

IMPLEMENTING SDG 4 IN PAKISTAN: A QUALITATIVE AND QUANTITATIVE ANALYSIS OF OPINIONS OF TENURED FACULTY MEMBERS OF THE UNIVERSITIES

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Abstract

Purpose of the study: This article's primary objective was to survey tenured faculty members at the universities in Pakistan to determine their attitudes toward Sustainable Development Goal 4.

Methodology: Both quantitative and qualitative research design was adopted for this study. A simple random sampling technique was used to obtain data. Semi-structured interview questionnaires were distributed among 20 tenured public sector university faculty members. The target sample of ten-tenured faculty members was selected from two public sectors, and ten were selected from two private sector universities in District Lahore, Pakistan.

Principle findings: The full title of SDG 4 is to 'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all' (Unterhalter, 2019). When it comes to achieving SDG 4, the opinions of the faculty members are of great importance. Most of the faculty members were familiar with sustainable development to some degree. However, they raised the concern that sustainability and Education must be correctly aligned with the objectives laid down under SDG 4.

Application of this study: This study would be helpful in all educational institutes of Lahore. The population for this research consisted of all tenured faculty members of District Lahore, Punjab, Pakistan.

The novelty of this study: The study will go into detail regarding the attitudes professors have toward SDG 4 and the steps that must be taken in the classroom to meet SDG 4's objectives.

Keywords: Sustainable Development Goals (SDGs), Millennium Development Goals (MDGs), Sustainable Development Goal on Education (SDG 4), Faculty Members, The United Nations (UN), Educational Institutions, Universities, Agenda 2030, Pakistan.

INTRODUCTION

The Sustainable Development Goals (SDGs) were formally announced on September 25, 2015, at the United Nations (UN) Summit on Sustainable Development. During this Summit, the 17 SDGs were established by the UN (*see Table 1*). Until 2030, these objectives will lead the nations to address the most critical issues of sustainable development worldwide (Frey & MacNaughton, 2016). The objectives generally apply to all nations for the next fifteen years, requiring them to advance economic growth, social inclusion, and environmental sustainability. The SDGs are global and apply to all nations. At the same time, the Millennium Development Goals (MDGs) were meant for action solely in developing nations. The appeal for SDGs applies to all nations, including those with low, moderate, and high incomes (Servaes, 2017). The global objectives motivate everyone to embrace, implement, and eliminate extreme poverty and hunger. Moreover, the international community needs to work together sustainably to make a combined effort to bring positive changes and improve in sectors of Education, health, social protection, climate change mitigation, and environmental protection. Since many issues are interconnected, the SDGs comprehend approaches for measuring progress and achieving various targets (Pogge & Sengupta, 2015).

Table 1: 17 Sustainable Development Goals (SDGs)

Goal	Title	Description
1.	No Poverty	End poverty in all its form everywhere
2.	Zero Hunger	End hunger, achieve food security and improved nutrition and promote sustainable agriculture
3.	Good health and well-being	Ensure healthy lives and promote well-being for all at all ages
4.	Quality education	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
5.	Gender equality	Achieve gender quality and empower all women and girls

6. Clean water and sanitation	Ensure availability and sustainable management of water and Sanitation for all
7. Affordable and clean energy	Ensure access to affordable ,reliable , sustainable and modern energy for all
8. Decent work and economic growth	promote sustained ,inclusive and sustainable economic growth,full and productive employment decent work for all
9. Industry, Innovation and infrastructure	build resilient infrastructure, promote inclusive and sustainable Industrialization and foster innovation
10. Reduce inequality within and among countries	Reduce inequality within and among countries
11. Sustainable cities and communities	Make cities and human settlement inclusive save resilient and sustainable
12. Responsible consumption and production	Ensure sustainable consumption and production pattern
13. Climate action	Take urgent action to combat climate change and its impacts
14. Life below water	Conserve and sustainably use the oceans ,seas and resources for sustainable development
15. Life on land	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forest ,combat desertification and halt and reverse
16. Peace ,justice and strong institutions	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective ,accountable and inclusive
17. Partnership for goals	Strengthen the means of implementation sand revitalize the global partnership for sustainable development

Source: The United Nations (UN) cited in [Easterly \(2015\)](#).

