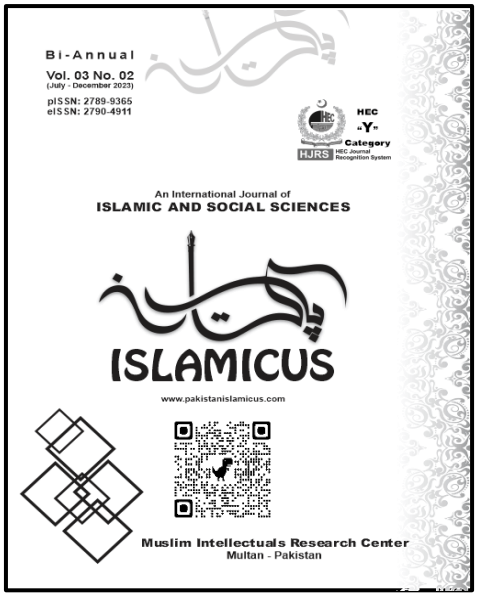
Pakistan Islamicus
An International Journal of Islamic and Social Sciences
(Bi-Annual)
Trilingual: Urdu, Arabic, and English
pISSN: 2789-9365 eISSN: 2790-4911
https://pakistanislamicus.com/index.php/home
Published by:
Muslim Intellectuals Research Center
Multan-Pakistan
website: www.mircpk.net



TOPIC

EFFECTS OF FLOOD ON EDUCATIONAL ACTIVITIES OF PUBLIC SCHOOLS STUDENTS IN DISTRICT CHINIOT

AUTHORS

Muhammad Sarfraz
M.Phil Scholar, Institute of Agricultural Extension, Education and Rural Development, University of Agriculture, Faisalabad, Punjab, Pakistan.
sarfrazjappa123@gmail.com

Rana Muhammad Amir
Assistant Professor, Institute of Agricultural Extension, Education and Rural Development, University of Agriculture, Faisalabad, Punjab, Pakistan.
muhammad.amir@uaf.edu.pk

Muhammad Iftikhar
Associate Professor, Institute of Agricultural Extension, Education and Rural Development, University of Agriculture, Faisalabad, Punjab, Pakistan.

Mehtab Norin
M.Phil Scholar, Institute of Agricultural Extension, Education and Rural Development, University of Agriculture, Faisalabad, Punjab, Pakistan.

Rizwan Hussain
M.Phil Scholar, Institute of Agricultural Extension, Education and Rural Development, University of Agriculture, Faisalabad, Punjab, Pakistan.

How to Cite

Khawar, M., Farooq, N., & Waseem, M. 2023.
"EFFECTS OF FLOOD ON EDUCATIONAL ACTIVITIES OF PUBLIC SCHOOLS STUDENTS IN DISTRICT CHINIOT."
PAKISTAN ISLAMICUS (An International Journal of Islamic & Social Sciences)
3 (2): 382-402.
Retrieved from:
https://pakistanislamicus.com/index.php/home/article/view/73.

EFFECTS OF FLOOD ON EDUCATIONAL ACTIVITIES OF PUBLIC SCHOOLS STUDENTS IN DISTRICT CHINIOT

Muhammad Sarfraz
M.Phil Scholar, Institute of Agricultural Extension, Education and Rural Development, University of Agriculture, Faisalabad, Punjab, Pakistan.
sarfrazjappa123@gmail.com

Rana Muhammad Amir
Assistant Professor, Institute of Agricultural Extension, Education and Rural Development, University of Agriculture, Faisalabad, Punjab, Pakistan.
muhammad.amir@uaf.edu.pk

Muhammad Iftikhar
Associate Professor, Institute of Agricultural Extension, Education and Rural Development, University of Agriculture, Faisalabad, Punjab, Pakistan.

Mehtab Norin
M.Phil Scholar, Institute of Agricultural Extension, Education and Rural Development, University of Agriculture, Faisalabad, Punjab, Pakistan.

Rizwan Hussain
M.Phil Scholar, Institute of Agricultural Extension, Education and Rural Development, University of Agriculture, Faisalabad, Punjab, Pakistan.

Abstract

Overflow from water bodies such as lakes, rivers, or oceans is called a flood. Such calamities do irreparable harm to several sectors in any location. Like other sectors, the education sector was also affected by floods; this study's main focus was to observe the effects of floods on students' enrolment, attendance, and performance in curricular activities in Tehsil Bhowana. District Chiniot has three tehsils: Chiniot, Lalian, and Bhowana. Among these tehsils, Bhowana was partially affected by flood. The flood-affected schools include 13 male and 17 female public schools. The population size was 65 male and 78 female teachers, respectively. A random sample of 121 respondents was selected, and data was collected by using a questionnaire. The research was quantitative and descriptive in nature. The data was analysed using the Statistical Package for Social Sciences (SPSS) software. The main findings were the spread of infectious diseases, lack of proper planning by the government, temporary migrations, food shortage, damaged school buildings, student absenteeism, dropping out from schools, unhealthy environment, psychological effects on teachers and students, and temporary closure of schools were the main effects of the flood on students' enrolment, attendance, and curricular activities. It was concluded that floods not only create hurdles in the learning process of learners but also close schools permanently or temporarily, destroy infrastructure, displace families, and spread infectious diseases. The study's main recommendations were alternative sites, schools, not evacuation centers, a proactive planning approach by the government, more funds in the budget for damaged schools' buildings, and health services being provided to the affected ones on an urgent basis.

Keywords: Flood, Calamities, Descriptive, SPSS, Affected

Introduction:

The accessibility to education always remains a significant barrier for most of the emerging nations, primarily those in South Asia and Sub-Saharan Africa, in spite of the fact that the world's governments are serious about and making an attempt to deliver excellent schooling to offspring of future. In the world, millions of youngsters missed school in 2017. The number of primary-aged children who are not in school in Pakistan is second only to that of Nigeria. Twenty-three million Pakistani children (ages 5 to 16), or around half of the population, did not join any school; among those, one hundred and eighty lakhs had never started schooling, and about sixty lakhs had left schools (Mughal *et al.* 2019).

Pakistan's constitution states that free and compulsory education is a fundamental right for all of its residents. According to article 25-A of the Pakistani constitution, every child in the range of five to sixteen years of age has the right to get free and compulsory schooling at his/her doorsteps in a way that is decided by the government. The Pakistani economy faces serious danger from the out-of-school youth (Kamran and Zia ul Deen, 2017).

