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**RESEARCH PAPER**

# Effect of Knowledge Provision, Relevancy, Financial and Material Resources on Educational Sustainability in Public Secondary Schools

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**ABSTRACT**

Effective teaching in schools is a major concern in many countries of the world. Objectives of study were to analyze the effect of Knowledge provision on educational sustainability, to analyze the effect of knowledge relevancy on educational sustainability, to analyze the effect of financial resources on educational sustainability and to analyze the effect of material resources on educational sustainability in public secondary schools. Study was survey, descriptive and quantitative in nature. Population of the study comprised head teachers and SSTs of Tehsil Rahim Yar Khan. Multistage stratified sampling was adopted. Findings showed that majority of head teacher and SSTs disagreed that they provided factual knowledge, shared relevant ideas with real world settings and provide financial and material resources to students. It was concluded that majority of head teachers and SSTs disagreed that they keep and deliver updated knowledge for learning, share relevant ideas with real world settings to the students.

| **KEYWORDS** | Educational Sustainability, Financial Resources, Material Resources |

## Introduction

The effect of Knowledge Provision, Relevancy, Financial and Material Resources on Educational Sustainability in public secondary schools involves identifying and understanding the obstacles that hinder the establishment and maintenance of sustainable educational practices. Educational sustainability refers to the long-term ability of an education system to meet the needs of present and future generations while preserving the natural and social resources required for its existence. This study intended to explore the effect of Knowledge Provision, Relevancy, Financial and Material Resources on Educational Sustainability in public secondary schools in Tehsil Rahim Yar Khan (Abbas et al., 2021). Access to quality education relies heavily on the provision of relevant and up-to-date knowledge. When public secondary schools have effective teaching methods, well-trained teachers, and appropriate curricula, students are more likely to receive a high-quality education. This leads to better learning outcomes, increased student engagement, and improved educational sustainability (Gul & Khan., 2020).

### Effective Teaching Methods

When teachers utilize diverse instructional strategies and techniques that cater to different learning styles, it promotes student engagement and understanding. This enhances educational sustainability by ensuring that students grasp and retain knowledge effectively (Farrukh et al. 2022).

**Well-Trained Teachers**

Continuous professional development and training for teachers contribute to their pedagogical skills and subject knowledge. Well-trained teachers can deliver high-quality education, adapt to changing educational trends, and provide individualized support to students (Akram et al. 2015).

**Appropriate Curricula**

A well-designed curriculum ensures that students receive a balanced education encompassing various subjects and skills. It should be relevant, up-to-date, and aligned with educational standards to equip students with the knowledge and competencies needed for their personal and professional growth.

**Relevancy**

The relevancy of education plays a crucial role in its sustainability. When the curriculum aligns with the needs of the students and the demands of the job market, it enhances the practicality and applicability of knowledge. Relevancy promotes student motivation, as they can see the direct connection between what they are learning and their future prospects. This, in turn, increases the likelihood of students continuing their education, reducing dropout rates, and contributing to the sustainability of the educational system (Byerly, 2018).

**Practical Application of Knowledge**

When education is connected to real-life situations and practical applications, students understand the relevance and value of what they are learning. This motivates them to actively engage in their studies, as they can see the direct impact on their lives and future careers.

**Vocational Education and Career Guidance**

Public secondary schools that offer vocational education programs and career guidance help students explore different career paths and acquire skills that are in demand. This improves their employability prospects and increases the sustainability of their education, as they are more likely to complete their studies with a clear goal in mind.

**Financial Resources**

Sufficient financial resources are vital for sustaining educational quality in public secondary schools. Adequate funding allows schools to invest in various aspects of education, such as infrastructure development, learning materials, technology, and teacher training. It enables the implementation of innovative teaching methods, the availability of up-to-date resources, and the provision of extracurricular activities. When schools are adequately funded, they can create an environment conducive to learning, which positively impacts educational sustainability (Fatimah, 2020).

