



Awareness of Sustainable Development Goals: Perception of Head Teachers of Secondary School

Farhat Nasim¹, Muhammad Javed², Nadia Khan³, Iram Iqbal⁴

¹ Ph.D. Scholar, Department of Education, Bahauddin Zakariya University, Multan, Punjab, Pakistan.
Email: farhatnasim54@gmail.com

² Research Scholar, Department of Education, Institute of Southern Punjab Multan, Pakistan.
Email: muhammadjaved5758@gmail.com

³ Ph.D. Scholar, Department of Education, Bahauddin Zakariya University, Multan, Punjab, Pakistan.
Email: nadiakhan10186@gmail.com

⁴ Ph.D. Scholar, Department of Education, Bahauddin Zakariya University, Multan, Punjab, Pakistan.
Email: iramiqbal499@gmail.com

ARTICLE INFO

Article History:

Received: July 10, 2023

Revised: September 13, 2023

Accepted: September 14, 2023

Available Online: September 15, 2023

Keywords:

Awareness

Sustainable Development Goals

Secondary School

Head Teachers

Funding:

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

ABSTRACT

The member states of the United Nations agreed on the Sustainable Development Goals (SDGs) in 2015. These goals were established to address issues such as poverty, hunger, health, education, gender equality, clean water, sanitation, clean energy, economic development, infrastructure, inequalities, sustainability, responsible production, climate change mitigation, and the preservation of life on land. The agreement was reached unanimously by the member states of the United Nations. By the year 2030, the mission is to make it possible for every person on the planet to live in peace and prosperity. Regarding the Sustainable Development Goals (SDGs), the awareness of head teachers in secondary schools was investigated in a study. According to the findings, a sizeable percentage of secondary school head teachers know the Sustainable Development Goals (SDGs), however there was no discernible variation in levels of awareness based on geography, gender, or district. According to the study's findings, head teachers should consider participating in community engagement activities centered on Sustainable Development Goals (SDG), such as awareness campaigns, workshops, and events involving the participation of local NGOs and the government.

© 2023 The Authors, Published by iRASD. This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License

Corresponding Author's Email: farhatnasim54@gmail.com

1. Introduction

The concept of sustainable development can be considered a global concern because it is relevant to all nations, ethnicities, and groupings. In the year 2000, the Millennium Development Goals (MDGs) were established to end extreme poverty and hunger by the year 2015. Since then, much headway has been made in the fight against poverty, as well as in the fight for universal access to education and medical care. At the United Nations Conference on Sustainable Development in Rio de Janeiro in 2012, a brand-new global strategy was developed to maintain previously achieved gains. In 2015, the United Nations General Assembly unanimously endorsed the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs), which address a variety of issues such as the eradication of poverty, the elimination of hunger, the promotion of health, quality education, gender equality, access to clean water and sanitation, clean and inexpensive energy, economic development, innovation, infrastructure, inequalities reduction, the promotion of sustainability, and responsible production. These issues include access to clean water and sanitation, access to clean energy, access to clean.

The Sustainable Development Goals (SDGs) are a series of global objectives that attempt to solve numerous development concerns, with a primary focus on tackling inequality, reducing inequities, and supporting sustainable development. These goals were established by the United

Nations in 2015. These objectives ought to be acknowledged on a regional level given that they are founded on human rights. In January, the 17 global goals that are stated in the 2030 Agenda for Sustainable Development were distributed, and it is absolutely essential for every state, region, and neighbourhood to actively engage in Agenda 2030 for sustainable development. The commitment to guarantee that no individual or group is excluded from or marginalised in any way is a fundamental principle that underpins the Sustainable Development Goals (SDGs). The Sustainable Development Goals (SDGs) provide a comprehensive international framework for addressing issues that affect the entire world. It is essential in the field of education to have an understanding of the awareness and attitudes of educators towards the Sustainable Development Goals (SDGs), as this paves the way for the implementation of notions of sustainability into research, teaching, and activities carried out by institutions.

The primary objective is to completely do away with poverty in each and every one of its manifestations and in every part of the world. The second objective is to eradicate all forms of hunger by working towards the attainment of food security, the enhancement of nutritional circumstances, and the promotion of agricultural practises that are environmentally responsible. The third objective is to promote excellent health and well-being by ensuring the highest possible levels of physical and mental health for people of all ages and demographics. Every person should have access to high-quality education and be encouraged to continue their education throughout their lives. It is of the utmost importance to create an education system that is both inclusive and egalitarian. The fifth goal is to attain gender equality and enhance the empowerment of women and girls (Leach, 2015). The next goal is to guarantee universal access to water and sanitation services while also implementing practices that ensure the long-term viability and responsible stewardship of these resources (Tortajada, 2020).