Some of the typical barriers affecting school attendance in Pakistan Schools include barriers parents' dissatisfaction with the lack of government oversight of school administration, the use of corporal punishment, the quality of education, the disparity among job market demands, and the schooling delivered by institutes, especially in villages of Pakistan. The lack of interaction between parents and teachers and the locations of schools (Manzoor *et al.*, 2018).

In addition, natural disasters like floods frequently cause disruptions in children's and adolescents' education systems by destroying school infrastructure, uprooting families, and causing the utmost crucial requirements that would happen in different forms. Compelling them to give up their education and get involved in child labour to help their families during such crucial times (Kousky, 2016).

In the world, Pakistan is among those nations that are most susceptible to natural calamities like floods, famines, and earthquakes because of huge changes in climate and its geographical settings (Ahmad and Afzal, 2020).

In terms of nations affected by floods, Pakistan is rated ninth and experienced 22 big floods between 1950 and 2014. In 2022, our country witnessed devastating floods. The Flood of 2022, which was mostly caused by crucial rainfalls, impacted all provinces of Pakistan. There have been one thousand and thirty fatalities and one thousand five hundred and twenty-seven injuries so far as a result of terrible floods. A large number of individuals urgently need shelter; 10 lakh

houses have been completely or partially damaged, and an estimated 30 million people are affected (Ahmed *et al.*, 2022).

These cause a lot of devastation to the educational sector, particularly causing youngsters' schooling to decline to a point where it can't be repaired. Children's education may be cancelled, and applications that encourage school absences are available. Schools are utilised as centers for evacuation. Children and teachers are unable to attend school as a result of flood damage to the roads, making it unsafe to cross in reverse. The expense of using boats to travel to schools is higher, which parents cannot afford. Students must wait through flooded roads or fields that have been carelessly rowed through slow-moving water (Wouldiams *et al.*, 2017).

Living circumstances at the evacuation centers, children's psychology is also impacted by the schools' inadequate space after accommodating more kids and instructors having few instructional tools. The fact that government authorities typically build schools as evacuation centers have also been acknowledged in practice. Many people need a space and classrooms for their children to carry on their studies. As people migrate, they bring their pets inside the schools and use the buildings for their shelter (Zhong *et al.*, 2021).

The number of families disrupted as this risk has increased and outpaced not only domestic but also global pledges. Hard-earned educational rights are disrupted by damaged schools. The quality of education ultimately suffers when instructional time is missed. If there are no plans for alternative sites and they are not permitted to carry on their studies, the majority of pupils would never be able to continue their studies and would permanently leave their schools. In the absence of academic records, students are not eligible to continue their studies. All of these catastrophes can be prevented through education, planning, and the best utilisation of available resources (Munsaka and Mutasa, 2020).

Pakistan was placed first in the climate risk index in 2010 and fifth in 2014. Flooding has been a common occurrence in Pakistan. Flood incidents are estimated to have killed 13,000 individuals, harmed 80 million people, and cost US$ 21 billion in economic damage between 1970 and 2016. Floods have grown more common and powerful as an outcome of changing climate, providing major problems for flood catastrophe management in Pakistan. These floods mostly impacted the poor rural people, resulting in significant population relocation, the loss of thousands of lives, and the devastation of loads of hectares of agricultural land. Nonetheless, most metropolitan regions and industrial clusters have been spared. As a result, assessing sensitivity and capability in flood-prone rural areas has become critical in order to build effective flood risk reduction measures (Putra *et al.*, 2022).

Massive flooding struck Pakistan in 2010, affecting every tenth citizen in the nation. Out of 140 districts, 78 districts have been affected by the flood. According to the Pakistani government, it directly impacted 18 million people, damaged 1.7 million homes, resulted in 1,984 fatalities and left 2,946 people injured. The destruction of so many vital national buildings and infrastructures as a result of the incident aggravated the nation's already dire economic situation and hampered the process of building up human capital. According to one estimate, the South Asian-Pacific regions are 25 times more likely to truck by floods than any other continent to experience flooding. Therefore, making them the most vulnerable placon on the planet. Pakistan is among those countries that have been severely affected by natural calamities such as earthquakes, droughts, floods and the most recent pandemic, COVID-19, among others. As a result, the impact of such natural calamities on human capital accumulation must be investigated (Daimary, 2020).

Objectives of The Study

- To identify the demographic attributes of the respondents.
- To explore the effects of the flood on students' enrollment.
- To examine the effects of the flood on students' attendance.
- To probe out the effects of the flood on curricular activities.
- To investigate problems being faced by teachers.

Materials and Methods:

The study was conducted on the topic entitled" Effects of Flood on Educational Activities of Public School Students in District Chiniot". There are three Tehsils (Bhowana, Lalian, Chiniot) in district Chiniot; among these, Bhowana was partially affected by the flood. According to the SIS (School Information System) App, there are 219 public schools in Tehsil Bhowana. The flood-affected schools include 13 male and 17 female public schools. The population size in these flood-affected schools is 65 Male and 78 Female teachers. By using a proportionate sampling technique, the sample size has been determined as 56 Males and 65 Females, comprising a total sample size of 121. Online Software www.surveysystem.com was used by taking a confidence level of 95% and a confidence interval of 5%. Keeping in view the study objectives, a well-structured, validated, reliable and pre-tested questionnaire was developed and used for data collection. The research was quantitative in nature, and data was examined by using descriptive statistics, which include Mean values, Standard Deviation and frequency percentage with the help of Statistical Package for Social Sciences (SPSS).

Results and Discussion:

Results and discussions are composed of two sections. The first section comprises the demographic characteristics of respondents, while the second section explains the factors affecting the enrollment and attendance of public-school students in flood-affected areas.