**Adequate staffing and teacher-student ratios**

Sufficient financial resources enable schools to hire an adequate number of qualified teachers, reducing class sizes and improving teacher-student ratios. This allows for personalized attention, better classroom management, and improved student learning outcomes (Al-Kumaim et al., 2021).

**Infrastructure development**

Financial resources contribute to the construction and maintenance of school buildings, classrooms, libraries, laboratories, and other necessary facilities. A well-equipped infrastructure creates a conducive learning environment and supports the implementation of modern teaching methods and technologies (Condon, 2018).

**Access to Educational Resources**

Adequate funding ensures the availability of textbooks, digital resources, reference materials, and other learning aids. Students can access these resources both inside and outside the classroom, enhancing their educational experience and facilitating self-directed learning (Buijs, 2016).

**Material Resources**

Material resources encompass physical assets such as textbooks, laboratory equipment, computers, and other learning materials. These resources play a crucial role in enhancing the quality of education. When public secondary schools have access to an adequate and well-maintained supply of materials, it enables effective teaching and learning experiences. Students can engage in practical, hands-on activities, conduct experiments, and utilize technology, which enriches their educational experience and contributes to long-term sustainability (Carless et al., 2019).

**Technology Integration**

Providing public secondary schools with computers, internet connectivity, and educational software allows for the integration of technology into the learning process. This enhances students' digital literacy, provides access to online resources, and prepares them for a technology-driven world (Coman, 2020).

**Laboratory and Scientific Equipment**

 Science, technology, engineering, and mathematics (STEM) subjects require practical experiments and hands-on learning. Access to well-equipped laboratories and scientific equipment enables students to apply theoretical concepts and develop critical thinking skills (Akhtar et al., 2017).

**Library Resources**

A well-stocked library with a variety of books, journals, and educational materials expands students' knowledge beyond the classroom. It encourages independent reading, research, and promotes a culture of lifelong learning. By recognizing the importance of knowledge provision, relevancy, financial resources, and material resources in public secondary schools, educational stakeholders can work together to improve the quality of education and enhance its sustainability. These factors contribute to the holistic development of students, preparing them for future challenges and ensuring the longevity

of the educational system. Overall, knowledge provision, relevancy, financial resources, and material resources are interconnected and have a cumulative effect on educational sustainability in public secondary schools. By ensuring the provision of quality education, aligning it with the needs of students and society, and providing adequate financial and material resources, educational sustainability can be enhanced, leading to improved learning outcomes and the development of well-rounded individuals (Habib et al., 2021).

**Literature Review**

Sustainability refers to the ability to meet the needs of the present generation without compromising the ability of future generations to meet their own needs. It involves balancing economic, social, and environmental factors to ensure that resources are used in a way that promotes long-term well-being and minimizes negative impacts on the planet. Sustainability aims to create a world in which humans and the environment coexist in a way that is mutually beneficial and does not deplete or degrade natural resources. It is a concept that applies to a wide range of contexts, from individual behaviors to global policies, and requires collaboration and action across all sectors of society. Education for sustainable development has become a critical part of education systems worldwide as it is increasingly recognized as a key strategy for ensuring the sustainability of the planet. However, despite the global push for sustainable education, public secondary schools face various barriers that hinder the implementation of sustainable education. This literature review seeks to explore the effect of knowledge provision, relevancy, financial resources, and material resources on educational sustainability in public secondary schools (Ferraro et al., 2015).

It is an important area of research because it sheds light on the challenges that schools face in implementing sustainability education initiatives. Sustainability education is critical for equipping students with the knowledge and skills to understand and address environmental and social challenges, and therefore, it is essential to identify and address the effects that limit the implementation of sustainable education in public secondary schools. One of the primary effect of provision of knowledge to implement sustainability education in public secondary schools is the lack of institutional support (Albugami & Ahmed., 2015).

