

Exploring the past and future: an analysis of affordable quality education in Pakistan

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Abstract. The research focuses on assessing the impact of government policies, resource allocation, and teacher training on Pakistan's secondary education quality. The study aims to examine the strategies employed by the government to enhance secondary education, pinpoint the prevailing challenges, and evaluate their alignment with Sustainable Development Goal 4 (SDG-4, "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all"). A survey was conducted with respondents comprising 300 teachers and administrators from 100 public secondary schools. This data was supplemented by 15 in-depth interviews with policymakers and educational experts. The quantitative analysis indicates a strong positive correlation between government policies and student outcomes, with a correlation coefficient of 0.60. Moreover, teacher training was found to significantly impact education quality, with a correlation coefficient of 0.70. The qualitative analysis uncovered critical barriers in policy implementation and unequal resource distribution, particularly in rural areas. It is important to note that these findings are based on respondents' perceptions and do not confirm direct causal relationships between the variables. The study concludes that while Pakistan has made progress in educational reform, there is a pressing need for improved implementation, fair resource distribution, and enhanced teacher training to achieve SDG-4 and ensure affordable, high-quality secondary education. These insights offer a perception-based understanding of challenges and priorities that can inform future policy discussions and empirical investigations.

1 Introduction

Policies are essential in influencing a nation's advancement and growth. In Pakistan, experts and policymakers have developed various policy papers such as the National Education Policy 2009 and Pakistan Education Statistics Reports, but only a few have been sufficiently comprehensive to address educational demands. Specific policies, however, need more depth for significant change [1]. A prevalent element in practically all policy texts has been the

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emphasis on educational quality at every level. Numerous educators believe that the need for more educational initiatives and programs is mainly about the quality of the human resources engaged [14]. Education is globally acknowledged as a potent instrument for facilitating constructive social transformation. Educational institutions are pivotal in facilitating this shift, although it is only attainable by guaranteeing the delivery of excellent education. According to Harris et al. [7], Pakistan's education quality has been consistently deteriorating due to outdated curricula, lack of infrastructure, and unqualified teaching staff. Since the nation's establishment, enhancing educational standards has been a focus for legislators, planners, and educators; nevertheless, their policy papers often resemble a simple wish list rather than implementable solutions. This problem extends beyond Pakistan; several countries have challenges creating and maintaining high standards in education [7]. Comprehensive debates have resulted in many quality measures to assess institutional advancement. In conjunction with supporting agencies, the Ministry of Education and Professional Training persists in evaluating educational quality across Pakistan.

Enhancing educational quality may often be addressed in three phases: input, process, and product. First, the input indicators include financial, human, and physical resources. Second, the process indicators include educational activities, teacher credentials, experience, school environment, instructional competencies, and the relationship between educators and students. Finally, the product indicators emphasise the results, including the information received, skills developed, and attitudes formed by students [15]. Holistic enhancement of these phases is essential for sustained educational performance.

Studies on educational quality demonstrate that these indicators fulfill various functions and are used differently by planners, researchers, decision-makers, and educators [5]. These variables are often classified into three primary categories: (a) school setting, (b) educators, and (c) classroom environment [9]. Elements such as leadership, purpose, vision, and objectives are essential in the educational setting. Indicators of teachers include academic credentials, professional advancement, and competencies. The classroom indicator encompasses course content, pedagogy, technology utilisation, and classroom size, all of which are supported by empirical research as valid measures to assess educational quality. These factors are regarded as fundamental for enhancing educational quality.

Historically, GDP and per capita income have been seen as significant indices of economic growth, often associated with human resource development. Nonetheless, the notion of development has transformed, with education now serving a crucial function in comprehensive socio-economic advancement. Since 1990, the United Nations has classified nations according to Human Development Indicators (HDIs), including criteria such as literacy and enrollment rates. Unfortunately, Pakistan has achieved little advancement in enhancing its Human Development Indices, securing the 141st position out of 206 nations in 2010 [6]. Substantial work is required to elevate these indicators and conform to global norms for human development. According to the 2023/2024 Human Development Report, Pakistan is ranked 164th among 193 nations, categorising it as having "low" human development. This is a decrease from its prior ranking of 161st in 2022. The nation's Human Development Index (HDI) slightly declined from 0.544 to 0.540. Many variables have precipitated this drop, including persistent social, economic, and political issues, in addition to the enduring repercussions of the 2022 floods (UNDP).