Table 1: Distribution of the respondents according to their demographic attributes

Gender of Respondents	**Frequency**	**Percent**
Male	56	46.28
Female	65	53.72
Total	121	100.0
Marital Status	**Frequency**	**Percent**
Single	30	24.79
Married	64	52.89
Divorced	16	13.22
Widowed	11	9.09
Total	121	100
Academic Qualification	**Frequency**	**Percent**
Undergraduate	05	4
Graduated	36	29.75
Post graduated	74	61.15
Other	06	4.95
Total	121	100
Professional Qualification	**Frequency**	**Percent**
B.Ed	77	63.8
M.Ed	32	26.2
Other	12	10
Total	121	100
Age(In years)	**Frequency**	**Percent**
18 to 25	38	31.40
26 to 35	66	54.50
36 to 45	11	9.10
46 to 55	6	5.0
Total	121	100.0
Job Experience	**Frequency**	**Percent**
Up to 5 years	29	24.0
6 to 10 years	55	45.5
11 to 15 years	22	18.2
16 to 20 years	15	12.4
Total	121	100.0
Income (PKR)	**Frequency**	**Percentage**
30000 to 40000 PKR	36	29.8
41,000 to 50,000 PKR	46	38.0

51,000 to 60,000 PKR	14	11.6
Above 60000	25	20.7
Total	121	100.0

The table shows that the respondents belonged to both male and female gender. A majority of the respondents (53.72%) were female, while 46.28% were male. It shows that more female schools were affected by floods in flooded areas.

These results were similar to the following researches in which it is stated that in the education systems of Pakistan, both males and females are contributing in finding the effects of flood on students' different activities such as enrollment, attendance, curricular and co-curricular activities and problems being faced by the teachers. A large number of students and teachers are female in Pakistan so the gender differences cannot be evacuated from the research. Both male and female were the equal contributors of the phenomenon and they could not be evicted from the population (Salik and Zhiyong, 2014).

The data about the marital status of the respondents gathered through the questionnaire in which a close ended question with four responses were given. The marital status column heading with below options of single, married, divorced and widowed rows were added for the respondents.

The data about marital status shows that 25% respondents were single, 53% were married, 13% were divorced and 09% were widowed in the respondents.

Similarly data about academic qualification shows that lowest numbers of teachers were under graduate while 30% were graduated, 61% were post graduated and other lowest number was of having other equivalent qualifications. The data about the education of the teacher helped in analyzing this phenomenon. It also showed that most of the respondents in flood affected areas were having higher qualifications such as post graduate.

The results about professional qualifications show that about 64% respondents had a degree of B.Ed. while that of 26% had professional qualification of M.Ed and the remaining have other professional qualification such as CT.

Professional education is a structured method of functionalized coaching in a professional institution through which students and faculty members go through comprehension of various techniques and methods to render their services in a professional decorum. The candidate enrolled in a professional schooling is expected to learn updated methods, techniques and information that help him in his professional development. Achieving a level of proficiency required for a responsible approach to professional practice, learning the centralized concepts, principles and methods used in practice, integrating fundamental knowledge and values for a

discipline, acquiring power for knowledge development that is further along these are common objectives of professional education (Baecher, 2012).

Data about age of respondents show that a total of 31% had an age of 18- 25 years whereas 55% were between the ages of 26-35 years, 09% were about 36-45 years and remaining were 46-55 years of age. The percentage showed that the majority of the respondents were between 26-35 years of age.

Age is a crucial factor in the social sciences as the person's development, requirements and preferences are changed with the increasing number of years. Age is still a significant component in social sciences. The years essential for things like the development of a person's typical personality during the time when a number of demanding needs, authority and capacity were forming have been examined in terms of a person's growth. (Dannefer, 2003).

The residential status of respondents shows that the 89% of the respondents lived in rural areas while only 11% were urban. The research showed that the dominated population of the respondent lived in the rural areas.

A rural area or countryside is a territory that is located distant from towns and cities. Small communities and low population densities are traits of typical rural areas. Rural places are commonly described as being in agricultural or forest areas. An urban area often known as a built-up area is a human settlement with a substantial built environment and a dense population. The four sorts of urban regions created by urbanization are cities, towns, capitals and suburbs (Li *et al.*, 2019).

Data about job experience reveals that 24% of the respondents had no more than five years of teaching experience whereas about 46% of the respondents had worked as teachers for six to ten years. While 11 to 15 years of teaching experience was reported by 18% of the respondents and 12% teachers had 16 to 20 years of job experience.

The students' success is positively connected with a teacher's teaching experience throughout the course of their career. The increase in effectiveness that comes with experience is sharpest when a teacher is initially starting out but it continues to be significant when teachers approach their second and even third decades of teaching. Decision-makers are urged to support programs and financial commitments that improve the ongoing professional development of a skilled teaching workforce and increase the retention of informed and effective educators (Gorsky *et al.*, 2019).

Results about income level of respondents show that about 30% of the respondents were having the income of 30000 to 40000 thousand and second portion showed that 38% were earning

between 41000 to 50000 thousands rupees whereas 11% were having the income of 51000 to 60000 and about 21% of the total respondents were having the income above sixty thousand. Usually, the income level of any of the persons determines his/her thinking. A person with more income level is considered happier and satisfied then a person whose income level is low. The responses of the two persons can differ because of their income level (Khan *et al.*, 2015).

Table 2: Weighted score, mean score, standard deviation and rank order of Respondents, according to the effects of the flood on students' enrolment

EFFECTS OF FLOOD	N	Wgts Score	Mean	Std. Deviation	Ranking
Spread of infectious diseases	121	412	3.40	.653	1
Lack of proper planning by the government	121	402	3.32	.566	2
Temporary migration	121	402	3.32	.608	3
Shortage of food	121	399	3.30	.703	4
Damaged school buildings	121	393	3.25	.649	5
Psychologically disturbed students	121	391	3.23	.692	6
Lack of resources regarding safety	121	390	3.22	.491	7
Loss of human lives	121	389	3.21	.608	8
Lack of planning	121	381	3.15	.543	9
Communication gap	121	377	3.12	.608	10
Bad governance by departments	121	373	3.08	.909	11
People were not informed in a timely	121	368	3.04	.651	12
Evacuation centers	121	365	3.02	.741	13
Rehabilitation work in the flooded area	121	359	2.97	.806	14
Lack of interest	121	349	2.88	.839	15

