



**Awareness about Disaster Risk Reduction Education among University Students–A Case
Study of Institute of Business Management, Karachi .Pakistan.**

Shahid Iqbal

Abstract

The purpose of this research study was to critically analyse the level of awareness about Disaster Risk Reduction Education (DRRE) among university students. For this purpose Institute Of Business Management, Karachi was selected. To get the required information for analysis, 80 students were selected from different departments of the university using convenience sampling procedure. A questionnaire was developed to collect data having 5-point likert scale. The quantitative data was analysed using SPSS version 20. The findings from the analysis of collected data reveal that majority of the students have knowledge of DRRE, there is no difference found between male and female, graduate and under graduate students in understanding about DRRE. Most of the students wish that government/HEC/university management should arrange mock exercise in their university for better handling of future disastrous situations.

Keeping in view the knowledge of students about DRRE, it is recommended that government, HEC and university management should use different sources to create awareness among university students about DRRE

Keywords: Disaster, awareness, preparedness, disaster risk reduction education

“Disaster is a sudden action caused by nature or human which destroys the human life in shape of casualties, infrastructure damages, organizational destruction etc. It produces severe effects on human social and economic life as well as environment. Disasters are normally divided into two groups: natural and man-made disasters. Natural disasters are floods, heavy rains. Cyclones, and strong winds. Man-Made disasters are road accidents, terrorism and fire”. (Paton & Johnston, 2001).

Students are the backbone of any country and they are the main changing agents in the society, so it is our responsibility to inculcate awareness and equipped them with sufficient skills so that they can face any emergency situation during their academic as well as in their practical life. (Twig, 2004)

In the light UNISDR (United nation international strategy for disaster reduction) disaster readiness means those precautions which are taken by any society before disaster occurrence to minimize the damages. It may include the skill-based knowledge of the community and safety precautions by the disaster management organization.

In accordance to report of UNISDR (2006-7) in the natural disaster, most affected people in the community are students, especially those students which are present in that time of disaster occurrence.

In the light of Gov., of Pakistan statics, during the earthquake of Oct 2005, sixteen thousand students died and a huge number were injured.

The above data shows that students are more vulnerable to disaster worldwide and numbers of students died and billions of dollars were lost in shape of infrastructure and schools damage.

In the International seminar on Disaster Reduction in Jan. 2005“ it is dedicated that all learning organizations in all part of the world will set an educational plan in which skill-based

education will be given to all students so that they meet any disaster and manage it professionally. Through this action, we can build a strong culture of safety in every part of the world. For this purpose, it is necessary to include disaster risk reduction education in relevant sections of school curricula at all levels'' (UNISDR, 2005).

Disaster Risk Reduction Education is such knowledge, skills, and practices which are beneficial for decreasing disaster risks by organizing efforts to analyze and reduce the causal factors of disasters.

As per HFA (2005-15) agenda 3 is “. We should use existing relevant knowledge to diminish hazards circumstances in nearby. This aim can be achieved through the education which furnishes the members of society with such knowledge, skills against disaster risks reduction and mitigation and builds a strong resistance against disaster. (UNISDR, 2005)

“Pakistan being the part of the HFA struggling to build the connection between DRR Education and the MDGs (Millennium Development Goals) and states that: “Disasters can be largely reduced if the people are well aware and motivated towards a culture of disaster risk reduction and mitigation”.

When we see it in the Pakistani context, people are not educated and trained for disaster reduction and mitigation. So it is, therefore, necessary to make efforts from grassroots and ensure community involvement in the ongoing DRRE rules and training to mitigate as well as prepare to respond natural and even man-made disasters.

As per NDMA capacity building of all people living in the community must be achieved through practical training and mock exercise. All education institution must prepare the students for any abnormality during the disaster occurrence. A massive disaster risk reduction education will be included in their curriculum.

Statement of the Problem:

Pakistan is a vulnerable country in the world which is regularly suffering from the natural and man-made disaster. In these disasters the most affected people are students. For example in 2005 Kashmir earthquake there were 1700 students died, but in our country, there is no education regarding disaster management and mitigation. So, it is necessary to give the disaster risk reduction education to students so that they meet any disaster in a good manner and minimize the human losses.