It is imperative to establish universal availability of cost-effective, dependable, environmentally friendly, and enduring energy sources (Hillerbrand, 2018). The eighth aim is to promote sustainable economic growth that encompasses a wide range of factors, including environmental responsibility. Additionally, it seeks to guarantee the presence of substantial employment prospects and suitable working conditions for all workers (Kreinin & Aigner, 2022). The authors Vardanega, Osorio-Tobón, and Duba (2022) argue for the establishment of a more dynamic and forward-thinking atmosphere, the enhancement of current infrastructure, and the promotion of an inclusive industrialization process that yields advantages for all stakeholders. The ninth is to diminish inequalities both within nations and among nations (Chancel, Hough, & Voituriez, 2018). The next goal is to cultivate an environment that promotes inclusiveness, resilience, safety, and sustainability within urban areas and human habitation (Satterthwaite, 1997). The establishment and maintenance of environmentally friendly patterns of consumption and manufacturing are of utmost importance (Arora & Mishra, 2023).

It is important to promptly address the issue of climate change and its associated consequences (Sanchez Rodriguez, Ürge-Vorsatz, & Barau, 2018). The primary focus is on the preservation and responsible exploitation of the Earth's oceans, seas, and marine resources, with the overarching objective of attaining sustainable development (Friess et al., 2019). The goal is to safeguard, rehabilitate, and advance the sustainable utilization of terrestrial ecosystems while also implementing sustainable practices in forest management. Additionally, efforts are aimed at combating desertification, reversing the process of land degradation, and effectively addressing the issue of biodiversity decline (Gulseven & Ahmed, 2022). The objective is to promote the development of peaceful and inclusive communities that facilitate sustainable progress, guarantee equal access to justice, and construct effective, transparent, and inclusive institutions at all levels (Gill et al., 2021). Improve the structures for implementation and strengthen global cooperation in order to advance the pursuit of sustainable development (Leal Filho et al., 2022).

The significance of understanding Sustainable Development Goals (SDGs) is of utmost importance for head teachers and educational leaders due to various compelling factors. The global goals, which have the support of all United Nations members, aim to address pressing issues facing humanity. Education assumes a central role in the attainment of these goals. Head teachers have a crucial role in shaping students' educational experiences and fostering a sense of community. They have the ability to promote the Sustainable Development Goals and cultivate a global mindset among students, establishing in them a strong commitment to

addressing global concerns. The significance of understanding the Sustainable Development Goals (SDGs) for head teachers cannot be overstated.

Headteachers play a critical role in integrating their school's mission and educational goals with the global agenda. This helps to ensure that education meets the scholastic requirements of students, encourages personal development, and encourages participation in the global community. They are in a position to use their influence to educate parents, local officials, and community members about the Sustainable Development Goals (SDGs), which will encourage joint efforts to address local and global concerns. Teachers can obtain information and skills linked to the Sustainable Development Goals (SDGs), instructional approaches, and resources that are important to sustainability and global concerns by participating in professional development opportunities that can be arranged by head teachers. These objectives promote global citizenship by highlighting the interconnectedness of nations and the importance of working together to achieve shared objectives. SDGs focus on environmental sustainability, notably SDGs 13–15, and head teachers can set an example of success in strengthening the sustainability of their educational institutions by implementing environmentally friendly measures, waste reduction techniques, and campaigning for energy efficiency. The Sustainable Development Goals (SDGs) were created by the United Nations to address a range of global challenges, including poverty, inequality, and climate change.

However, insufficient information regarding the Sustainable Development Goals (SDGs) among head teachers in Pakistan is a hindrance to their capacity to effectively incorporate the SDGs into the educational framework and fulfill their responsibilities as educational leaders. The limited level of knowledge regarding the Sustainable Development Goals (SDGs) among head teachers in Pakistan is a significant concern that has implications for the standard of education, values education, community involvement, and the capacity to equip pupils for an ever-evolving global landscape. It is imperative to acknowledge and tackle this issue in order to enable educational leaders to proficiently advocate for and incorporate Sustainable Development Goals (SDGs) inside the school system, thereby cultivating a feeling of accountability and global citizenship among students.