Strongly Agree = 4 Agree = 3 Disagree = 2 Strongly Disagree = 1 Neutral = 0

Table 2 described that more of the respondents were of the view that the spread of infectious diseases in the area is the major cause of enrollment decrement in flood-affected areas, having the highest weighted score of 412 with a mean score of 3.40 and a standard deviation of 0.653. Therefore, it was ranked first in the table, followed by a lack of proper planning by the government, having a weighted score of 402 with mean and standard deviation of 3.32 and 0.566, respectively. It was lying between agree and strongly agree stated on a 5 5-point Likert scale and tending towards strongly agree. On 3rd in ranking, there was temporary migration due to flood, having a weighted score of 402 with a mean of 3.32 and a standard deviation of 0.608. Similarly, On the 4th in ranking order, there was a shortage of food after the flood, causing or

affecting the enrollment in schools with a weighted score of 399, mean of 3.30 and standard deviation of 0.703. Furthermore, the factor affecting the enrollment in flooded areas considered by the respondents was damaged school buildings, having a weighted score of 393 with a mean of 3.25 and a standard deviation of 0.649. The next factor in ranking that is considered the least decreasing enrollment was school buildings as rehabilitation centres, having a weighted score of 365, mean of 3.02 and standard deviation of 0.741. The next least affecting factor considered as an enrollment decreasing factor in flooded areas was rehabilitation work in flooded areas, with a weighted score of 359, mean of 2.97 and standard deviation of 0.806. The last factor, according to the questionnaire, which caused enrollment decrement in flooded areas was the lack of interest of teachers and students, with a weighted score of 349, a mean of 2.88 and a standard deviation of 0.839.

It was found from the above table that most of the responses were between agree and strongly agree on the Likert scale, but only two questions, rehabilitation work in flooded areas and lack of interest of teachers and students responses were between agree and disagree state on Likert scale but very near to agree state.

The results of the study were similar to those (Aamodt, 2008) that described enrolment as delayed by flooding because parents do not like to danger their children's living. As a result, institutions that usually experience flooding have more chances of having low enrolment. Due to the influence of lost earnings from flooding, parents may be less likely to enrol their children in school because of financial constraints.

The findings of Akello, 2014 are also similar to this study that described floods preventing enrollment because parents don't want to jeopardise the livelihood of their children. On the other hand, the findings of (Öztuna 2014) are in contrast to this research that described governments are largely responsible for ensuring the safety of their citizens by implementing risk reduction strategies, with the Netherlands serving as a notable example. The findings of (Basit *et al.* 2011) are also in contrast to this study that described natural disasters like floods typically not always disrupt children's and adolescents' educational systems because they not do always cause schools to be destroyed, families to be uprooted and the most urgent needs to arise immediately, forcing them to discontinue their education and work to support their families during these trying times.

Table 3: Weighted score, mean score, standard deviation and rank order of the Respondents, according to the effects of the flood on students' attendance

Effects of flood	N	Wgts Score	Mean	Std. Deviation	Ranking
Transport issues due to damaged roads	121	412	3.40	.613	1
Flood water in schools' surroundings	121	410	3.39	.624	2
Increased poverty in the flooded area	121	408	3.37	.593	3
Health issues in flooded areas	121	403	3.33	.638	4
Families busy with rehabilitation activities	121	395	3.26	.588	5
Destroyed infrastructure of schools	121	390	3.22	.664	6
Mental frustration in students	121	387	3.20	.614	7
Poor learning environment in schools	121	384	3.17	.641	8
Causalities of near and dear ones	121	366	3.02	.870	9
Lenient monitoring and supervision by authorities after the flood	121	361	2.98	.683	10
Absence of teachers from school	121	351	2.90	.800	11

Strongly Agree = 4 Agree = 3 Disagree = 2 Strongly Disagree = 1 Neutral = 0

Table 3 describes that floods also affect the attendance of the students in flood-affected areas. After collecting data regarding the effects of the flood on students' attendance, the above responses were recorded by the respondents. These responses can be explained in such a way that among all the questions regarding the shortage of attendance, the question transport issues due to damaged roads was ranked 1st due to its weighted score of 412 with a mean 3.40 and standard deviation 0.613 followed by flood water in schools' surroundings with weighted score 410, mean 3.39 and standard deviation 0.624. Lying between agree and strongly agree with state on 5 point Likert scale. Ranked 3rd was increased poverty in flooded areas with a weighted score of 408, mean of 3.37 and standard deviation of 0.624. Next, most respondents with a high weighted score were questioned about health issues in flooded areas with a weighted score of 403, mean of 3.33 and standard deviation of 0.638. The next question in importance, according to its responses, was about families busy in rehabilitation activities with a weighted score 395, mean 3.26 and standard deviation 0.588. Next one was lenient monitoring and supervision by

higher authorities with weighted score 361, mean 2.98 and standard deviation 0.683. Last but not least was absence of teachers from schools with weighted score 351, mean 2.90 and standard deviation 0.800.

The above outcomes show that almost all responses were between agree and strongly agree state on likert scale instead last two questions , lenient monitoring and supervision by authorities after flood and absence of teachers from school, responses are between agree and disagree state on likert scale but very near to agree state.

The findings of following researches are similar to the above research (Chang *et al.*, 2013), (Amadi, 2013), (Kimei, 2013), (Akello, 2014) and (Flood *et al.*(2018). On other hand findings of Bosschaart *et al.*(2016) and flood *et al.*(2018) are in contrast to above research.

Table: 4.4.1: Weighted score, mean value, standard deviation and rank order of the respondents according to the effects of flood on curricular and co-curricular activities of students

Questions asked	N	Wgts Score	Mean	Std. Deviation	Ranking
Students' absentee after flood	121	407	3.36	.532	1
Drop out from schools	121	399	3.30	.666	2
Unhealthy environment for study at schools	121	396	3.27	.606	3
Psychological effects on teachers and students	121	395	3.26	.529	4
Temporary closure of schools	121	394	3.26	.509	5
Ltd opportunities for students	121	394	3.26	.509	6
Ltd resources to adjust students	121	393	3.25	.505	7
Cancellation of classes	121	390	3.22	.612	8
Displacement of students and teachers	121	388	3.21	.682	9
Ltd access to learning material	121	385	3.18	.532	10
Disruption of transportation in schools	121	384	3.17	.679	11
Limited space in schools	121	383	3.17	.568	12
Loss of instructional time for students	121	383	3.17	.454	13
Loss of teaching material	121	381	3.15	.572	14
Valid N (listwise)	121				

Like enrollment and attendance, flood also affected the curricular and co-curricular activities of the students. The questions asked and responses recorded from the respondents are in the following ranked order. All the questions related to this objective are given below with their

weighted scores, means and standard deviation in descending order according to their weighted scores and means.