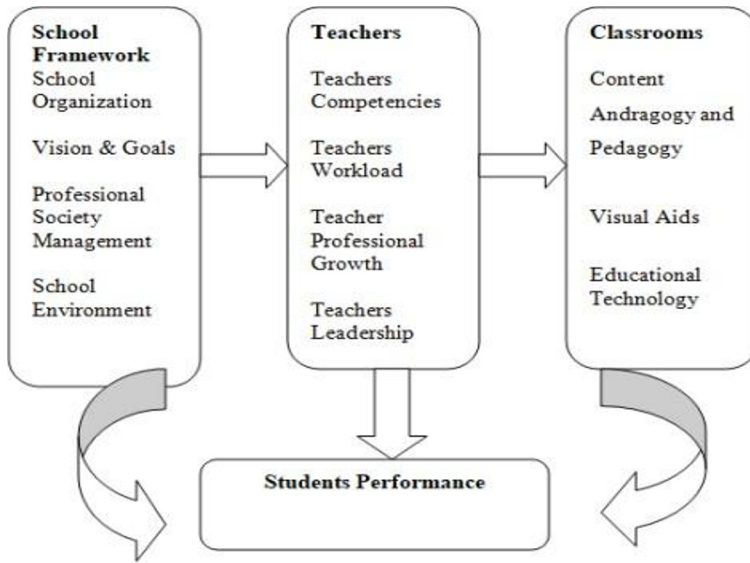


Fig 1. Indicators of Quality and their connection to Learning Source:
(US Statistical Analysis Report December 2000)

An analysis of history reveals that a fundamental component contributing to the rapid advancement of countries that have ascended to global dominance is education. It has functioned as a vital catalyst for growth, with every progress grounded in the prioritisation of education. Economic growth and the advancement of any sector within a nation are intrinsically connected to educational development; without it, economic indicators cannot see significant change [4]. Considerable progress has been achieved via educational reforms, creating new avenues for combating poverty and enhancing quality education. Nations established ambitious objectives to fulfill several educational aims, and significant advancements were noted, as shown in UNESCO reports [12].

Despite significant worldwide efforts to achieve the Education for All (EFA) objectives, the outcomes could have been better. Countries such as Pakistan still needed help achieving the established norms. Multiple causes contributed to this deficit, with plan formulation in countries such as Pakistan eliciting apprehensions for UNESCO. The need for a more scientific and rigorous approach to resolving significant concerns became evident [3,8]. Since the EFA objectives were accomplished after the 2015 deadline, it was imperative to intensify the efforts to fulfill the incomplete agenda under the Sustainable Development Goals (SDGs) to achieve transformation by 2030. The UNESCO SDG declaration, notably the World Education Forum 2015 convened in Incheon, Republic of Korea, represented a pivotal advancement. The event convened nearly 1,600 people, including more than 120 ministries, and resulted in the Incheon Declaration for Education 2030, articulating a new educational vision for the next 15 years [2].

The solutions recommended for nations to formulate their educational plans and frameworks are customised to the unique settings of each country [2]. Article 26 of the Universal Declaration of Human Rights (1948) acknowledges access to free and compulsory education as a global human right. In Pakistan, this right is codified in the constitution under Article 25-A (18th Amendment), which stipulates that "the state shall provide free and compulsory education to all children aged five to sixteen years as determined by law" [13]. But there needs to be more than this constitutional promise to actualise the right to education completely. In particular, the government must implement suitable laws and devote enough resources to consider the increasing population. The SDGs have included notable developments to meet these requirements [10].