The objectives of the study are as follows:

1. To investigate the awareness of secondary school head teachers' regarding the Sustainable Development Goals (SDGs).
2. To compare the awareness of secondary school head teachers' regarding Sustainable Development Goals (SDGs) on the basis of school location, gender, and district

2. Research Method and Procedure

The data in this quantitative inquiry was obtained through the utilization of a survey methodology. The population for this study consisted of secondary school head teachers: one sixty-two (162) head teachers' of Multan district, one hundred nine (109) head teachers' of Khanewal district, eighty-four (84) head teachers' of Muzaffargarh district, and seventy-four (74) head teachers' of Vehari district. The study employed a straightforward random sampling technique to determine the sample of four hundred and twenty-nine (429) head teachers working in secondary schools. A total of 203 head teachers participated in the survey, yielding a response rate of 100%. Out of the total sample size of 203 head teachers, ninety eight (98) were identified as male, while the remaining one hundred five (105) were identified as female, specifically serving as head teachers in high schools. The data was obtained through the incorporation of a questionnaire that was specifically designed for this study. The survey was partitioned into two separate sections. The use of questionnaires was employed as a means to ascertain the extent of awareness expressed by head teachers in secondary school regarding sustainable development goals. The first section of the questionnaire comprised demographic characteristics, specifically gender, school location, and district. The second section of the questionnaire consists of statements about awareness of sustainable development goals related to the 17 SDGs, which have 34 items. The data were subjected to analysis through the estimation of mean and standard deviation using descriptive statistics, as well as the use of the independent-sample t-test and ANOVA in inferential statistics.

3. Analysis and Findings

Table 1 reveals that there was 105 (51.7%) female head teachers and 98 (48.3%) male head teachers. 104 (51.2%) serve in urban areas, while 99 (48.8%) serve in rural areas.

Furthermore, 81 (39.9%) head teachers belong to Multan district, 58 (28.6%) head teachers belong to Khanewal district, 34 (16.7%) head teachers belong to Muzafargarh district, and 30 (14.8%) head teachers serve as head teachers in Vehari district.

Table 1: Demographic Information of Respondents (N=203)

Demographic Information of Respondents		Participants Responses Frequency	
Gender	Male	98	48.3
	Female	105	51.7
	Total	203	100.0
School Location	Urban	104	51.2
	Rural	99	48.8
	Total	203	100.0
District	Multan	81	39.9
	Khanewal	58	28.6
	Muzafargarh	34	16.7
	Vehari	30	14.8
	Total	203	100.0

Table 2 portrays overall mean values ranging from 5.55 to 4.66, indicating that 82.3% of head teachers have full awareness regarding Goal 16 (Peace, Justice, and Strong Institutions), which has the highest mean score of 5.55 with a SD of .99. 81.8 percent of head teachers have full awareness about Goal 13 "climate change, with M = 5.47 and SD = 1.00. Furthermore, 80.3 percent of head teachers have full awareness about Goal 17 (Partnerships for the Goals): M = 5.44 and SD = 1.05. 21.2 percent of head teachers have no awareness about Goal 15 (Life on Land): M = 5.42 and SD = .94. 78.9% of head teachers have full awareness about Goal 4, which is about "quality education", with M = 5.34 and SD = .96.

Table 2: The perception of head teachers regarding Sustainable Development Goals (SDGs)

Sr. No	Sustainable Development Goals (SDGs)	Full Awareness	No Awareness	Some Awareness	M	SD
1	No Poverty	57.7 %	23.2 %	19.2 %	4.75	1.41
2	Zero Hunger	52.7 %	30 %	17.3 %	4.66	1.29
3	Good Health and Well-Being	65 %	23.2 %	11 %	4.98	1.27
4	Quality Education	78.9 %	38 %	2.5 %	5.34	.96
5	Gender Equality	64.6 %	18.7 %	16.8 %	4.94	1.36
6	Clean Water and Sanitation	60.1 %	21.7 %	18.2 %	4.82	1.46
7	Clean and Inexpensive Energy	67.5 %	19.2 %	13.3 %	5.02	1.32
8	Economic development and good work	62.5 %	20.7 %	16.7 %	4.86	1.41
9	Infrastructure, Industry, and Innovation	73.4 %	18.2 %	8.4 %	5.23	1.20
10	Reduction of Inequalities	71.9 %	20.7 %	7.4 %	5.21	1.15
11	Cities and Communities: Sustainability	71.5 %	17.2 %	11.4 %	5.14	1.31
12	Responsible Production and Consumption	69.9 %	18.2 %	11.8 %	5.10	1.25
13	Climate Change	81.8 %	13.8 %	4.4 %	5.47	1.00
14	Below Water Life	65 %	20.2 %	14.7 %	5.00	1.39
15	Life on Land	76.4 %	21.2 %	2.5 %	5.42	.94
16	Peace, Justice and Strong Institutions	82.3 %	12.8 %	5.0 %	5.55	.99
17	Partnerships for the Goals	80.3 %	14.3 %	5.4 %	5.44	1.05
Overall Perception					5.12	0.77