The question "students' absentees after flood" was ranked 1st with weighted score 407, mean 3.36 and standard deviation 0.532 followed by "drop out from schools" with 2nd highest weighted score 399, mean 3.30 and standard deviation 0.666.Furthermore, "unhealthy environment for study at school" with weighted score 396, mean 3.27 and standard deviation 0.606. Next in ranking was" psychological effects on teachers and students" with weighted score 395, mean 3.26 and standard deviation 0.529. Next most responded question was" temporary closure of schools" with weighted score 394, mean 3.26 and standard deviation 0.509. Next was" limited opportunities for students" with weighted scores 394, mean 3.26 and standard deviation 0.509. Next was" limited resources to adjust students" with weighted score 393, mean 3.25 and standard deviation 0.505. Next most responded question was" cancellation of classes" with weighted score 390, mean 3.22 and standard deviation 0.612. Next in ranking was" displacement of students and teachers" with weighted score 388, mean 3.21 and standard deviation 0.682. Limited access to learning material" having weighted score 385, mean 3.18 and standard deviation 0.532. Next was "disruption of transportation in schools" with weighted score 384, mean 3.17 and standard deviation 0.679. Next in ranking order was "limited space in schools" with weighted score 383, mean 3.17 and standard deviation 0.568. Next was" loss of instructional time for students" with weighted score 383, mean 3.17 and standard deviation 0.454.Last but not least was" loss of teaching material" with weighted score 381, mean 3.15 and standard deviation 0.572.

Therefore, it has been observed that each factor has its due importance regarding its impact on curricular and co-curricular activities. Hence, all the responses lying between agree and strongly agree state on 5 points likert scale.

The findings of these researches are similar which shows that flood affects the curricular and co-curricular activities of school students.

Floods in Nigeria prompted the evacuation of a number of families, inundated many schools and forced the displaced to use the woods as toilets. Sometimes, schools are utilized as evacuation hubs which make it difficult for students to participate in class. Bridges and school buildings can occasionally sink for weeks or collapse. Electric voting machines are ruined when the power is shut off (Metzger and Jaboyedoff, 2009).

Natural disasters like floods typically disrupt children's and adolescents' educational systems because they cause schools to be destroyed, families to be uprooted and the most urgent needs to arise immediately, forcing them to discontinue their education and work as children to

support their families during these trying times. Due to climate change and its geographical location, Pakistan is one of the most vulnerable countries in the world to severe natural disasters such floods, droughts and earthquakes. The most socioeconomically developed areas are in South Asia, East Asia and the Pacific. The analysis was based on the percentage of pupils who dropped out following a flood in Pakistan. The risk and resilience status of a community as well as the wellbeing of its residents are influenced by its capitals. Catastrophes impact the food accessibility, especially in terms of physical and financial access as well as supply and usage stability. About 1500 people were evacuated from Pekalongan City due to a significant flood whose water levels broke records. Batik manufacturing was stopped for over two months and the workers' earnings were instantly gone, endangering the viability of their way of life (Basit *et al.*, 2011).

Hurricane Sandy devastated several public structures, including schools. Over 50 schools were entirely destroyed while over 100 were forced to close owing to damage. The pupils in Zambia were unable to cross rivers because of crumbling bridges and culverts. According to the worst impacted districts, attendance was down by 40% to 50% (Wilcox, 2011).

The increased severity and frequency of floods endangers local infrastructure and has an impact on children’s overall well-being in terms of access to food, health, education, clean water, sanitation, physical and social security. This article gave a general review of flood catastrophes and their possible impacts on children's access to high-quality education in Zimbabwe using both qualitative and quantitative data. The study's goal was to examine the unique flood disaster vulnerabilities of school children which must be taken into account while developing policies. According to research, children perform poorly academically as a result of floods because they lose instructional time, lose trained staff, see an increase in waterborne illnesses, have high absenteeism rates and don't complete the entire curriculum. Children reported a variety of situations and including food hardship. The rights of children and their access to a top-notch education are at risk due to these issues. In order to encourage a culture of safety, this article advised that good road networks be developed, disaster education be implemented and building codes be strictly enforced when constructing school infrastructure. The research findings confirmed the necessity for adaption measures to guarantee that the dangers unique to school-aged children are taken into account (Mudavanhu, 2014).

Floods not only close schools like in Nyando one school was completely closed due to floods and the students and teachers were forced to leave. Ensuring access to education in difficult times and keep students healthy enough to attend school is a big job (Khan and Ali ,2014).

The absences of the students resulted in more lessons missed and an inability to complete class assignments, inconvenience and poor conditions at school, at home or in the evacuation centers which made it difficult to understand the lessons, distracted, poor concentration, focus, and poor mastery all of which eventually led to lower learning outcomes, cancellation of classes and disruption in regular classes were all factors that contributed to the affected students' decreased academic performance. Due to the flooding some pupils lost their academic supplies. Many households even neglected to meet their children's educational demands. Even while they were able to teach all the needed lessons, several school administrators acknowledged that the pupils' grasp of these courses suffered. This was particularly true for schools that were damaged by flooding and non-flooded schools that held courses on varying schedules since the number of hours spent in class was almost cut in half. Many high schools' students who took part in the focus group discussions (FGDs) stated that the modules provided as an addition to the brief classroom talks were occasionally ineffective. Some students argued that class discussions helped them better absorb the material and independent study made them more prone to forgetting it (Convery *et al.*, 2015).

The findings of these researches differ from this one.

Schools are affected differently by flood disasters. Schools manage in a variety of methods. After a calamity, individuals who have the ability recover more quickly than others who lack it, who continue to slide downward into poverty. In order to break up the flow of floodwaters and prevent erosion, coping mechanisms include things like flood forecasting, flood insurance for buildings and school property, food stockpiling, offering emergency health services, building flood shelters, digging trenches around their compounds and planting trees and sisal fences around the schools. All such measures taken in advance prevent educational activities from impacted (Johnson 2019).

Individuals who depend on outside resources or those with no links in the society or nearby places, it was found that inhabitants of the embankment did not think about flood catastrophes or how to prepare for them because of the study's high degree of trustworthiness. However, they were concerned after the 2017 water logging incident. On the other hand, those who live outdoors have the intrinsic capability and conventional wisdom to deal with a flood disaster in the hopes of afterwards obtaining emergency relief from credit organizations. Such proactive approach not only safeguard their infrastructures but also continues their studies as students (Mudavanhu 2020).