Objectives of the study:

The objectives of the research study were as follows:

- To evaluate the level of awareness of university students about Disaster Risk Reduction Education.
- To measure the effectiveness of knowledge given or training arranged for university students for managing situation during any kind disaster.

Justification of the Study:

International awareness campaign “DRRE (Disaster Risk Reduction Education) begins at school”. In 2006, “let the children teach us” (UNISDR, 2006).

As per declaration, DRR learning must be started at school levels.

This study will evaluate the knowledge, skills, and preparedness regarding disaster risk reduction education of the students of IoBM, Karachi as well as arrangements, provided inside the university to cope any disaster. This study will amplify the capacity about DRR education among students as well as teachers and non-academic staff. This study will also inspire and motivate the university management to include Disaster Risk Reduction Education in curricula or arrange activities with the coordination of Civil Defence Services or District Disaster Management Authority (DDMA).

Scope of the Study:

This study critically analyzed the awareness about disaster risk reduction education among students of IoBM, Karachi and disaster management facilities in the institute; this study will increase the motivation level of university management regarding disaster management education.

Research Questions:

1. What is the level of awareness of the students about Disaster Risk Reduction Education?
2. Is there any significant difference in understanding about Disaster Risk Reduction Education between male and female students?
3. Is there any significant difference in understanding about Disaster Risk Reduction Education between graduate and undergraduate students?

Research Hypotheses

H1 .There is significant differences in understanding disaster risk reduction education between male and female students.

H2. There is significant differences in understanding disaster risk reduction education between graduate and undergraduate students.

REVIEW OF LITERATURE

Disaster

It is an unexpected bad or unlucky severe occasion which causes vast spoil to the creature, vegetation, and animals. Disasters happen quickly, instantly and chaotically. These intense actions may be natural or man-made. These actions which happen intensify natural ecological process to the source of disasters to creature. For example rapid tectonic actions

foremost to the earthquake and volcanic eruptions, constant waterless situation foremost to long-lasting droughts, floods, distinctive turbulence, and the crash of heavenly bodies. (Joshi, 2008).

Disasters have constantly related to civilization. Scientific progression, expansion initiative are the reasons in the making of a bundle of infrastructure and enduring resources. Progressively substance growth separate human from the natural world to an artificial world and enlarged susceptibility of the creature. The constant enlarges in creature loss, assets and harmful consequence on atmosphere due to disasters stirred the global society to stare at calamity managing in a recent perception, which transcends worldwide barriers, anticipates probable fear and provide the capability to handle any disaster in the initial step.

DRRE (DRR education)

It is the systematic and organized way to decline disaster, the proactive safety procedures before the disaster and take appropriate action to minimize the losses of disaster. Falling experience to hazards, shrinking susceptibility of public and goods, sensible administration of earth and the atmosphere, and civilizing the society for bad events are all examples of disaster risk reduction education. (Shaw, 2014).

Awareness

In the light of United Nation International Strategy for Disaster Reduction (UNISDR), awareness can be defined as “The intensity of frequent familiarity regarding calamity hazard, the reasons that direct towards calamity and the measures which are taken independently and jointly to diminish disclosure and susceptibility to danger.

Risk

It is a “quantity of the possible fatalities due to a dangerous incident happening in a given region over an explicit time period. The risk is a function of the prospect of the fastidious dangerous event and the victims it would cause.” The intensity of threat based on:

- I. Temperament of risk
- II. Susceptibility regarding rudiments.
- III. Cost-effective value regarding rudiments.
- IV. Society/area exposure to danger while it's bare to hazards and is feasible to be harmfully exaggerated by shock. At any time when we talk about 'calamity managing,' it's mostly 'calamity risks handling'. DRM comprises whole precautions which diminish calamity associated fatalities of living, resources by plummeting the hazard or susceptibility of the rudiments at risk. (Khan, 2008).