Educational institutions may not prioritize sustainability initiatives, which can limit resources and support for sustainability education. Without institutional support, teachers and students may struggle to find the time, funding, and resources needed to effectively implement sustainability education initiatives. Another significant barrier is resistance to change from educators, students, and other stakeholders. Resistance to change can impede efforts to implement sustainability education initiatives and may manifest as skepticism or indifference toward sustainability education. This resistance can be a result of a lack of understanding of the importance of sustainability education or a belief that sustainability education is not relevant to their subject area. Limited teacher training and inadequate curriculum are also significant barriers to the implementation of sustainability education in public secondary schools. Teachers may not have the necessary training or knowledge to effectively integrate sustainability into their teaching practices. A lack of a sustainability-focused curriculum can also limit the opportunities for students to learn about sustainability and its importance (Habib et al., 2021).

Furthermore, limited community engagement, insufficient funding, limited time and resources, and inconsistent policy support can all act as an effect to the implementation of sustainability education in public secondary schools. These effects can limit the resources available to implement sustainability education programs and initiatives, as well as limit

the opportunities for collaboration and stakeholder engagement. Overall, Effect of Knowledge Provision, Relevancy, Financial and Material Resources on Educational Sustainability in public secondary schools is critical in identifying the challenges that must be addressed to ensure the successful implementation of sustainability education initiatives. Addressing these effects will require a concerted effort from multiple stakeholders, including schools, policy-makers, and communities, to prioritize sustainability education and provide the necessary resources, support, and training to implement effective sustainability initiatives (Bueger et al., 2020).

### Teacher Collaboration and Networks

Facilitate collaboration and networking opportunities among teachers, both within and across schools. Encourage the sharing of best practices, resources, and lesson plans related to sustainability education. Establish online platforms, workshops, and conferences that enable teachers to connect and exchange ideas (Aboagye et al. 2020).

### Integration of Indigenous Knowledge

Recognize and integrate indigenous knowledge and practices related to sustainability and environmental stewardship. Incorporate traditional ecological knowledge and indigenous perspectives into the curriculum, fostering respect for diverse cultural perspectives and sustainable practices that have been passed down through generations (Allen et al. 2018).

### Education for Sustainable Development (ESD)

Emphasize the principles of Education for Sustainable Development (ESD) in curriculum planning and teaching practices. ESD promotes critical thinking, problem-solving, and values-based education that addresses sustainability challenges. Provide professional development opportunities for educators to enhance their understanding of ESD and its implementation (Boeve-de Pauw, 2015).

### Infrastructure and Resource Investments

Allocate funding and resources to support sustainable infrastructure improvements in educational institutions. Invest in energy-efficient buildings, renewable energy systems, waste management systems, and sustainable transportation options. Integrate technology that promotes energy conservation and supports digital learning, reducing paper waste (Agbedahin, 2019).

### Material and Methods

In this study quantitative approach was applied. Study was descriptive in nature and survery technique was used. Population of the study comprised; head teachers and SSTs of Tehsil Rahim Yar Khan. The multistage stratified sampling was adopted. Total sample of the study was 130, which included 26 head teachers and 104 SSTs of Tehsil Rahim Yar Khan. Researcher collected data through questionnaire. The validity of research tool was ensured through experts' opinion and the reliability was ensured through Chronbach Alpha. Data was analyzed through SPSS-V.24, using frequency, percentage, standard deviation and mean score.