Table: 4.5.1: Weighted score, mean value, standard deviation and rank order of the respondents according to the problems being faced by teacher in flooded areas.

Questions Asked	N	Weighted Score	Mean	Std. Deviation	Ranking
Absentees of students from schools	121	419	3.46	.548	1
Cut of electricity supply due to stagnant water	121	407	3.36	.548	2
No research work at schools	121	403	3.33	.583	3
Shortage of proper classrooms	121	397	3.28	.635	4
Shortage of funds to manage classes in flood days	121	397	3.28	.536	5
Unavailability of practical labs in schools	121	394	3.26	.585	6
Lack of prior training to prevent affected	121	391	3.23	.574	7
Lack of communication between teachers and students due to flood	121	389	3.21	.698	8
Break in test schedule of students	121	387	3.20	.557	9
Lack of lesson planning in flood days	121	387	3.20	.653	10
Loss of teaching material	121	387	3.1983	.62743	11
Valid N (listwise)	121				

The most of the respondents responded the problem “absenteeism of students from school” having highest weighted score 419 with mean score 3.46 and standard deviation 0.548. So, it was ranked 1st in responses ranking order followed by “cut of electricity supply due to stagnant water” with weighted score 407, mean 3.36 and standard deviation 0.548. Next in ranking was “no research work at schools” with weighted score 403, mean 3.33 and standard deviation 0.583. Next in ranking was “shortage of proper classrooms” with weighted score 397, mean 3.28 and standard deviation 0.536. Next was” shortage of funds to manage classes in flood days” with weighted score 397, mean 3.28 and standard deviation 0.536. 6th in ranking was” unavailability of practical labs in schools” with weighted score 394, mean 3.26 and standard deviation 0.584. Next to it was “lack of prior training to prevent affected” with weighted score 391, mean 3.23 and standard deviation 0.574. Next most responded question regarding teachers problems in flood affected areas was” lack of communication between teachers and students due to flood” with weighted score 389, mean 3.21 and standard deviation 0.698. Next was “Break in test schedule of students” with weighted Score 387, mean 3.20 and standard deviation 0.557. On 10th in ranking was “lack of lesson planning in flood days” with weighted

score 387, mean 3.20 and standard deviation 0.653. Last but not least was the question of " loss of teaching material" with weighted score 387, mean 3.1983 and standard deviation 0.627.

The results of these researches (Flood, 2018), (Byrne and Flood, 2005) and (Flood and Commendador, 2016) are similar to these results while the results of (Akando 2021) contradict with these results.

Conclusion

Floods not only create hurdles in learning process of learners but also temporarily or permanently close schools, destroy infrastructure, displace families and spread infectious diseases. The findings of the study show that schools were used as shelter places for displaced persons. Spread of diseases, temporary migrations, damaged school's buildings were affecting the enrolment of schools while transport issues, flood water in schools, health issues, temporarily closure of schools were prominent issues of students' attendance. Similarly, loss of teaching material, unhealthy environment, cut of electricity supply, stagnant water in schools, no research work at schools were the major issues affecting the curricular, co-curricular activities along with creating problems for teachers. It was recommended that prior announcements, health facilities, alternative shelter places, schools built on higher grounds and disaster management trainings were the need of hour.

Recommendation of the Study:

Based on the study findings, the researcher issued the following recommendations:

1. It is suggested to examine the structural safety of damaged school buildings and to plan, build and maintain school facilities that are robust in the face of recurrent disasters like floods and other weather-related disasters, the board of management should employ trained professionals.
2. To control infectious diseases doctors be deputed in flooded areas.
3. Alternative transports be arranged for students to continue their studies.
4. Temporary alternative shelter houses be built in nearby places.
5. Appropriate food arrangement be made for affected people.
6. In flooded aresa schools be build on higher grounds.
7. The curriculum should include disaster risk mitigation. Annual training on catastrophe risk reduction should be provided to principals, teachers, and students.
8. The country governments should educate the locals on the need of protecting educational institutions from natural calamities like floods.
9. Funds be allocated in annual budget to maintain the damaged schools' buildings due to floods.

References

Abbas, M., & Raja, U. (2019). Challenge-hindrance stressors and job outcomes: The moderating role of conscientiousness. *Journal of Business and Psychology*, *34*, 189-201.

Aboramadan, M. (2018). NGOs management: a roadmap to effective practices. *Journal of Global Responsibility*, *9*(4), 372-387.

Aboramadan, M., Hamid, Z., Kundi, Y. M., & El Hamalawi, E. (2022). The effect of servant leadership on employees' extra-role behaviors in NPOs: The role of work engagement. *Nonprofit Management and Leadership*, *33*(1), 109-129.

Abualoush, S., Bataineh, K., & Alrowwad, A. A. (2018). The role of knowledge management process and intellectual capital as intermediary variables between knowledge management infrastructure and organization performance. *Interdisciplinary Journal of Information, Knowledge, and Management*, *13*, 279-309.

A. Agarwal, U. (2014). Linking justice, trust and innovative work behaviour to work engagement. *Personnel Review*, *43*(1), 41-73.

Ahmad, I., Donia, M. B., Khan, A., & Waris, M. (2019). Do as I say and do as I do? The mediating role of psychological contract fulfillment in the relationship between ethical leadership and employee extra-role performance. *Personnel review*, *48*(1), 98-117.

Ahmad, I., Gul, R., & Zeb, M. (2022). A qualitative inquiry of university student's experiences of exam stress and its effect on their academic performance. *Human Arenas*, 1-11.

Akingbola, K. (2013). A model of strategic nonprofit human resource management. *Voluntas: International Journal of Voluntary and Nonprofit Organizations*, *24*, 214-240.

Asbari, M., Hidayat, D. D., & Purwanto, A. (2021). Managing employee performance: From leadership to readiness for change. *International Journal of Social and Management Studies*, *2*(1), 74-85.

Avolio, B. J., Gardner, W. L., Walumbwa, F. O., Luthans, F., & May, D. R. (2004). Unlocking the mask: A look at the process by which authentic leaders impact follower attitudes and behaviors. *The leadership quarterly*, *15*(6), 801-823.

Avolio, B. J., Walumbwa, F. O., & Weber, T. J. (2009). Leadership: Current theories, research, and future directions. *Annual review of psychology*, *60*, 421-449.

