Comparative Analyses of Environmental Risk Management at Secondary Schools Level in Punjab and its Effect on Students' Academic Achievement

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Abstract

The research objective was to diagnose various environmental risks in schools and evaluate their remediation. Various environmental risks were analyzed in schools, such as disasters like earthquakes and school building position, floods, storms, rain, drainage, dengue activities, laboratory waste, dirt in the classroom, children's noise, traffic noise outside the school, school roads during rain situation, prevention of load shedding, protection from heat and cold, first aid in case of accidents, lightning, ventilation, school environment etc. The study population was the entire Punjab secondary schools, and the results are generalized to the whole of Punjab secondary schools. In the sample, schools of 9 divisions of Punjab were included, and 12 schools were taken from every division, including six male and six female schools, in which public and private schools were taken in equal numbers. Data was captured using a Likert scale. It was concluded that the headteachers of the Dera Ghazi Khan division were well aware of environmental risks and had more knowledge about them. Second was the headteachers of Lahore. Headteachers of Sahiwal and Bahawalpur had very little knowledge about environmental risk. The heads of Gujranwala were at the forefront of risk management, and the Dera Ghazi Khan division was the second. The headteachers of Sahiwal were lagging in terms of risk management. The headteachers of Lahore were found to be using the risk management budget in the proper place, while the headteachers of Sahiwal were not spending the budget appropriately. The records of the schools were also checked, and the schools that were least interested in risk management had lower results than those at the forefront of risk management.

It is recommended that headteachers of all secondary schools increase their knowledge about environmental risk and make timely arrangements for its remediation and budget allocation.

Keywords: Environmental Risk Management, Environmental Risk Effect on Students' Academic Achievement, Remediation of Environmental Risk.

Introduction

Students' academic accomplishments are profoundly influenced by the classroom atmosphere in which they are instructed. Children may be easily distracted in the classroom by various factors, including the open space and loudness of schools, the incorrect temperature, the inadequate amount of light, the overcrowded classes, the improper placement of boards, and the wrong classroom layout. These factors could be considered confusing variables (Kaufmann & Vallade, 2020).

Since the time they were created, humans have needed a social existence to continue living their lives. Along with the development of social life comes the development of the environment, which is the communal area where living things retain their relationships and interact with one another (Germain & Knight, 2021). In a broad sense, the environment is the collection of physical, chemical, biological, or social elements at a particular moment that may have immediate or long-term consequences on the actions of people and other living things. These effects may be positive or negative and may occur all at once or throughout a period. These factors can be environmental. People are conscious of their presence and how they interact with their surroundings. They are also social beings. They do this by altering the ambient conditions in line with their goals, using the opportunities that their intellect and powers have produced. This results in the creation of artificial settings (Anufrieva, 2020). In the modern world, alterations in this artificial environment have mostly assumed negative qualities that may endanger the lives of all living things rather than acquiring beneficial features for the environment and humanity. These changes have occurred even though they were intended to affect the environment and humankind positively (Cantonati, 2020).

As a consequence of this, many environmental problems have surfaced. Environmental issues have a long history traced back to ancient times; nevertheless, their prevalence has increased dramatically worldwide, particularly during the industrial revolution. The most significant contributor to the appearance of these difficulties is the shifts in economic systems that have occurred as a direct result of advances in technology and the subsequent rises in human requirements. In addition to excessive consumption, the number and diversity of technological instruments and social apparatus have reached heights beyond anyone's ability to fathom (Fiderek, 2021). This is in tandem with humans' absurd and pointless utilization of natural resources and the growth of the human population.

A diverse range of environmental issues besets the world we live in today. Some of the challenges we face today include the pollution of the air, land, and water; garbage in the form of solid waste and nuclear waste; erosion; declining biodiversity; radiation; and a declining number of plant and animal species. The 1992 publication of the essay "Warning to Humanity" (Lidicker, 2020) stressed that chances for humans would steadily diminish and that they must value their surroundings just as much as they value themselves. Lidicker's essay was titled "Warning to Humanity." Practically every conversation topic eventually circles back to the concern that our existing environmental problems will one day give rise to

even graver threats (Ganivet, 2020).