This study focuses on educators' and administrators' perceptions of the conditions affecting secondary education, rather than measuring objective outcomes directly. As such, all relationships explored in the analysis reflect reported sentiments, not verified causal impacts. In Pakistan, the influence of education sector changes on educational standards highlights the pressing need for pragmatic, resilient solutions to ensure the nation's future. The inability to attain the EFA objectives was primarily attributable to two critical deficiencies: insufficient commitment and inadequate execution. All pertinent institutions and stakeholders have responsibility for this failure, necessitating a reevaluation of policies and implementation techniques [2]. Pakistan now confronts a fresh challenge in achieving the SDG targets and must tackle the obstacles that impede progress towards EFA objectives. Education must be prioritised appropriately as a crucial component of ecosystem resilience, sustainability, and social justice.

1.1 Research problem statement

The study focuses on Pakistan's persistent challenge in delivering accessible quality education to all residents despite several policy measures and legal obligations, including Article 25-A of the Constitution, which guarantees free and compulsory education [13]. Obstacles like inadequate infrastructure, insufficient resource allocation, and ineffective reform implementation have impeded advancement. Pakistan still needs to achieve essential global educational standards, including the Sustainable Development Goals (SDGs), owing to deficiencies in policy implementation and quality assurance [1,15]. This study explores how education stakeholders in Pakistan perceive these challenges and how they interpret the influence of policy, resources, and teacher training on student outcomes. This research examines the fundamental difficulties and provides practical solutions to align Pakistan's education system with global norms. Specifically, the study aims to: (1) examine the strategies employed by the government to enhance secondary education, (2) pinpoint the prevailing challenges, and (3) evaluate their alignment with Sustainable Development Goal 4 (SDG-4). These serve as the research sub-problems guiding the investigation.

1.2 Significance of the study

This work is significant due to its ability to tackle the pressing concerns related to affordable, high-quality education in Pakistan, a difficulty that has impeded national growth and social equality for decades. Rather than measuring outcomes directly, this research investigates the perceptions of teachers and administrators, offering valuable insight into how these stakeholders experience and interpret the challenges of the education system. This research seeks to elucidate the deficiencies in educational policy, resource distribution, and execution, thereby thoroughly comprehending the obstacles hindering Pakistan's attainment of international educational benchmarks, including those specified in the Sustainable Development Goals (SDGs) [15]. This research is significant since education is a fundamental right [13] and a crucial catalyst for economic development, poverty reduction, and social advancement [4]. The results of this research may assist policymakers, educators, and stakeholders in formulating and executing more effective strategies for providing high-quality, accessible education to all societal segments, thereby enhancing Pakistan's overall development and global competitiveness. Furthermore, the study contributes to broader academic and policy discussions by linking education to ecosystem resilience, sustainability, and social justice — key pillars of sustainable development.

Objectives of the Study

The study aims to achieve the following objectives:

- To identify government strategies for improving secondary education in line with the Millennium Development Goals (MDGs).
- To examine the issues and challenges related to education under the Sustainable Development Goal 4 (SDG-4) framework.
- To analyze the perceived effectiveness of strategies aimed at achieving SDG-4 objectives in Pakistan, based on the views of educators and administrators.
- To provide recommendations and highlight necessary steps to improve secondary education and achieve SDG-4 targets in Pakistan.

1.3 Conceptual framework

The conceptual framework of this study is structured to examine the interrelated variables influencing affordable quality education in Pakistan, particularly at the secondary level. The framework is anchored in SDG-4, prioritising equitable and inclusive quality education. It focuses on crucial research variables such as government policies, educational infrastructure, teacher training, and resource allocation and how these contribute to student outcomes and enrollment rates [15]. More importantly, the framework reflects the perceived relationships among these variables as reported by educators and administrators, rather than measuring objective or causal impacts. The framework also considers barriers like inadequate infrastructure, using systems theory and equity theory to analyse the effectiveness of existing strategies [8]. Figure 2 illustrates the conceptual framework, highlighting each research variable and their interactions in achieving SDG-4 targets in Pakistan's educational system. This approach will help pinpoint gaps in policy implementation and suggest actionable improvements. Here is the figure, with each research variable labelled according to its role:

- Independent Variables: Government Policies, Educational Infrastructure, Teacher Training.
- Mediating Variable: Resource Allocation.
- Dependent Variable: Student Outcomes.

