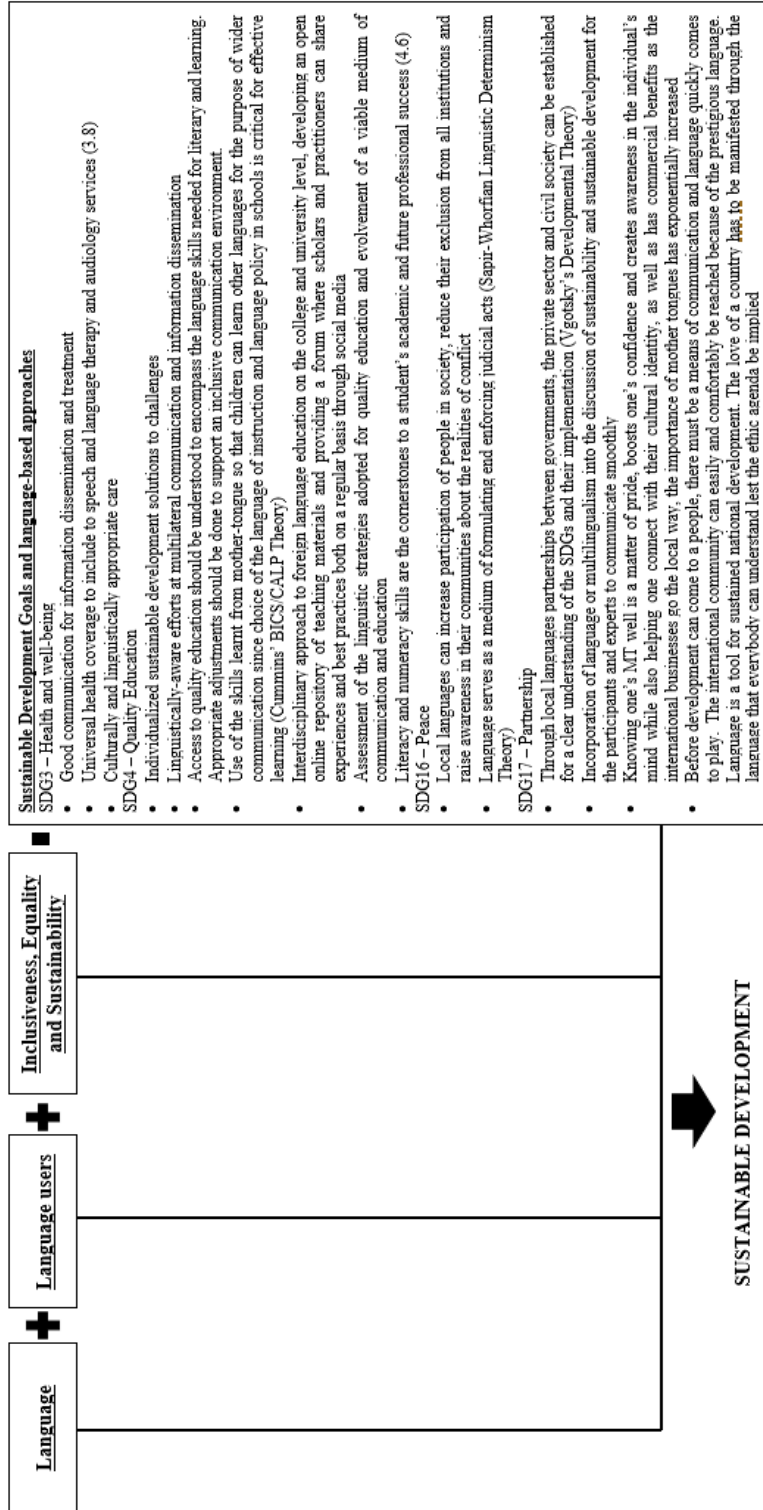


Figure 2 shows the final conceptual model integrating the concepts in language-based approaches toward the achievement of SDGs.

Conclusion

As Chomsky (1957 cited in Obiegbu, 2015) puts it, language and society are so much related, thus, their relationship cannot be underestimated. "Language is the oil that lubricates activities within any human society." Language is indeed pivotal in sustainable development. With the mission: to leave no one behind," language is a viable instrument to get the vision of development across a diverse population. So as the complexity of language concepts needs to be defined and structured, the concepts of inclusivity, equality and sustainability should be extracted from the details as well to reach the goals of development. Linguistically aware efforts should be promoted toward national unity thus facilitating development. It is recommended that future studies or a systematic literature review analyze language issues (e.g., minority/low prestige vis-à-vis dominant/foreign language, multilingualism and multiculturalism, and national unity) per country and their resolutions toward sustainable development.

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