The concept of risk is often described in the social sciences by considering the many different aspects related to it. Beck (1992) treats the ideas of risk and danger as being interchangeable. He contends that the dangers brought on by modernization are responsible for the irreversible damage that has been done to the environment. Beck argued that the inability to empathize with others and a lack of emotional investment are the two primary factors contributing to the formation of today's risk society. Risk has also started to occupy an ever-increasingly more significant part of people's lives, according to the concept of risk society, which gained popularity in the 1990s. The social restructuring concept combines social, historical, and cultural elements and is connected to risk. Risk perception research is essential for guiding risk management and advancing research on reducing risks (Khan et al., 2020). These studies may be found in Khan et al., 2020. The perception of risk is crucial in elevating a society's consciousness toward reducing environmental hazards.

People react in a certain way to environmental problems that endanger them to the extent that they perceive such difficulties. The degree to which individuals are sensitive to ecological issues is directly related to their capacity to recognize environmental threats; hence, there is an essential requirement to raise the amount of awareness that persons have about environmental issues. According to several studies, the solution to environmental problems lies in developing environmentally aware and sensitive individuals. These studies also point out that people's environmental awareness may increase by providing them with an education that instils moral principles (Clayton, 2020).

The process of developing an awareness of one's surroundings is formalized throughout the preschool, primary, secondary, and university phases of education, even though it starts informally within the context of the family and other close social environments and continues throughout a person's lifetime. According to the findings of specific research, the environmental education being delivered is not sufficient to cultivate environmental consciousness (Edsand & Broich, 2020). Based on these findings, it is possible to conclude that there is a requirement to modify the environmental education offered in our nation. Only a solid education in environmental topics can cultivate environmentally conscious and sensitive persons. Although the difficulties caused by environmental contamination impact the future of every individual, the periods in which it is feasible to grasp these concerns and increase one's consciousness are principally those in which one is enrolled in high school or university. Because not all high school students will go on to get a degree from a college or university, it is crucial to instill a solid environmental consciousness while still in high school (Duncheon, 2020).

The definition of the environment has been the subject of a lot of writing in recent years, but there are still many disputes over what it should mean and look like. This is because there are several different interpretations of what environment implies. Most individuals believe that the environment still has an underlying "green" quality. In addition, the word suggests that the quality is subordinate to the context in which it is found. In most cases, our link with the surrounding environment is accorded the least amount of value. It is utterly disregarded that we are wholly reliant on the natural world and that how we choose to live has a continual impact on the natural world (Rohde et al., 2020).

Our surrounding environment is a living, dynamic system of various interconnected features.

Pauliuk et al. (2021) argue that the environment should not be viewed as the collection of all the interlinked materials that constantly interact and shape the mosaic of the countryside's landscape. Instead, the environment should be understood as a dynamic system that is comprised of a variety of interconnected and interdependent systems. Instead, the environment should be understood as a more abstract concept. Its range of applications is much more extensive than the majority give it credit for being able to cover. Other facets of human existence, such as the financial systems, worldviews, and lifestyles of individuals living in different parts of the world, are also covered in this discussion. In its broad sense, the term "environment" refers to the material or physical aspects of the world and the socioeconomic and cultural factors. As a result of this explanation, it is possible to grasp that in addition to the physical components, an environment is composed of the financial positions, sensitivities, attitudes, efficacy, commitments, attitudes, and the actual behaviour of the people who live there. This is in addition to the fact that an environment is composed of physical components (Chui et al., 2020).