This structure visually illustrates the complex relationships between the variables and their respective roles in shaping the outcomes of affordable quality education in Pakistan. It is intended to represent a conceptual model of how respondents perceive these relationships, not a tested model of causal mechanisms.

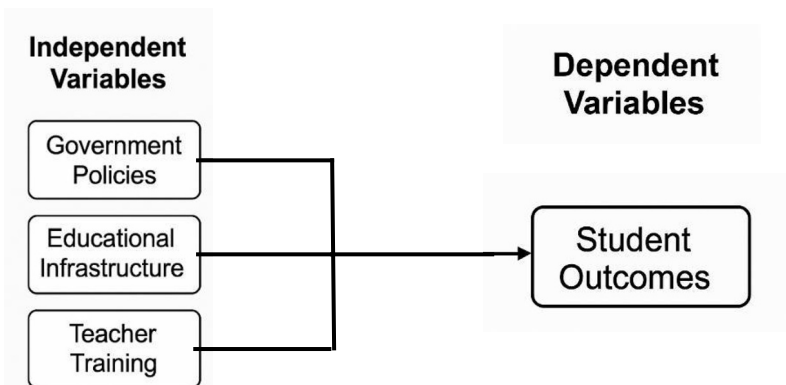


Fig 2. Conceptual Framework Source:

Created by the author

1.4 Research hypothesis

The research hypotheses explore the relationships between government strategies, resource allocation, and the quality and affordability of secondary education in Pakistan. The study posits that achieving affordable, high-quality education in alignment with Sustainable Development Goal 4 (SDG-4) is contingent upon the effectiveness of government policies, educational infrastructure, and teacher training. Furthermore, the study suggests that resource allocation acts as a mediating variable, explaining how these independent variables influence student outcomes. It is important to clarify that all variables are based on participants' self-reported perceptions, and no objective measurements or causality tests were conducted. In particular, effective resource planning and policy implementation are essential for advancing equity, sustainability, and systemic resilience within Pakistan's educational system.

H₁: Government policies have a significant positive effect on student outcomes.

H₂: Educational infrastructure has a significant positive effect on student outcomes.

H₃: Teacher training has a significant positive effect on student outcomes.

H₄: Resource allocation mediates the relationship between government policies and student outcomes.

H₅: Resource allocation mediates the relationship between educational infrastructure and student outcomes.

H₆: Resource allocation mediates the relationship between teacher training and student outcomes.

Note: H₄–H₆ are hypothesized based on conceptual assumptions; no formal statistical mediation testing was performed in this study.

2 Research methodology

This research employs a thorough and systematic approach to examine the principal determinants affecting affordable quality education in Pakistan, specifically at the secondary school level. The technique aims to assess government policies' efficacy, resource allocation's significance, and other essential aspects in attaining Sustainable Development Goal 4 (SDG-4). This section delineates the study strategy, population, sample methodologies, data-gathering strategies, and analytical processes.

2.1 Research design

The study employed a mixed-methods approach, integrating quantitative and qualitative techniques to understand the issue comprehensively. The quantitative aspect included a cross-sectional survey designed to collect numerical data regarding respondents' perceptions of educational outcomes, resource allocation, and policy execution. The qualitative component involved in-depth interviews with essential stakeholders, such as policymakers, educators, and school administrators, to gain deeper insights into the challenges and opportunities associated with enhancing secondary education in Pakistan.

2.2 Population and sample

This study focused on public secondary schools throughout Pakistan, involving key stakeholders such as policymakers from the Ministry of Education, education administrators, school principals, and teachers. The sample was collected from urban and rural regions to guarantee a thorough insight into the educational landscape in Pakistan.

- **Sample Size:** The survey included 300 respondents—250 teachers and 50 administrators—from 100 secondary schools across Pakistan's four provinces and

Islamabad Capital Territory. The schools were proportionally distributed based on provincial population, with efforts to balance urban and rural representation. For the qualitative component, 17 in-depth interviews were conducted with policymakers and educational experts.

Sampling Technique: The study employed stratified random sampling to ensure comprehensive representation across different regions (urban vs. rural, provincial differences) and purposive sampling to select policymakers and experts for the interviews. This approach ensured the study's robustness and reliability

2.3 Data collection methods

The study used both primary and secondary data sources

- **Primary Data**

Quantitative Data: Drawing from prior research and established scales, a structured Likert-scale questionnaire was developed to assess factors including government policies, resource allocation, quality of teaching staff, and educational achievements.