Since teachers significantly affect a child's early growth and development, learning their views on Education for sustainable development is essential. When these children grow up and join professional colleges and universities, experienced and highly qualified faculty members try to impart knowledge, develop their skills, and mould the behaviour of these students to contribute and make an effort for the betterment of society ([Bruns et al., 2019](#)). Faculty members are one of the most significant aspects of societal change. Pakistan, like any other nation, strives to improve the lives of its people. It is believed that Education can have a lasting and significant impact on the economy and the quality of life of the people. Most nations and development practitioners agree that the best way to initiate change in society is through excellent Education accessible to everyone. The present paradigm shift in Education for sustainable development has an immediate impact on how we train young students to think critically and create healthy minds ([Khushik & Diemer, 2018](#)). Sustainable development is meant to combine economic, environmental, and social growth to make people prosper. The SDGs are an international initiative to solve common problems worldwide and call for a new way of thinking about development - one that employs multi-partner organizations to promote comprehensive, integrated, and adaptable measures that could bring about system-wide transformation. Every endeavour by humans to attain the SDGs is supported by the social and economic capital for which the nations have agreed under the umbrella of the United Nations (UN) Agenda 2030, which states that 'No one should be left behind' ([Kalsoom et al., 2018](#)). SDGs are essential to their universality, holistic approach, and indivisibility.

Against the backdrop of Agenda 2030, the significance of Education in developing societies cannot be overstated; therefore, to achieve SDG 4 (see *Figure 1*),.The MDGs emphasized ensuring that all children attain elementary Education globally. SDG 4 aims to achieve this target by using Education as a catalyst for more significant sustainable change ([Liverman, 2018](#)). Having the opportunity to get a quality education and complete it might help individuals climb the social ladder and diminish the current disparities. Therefore, it is right to infer that Education can help achieve SDG targets; however, the impact could be reciprocal if ignored ([Hackl, 2018](#)). Youth who invest in their Education will be better equipped for the job market of the fourth industrial revolution, which requires a high level of expertise in information technology. Education also provides the foundation for communities and governments to deal with naïve challenges such as Climate Change and Global Warming ([Comyn, 2018](#)).

Table 2: Sustainable Development Goal 4 (SDG 4) – Targets & Means

Sustainable Development Goal 4	
Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	
Outcome Targets [7]	Means of implementation [3]
4.1 Quality primary /secondary education for all	4.a Safe & inclusive learning environment
4.2 Early childhood and pre-primary education	4.b Scholarship for higher education
4.3 Relevant skills for work	4.c Teachers' training and working conditions

4.4 Gender equality & equal access for all

4.6 Youth and adult literacy

4.7 Global citizenship education for sustainability

Source: The United Nations Educational, Scientific and Cultural Organization (UNESCO) cited in [Tatto, \(2021\)](#).

Sustainable Development in Pakistan

Pakistan is a part of a global community undergoing social and economic upheavals, particularly in 2019 and 2020 due to the Covid-19 pandemic, where Education and health attracted significant attention. However, efforts to improve Education were reassured in 2016 ([Saban et al., 2021](#)). In 2016, Pakistan formally adopted the SDGs and began integrating them into the country's primary policymaking and development discourse. SDG 4, which entails 'provide inclusive and equitable quality education and expand lifelong learning opportunities for everyone', was of the 17 SDGs promulgated by the UN in 2015 ([Khan & Chang, 2021](#)). Since the 1990s, achieving universal primary Education has been one of the Pakistani government's key priorities; however, in recent years, the government has endeavoured to create strategies for sustainable development ([Khan et al., 2019](#)). Pakistan is believed to be the first nation to embrace the SDGs 2030 Agenda since its parliament overwhelmingly supported its proposal. After achieving the MDGs, Pakistan's federal and provincial governments discussed their long-term development and poverty reduction strategies with all significant stakeholders. During the consultation process, it became evident how crucial it is to develop national frameworks for identifying SDGs, gather additional data, and establish monitoring mechanisms ([Ali, 2018](#)). The federal government and United Nations Development Program (UNDP) established an SDGs Monitoring and Coordination Unit (SMCU) to serve as the national coordinating body. Identical units were also established in the provinces. The government promised to prioritize Education and was given special attention ([Noor & Pickup, 2017](#)).