Hazards

The definition of Hazards is "an unsafe situation or occasion that danger or have the probable for causing grievance to life or spoil to property or the atmosphere. Hazards divided into two types:

1. Natural hazards which are happening due to the natural phenomenon. For example, floods, heavy rains, earthquake, and cyclones.
2. Man-made hazards which are caused by individual inattention. e.g., terrorism, pollution, fire, civil strife. (Khan, 2008)

Vulnerability

"The degree to which a society, construction, services or geographic area is likely to be spoiled or disrupted by the shock of exacting hazard, on the relation of their status, building, and closeness to hazardous a disaster-prone area." Vulnerabilities are grouped in substantial & financial. Substantial susceptibility: It comprises this concept, what can be spoiled or damaged by natural hazards like earthquakes or floods. These are on bases on the substantial situation of community and basics at danger, like construction, infrastructure etc; and nearness,

place, and status of the hazard. It depends upon the technological potential of structure & resists to the posh performing hazard happening. (Khan, 2008)

History of major disasters in Pakistan (natural and man-made)

Pakistan is a state of 20, 77, 74,520 people. It has a bunch of troubles both inside and outwardly, from financial area to the security area, likewise, Pakistan has seen several bad natural disasters in its past 70 years' life. From the waters of the Arabian ocean to the huge heights of the Karakoram, all of the spaces between them have seen harsh disasters. (PWP, 2011) Some natural disasters which are occurred in Pakistan are as follows:

Earthquake

Pakistan situated in a seismic restraint and consequently experienced regular earthquakes of little intensity. Earthquakes usually happen in the length of the Himalayas, Karakorum's and partially Hindu Kush, Kuh-e-Suleiman, Chaman, Quetta, and Makran along the ocean coastline. The amount is usually linked with the Indian plate pertaining permanent stress with Eurasian earth bunch. In nineteen thirty-five an earthquake about 6.5 on Richter scale strength demolishes Quetta which produced thirty-five thousand deaths. As per data 1974 -1990, around 5669 persons were died because of earthquakes in KPK and Baluchistan. Similarly, a large earthquake in Feb. 2004, in KPK which caused twenty-four-person death and one-lace twenty-nine thousand people were exaggerated. (Khan, 2008)

Pakistan is a prone country to both natural and man instigated calamities. In which Oct 2005 earthquake was the deadliest natural disaster that the country experienced in its history. In this incident seventeen thousand students died, fifty thousand students got sever injury, many students became disabled, and ten thousand buildings collapsed, and 3 million children were affected. (Mamogale, 2011).

In an earthquake, majority of the people become psychological patient and are severely affected by these accidents. (Takeda, 2011).

In the light of the above statement it is necessary that student must learn about rescue during an earthquake, otherwise, they victimized people will become psychological patients.

Flood

Pakistan has seen 9 huge floods since its creation. The flood in 1950 left behind 2,900 casualties and almost 900,000 people displaced and affected. (PWP, 2011)

Flood in 1992 caused one thousand people dead and 13,000 people destitute. Similarly, in 2010 flood 2, 000 people died and over 2 million affected. (PWP, 2011). The 2010 flood considered is the most terrible in the record of Pakistan which badly affected the social and the economic lives of the people. As per official data, it spoiled standing crops on land more than 1.93 million acres. These floods and blaze rains demolished fertile crops, farm animals, and trees. It also smashed main assets like fertilizers and variety of farming equipment's. (Rizvi ,2017).

As per above statistics, it is a huge time to promote disaster risk reduction education all over Pakistan at academic and society level. It will help us to minimize the losses and damages of our social and economic assets.

Cyclone

In 1965, deadliest cyclone in the record of Pakistan caused ten thousand deaths in Karachi. (PWP, 2011). Another hurricane in 1999 in Sindh province was the hardest and the most powerful cyclone in the record of Pakistan. Class three storms, sixty-two hundred persons were died in that disaster and made landfall in Shah Bandar at climax force on twenty may close to Karachi in Sindh. A class one storm, it spoiled the coastal line close to Sindh-Gujarat boundary because of superior wind. It caused enormous rainwater and flooding in Karachi but Thatta and Badin regions were the nastiest exaggerated where the hurricane produced six

hundred and nine-person deaths and made two lace persons homeless. (PWP, 2011) In nineteen sixty-four a hard cyclone occurred in Tharparkar, Haiderabad, and Karachi which caused of four hundred fifty deaths, and four lace people were dispossessed. (PWP, 2011)

The study revealed that if the people were aware of this particular type of education, safety precautions and rescue skills and practice, the losses would be much lesser.