Qualitative Data: Semi-structured interviews were conducted with policymakers, school administrators, and educational experts to gather insights into the efficacy of government strategies and the challenges faced during implementation.

- **Secondary Data**

To gain a thorough understanding, the study carefully analyzed pertinent reports and policy documents from organizations like UNESCO, UNDP, and the Ministry of Education. This secondary data offered valuable context and insights into Pakistan's advancements in achieving SDG-4 and other educational reforms.

2.3.1 Instrumentation

- **Survey Questionnaire:** The survey utilized Likert-scale items to assess teachers' and administrators' perceptions regarding the efficacy of educational policies and resource allocation.
- **Interview Guide:** The qualitative interviews were structured around open-ended questions to delve into the complexities of policy implementation challenges, resource limitations, and the development of strategies for improving quality education.

2.3.2 Data analysis

The data analysis was carried out in two phases:

Quantitative Analysis: Survey data were analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics (means and standard deviations) were calculated, and regression and correlation analysis were performed to explore relationships between variables.

Qualitative Analysis: Thematic analysis was applied to the interview transcripts using NVivo software, which facilitated coding and categorization of themes related to policy perception, resource adequacy, and implementation challenges.

2.3.3 Validity and reliability

To validate the study, the survey instruments underwent pre-testing with a pilot group to assess clarity, and relevance. Cronbach's alpha was used to measure internal consistency

across all constructs. Qualitative data were cross-verified through member checking, whereby interviewees reviewed and confirmed the accuracy of their transcribed statements.

Ethical Considerations

The research was conducted in compliance with rigorous ethical norms. Informed consent was secured from all participants, guaranteeing their complete understanding of the study's objectives and ability to withdraw at any time. Confidentiality was maintained, and no personal identifiable information will be disclosed.

Limitations of the Study

This research seeks to analyse the determinants affecting affordable quality education in Pakistan thoroughly; however, certain limitations may hinder its generalisability. The sample is confined to public secondary schools and may not adequately reflect the private sector, which enrolls approximately 38% of Pakistan's students. Furthermore, although the mixed-method approach offers depth, the qualitative findings may be subjective, stemming from the experiences of a restricted group of policymakers and educators.

3 Research findings and discussion

This research's data analysis encompasses quantitative and qualitative methodologies. The results are presented in an organized manner as follows:

Quantitative Data Analysis

The quantitative data gathered from teachers and administrators were analyzed using SPSS, focusing on descriptive and inferential statistics. The analysis included regression and correlation findings that examine the connection between respondent's perceptions of government policies, resource allocation, and student outcomes.

Table 1: Descriptive Statistics for Key Variables

Variables	Mean	Standard Deviation	Minimum	Maximum
Government Policies	4.12	0.58	1.00	5.00
Resource Allocation	3.85	0.64	1.00	5.00
Teacher Training	4.30	0.50	2.00	5.00
Educational Infrastructure	3.75	0.72	1.50	5.00
Student Outcomes (Dependent)	4.25	0.48	2.00	5.00

Note: Each variable represents an average score derived from Likert-scale items in the survey. For example, "Government Policies" includes 6 perception-based items related to clarity, implementation, and responsiveness of policy.

Table 2: Correlation Matrix Between Key Variables

Variables	Government Policies	Resource Allocation	Teacher Training	Educational Infrastructure	Student Outcomes
Government Policies	1.00	0.45**	0.52**	0.47**	0.60**
Resource Allocation	0.45**	1.00	0.41**	0.39**	0.55**
Teacher Training	0.52**	0.41**	1.00	0.35*	0.70**
Educational Infrastructure	0.47**	0.39**	0.35*	1.00	0.50**
Student Outcomes (Dependent)	0.60**	0.55**	0.70**	0.50**	1.00

Note: *p < 0.05, **p < 0.01 (statistical significance level)

These results indicate statistically significant positive correlations between stakeholders' perceptions of key educational inputs and their perceptions of student outcomes. Notably, teacher training has the highest perceived association with student outcomes.