**Results and Discussion**

**Table 1**
**Provision of Knowledge**

| Sr. No. | Factor | Statistics | Responses | | | | | | SD | Mean |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Disagree | | UD | Agree | | | | |
| | | | SDA | DA | UD | A | SA | Total | | |
| 1 | Updated knowledge | f | 12 | 47 | 12 | 29 | 30 | 130 | 1.39 | 3.32 |
| | | % | 9% | 33% | 6% | 24% | 28% | 100% | | |
| 2 | Justified knowledge | f | 46 | 22 | 10 | 39 | 13 | 130 | 1.60 | 2.99 |
| | | % | 34% | 20% | 7% | 32% | 7% | 100% | | |
| 3 | Problem solving | f | 29 | 52 | 12 | 28 | 9 | 130 | 1.33 | 3.28 |
| | | % | 25% | 36% | 8% | 25% | 6% | 100% | | |
| 4 | Critical thinking | f | 19 | 55 | 4 | 43 | 9 | 130 | 1.28 | 3.15 |
| | | % | 15% | 39% | 2% | 37% | 7% | 100% | | |
| 5 | Factual Knowledge | f | 25 | 46 | 6 | 40 | 13 | 130 | 1.37 | 3.25 |
| | | % | 22% | 34% | 3% | 32% | 9% | 100% | | |
| **Total** | | **f** | **26** | **45** | **9** | **36** | **14** | **130** | **1.39** | **3.20** |
| | | **%** | **22%** | **32%** | **5%** | **30%** | **11%** | **100%** | | |

Table 1 represents that 52% (28%+24%) majority of respondent Head Teacher and SSTs agreed that they keep and deliver updated knowledge for students learning, 54% (34%+20%) majority of respondent Head Teacher and SSTs disagreed that they transmit justified knowledge to develop technical skills among students, 61% (36%+25%) majority of respondent Head Teacher and SSTs disagreed that they improve problem solving skills among students to produce good managers, 54% (39%+15%) majority of respondent Head Teacher and SSTs disagreed that they develop critical thinking skills among students and 56% (34%+22%) majority of respondent Head Teacher and SSTs disagreed that they provided factual knowledge to the students. As a whole, 54% (32%+22%) majority of respondent Head Teacher and SSTs disagreed to provision of knowledge to the students. Mean score, 3.20 and standard deviation was 1.39 and supported the statement.

**Table 2**
**Empowerment**

| Sr.No. | Factor | Statistics | Responses | | | | | | SD | Mean |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Disagree | | UD | Agree | | | | |
| | | | SDA | DA | UD | A | SA | Total | | |
| 1 | Social values | f | 32 | 45 | 8 | 37 | 8 | 130 | 1.38 | 3.43 |
| | | % | 31% | 32% | 4% | 27% | 6% | 100% | | |
| 2 | Moral values | f | 42 | 37 | 8 | 33 | 10 | 130 | 1.71 | 3.24 |
| | | % | 32% | 35% | 4% | 23% | 6% | 100% | | |
| 3 | Arranging activities | f | 30 | 53 | 11 | 33 | 3 | 130 | 1.32 | 3.32 |
| | | % | 26% | 36% | 8% | 26% | 4% | 100% | | |
| 4 | Encourage students | f | 64 | 12 | 5 | 42 | 7 | 130 | 1.18 | 3.96 |
| | | % | 43% | 10% | 3% | 37% | 7% | 100% | | |
| 5 | Moral stories | f | 26 | 46 | 8 | 42 | 8 | 130 | 1.32 | 3.35 |
| | | % | 23% | 33% | 5% | 32% | 7% | 100% | | |
| 6 | Leadership skills | f | 32 | 51 | 4 | 36 | 7 | 130 | 1.36 | 3.37 |
| | | % | 27% | 35% | 2% | 31% | 5% | 100% | | |
| **Total** | | f | 37 | 40 | 7 | 37 | 9 | 130 | 1.38 | 3.45 |

| | | % | 30% | 30% | 5% | 29% | 6% | 100% |
|---|---|---|---|---|---|---|---|---|

Table 2 represents that 63% (32%+31%) majority of respondent Head Teacher and SSTs disagreed that they promote social values among students, 67% (35%+32%) majority of respondent Head Teacher and SSTs disagreed that they enhance moral values in students, . 62% (36%+26%) majority of respondent Head Teacher and SSTs disagreed that they arrange activities to make students responsible, 53% (43%+10%) majority of respondent Head Teacher and SSTs disagreed that they encourage students to work hard for successful life, 56% (33%+23%) majority of respondent Head Teacher and SSTs disagreed that they share moral stories with students for motivation and 62% (35%+27%) majority of respondent Head Teacher and SSTs disagreed that they develop leadership skills among students. As a whole, 60% (30%+30%) majority of respondent Head Teacher and SSTs disagreed that they make sure the empowerment of students. Mean score was 3.45, standard deviation was 1.38 and supported the statement.