Significance of the Study

The number of enrolled students in Pakistan's educational institutions fluctuates due to various social, economic, religious, and cultural factors. Education is one of the primary objectives that the government of Pakistan wants to develop and to improve its quality concerning targets set under SDG 4. This research will elaborate on how faculty members feel about SDG 4 and the measures required in the classroom to achieve the targets.

Objectives of the Study

1. To evaluate the understanding level of university faculty members regarding sustainable development and assess their opinions regarding the implementation of SDG 4 by the government of Pakistan.
2. To determine the impact of demographic factors on the opinions of faculty members at the university level toward the implementation of SDG 4.

LITERATURE REVIEW

Sustainable development, Education for sustainable development, and sustainability are related concepts since they share the same underlying principles. The main difference between sustainable development and Education is that sustainable development is a process, and Education is a tool for achieving sustainable development. Since the Brundtland Report coined the word 'sustainability,' this literature review has examined how various schools of thought discuss the relationship between Education and sustainability ([Agbedahin, 2019](#)).

Each culture understands its meaning uniquely, as 'education' is contextual. There has yet to be a universal consensus on how Education should be defined ([Pellaud et al., 2019](#)). Even though the meaning of education changes with the background, most academics and education specialists agree on its fundamental components. Most people argue that an effective education system consists of four fundamental or general components: knowledge, skills, behaviour or attitude, and creativity. Education is essential if the global community aims to achieve SDGs ([Bush, 2020](#)). In the contemporary period, we examine Education through the lens of training the faculty members to sensitize the importance of sustainable development for the upcoming generations. SDGs are significant because it emphasizes justice rather than equality and acknowledges that conditions among different nations and all cultures are diverse to implement similar strategies and expect positive outcomes. SDG 4 encompasses a participatory system in which all stakeholders, including civil society, businesses, parliament, the academic community, and the government, may accept their shared responsibility for attaining SDGs ([Ferguson & Roofe, 2020](#)).

Recent studies and discussions on Education and sustainable development support the notion that the long-term safety of people and the earth are intrinsically connected. Establishing a sustainable society and creating equal opportunities for all segments is essential. In Peoples' opinion, educational reform is the only way to affect society and realize long-term change.

Education may assist nations in attaining wealth, peace, and means for long-term survival to enhance the quality of life of its citizens ([Popescu, 2021](#)). A good education develops each well and provides them with the skills they need to make a meaningful contribution to their society and the world. Education contributes to developing a more diverse and peaceful society by expanding perspectives and fostering new ways of thinking ([Khushik & Diemer, 2020](#)). In 1948, the UN's

Universal Declaration of Human Rights (UDHR) gave Education considerable attention in Article 26, terming it a fundamental human right essential to human development and well-being (Gillett-Swan & Sargeant, 2018).

Moreover, in recent years Education for All (EFA) and the 2030 SDGs Agenda reassured the importance of Education for all segments of society worldwide. Education is essential because it helps eradicate poverty, decrease child mortality, attain gender equality, and ensure sustainability. In 2015, 193 member nations endorsed SDG 4 and promised to provide everyone access to quality education (Bengtsson et al., 2018). Article 25-A of Pakistan's constitution, which was consented to in 2010, states that 'the State should offer free and compulsory education to all children between the ages of five and sixteen, under the provisions of the law'. Provinces have established their versions of the Right to Education (RTE) Act, which provides input to the federal government and helps achieve the national SDG targets (Ali et al., 2021). After the 2018 General Elections in Pakistan, the government devised more specific and inclusive plans to implement the RTE for children, adults, and youth to ensure gender equality. However, gender equality and the realization of SDGs without involving faculty members will not yield the desired outcomes (Nawaz et al., 2021). Most people today believe that faculty members are essential to enhancing the quality of Education and that the only factor limiting the quality of an education system is the calibre of its faculty members.