Similarly, 73.4 percent of head teachers have full awareness about Goal 9 (Industry, Innovation, and Infrastructure): M = 5.23 and SD = 1.20. 71.9 percent of head teachers have full awareness of Goal 10 (Reduction of Inequalities): M = 5.21 and SD = 1.15. 71.5 percent of head teachers have full awareness of Goal 11, which is about "Cities and Communities: Sustainability," with M = 5.14 and SD = 1.31. 69.9% of head teachers have full awareness about Goal 12 (Responsible Production and Consumption): M = 5.10 and SD = 1.25. 18.2% of head teachers have no awareness of Goal 7, which is "Clean and Inexpensive Energy," with M = 5.02 and a SD = 1.32.

Moreover, 20.2% of head teachers have no awareness of Goal 14 (Below Water Life): M=5.00 and SD=1.39. 65 percent of head teachers have full awareness of Goal 3 (Good Health and Well-Being): M=4.98 and SD=1.27. 64.6 percent of head teachers have full awareness of Goal 5 (Gender Equality): M=4.94 and SD=1.36. 62.5 percent of head teachers have full

awareness of Goal 8 (Economic development and good work): M=4.86 and SD=1.41. 60.1 percent of head teachers have full awareness of Goal 6 (Clean Water and Sanitation): M=4.82 and SD=1.46. 23.2 57.7 percent of head teachers have full awareness of Goal 1 (No Poverty): M = 4.75 and SD = 1.41. 52.7 percent of head teachers have full awareness of Goal 2 (Zero Hunger): M = 4.66 and SD = 1.29. An overall mean value of greater than five and a value of SD less than 1.00 show that the overall perception of head teachers' awareness of Sustainable Development Goals (SDGs) was high (M = 5.12, SD = 0.77).

Table 3: Perception of Head Teachers' regarding Sustainable Development Goals (SDGs) on the basis of Gender

Variable	Category	N	Mean	SD	Df	t-value	Sig. value
Awareness of Sustainable Development Goals	Male	98	88.37	12.95	201	1.408	.161
	Female	105	85.79	13.11			

According to Table 4, the mean value of male head teachers' awareness is higher than the mean value of female head teachers' awareness, which is at 85.79. Because the p-values of the perceptions that head teachers have on the Sustainable Development Goals (SDGs) on the basis of gender are more than 0.05, this demonstrates that the difference is not statistically significant. The findings led researchers to the conclusion that there was no discernible gap, on the basis of gender, in terms of awareness of the Sustainable Development Goals.

Table 4: Perception of Head Teachers' regarding Sustainable Development Goals (SDGs) on the basis of School Location

Variable	Category	N	Mean	SD	Df	t-value	Sig. value
Awareness of Sustainable Development Goals	Urban	104	87.38	13.14	201	.201	.704
	Rural	99	86.68	13.04			

The data presented in Table 4 demonstrates that the mean value of awareness among urban head teachers (87.38) is higher than the mean value of awareness among rural head teachers (86.68). The p-value of head teachers' perceptions of the Sustainable Development Goals (SDGs) on the basis of school location is larger than 0.05, which indicates that the difference is statistically insignificant. This can be seen from the fact that the p-value is greater than 0.05. Regarding awareness of the Sustainable Development Goals, it was determined that there was not a substantial difference that could be attributed to the location of the schools.

Table 5: Perception of Head Teachers' regarding Sustainable Development Goals (SDGs) on the basis of District

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	571.591	3	190.530	1.119	.343
Within Groups	33895.168	199	170.327		
Total	34466.759	202			

Table 5's output reveals that the F value was 1.119, and its sig value was 343, indicating that this value is more than 0.05. Regarding awareness of the Sustainable Development Goals, it was determined that there was not a substantial variation between the districts.

4. Conclusions and Discussion

This study explores the awareness and perception of Sustainable Development Goals among school education department head teachers in Punjab. Sustainability is a global concern, and this study aims to shed light on that concern. The data indicate that there is no substantial difference in terms of awareness of SDGs based on gender, the location of schools, or comparisons made between districts. On the other hand, an individual's understanding of the Sustainable Development Goals and their views towards them are significantly influenced by their level of education.

In order to raise awareness among school administrators, the government should direct its extraordinary intellectual resources towards overcoming potential challenges in the future. For the success of future educational endeavours, it is essential to enrol children of the appropriate age in classrooms that are suitably equipped and that are staffed by knowledgeable educators. The administrations of Punjab have taken steps to improve the quality of the public education system. These steps include providing assistance for the professional development of

employees, encouraging learning that continues throughout one's life, and enacting policies that are supportive of families.