**Table 3**
**Relevancy**

| Sr. No. | Factor | Statistics | Responses | | | | | | SD | Mean |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Disagree | | UD | Agree | | | | |
| | | | SDA | DA | UD | A | SA | Total | | |
| 1 | Relevant questions | f | 23 | 53 | 16 | 33 | 5 | 130 | 1.26 | 3.24 |
| | | % | 19% | 36% | 7% | 33% | 5% | 100% | | |
| 2 | Innovative Ideas | f | 24 | 54 | 13 | 13 | 8 | 130 | 1.29 | 3.18 |
| | | % | 19% | 36% | 9% | 30% | 6% | 100% | | |
| 3 | Connect students | f | 46 | 20 | 10 | 39 | 15 | 130 | 1.58 | 2.94 |
| | | % | 34% | 18% | 7% | 32% | 9% | 100% | | |
| 4 | Individual needs | f | 46 | 40 | 12 | 14 | 18 | 130 | 1.45 | 2.84 |
| | | % | 32% | 39% | 12% | 8% | 9% | 100% | | |
| 5 | Relevant technology | f | 50 | 16 | 13 | 37 | 14 | 130 | 1.49 | 2.8 |
| | | % | 35% | 11% | 9% | 33% | 12% | 100% | | |
| 6 | Instructional process | f | 21 | 53 | 18 | 34 | 4 | 130 | 2.28 | 3.26 |
| | | % | 16% | 36% | 13% | 33% | 2% | 100% | | |
| 7 | Non serious behavior | f | 81 | 6 | 14 | 25 | 4 | 130 | 0.89 | 3.97 |
| | | % | 60% | 5% | 9% | 23% | 3% | 100% | | |
| 8 | Collaborative learning | f | 20 | 51 | 14 | 42 | 3 | 130 | 1.15 | 3.28 |
| | | % | 15% | 37% | 11% | 36% | 2% | 100% | | |
| Total | | f | 39 | 37 | 14 | 31 | 9 | 130 | 1.42 | 3.19 |
| | | % | 29% | 27% | 10% | 28% | 6% | 100% | | |

Table 3 represents that, 55% (36%+19%) majority of respondent Head Teacher and SSTs disagreed that they ask relevant questions to explore new ideas, 55% (36%+19%) majority of respondent Head Teacher and SSTs disagreed that they deliver innovative ideas for climate change, 52% (34%+18%) majority of respondent Head Teacher and SSTs disagreed that they connect students learning with the real-world settings, 71% (39%+32%) majority of respondent Head Teacher and SSTs disagreed that they try to meet students' individual needs, creative spaces, tools and opportunities, 46% (35%+11%) majority of respondent Head Teacher and SSTs disagreed that they use relevant technology in the classroom, 52% (36%+16%) majority of respondent Head Teacher and SSTs disagreed that they relate instructional process with the nature of subject, 65% (60%+5%) majority of respondent Head Teacher and SSTs disagreed that they discourage non serious behavior

of students and 52% (37%+15%) majority of respondent Head Teacher and SSTs disagreed that they promote collaborative learning.

Whereas, 29% of respondent Head Teacher and SSTs strongly disagreed that they share relevant ideas with real world settings to the students, 27% of respondent Head Teachers and SSTs disagreed and 28% of respondent Head Teacher and SSTs agreed. However, 6% of respondent Head Teacher and SSTs were strongly agreed. Whereas 10% of respondent Head Teacher and SSTs were undecided with the statement.

As a whole, 56% (29%+27%) majority of respondent Head Teacher and SSTs disagreed that they share relevant ideas with real world settings to the students. Mean score was 3.19, standard deviation was 1.42 and supported the statement.