Since 2015, visible progress has yet to be made toward achieving SDG 4. It is estimated that more than 69 million primary and secondary school teachers would be required to achieve the universal education target under Agenda 2030. Governments may assist by implementing policies that make it simpler for more individuals to adopt the teaching profession (Brollo et al., 2021). One of the aims of the Incheon Declaration 2030 is to 'ensure that teachers and education managers are empowered, well-recruited, well-trained, professionally competent, motivated, and supported within well-resourced, efficient, and well-controlled unions, bodies, institutions or associations' (Sui, 2020). Sadly, teachers' unions and faculty member associations throughout the globe have seen a decline in interest in the teaching profession worldwide. Unions have a significant role in ensuring that faculty members have equitable working conditions, which is crucial for reaching SDG 4 and ensuring that all school children get an adequate education (Hinduja, 2021). Suppose the future generation is to be prepared to cope with challenges such as climate change, depleting natural resources, shifting demography, etc. In that case, they must acquire knowledge about sustainable development. In the 1970s and 1980s, many began to be concerned that the industrial society's production and consumption of goods were not sustainable since they required so many resources. UNESCO mentions in a 2002 report that the sustainable development movement pounced on these fears (Ullah et al., 2020). Eleven targets were established to assist nations in achieving SDG 4 by 2030. These objectives are intended to make it simpler to monitor and assess a country's progress toward SDG 4. Seven are intended outcomes, while the other three are means to achieve those outcomes (Rashid, 2019).

METHODOLOGY

This study is qualitative and quantitative; therefore, semi-structured interview questionnaires were designed to collect and analyze data accordingly. The interview questionnaire was comprised of a total of 20 questions. Out of these, seventeen questions were close-ended, and three were open-ended. Twenty-tenured faculty members of public and private sector universities were randomly selected depending on their length of service. Gender balance was ensured, and an equal number of male and female tenured faculty members were selected from two public sectors and two private sector universities of District Lahore, Punjab, Pakistan.

Data analysis and findings

The data was carefully arranged to elaborate and establish patterns, themes, linkages, explanations, interpretations, criticisms, or new ideas (Hatch, 2002). After the interviews were transcribed for qualitative analyses, the researchers reviewed them and categorized the responses into themes (Alhojailan, 2012). For quantitative analysis, answers were put into predefined categories like 'strongly agree', 'agree', 'disagree', 'strongly disagree', and 'neutral'. The responses were statistically analyzed using frequency percentiles (Gorard, 2001). The highest recorded response was tabulated according to the derived results.

A. Qualitative Analysis

The feedback from the faculty members was coded and categorized. The results were arranged in the following themes (see Figure 1);

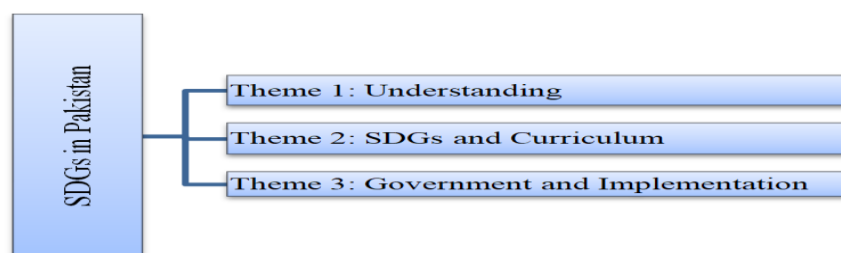


Figure 1: SDGs and Thematic Areas

Source: Researchers of this study.

Theme 1: Understanding

The majority of faculty members demonstrate via their responses that they understand the fundamental concepts of SDGs and have used some of them in their own lives. Sustainable development is predicated on human interaction with the natural environment. According to their understanding, people are seen as the driving force behind sustainable development in terms of what causes unsustainable growth and what people want.