Qualitative Data Analysis

Thematic analysis was used to examine qualitative interview data from policymakers and educational experts.

Table 3: Thematic Analysis of Interview Data

Data Analysis	Data Analysis	Data Analysis
Policy Implementation Gaps	18	Gaps between policy formulation and execution
Resource Allocation Issues	15	Inadequate funding/infrastructure, especially in rural regions
Teacher Training Importance	12	Emphasis on continuous teacher professional development
Socio-Economic Barriers	10	Inequities affecting access and quality of education

Frequencies represent the number of interviewees who raised each theme at least once.

Validity and Reliability

To ensure the integrity of research instruments, both reliability and content validity were assessed.

Table 4: Cronbach's Alpha for Reliability of Quantitative Instruments

Variables	Number of Items	Cronbach's Alpha (α)
Government Policies	6	0.85
Resource Allocation	5	0.82
Teacher Training	6	0.88
Educational Infrastructure	5	0.80
Student Outcomes (Dependent)	7	0.89

A Cronbach's Alpha above 0.7 confirms internal consistency and acceptable reliability of each subscale.

Table 5: Validity Testing of Survey Instrument (Content Validity Index)

Variables	Expert 1	Expert 2	Expert 3	Content Validity Index (CVI)
Government Policies	0.90	0.85	0.88	0.87
Resource Allocation	0.88	0.82	0.85	0.85
Teacher Training	0.92	0.87	0.90	0.89
Educational Infrastructure	0.84	0.80	0.86	0.83
Student Outcomes (Dependent)	0.93	0.88	0.90	0.90

CVI scores were obtained prior to data collection through consultation with three education policy experts selected for their national-level experience in curriculum design and educational measurement.

Hypothesis Testing and Implications

The results support the hypotheses proposed in the methodology section, within the limitations of correlational and perception-based data.

H₁–H₃: The results indicate statistically significant and positive correlations between participants' perceptions of government policies ($r = 0.60$), teacher training ($r = 0.70$), and resource allocation ($r = 0.55$) with their perceptions of student outcomes. These findings suggest that when educators perceive policy initiatives, training quality, and resource availability more favorably, they also tend to perceive better educational outcomes within their institutions. However, it is essential to emphasize that these associations are based on subjective perceptions and do not imply direct causality.

H₄–H₆: The correlation patterns also suggest that resource allocation may play a mediating role between the independent variables (government policies, educational infrastructure, and teacher training) and student outcomes. For instance, stronger correlations between teacher training and resource allocation ($r = 0.41$), and between resource allocation and student outcomes ($r = 0.55$), indicate that improvements in resource distribution may enhance the effectiveness of other educational inputs. Nevertheless, formal statistical mediation analysis (e.g., using structural equation modeling or bootstrapped path analysis) was not conducted within this study, and therefore, these mediating effects remain theoretical rather than empirically confirmed.

These findings provide a useful starting point for future studies aiming to empirically test these relationships using structural equation modeling or causal designs. They also suggest that improving how stakeholders perceive education policies and practices may be key to fostering systemic trust and engagement.

4 Conclusion

This study examined perceptions related to affordable quality education in Pakistan, focusing on how educators and administrators perceive the roles of government policies, resource distribution, and teacher training in shaping student outcomes. The analysis revealed significant positive correlations among these variables, indicating that respondents who view one aspect of the education system more favorably tend to view others positively as well.

However, it is important to note that these results are based on self-reported perceptions rather than objective measurements of policy efficacy, resource levels, or educational performance. As such, the study does not establish causal relationships or assess actual

educational outcomes. The observed associations reflect the interconnected sentiments of respondents rather than definitive impacts of one factor on another. While the sample included participants from both rural and urban regions, the analysis did not disaggregate findings by region. Therefore, no definitive claims can be made regarding regional differences in the issues identified, and any such inferences have been excluded for accuracy. This perception-based analysis provides valuable insights into how education stakeholders in Pakistan view the system's current strengths and challenges. It highlights the importance of not only designing sound educational policies and infrastructure reforms but also ensuring their effective implementation and equitable perception among those on the front lines of education.