**Table 4**
**Financial and material resources**

| Sr. No | Factor | Statistics | Responses | | | | | | SD | Mean |
|--------|--------|-----------|-----------|---|---|---|---|---|----|------|
| | | | Disagree | | UD | Agree | | | | |
| | | | SDA | DA | UD | A | SA | Total | | |
| 1 | Saving and recycling | f | 4 | 53 | 10 | 40 | 23 | 130 | 1.21 | 3.28 |
| | | % | 2% | 38% | 8% | 34% | 18% | 100% | | |
| 2 | Money museum | f | 11 | 55 | 20 | 31 | 13 | 130 | 1.11 | 2.92 |
| | | % | 6% | 41% | 20% | 25% | 8% | 100% | | |
| 3 | Adventures | f | 9 | 59 | 15 | 28 | 19 | 130 | 1.16 | 2.98 |
| | | % | 3% | 43% | 16% | 25% | 13% | 100% | | |
| 4 | Popular culture | f | 8 | 57 | 16 | 29 | 20 | 130 | 1.2 | 3.08 |
| | | % | 5% | 42% | 12% | 27% | 14% | 100% | | |
| 5 | Resources | f | 8 | 16 | 51 | 44 | 11 | 130 | 0.94 | 3.28 |
| | | % | 4% | 13% | 42% | 33% | 8% | 100% | | |
| 6 | Investment strategies | f | 10 | 56 | 11 | 35 | 18 | 130 | 1.21 | 3.02 |
| | | % | 5% | 43% | 13% | 25% | 14% | 100% | | |
| Total | | f | 8 | 49 | 21 | 35 | 17 | 130 | 1.09 | 3.09 |
| | | % | 4% | 37% | 19% | 28% | 12% | 100% | | |

Table 4. represents that, 52% (34%+18%) majority of respondent Head Teacher and SSTs agreed that they introduce the concept of saving and recycling, 47% (41%+6%) majority of respondent Head Teacher and SSTs disagreed with statement of money museum , 46% (43%+3%) majority of respondent Head Teacher and SSTs disagreed that they provides opportunities to make discoveries through adventures, 47% (42%+5%) majority of respondent Head Teacher and SSTs disagreed that they spend their time in interacting with popular culture, to make time more productive, 42% majority of respondent Head Teacher and SSTs were undecided that government provide resources for educational sustainability and 48% (43%+5%) majority of respondent Head Teacher and SSTs disagreed that they share investment strategies of finance to students.

37% of respondent Head Teacher and SSTs disagreed that they provide financial and material resources to the students, 4% of respondent Head Teachers and SSTs were strongly disagreed. While 28% of respondent Head Teacher and SSTs were agreed, 12% of respondent Head Teacher and SSTs were strongly agreed. However, 19% of respondent Head Teacher and SSTs were undecided with the statements.

As a whole, majority 41% (37%+4%) of Head Teacher and SSTs disagreed that they provided financial and material resources to the students. Mean score was 3.09, standard deviation was 1.09 and supported the statement.

## Conclusion

Study concluded that majority of respondent Head Teachers and SSTs disagreed that, they provide factual knowledge, they share relevant ideas with real world settings to the students, they provide financial and material resources to the students, they keep and deliver updated knowledge for students learning,

## Recommendations

Study recommended that engage parents and the wider community in sustainability education. Organize workshops, seminars, and informational sessions to raise awareness and involve parents in supporting sustainable practices at home. Allocate funding and resources to support sustainable infrastructure improvements in educational institutions. Empower students to actively participate in sustainability initiatives within their schools and communities. Create a dedicated committee comprising teachers, administrators, students, and community members. This committee can develop a sustainability action plan, set goals, and coordinate efforts to integrate sustainability across various aspects of school operations. Conduct an audit to identify areas of improvement. This audit will provide a baseline for measuring progress and guide decision-making. Educate students about the importance of waste reduction and recycling, and organize awareness campaigns to encourage responsible waste management. Collaborate with teachers to develop lesson plans and projects that explore sustainability topics, environmental issues, and solutions

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