Azizi, M. R., Atlasi, R., Ziapour, A., Abbas, J., & Naemi, R. (2021). Innovative human resource management strategies during the COVID-19 pandemic: A systematic narrative review approach. *Heliyon*, *7*(6).

Bal, P. M., de Lange, A. H., Ybema, J. F., Jansen, P. G., & van der Velde, M. E. (2011). Age and trust as moderators in the relation between procedural justice and turnover: A large-scale longitudinal study. *Applied Psychology*, *60*(1), 66-86.

Barbuto Jr, J. E., & Wheeler, D. W. (2006). Scale development and construct clarification of servant leadership. *Group & organization management*, *31*(3), 300-326.

Benoit-Bird, K. J., & Lawson, G. L. (2016). Ecological insights from pelagic habitats acquired using active acoustic techniques. *Annual review of marine science*, *8*, 463-490.

Bildari, P., Abdollahpour, M. A., & Boroumand, N. (2020). Comparison of Perfectionism and negative affectability in the patients with coronary artery disease and healthy individuals. *SRPH Journal of Medical Sciences and Healthcare Management*, *2*(2), 6-14.

Bryant, S. R. (2003). *Servant leadership and public managers*. Regent University.

Buckley, F. (2011). 16. Trust and engagement in a downsizing context: the impact on human resource managers. *Trust and human resource management*, *309*.

Carter, D., & Baghurst, T. (2014). The influence of servant leadership on restaurant employee engagement. *Journal of business ethics*, *124*, 453-464.

Chiniara, M., & Bentein, K. (2016). Linking servant leadership to individual performance: Differentiating the mediating role of autonomy, competence and relatedness need satisfaction. *The leadership quarterly*, *27*(1), 124-141.

Chung, J. Y., Jung, C. S., Kyle, G. T., & Petrick, J. F. (2010). Justice in the US National Park Service: The antecedents of job satisfaction. *Journal of Park and Recreation Administration*, *28*(3).

Chang, H. H., & Wong, K. H. (2010). Adoption of e-procurement and participation of e-marketplace on firm performance: Trust as a moderator. *Information & management*, *47*(5-6), 262-270.

Coxen, L., Van der Vaart, L., & Stander, M. W. (2016). Authentic leadership and organisational citizenship behaviour in the public health care sector: The role of workplace trust. *SA Journal of Industrial Psychology*, *42*(1), 1-13.

DeConinck, J. B. (2011). The effects of ethical climate on organizational identification, supervisory trust, and turnover among salespeople. *Journal of business research*, *64*(6), 617-624.

Den Hartog, D. N., & Belschak, F. D. (2012). Work engagement and Machiavellianism in the ethical leadership process. *Journal of business ethics*, *107*, 35-47.

Van Dierendonck, D. (2011). Servant leadership: A review and synthesis. *Journal of management*, *37*(4), 1228-1261.

Dirks, K. T., & Ferrin, D. L. (2002). Trust in leadership: meta-analytic findings and implications for research and practice. *Journal of applied psychology*, *87*(4), 611.

Donia, M. B., Raja, U., Panaccio, A., & Wang, Z. (2016). Servant leadership and employee outcomes: The moderating role of subordinates' motives. *European Journal of Work and Organizational Psychology*, *25*(5), 722-734.

Dutton, J. E., Ashford, S. J., O'neill, R. M., Hayes, E., & Wierba, E. E. (1997). Reading the wind: How middle managers assess the context for selling issues to top managers. *Strategic management journal*, *18*(5), 407-423.

Ehrhart, M. G., & Klein, K. J. (2001). Predicting followers' preferences for charismatic leadership: The influence of follower values and personality. *The leadership quarterly*, *12*(2), 153-179.

Farling, M. L., Stone, A. G., & Winston, B. E. (1999). Servant leadership: Setting the stage for empirical research. *Journal of leadership studies*, *6*(1-2), 49-72.

Goh, S. K., & Zhen-Jie, L. B. (2014). The influence of servant leadership towards organizational commitment: The mediating role of trust in leaders. *International Journal of Business and Management*, *9*(1), 17.

Greenleaf, R. K., & Leadership, R. S. (1977). Paulist Press. *New York, NY*.

Gul, R., Khan, S. S., Mazhar, S., & Tahir, T. (2020). Influence of logical and spatial intelligence on teaching pedagogies of secondary school teachers. *Humanities & Social Sciences Reviews*, *8*(6), 01-09

Gul, R., Ahmad, I., Tahir, T., & Ishfaq, U. (2022). Development and factor analysis of an instrument to measure service-learning management. *Heliyon*, *8*(4).

Gul, R., & Khilji, G. (2021). Exploring the need for a responsive school curriculum to cope with the Covid-19 pandemic in Pakistan. *Prospects*, *51*(1-3), 503-522.

Gul, R., Tahir, I. U., & Batool, T. (2021). Impact of teachers workload on their time management skills at university level. *Indian Journal of Economics and Business*, *20*(3), 819-829.

Rani Gul, M. T., Mumtaz, M., & Shaheen, L. (2021). Does intelligence matters in teaching? Exploring the impact of teachers intelligence on teaching pedagogies of secondary school science teachers. *Multicultural Education*, *7*(3).

Gul, R., Zakir, S., Ali, I., Karim, H., & Hussain, R. (2021). The impact of education on business opportunities for women entrepreneurs in public & private television advertisements in Pakistan. *Industrial Engineering & Management Systems*, *20*(2), 140-147.

Hoch, J. E., Bommer, W. H., Dulebohn, J. H., & Wu, D. (2018). Do ethical, authentic, and servant leadership explain variance above and beyond transformational leadership? A meta-analysis. *Journal of management*, *44*(2), 501-529.

Hofstede, G. (1984). *Culture's consequences: International differences in work-related values* (Vol. 5). Sage.

Hofstede, G., & McCrae, R. R. (2004). Personality and culture revisited: Linking traits and dimensions of culture. *Cross-cultural research*, *38*(1), 52-88.

Hunter, E. M., Neubert, M. J., Perry, S. J., Witt, L. A., Penney, L. M., & Weinberger, E. (2013). Servant leaders inspire servant followers: Antecedents and outcomes for employees and the organization. *The Leadership Quarterly*, *24*(2), 316-331.

Ilies, R., Morgeson, F. P., & Nahrgang, J. D. (2005). Authentic leadership and eudaemonic well-being: Understanding leader–follower outcomes. *The leadership quarterly*, *16*(3), 373-394.