Drought

The drought has to turn into an irregular difficulty of the state. In recent duration, drought occurs in Baluchistan, Sindh and Southern Punjab where typical rainwater is short too two hundred to two hundred and fifty millimetres. Rigorous drought history in two thousand to two thousand two pretentious living resulted in person deaths, thousands of persons migrated and died huge quantity of animals. It caused one hundred twenty-person, people, death, and twenty-two lace persons pretentious. The main dry region is Tahar, Christian, D. G. Khan, Thurparkar, Kuhistan, and western Baluchistan. Excluding Baluchistan, this region situated in cloudburst rainwater, which, however, is unreliable and speckled. Hence, two to three times in every ten years in these regions are drought. The prolonged period of drought produced poverty in this region because fertile land does not produce crops, and the animal does not have food, so the people become poor. The larger drought occurred in 2000-2003 because it extended up to 68 districts in 4 provinces. (Khan, 2008)

Tsunami

Pakistan is susceptible to tsunami as well as ocean produced hazards alongside its prolonged sea line. In nineteen thirty-five, an earthquake magnitude of 8.5 on Richter degree produced a tsunami in Baluchistan sea line, causing four thousand people expired. The fishing area of Pasni, Karachi, and Gawadar were also endangered. The Indian cape providentially

protected Pakistan's seaside from the terrible shock of two thousand four tsunamis. (Khan, 2008)

The above data projects that people near with the seaside must be aware of disaster management and mitigation. By these practices and safety precaution, the human and economic losses could be minimized to negligible.

Fire

On Sep 12 in 2012 a deadly fire occurred in clothing industrial unit in Karachi in which two hundred and eighty-nine people were expired. (Dawn, Sep 12, 2012).

It was probable that a number of persons could secure their lives but did not; the reason was not having proper familiarity. Usually, flames began within a spot and grip the surrounding area; it was the duty of first sighted to put out the fire and raised alarm. Once the fire amplifies it becomes out of control as time passes. Nobody knows how to get escape, or knew the escape route, knowledge of firefighting equipment, sufficient knowledge of surrounding and emergency escape route. Significant information to be known to every individual at all time. One familiar regarding crisis path and nobody attempt to rupture the windows brace made. As per occurrence, it was extremely significant for you to enough knowledge regarding adjacent, gather all information about the emergency path, fire tools, protection place and knowledge about their use.

On January twenty-four fire occurred in Ali Model School which affected sixteen kids. (Dawn, Feb 04, 2013).

The study revealed lack of firefighting knowledge and techniques among the people present on spot. There was no fire alarm system in the school. Firefighting arrangement were also not up to the desired standard. So, all educational initiations must be practiced with

effective firefighting system and proper education to avoid such incident in future to protect human lives and costly infrastructure.

Terrorism

The deadliest terrorist attack on APS on 16 Dec 2014 is considered one of the most terrified incidents in the world .150 students and staff members were shot dead by the terrorists.

In accordance with a statement, it was not possible to secure lives in the attack, but students were secured as they took security preventative measures. One of the teachers saw the intruder and instructed the students for shelter. By that action, a complete group of students save themselves. Similar safety precautions were taken by others and saved valuable lives.

On twenty January two thousand sixteen, in university terrorists tried to hostage complete university, however their plan was failed. One professor set example for bravery and challenged the terrorist with his pistol. During fighting he was died but saved many important lives of his students. Meanwhile the security forces also joined and took the control of the university. The students took shelter in a secure place. In the university, canteen service provider secured a lot of students, he told the students to get cover in the counter and remain silent until security forces did not come up. This slight pace of consciousness secured a lot of lives.

As per UNISDR (2006) students who are study regarding DRRE, perform significant role and secure others in the time of any disaster. With the help of these techniques, they can secure precious human beings.

UNISDR declaration bears to give understanding to the students at the school, college, university, and community centers. One skilled student secures a lot of lives at the time of disaster situation.

In accordance with (Khan, 2008), education and reaction are fundamentals for the alertness of disaster. Considerate DRRE must be provided by appropriate training during schools and out of schools.

In favor of any expertise and preparation, it is essential, primary essential learning, familiarity, and alertness. A strong foundation of awareness constructs significance of education which is essential for skillful base schooling. To give learning and alertness during every means, standard programs, seminars, maneuvers, etc. major rationale of learning is conscious students for any crisis circumstances.

Practically introduced an elective program of disaster alertness, disaster vigilance, and disaster reduction and incorporate on hand formal set of courses. (Izadkhah, 2008).