Environmental Education

Education on the environment is essential to improving and continuing environmental conditions. In their brief discussion of the concept, Wang et al. (2021) defined environmental education as "the kind of education that is about the environment, exists in the environment, and could be developed and attained through the environment." Education in natural settings is referred to as environmental education (or simply enviro ed). Environmental education is a process that helps people learn and respect how interconnected humans and their biophysical surroundings are, as well as how to create their ethics and a code of behaviour while living in an environment as one of it. Through environmental education, people may learn to live ethically and according to rules. To do this, students are introduced to various courses, including ecology, biodiversity, and ecosystems, as a part of it and while residing in the background. Additionally, it emphasizes how human activities can support the preservation or restoration of environmental quality by empowering people with the information and abilities needed to analyses environmental problems, assisting them in making decisions, and motivating them to accept accountability for their actions. This may be done by giving people the knowledge and abilities to evaluate environmental problems critically, make decisions, and motivate them to accept accountability for their actions (Krasny, 2020).

"The topic of study known as environmental education is inherently tricky. It does this by drawing on various conflicting political, social, educational, and environmental threads to bring meaning to the ecological disaster from an interdisciplinary, holistic worldview (Plant, 1995, p, 15). Environmental education seeks to establish in individuals a compassionate mindset and polite behaviour toward nature (van Dijk-Wesselius et al., 2020).

Pakistan's Current State of Environment

The so-called technical breakthroughs, socioeconomic institutions, and lifestyle choices made by humans have had a negative and significant impact on the world. This developing pattern is gaining traction at an unprecedented clip, resulting in various environmental issues. The effects of human activities have turned out to be so severe that they are severely disrupting

nature and the natural system that it relies on. Because of the potential for monetary and personal gain, Homo sapiens are preoccupied with playing a game of blind chance, yet they are oblivious to the consequences of their actions (Gills & Morgan, 2020).

Pakistan is not a major contributor to global pollution nor a significant consumer of natural resources worldwide due to its low gross national product per capita, which is about one-ninth of the average for the whole world. Carbon dioxide is a greenhouse gas responsible for approximately fifty percent of the anticipated increase in average global temperature over the next few years. The average individual in Pakistan contributes one-seventh the amount of carbon dioxide that the average person in the rest of the world does. Sulphur dioxide emissions and the production of chlorofluorocarbons are both relatively small in our nation. As a result, our contribution to critical environmental dangers such as the loss of the ozone layer and acid rain is minimal. As a result, our nation's contribution to critical environmental dangers, such as the loss of the ozone layer and acid rain, is minimal. Pakistan is relatively unimportant compared to other countries regarding the number of resources it consumes from the global commons. Pakistan is the tenth most populous nation on the planet, in addition to these other things. Even though it only accounts for 0.67 percent of the area on the earth, it will be responsible for 4 percent of the increase in the global population over the next decade. The country of Pakistan faces grave danger from the depletion of its natural resources. Due to several institutional and political issues, we have low outputs and low usage intensity. Water and windstorms, salinity/solidity, water logging, floods, and the disappearance of organized matter are a few of these variables. Pakistan has a great deal of potential to boost agricultural output. Still, we haven't fully realized this potential due to our modest outputs and usage intensity. Pakistan has a significant opportunity to raise the amount of food it produces through agriculture (Shaheen et al., 2020).

Environmental Risk Management and Pakistani Curriculum

Pakistan's curriculum and educational system must align with the ideals of sustainable development as soon as feasible. This requirement has been rapidly expanding over the previous few years. In 1992, the Federal Cabinet of Pakistan approved the Pakistan National Conservation Strategy, which emphasized the necessity of developing and reinforcing curriculum at all levels of education. Additionally, it offers a plan that considers the aforementioned elements, including standards and guidelines for integrating environmental education into formal and informal contexts.

According to Sultan et al. (2020).'s research, environmental education is now being included across the entirety of the educational system in Pakistan, and it is viewed as an integrated topic. Since the addition of this material was not intended to raise students' environmental literacy levels, those kids are more likely to memories the knowledge and load their heads with data without comprehending its connection to the environment. This is because increasing pupils' environmental knowledge was not the goal of this inclusion. The first attempts toward the development of environmental education in schools have left a lot to be desired, which is why periodic textbooks are necessary for improving and making the relevant environmental topics more effective. Beginning in the 2009 school year, students in grades nine and ten will be required to take environmental education as a distinct subject.