It is absolutely necessary for activities related to the Sustainable Development Goals (SDGs) to include researchers and educators as participants. Knowledge and understanding of the Sustainable Development Goals (SDGs) could be more widely disseminated with the assistance of consistent publication of a growing number of sustainable development-related works. The findings imply that there is a need for increased knowledge on the awareness of SDGs among teachers, head teachers, and students. This is vital for effectively implementing strategies and initiatives contributing to SDG targets. In order to raise knowledge and comprehension of the Sustainable Development Goals (SDGs), educational institutions should host workshops, seminars, and lectures. There are recommendations for improving Pakistani head teachers' SDG awareness:

1. It is imperative for educational authorities to enforce the requirement of regular training and workshops on the Sustainable Development Goals (SDGs) for head teachers in order to provide them with the essential knowledge and techniques.
2. Head teachers should have access to resources and assistance from education boards and organizations in order to effectively incorporate the Sustainable Development Goals (SDGs) into their curricula. This assistance should include lesson plans, teaching materials, and explicit instructions.
3. Encourage head teachers to participate in SDG-focused community engagement activities, including awareness campaigns, workshops, and events involving local NGOs and government participation.
4. Educational authorities should offer head teachers SDG-related courses, webinars, and conferences and certify or accredit them.
5. In order to further enhance the scope of this study, future research endeavors may involve augmenting the sample size and incorporating a broader range of individuals, encompassing other universities and academic institutions.
6. Moreover, the implementation of comparable research attempts in various geographical areas or nations would yield a more comprehensive comprehension of the knowledge and perspectives held by educational professionals regarding the Sustainable Development Goals (SDGs).

Reference

- Arora, N. K., & Mishra, I. (2023). Responsible consumption and production: a roadmap to sustainable development. *Environmental Sustainability*, 6(1), 1-6. doi:<https://doi.org/10.1007/s42398-023-00266-9>
- Chancel, L., Hough, A., & Voituriez, T. (2018). Reducing inequalities within countries: assessing the potential of the sustainable development goals. *Global Policy*, 9(1), 5-16.
- Friess, D. A., Aung, T. T., Huxham, M., Lovelock, C., Mukherjee, N., & Sasmito, S. (2019). SDG 14: life below water—impacts on mangroves. *Sustainable Development Goals*, 445, 445-481.
- Gill, J. C., Barich, A., Bilham, N., Caven, S., Donovan, A., de Ruiter, M., & Smith, M. (2021). Peace, justice, and strong institutions. *Geosciences and the Sustainable Development Goals*, 393-421. doi:https://doi.org/10.1007/978-3-030-38815-7_16
- Gulseven, O., & Ahmed, G. (2022). The State of Life on Land (SDG 15) in the United Arab Emirates. *International Journal of Social Ecology and Sustainable Development (IJSESD)*, 13(1), 1-15.
- Hillerbrand, R. (2018). Why affordable clean energy is not enough. A capability perspective on the sustainable development goals. *Sustainability*, 10(7), 2485. doi:<https://doi.org/10.3390/su10072485>
- Leach, M. (2015). *Gender equality and sustainable development*: Routledge.
- Leal Filho, W., Wall, T., Barbir, J., Alverio, G. N., Dinis, M. A. P., & Ramirez, J. (2022). Relevance of international partnerships in the implementation of the UN Sustainable Development Goals. *Nature Communications*, 13(1), 613. doi:<https://doi.org/10.1038/s41467-022-28230-x>
- Sanchez Rodriguez, R., Üрге-Vorsatz, D., & Barau, A. S. (2018). Sustainable Development Goals and climate change adaptation in cities. *Nature Climate Change*, 8(3), 181-183. doi:<https://doi.org/10.1038/s41558-018-0098-9>

- Satterthwaite, D. (1997). Sustainable cities or cities that contribute to sustainable development? *Urban studies*, 34(10), 1667-1691. doi:<https://doi.org/10.1080/0042098975394>
- Tortajada, C. (2020). Contributions of recycled wastewater to clean water and sanitation Sustainable Development Goals. *NPJ Clean Water*, 3(1), 22. doi:<https://doi.org/10.1038/s41545-020-0069-3>
- Vardanega, R., Osorio-Tobón, J. F., & Duba, K. (2022). Contributions of supercritical fluid extraction to sustainable development goal 9 in South America: industry, innovation, and infrastructure. *The Journal of Supercritical Fluids*, 105681. doi:<https://doi.org/10.1016/j.supflu.2022.105681>