Iqbal, S., & Hashmi, M. S. (2015). Impact of perceived organizational support on employee retention with mediating role of psychological empowerment. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, *9*(1), 18-34.

Kouzes, J. M., & Posner, B. Z. (2010). *The truth about leadership: The no-fads, heart-of-the-matter facts you need to know*. John Wiley & Sons.

Laub, J. (2005). From paternalism to the servant organization: Expanding the Organizational Leadership Assessment (OLA) model. *The international journal of servant-leadership*, *1*(1), 155-186.

Liden, R. C., Wayne, S. J., Zhao, H., & Henderson, D. (2008). Servant leadership: Development of a multidimensional measure and multi-level assessment. *The leadership quarterly*, *19*(2), 161-177.

Liden, R. C., Wayne, S. J., Meuser, J. D., Hu, J., Wu, J., & Liao, C. (2015). Servant leadership: Validation of a short form of the SL-28. *The leadership quarterly*, *26*(2), 254-269.

Liu, H. (2019). Just the servant: An intersectional critique of servant leadership. *Journal of Business Ethics*, *156*(4), 1099-1112.

Malone, P., & Fry, L. W. (2003). Transforming schools through spiritual leadership: A field experiment. Academy of Management, Seattle, WA, 5.

McAllister, D. J. (1995). Affect-and cognition-based trust as foundations for interpersonal cooperation in organizations. Academy of management journal, 38(1), 24-59.

Mineo, D. L. (2014). The importance of trust in leadership. Research Management Review, 20(1), n1.

Misztal B. A. (1996). *Trust in Modern Societies.*Oxford: Blackwell.

Motyka, B. (2018). Employee engagement and performance: a systematic literature review. *International Journal of Management and Economics*, *54*(3), 227-244.

NeJhaddadgar, N., Ziapour, A., Zakkipour, G., Abbas, J., Abolfathi, M., & Shabani, M. (2020). Effectiveness of telephone-based screening and triage during COVID-19 outbreak in the promoted primary healthcare system: a case study in Ardabil province, Iran. Journal of Public Health, 1-6.

Nunnally, J. C. (1978). An overview of psychological measurement. Clinical diagnosis of mental disorders: A handbook, 97-146.

Overbey, J., & Gordon, P. (2017). Moving from power to empowerment in decision-making. Servant leadership and followership: Examining the impact on workplace behavior, 177-205.

Ozyilmaz, A., & Cicek, S. S. (2015). How does servant leadership affect employee attitudes, behaviors, and psychological climates in a for-profit organizational context?. Journal of Management & Organization, 21(3), 263-290.

Pandey, J. (2019). Factors affecting job performance: an integrative review of literature. Management Research Review, 42(2), 263-289.

Parris, D. L., & Peachey, J. W. (2013). A systematic literature review of servant leadership theory in organizational contexts. Journal of business ethics, 113, 377-393.

Patterson, K. A. (2003). Servant leadership: A theoretical model. Regent University.

Peng, Y. P. (2014). Job satisfaction and job performance of university librarians: A disaggregated examination. Library & Information Science Research, 36(1), 74-82.

Podsakoff, P.M., MacKenzie, S.B., Moorman, R.H. and Fetter, R. (1990), "Transformational leadership behaviours", Leadership Quarterly, Vol. 1 No. 2, pp. 107-142.

Ragnarsson, S., Kristjánsdóttir, E. S., & Gunnarsdóttir, S. (2018). To be accountable while showing care: The lived experience of people in a servant leadership organization. Sage Open, 8(3), 2158244018801097.

Rich, B. I., Lepine, J. A., & Crawford, E. R. (2010). Job engagement. *Academy of Management Journal, 53, 617-635.*

Ratia, L. R., & Tuzlukaya, S. E. (2019). The relationship of the dimensions of job satisfaction to job performance: A case study of a multinational company in Lesotho. *Journal of Research in Emerging Markets, 1*(3), 8-19.

Russell, R. F., & Stone, A. G. (2002). A review of servant leadership attributes: Developing a practical model. Leadership & organization development journal, 23(3), 145-157.

Saks, A. M. (2006). Antecedents and consequences of employee engagement. Journal of managerial psychology, 21(7), 600-619.

Saks, A. M., & Gruman, J. A. (2018). Socialization resources theory and newcomers' work engagement: A new pathway to newcomer socialization. Career Development International, 23(1), 12-32.

Skarlicki, D. P., Folger, R., & Tesluk, P. (1999). Personality as a moderator in the relationship between fairness and retaliation. Academy of management journal, 42(1), 100-108.

Solomon, R. C., & Flores, F. (2003). Building trust: In business, politics, relationships, and life. Oxford University Press.

Spreitzer, G.M. (1995), "Psychological empowerment in the workplace", Academy of Management Journal, Vol. 38 No. 5, pp. 1442-1466.

Stone, A. G., Russell, R. F., & Patterson, K. (2004). Transformational versus servant leadership: A difference in leader focus. Leadership & organization development journal, 25(4), 349-361.

Su, Z., McDonnell, D., Wen, J., Kozak, M., Abbas, J., Šegalo, S., ... & Xiang, Y. T. (2021). Mental health consequences of COVID-19 media coverage: the need for effective crisis communication practices. Globalization and health, 17(1), 1-8.

Tims, M., Bakker, A. B., & Xanthopoulou, D. (2011). Do transformational leaders enhance their followers' daily work engagement?. The leadership quarterly, 22(1), 121-131.

Wang, D. S., & Hsieh, C. C. (2013). The effect of authentic leadership on employee trust and employee engagement. Social Behavior and Personality: an international journal, 41(4), 613-624.

Widelska, U., Jeseviciute-Ufartiene, L., & Tuncikiene, Z. (2018). Leadership versus customer orientation in an innovative enterprise—a contribution to further exploration. Engineering Management in Production and Services, 10(4).

Yukl, G., Gordon, A., & Taber, T. (2002). A hierarchical taxonomy of leadership behavior: Integrating a half-century of behavior research. Journal of leadership & organizational studies, 9(1), 15-32.

Wang, Z., Xu, H., & Liu, Y. (2018). Servant leadership as a driver of employee service performance: Test of a trickle-down model and its boundary conditions. Human Relations, 71(9), 1179-1203.