A programme to promote environmental awareness via formal education was introduced in

1986 thanks to cooperation between the Ministry of Education and the Environment and Urban Affairs Division. Training for teachers, educators, decision-makers, and planners was intended to be provided as part of the co-coordinated environmental education program, which was made possible with the aid of the South-Asia Co-operative Environment Program and UNESCO. In addition, the course was meant to instill in children a sense of responsibility for the surrounding natural world. In addition, it worked with organizations in environmental education on a national, regional, and international level to conduct research on curricula, construct and test environmental education kits and materials, and belter association with organizations related to environmental education. Throughout the first stage of the Coordinated Environmental Education Programme, several workshops for the training of teachers were held. The curricula and textbooks from primary to middle school were revised to emphasize environmental education (Ardoin & Bowers, 2020).

Conceptual Framework of The Study

This study's evaluation of environmental risk management in secondary schools was the focus. Both types of schools, public and private, were part of the study. The researcher first checks the environmental knowledge and awareness in both types of schools. Then find out environmental factors like climate effect in schools, hot and cool, sanitation, dengue activities, proper usage of stationery and stationery pollution, laboratory pollution, internal nose pollution of students in the class and school, external noise pollution of traffic and community, proper ventilation, proper electricity, building condition during earth quick, rain, wind, flood, suitable parking system, pure drinking water, adequate latrine system, etc. all are the independent factors which effect on the teaching-learning process after that information researcher was check all elements precautionary measures. Budget, planning and activities, role of sweeper, pollution resistance planning in the schools, parking system, pure water system, sanitation, ventilation, healthy grounding, and atmosphere, etc.

Statement of The Problem

Few national evaluations have been conducted in Pakistan in environmental risk management until now. Most of these investigations have focused on the environmental education presented to young people. A few studies have been conducted on the knowledge and attitudes of students and instructors on environmental risk management. The standard Knowledge-Attitude-Behavior (K-A-B) paradigm, which is not supported by research, is reflected in these investigations. Instead, the studies provide empirical evidence for the broader understanding of environmental literacy that acts as the basis for this study. This conceptualization of environmental literacy serves as the foundation. A substantial quantity of research has not been conducted on the environmental literacy of secondary school teachers. They are highly respected as the cornerstone of the nation's comprehensive environmental education program. As a result, this research project was initiated to assess secondary schools' environmental risk management practices in Punjab (Pakistan).

Both an assessment of the level of environmental risk management and an inquiry into the factors most predictive of environmentally responsible behaviour among secondary school teachers in Punjab were carried out as part of this research. The global environmental parameters are going to be quantified using a variety of environmental context scales. The

scales used here are ecological sensitivity, well-known issues, ecological underpinnings, perceived knowledge of action strategies, perceived skill in using action strategies, responsible environmental behaviour measured using action strategies, issue identification skill, issue analysis skill, and action planning skill. The findings will generally speak to helping secondary schools manage environmental threats.

Study Objectives

The following were some objectives of the research study.

1. To know the extent of the level of environmental risk awareness of high school heads in Panjab.
2. To explore the extent of environmental risk control in high schools of Panjab.
3. To check the effect of environmental risk on students' academic achievement.
4. Are there any significant differences in the mean scores of each environmental factor and risk management between the different districts of Punjab?
5. How the budget is utilized for environmental risk management in secondary schools.

Questions Relating to Research

The following is a list of the study's research questions.

1. What is the extent of the level of environmental risk awareness of high school heads in Panjab?
2. What is the extent of environmental risk control in high schools in Panjab?
3. What is the effect of environmental risk on students' academic achievement?
4. Are there any significant differences in the mean scores of each environmental factor and risk management between the different districts of Punjab?
5. How is the budget utilized for environmental risk management in secondary schools?