Further research is recommended to test these findings using objective data and causal models, as well as to explore how these perception patterns compare across different cultural or national contexts. Such comparative analysis could offer insights into whether these associations are specific to the Pakistani education landscape or reflect broader global trends — and what that means for policy adaptation and reform

References

1. W. Aftab, F.J. Siddiqui, H. Tasic, S. Perveen, S. Siddiqi, Z.A. Bhutta, Implementation of health and health-related sustainable development goals: progress, challenges and opportunities—a systematic literature review. *BMJ Glob. Health* 5, e002273 (2020). <https://gh.bmj.com/content/bmjgh/5/8/e002273.full.pdf>
2. V.R. Barrs, G.S. Allan, P. Martin, J.A. Beatty, R. Malik, Feline pyothorax: a retrospective study of 27 cases in Australia. *J. Feline Med. Surg.* 7, 211–222 (2005). <https://doi.org/10.1016/j.jfms.2004.12.004>
3. M. Bursztyn, J. Drummond, Sustainability science and the university: pitfalls and bridges to interdisciplinarity. *Environ. Educ. Res.* 20, 313–332 (2014). <https://doi.org/10.1080/13504622.2013.780587>
4. E. Galdeano-Gómez, J.C. Pérez-Mesa, Á. Godoy-Durán, The social dimension as a driver of sustainable development: The case of family farms in southeast Spain. *Sustain. Sci.* 11, 349–362 (2016). <https://doi.org/10.1007/s11625-015-0318-4>
5. P.A. Harris, R. Taylor, B.L. Minor, V. Elliott, M. Fernandez, L. O'Neal et al., The REDCap consortium: Building an international community of software platform partners. *J. Biomed. Inform.* 95, 103208 (2019). <https://doi.org/10.1016/j.jbi.2019.103208>
6. S. Jednak, D. Kragulj, Achieving sustainable development and knowledge-based economy in Serbia. *Manag. J. Sustain. Bus. Manag. Solut. Emerg. Econ.* 20, 1–12 (2015). <https://doi.org/10.7595/management.fon.2015.0015>
7. A.A. Leiserowitz, R.W. Kates, T.M. Parris, Do global attitudes and behaviors support sustainable development? *Environ.: Sci. Policy Sustain. Dev.* 47, 22–38 (2005). https://www.hks.harvard.edu/sites/default/files/centers/mrcbg/programs/sustsci/files/en_v_leiserowitz_0511.pdf
8. A. Sartal, R. Bellas, A.M. Mejías, A. García-Collado, The sustainable manufacturing concept, evolution and opportunities within Industry 4.0: A literature review. *Adv. Mech. Eng.* 12, 1–20 (2020). <https://doi.org/10.1177/1687814020925232>
9. J. Scheerens, Indicators on informal learning for active citizenship at school. *Educ. Assess. Eval. Account.* 23, 201–222 (2011). <https://doi.org/10.1007/s11092-011-9120-8>

10. A. Ullah, Right to Free and Compulsory Education in Pakistan After 18th Constitutional Amendment. *South Asian Stud.* 28, 329–340 (2020).
https://pu.edu.pk/images/journal/csas/PDF/6.%20Dr.%20Amanullah_v28_2_13.pdf
11. R. Winthrop, K. Anderson, I. Cruzalegui, A review of policy debates around learning in the post-2015 education and development agenda. *Int. J. Educ. Dev.* 40, 297–307 (2015).
<https://doi.org/10.1016/j.ijedudev.2014.11.016>
12. A.B. Atkinson, *Measuring Poverty Around the World* (Princeton University Press, Princeton, 2019)
13. J.E. Stiglitz, B. Greenwald, *Creating a Learning Society* (Columbia University Press, New York, 2015)
14. M.J. Feuer, R.E. Floden, N. Chudowsky, J. Ahn, *Evaluation of Teacher Preparation Programs: Purposes, Methods, and Policy Options* (ERIC, 2013).
15. C.A. Undeshi, *Management of Entrepreneurship Education and Graduates Venture Creation in Universities in South-South Nigeria* (Thesis, 2020).