One group member shared his views and added, Education enables us to understand ourselves, each other, and our relationships with the larger natural and social world. This ability creates respect permanently'.

Theme 2: SDGs and Curriculum

Most faculty members who participated in the survey agreed that educating children about broad environmental issues should be the main emphasis of any curriculum on sustainable development. Concerns such as waste of resources, pollution, recycling, ethical values, and the existence of other species on earth were highlighted. Reflecting on the SDG's objective of integrating teaching and learning about 'both local and global issues,' several faculty members suggested that sustainability-related curriculum material may be connected with 'creating and fostering a good attitude towards environment'. Faculty members shed light on areas such as how we care for our school children's safety, the freshwater and its inhabitants, their needs, and how our existence often relies on their survival. Regarding the incorporation of sustainable development concepts into the national curriculum, the faculty members turn it into a critical step for civil society and educational institutions that could yield positive results in the long term. Even though sustainable development is not classified as an independent topic in the current curriculum, the faculty members feel that sustainability-related topics may be incorporated into the curriculum and practised in all activities involving school children.

Theme 3: Government and Implementation

According to most faculty members and students, the state must ensure that the SDGs are implemented in all sectors, including Education. They added that the government might ensure that SDG 4 is implemented in all areas instead of focusing on a few priority areas. They feared that if the education-related budget is spent on a few prioritized areas, it may cause an increase in disparity and inequality, and the government will struggle to achieve the set targets for SDG 4. The faculty members further shared that the government policies regarding sustainable development can have a better success rate if these policies are designed in consultation with the local leaders and the community elders.

A. Quantitative Analyses

Table 3: Response of Faculty Members regarding SDG 4 and Its Implementation Status in Pakistan

SDG 4 & Its Implementation in Pakistan		N=20 (in percentages)					Remarks
Statements	Strongly Agree	Agree	Disagree	Strongly Disagree	Neutral	Highest Recorded Response	
1. The government of Pakistan has developed infrastructure for the provision of Education for all.	02 (10%)	02 (10%)	03 (15%)	11 (55%)	02 (10%)	Strongly Disagree (55%)	
2. Teachers have been adequately trained, and they understand the concept of sustainability.	00 (00%)	01 (05%)	02 (10%)	16 (80%)	01 (05%)	Strongly Disagree (80%)	
3. The government of Pakistan has provided the required skilled workforce at the primary level (early childhood education centres) to take care of the school children	00 (00%)	01 (05%)	01 (05%)	18 (90%)	00 (00%)	Strongly Disagree (90%)	
4. The teaching staff at the primary level are trained enough to understand and address the issues of school children under five years of age.	01 (05%)	03 (15%)	10 (50%)	05 (25%)	01 (05%)	Disagree (50%)	
5. The schools have enough facilities to provide an enabling environment to fulfil the needs of all genders.	01 (05%)	01 (05%)	04 (20%)	13 (65%)	01 (05%)	Strongly Disagree (65%)	
6. The school children feel happy and engaged while involved in various learning activities.	00 (00%)	00 (00%)	02 (10%)	17 (85%)	01 (05%)	Strongly Disagree (85%)	