Significance of the Study

Environmental researchers in every nation need to assess the level of environmental consciousness among school teachers and pupils within the context of their local communities, provide support for this awareness, and work to raise it. This is important from the perspective of environmental awareness and environmental risk management. Before implementing environmental risk management, one must ensure that they have current experience and knowledge about the most important parts of environmental awareness. This is a need in this day and age. This understanding is essential to eliminate the threat posed by the environment. The usefulness of this study may be broken down into two parts. In the first place, it will help to fill a gap in the research that is currently available in Pakistan on environmental literacy and the aspects that make up environmental literacy. This need has been established. Second, the findings of this study will provide information on the environmental literacy levels now held by secondary school teachers across the whole province of Punjab (Pakistan). It would be good to analyze the requirements of both in-service and pre-service teachers in environmental education and risk management. This is because the field encompasses both of these topics.

The results of this study will provide those responsible for developing educational programs and curricula with valuable information that will aid them in making the required

modifications to enhance environmental education programs for both heads and teachers. The conclusions of this study will be beneficial to the programs that are being discussed. In addition, a wide variety of resources and a substantial amount of preparation for implementing environmental education programs would be protected from destruction, and there would be no impact on the organization's capacity to generate revenue due to the situation.

This study will contribute to developing environmental literacy and help fulfil that aim. Moreover, it will aid in accomplishing that mission. It will provide instruments, fundamental information data, and subsequent comparative data on environmental risk management. The findings of this study, together with any other relevant materials, will be made available for use in other initiatives, both those now underway and those yet to be initiated. Consequently, environmental programming will subsequently be developed further and advanced.

Methodology

It was descriptive research based on surveys. Its objectives were to ascertain the environmental risk perceptions, awareness level, and environmental risk management of high school heads and teachers in the province of Punjab. The researcher developed a questionnaire. Data was collected and interpreted through SPSS.

Delimitations of the Study

Due to time management and economic crises, the study delimited nine divisions of Punjab, Bahawalpur, Multan, Dera Ghazi Khan, Faisalabad, Gujranwala, Lahore, Rawalpindi, Sahiwal, and Sargodha. Every school has similar premises, ground, rooms, and climate in these districts. So, the researcher chose only six schools of each section, public and six privates, at the secondary level for research.

Population

Targeted Population

All Punjab high-level schools. There was a total of 3485 male, 3189 female public and 2823 private registered high schools all over Punjab; their head teachers were the targeted population of the study for results generalization.

Study Population

The researcher set the research population in nine divisions of Punjab. The researcher chose six schools from every division of Punjab, three male and three female schools, their heads, and teachers. There were 108 secondary level schools selected (3 male, three female) from public and (3 males, three female) from private sector secondary level schools selected from 9 divisions of Punjab, Bahawalpur, Multan, Dera Ghazi Khan District, Faisalabad, Gujranwala, Lahore, Rawalpindi, Sahiwal, and Sargodha. There were 108 heads of the institutions, (54) from public and (54) from private schools.

Sampling

Table 1 Sample of Heads

Divisions	Schools						Heads					
	Public			Private			Public			Private		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
Bahawalpur	3	3	6	3	3	6	3	3	6	3	3	6
Multan	3	3	6	3	3	6	3	3	6	3	3	6
DG Khan	3	3	6	3	3	6	3	3	6	3	3	6
Faisalabad	3	3	6	3	3	6	3	3	6	3	3	6
Gujranwala	3	3	6	3	3	6	3	3	6	3	3	6
Lahore	3	3	6	3	3	6	3	3	6	3	3	6
Rawalpindi	3	3	6	3	3	6	3	3	6	3	3	6
Sahiwal	3	3	6	3	3	6	3	3	6	3	3	6
Sargodha	3	3	6	3	3	6	3	3	6	3	3	6
Total	27	27	54	27	27	54	27	27	54	27	27	54

Keeping in view Krejcie and Morgan's (1970) small sample technique for survey research, all (54) heads from public and all (54) principals from private schools were selected, total heads sample became 108 participants.

Instrumentation

The researcher developed the questionnaire used as the data collecting method, and the respondents filled it out. There were three different parts to the survey. The first component collects the demographic variables that were relevant to the study. In the second part of the questionnaire, there was a scale that is similar to a Likert with five points and answers that range from "not at all" to "not much" to "neutral" to "somewhat" to "extremely" to evaluate the level of environmental risk perception. "Strongly agree," "agree," "neither agree nor disagree," "disagree," and "strongly disagree" were the possible responses for the third section's Likert-type scale, which had been prepared to include statements about the assessment of environmental awareness levels, environmental risk management, and budget utilization for environmental risk management.

Validity of Instrument

The instruments presented before experts penal for validation; according to experts' suggestions, some additional questions were added, some were omitted, and some were

updated according to the environmental situation. After that, the tools were updated and redeveloped.

Reliability of Tools

To ensure reliability, the researcher tested the questionnaires on 20 participants; they were excluded from the study population. Data were obtained and put into SPSS, then checked the reliability of the tools was; the Cronbach alpha of the tool was .89. The reliability of the tools was excellent.

Data Collection and Analysis

Using SPSS, a quantitative analysis of the data was performed. Descriptive stat was used for descriptive data like mean and standard deviation; after that, the inferential stat was used for further analyses. ANOVA was used for mean-variance and factor analyses.

Table 2 ANOVA (Descriptive)

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Risk Knowledge and awareness	Bahawalpur	12	3.4833	.93209	.26907	2.8911	4.0756	1.20	5.00
	Multan	12	3.8167	.18007	.05198	3.7023	3.9311	3.60	4.20
	D.G. Khan	12	4.3333	.26054	.07521	4.1678	4.4989	3.80	4.80
	Faisalabad	12	3.9667	.25346	.07317	3.8056	4.1277	3.60	4.40
	Gujranwala	12	4.0167	.39505	.11404	3.7657	4.2677	3.40	4.60
	Lahore	12	4.1667	.33934	.09796	3.9511	4.3823	3.60	4.60
	Rawalpindi	12	3.7167	.56219	.16229	3.3595	4.0739	2.60	4.60
	Sahiwal	12	3.1167	.45494	.13133	2.8276	3.4057	2.20	3.80
	Sargodha	12	3.5333	.54828	.15827	3.1850	3.8817	2.40	4.20
	Total	108	3.7944	.58865	.05664	3.6822	3.9067	1.20	5.00
Risk management/contr	Bahawalpur	12	3.9333	.82389	.23784	3.4099	4.4568	2.00	5.00

ol	Multan	12	3.7167	.39505	.11404	3.4657	3.9677	3.00	4.20
	D.G. Khan	12	3.9333	.23094	.06667	3.7866	4.0801	3.60	4.40
	Faisalabad	12	3.7500	.40113	.11580	3.4951	4.0049	3.00	4.20
	Gujranwala	12	4.0000	.25584	.07385	3.8374	4.1626	3.60	4.40
	Lahore	12	3.8167	.21672	.06256	3.6790	3.9544	3.40	4.00
	Rawalpindi	12	3.5333	.81946	.23656	3.0127	4.0540	2.20	4.60
	Sahiwal	12	2.8000	.51874	.14975	2.4704	3.1296	2.00	3.60
	Sargodha	12	3.7167	.82884	.23926	3.1900	4.2433	2.40	4.80
	Total	108	3.6889	.63619	.06122	3.5675	3.8102	2.00	5.00
Proper budget utilization	Bahawalpur	12	3.5000	.85944	.24810	2.9539	4.0461	2.00	5.00
	Multan	12	3.5208	.40534	.11701	3.2633	3.7784	2.75	4.25
	D.G. Khan	12	3.2083	.36670	.10586	2.9753	3.4413	2.75	3.75
	Faisalabad	12	3.4167	.44381	.12812	3.1347	3.6987	2.75	4.25
	Gujranwala	12	3.6250	.41969	.12115	3.3583	3.8917	3.00	4.50
	Lahore	12	3.6667	.34267	.09892	3.4489	3.8844	3.25	4.25
	Rawalpindi	12	3.1042	.86246	.24897	2.5562	3.6522	1.50	4.25
	Sahiwal	12	2.4792	.63477	.18324	2.0759	2.8825	1.75	3.75
	Sargodha	12	3.2917	.36670	.10586	3.0587	3.5247	2.75	3.75
	Total	108	3.3125	.63864	.06145	3.1907	3.4343	1.50	5.00