7. The government is constantly monitoring the schools and early childcare education centres. If they find some deficiency, action is initiated against the identified problems to resolve it.	01 (05%)	00 (00%)	00 (00%)	18 (90%)	01 (05%)	Strongly Disagree (90%)
8. The schools provide quality education and thus attract more parents to enrol their children.	01 (05%)	01 (05%)	00 (00%)	18 (90%)	00 (00%)	Strongly Disagree (90%)
9. The managers of the schools have been trained to look after the affairs of the school and administer them using advanced and efficient techniques.	01 (05%)	01 (05%)	01 (05%)	17 (85%)	00 (00%)	Strongly Disagree (85%)
10. The schools have been provided with enough funds to establish laboratories for scientific experiments.	00 (00%)	00 (00%)	01 (05%)	19 (95%)	00 (00%)	Strongly Disagree (95%)
11. Separate resting rooms have been provided for girls and boys.	04 (20%)	03 (15%)	10 (50%)	03 (15%)	00 (00%)	Disagree (50%)
12. Boys and girls are treated equally in schools	03 (15%)	02 (10%)	06 (30%)	08 (40%)	01 (05%)	Strongly Disagree (40%)
13. Physically differentiable children have been provided with enough facilities to cater for their needs	00 (00%)	01 (05%)	01 (05%)	18 (90%)	00 (00%)	Strongly Disagree (90%)
14. Parents are regularly informed regarding the performance of their children	00 (00%)	02 (10%)	06 (30%)	10 (50%)	02 (10%)	Strongly Disagree (50%)
15. The schools have taken steps to have their transport facility or have signed an agreement with a private transport firm to provide a pick-and-drop facility to the students and reduce issues related to accessibility	02 (10%)	02 (10%)	04 (20%)	10 (50%)	02 (10%)	Strongly Disagree (50%)
16. Children who are from different religious backgrounds are treated with fairness at schools.	03 (15%)	03 (15%)	05 (25%)	08 (40%)	01 (05%)	Strongly Disagree (40%)
17. The school's curriculum is up-to-date and addresses modern-day sustainability problems, such as climate change and global warming.	00 (00%)	00 (00%)	03 (15%)	17 (85%)	00 (00%)	Strongly Disagree (85%)

The table 3 shows the number and percentage of responses gathered from 20 tenured faculty members of public and private sector universities of District Lahore, Punjab, Pakistan. As evident from the table, most of the faculty members are not satisfied with the implementation status of SDG 4 in Pakistan, and they preferred to select the option of 'strongly disagree' and 'disagree' in all the 17 questions stated in the semi-structured interview questionnaire. The faculty members showed concern over the need for more government interest in implementing SDG 4 in proper letters and spirits in Pakistan. Lack of infrastructure, accessibility issues, and curriculum design to highlight the matter of sustainability, equal treatment between boys and girls at school, inadequate training of the school managers and teachers, and lack of proper measures to entertain physically-challenged school children and those from various religious backgrounds, all received unsatisfactory and negative feedback from the faculty members. The percentage of responses against each question is stated and can be viewed in the table.

[Khan \(2019\)](#) highlights that Pakistan may consider investing in social science research, arranging public debates, and configuring new policies based on input from these debates to construct a knowledge-based economy that supports research promoting innovative ideas to deal with issues and challenges efficiently and effectively concerning sustainable development. This study's findings support our contention that SDG 4 should be taught in schools.

The best quote from UNESCO regarding the value of high-quality Education was, "Education is at the core of the 2030 Agenda for Sustainable Development and necessary for the success of all SDGs (UNESCO, 2015)". The literature and prior worldwide aims and plans strongly emphasize Education as a necessary instrument to advance in many ways, including global citizenship, responsible and productive citizens, and critical decision-making brains.

CONCLUSION

The academic staff of Pakistan's universities expressed their opinions on SDG 4 and its implementation in the nation. The findings show that most faculty members demanded that the government give the SDGs top priority, allocate funds and resources, track progress toward goals regularly, and make a concerted effort to assist the world community in achieving the SDGs, especially SDG 4.

LIMITATIONS OF THE STUDY

This study was conducted on a small scale; however, it could be reproduced on a larger scale in the near future.

RECOMMENDATIONS

An education reform strategy must promote inclusion and fairness among all segments of society. The state must ensure fairness and provide this right to everyone having legal rights to live within its territory to acquire quality education. It may help decrease economic, social and gender disparities within the society locally on a specific and global scale.

COAUTHOR CONTRIBUTIONS

Farah Latif Naz conceptualize the study. Abdul Raheem and Farid Ullah Khan helped with quantitative analysis, and Prof. Dr Fazlur Rahman and Dr Waqar Ahmaed helped with qualitative analysis.

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