Table 2 shows the information on risk knowledge and awareness of school heads; data were collected from the schools of 9 divisions in Punjab. The questions were asked about climate effect, flood, hot and cold, sanitation, dengue activities, proper use of stationary, stationary pollution, laboratory pollution, internal and external noise, and ventilation. Electricity, building conditions, earthquake resistance, rain, wind, parking system, pure water supply, latrine system, children's first aid during accidents, drainage during rainy days, and proper

route to school. The school heads of Division Dera Ghazi Khan were found to be more aware of these issues; they had a lot of knowledge about it. Secondly, the school heads of Lahore knew more about it; the heads of Sahiwal and the head teachers of Bahawalpur showed the slightest knowledge. The school heads of Gujranwala were the most prominent in risk control, the second was DG Khan and Bahawalpur, and the last was the head teachers of Sahiwal, who showed laxity in risk control. Headteachers of Lahore and Gujranwala used the risk budget correctly; their mean value was the highest, Multan and Bahawalpur were in second place, and the lowest mean value was seen in Sahiwal, that is, the headteachers of Sahiwal did not use the risk control budget correctly. This information was obtained by asking various questions.

Table 3 ANOVA (Inferential)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Risk Knowledge and awareness	Between Groups	13.667	8	1.708	7.224	.000
	Within Groups	23.410	99	.236		
	Total	37.077	107			
Risk management/control	Between Groups	12.627	8	1.578	5.093	.000
	Within Groups	30.680	99	.310		
	Total	43.307	107			
Proper budget utilization	Between Groups	12.740	8	1.592	5.102	.000
	Within Groups	30.901	99	.312		
	Total	43.641	107			

Table 3 shows the significance level of factors between nine divisions of schools through variance analyses and f-test. Regarding risk knowledge and awareness, all nine division schools' results were significant; about the factor risk management and control, all nine division schools' results were substantial; and about budget utilization, all division schools' results were significant.

Findings and Discussions

Data collected and analyzed about environmental risks and their effects on students learning; environmental hazards like an earthquake, floods, storms, rain, landslide, accidents, hot and cold, accidents during rain, first aid, traffic accidents in school, drainage after rain, dengue activities, rain and route to school during rain, electricity management, drinking water and washroom problems, indoor and outdoor noise, waste and pollution of laboratory and stationary etc., some school heads did not correctly control these problems, some school heads did not allocate budget for environmental risk co-control or did not use this budget properly. The records of the schools were also checked, and the schools that were least interested in risk management had lower results than those at the forefront of risk

management. The school heads of division DG Khan were found to be more aware of these issues; they had a lot of knowledge about it. Secondly, the school heads of Lahore knew more about it; the heads of Sahiwal and the head teachers of Bahawalpur showed the slightest knowledge. The school heads of Gujranwala were the most prominent in risk control, the second was DG Khan and Bahawalpur, and the last was the head teachers of Sahiwal, who showed laxity in risk control. Headteachers of Lahore and Gujranwala used the risk budget correctly; their mean value was the highest, Multan and Bahawalpur were in second place, and the lowest mean value was seen in Sahiwal, that is, the headteachers of Sahiwal did not use the risk control budget correctly.

Recommendations

1. Headteachers should be aware of environmental risks like an earthquake, floods, storms, rain, drought, accidents, hot and cold, accidents during rain, first aid, traffic accidents in school, drainage after rain, dengue activities, route to school during rain, electricity management, drinking water and washroom problems, indoor and outdoor noise, laboratory and stationary waste and pollution etc.
2. Headteachers should also know how environmental risk affects children's learning and academic achievement.
3. It is recommended that Head Teachers take better measures to control environmental risk.
4. It is recommended that headteachers use the budget properly to manage environmental risk well and that the budget is entirely spent on the right factors.

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