By inclusion of optional courses and modules DRRE induced in syllabus gradually and methodically.

Children or young learner mostly easy to get the innovative knowledge to make themselves and community secure. (UNISDR, 2008).

In accordance with the declaration basic, center and inferior stage of learning are extremely significant, throughout this era young student without difficulty educated for calamity alertness and disaster lessening. In that phase, the student is trained and trained for complete life. This skillful age group makes the public safe in upcoming.

Disaster risk reduction through education

As per Ahmadabad (2007) during schooling, co-curricular activities must be included which encompasses essential disaster information and disaster danger lessening drills, basic medical training, fire defense, rescue maneuvers, swimming, protection place, escaping and explode hazard drill.

In accordance with this statement disaster alertness maneuvers with co-curricular learning and elevate the significance of both for the public. Students are trained more through the

play role and games. Knowledge during the act is memorized for long period and it will be valuable for the person & society for the period of crisis. Students feel relax and learn more and more through games and drills (Ahmedabad action agenda for school safety, Jan 2007) Skill-based learning frequently gives the chance to initiate and strengthen significant and reliable session. (UNISDR, 2008).

In accordance to above, skill-based learning offers an opportunity to begin disaster alertness in a group of pupils or in school and they meet professionally with any emergency. Comfortable learning process offers an easy way to DRRE for the students as well as for community. This can also get through practical learning like mock exercise and practical manures. From these activities, we can obtain expertise in students as well as in the community. (Newport& Jawahar, 2003).

Education is the fundamental right of every student in all over the world and it can offer a vital role in disaster management and mitigation. Students can mitigate any victimize during and after disaster occurrence. (Wisner, 2006).

In accordance with MDG-2 worldwide basic learning that supports the skilled base education, so, therefore, skill-based education must be added in all curriculum. Teachers and student must be trained at the primary level in all over the world.

The above declaration of different disaster organization guides towards a concise protection/ calamity alertness. These statements urge on disaster risk reduction education at all level of schooling and community

DRRE comprises in the recognized syllabus at all level of education. Also, endorse DRRE with the help of co-curricular tricks in all level. Learning institutes require developing diverse life-saving tactics throughout regular drills.

As per FEMA (2010), the most important aim of learning in France:

Educate procedures of alertness and defensive adjacent to diverse hazard every day. Endorse dissimilar kind of liberate services between students. Support pupils to build up liability and social support behavior. Trained students to take adequate action during any crisis to protect himself and community members. (Fugate, 2010)

The report elaborates the significance of prime act which is taking by a person present during an emergency. So, it is extremely significant for a person to acquire DRRE.

Students can learn more and more during school to save himself and his neighbor during an emergency. (Ozmen, 2006).

In the above statement, it is highlighted that educational institution must arrange skill-based education for the students so that can meet any emergency situation and protect himself as well as his community members.

As per (Shaw & Shiwaku,2007), students can learn more from print and electronic media, they can learn different techniques of disaster handling, for example, firefighting, terrorist attack safety precautions, and first aid. Similarly, students can promote disaster risk reduction education through social media in community members.

The function of disaster learning, and alertness is to give information, tactics to students and endorse procedures.

The report celebrates the significance of student and institution concerning calamity teaching and practice. The students must share the disaster management education with their family members so that they also trained and meet any emergency. Teachers play a vital role in vast awareness of disaster reduction education.

There is no nationwide syllabus existing in Pakistan for DRR. But, different institutes are providing pertinent disaster instructive initiatives (UNISDR, 2006).

This is a disturbing state for institution still we do not get prepared for calamity learning after the major earthquake of 2005, and dissimilar occurrence in our locality. In our instructive syllabus

no topic linked to calamity or a concise session. We are trained upcoming production in an educational institution, its liability of school offers a talent based experienced person to the community. But, it is extremely hard stride for stakeholders and educationist to contain academic objects in the syllabus.

RESEARCH METHODOLOGY

Research Models

For this study quantitative research methodology has been adopted.

3.2 Strategy

The strategy of research adopted in this study was survey/visit to Institute of Business Management, Karachi in accordance with convenience sampling procedure due to COVID.19 problem.

Population

Population is the group to which a researcher would like the results of study to be generalized. A definite group of population has at least one characteristic that differentiate it from other groups. The researcher would ideally like to generalize results as referred to target population. The population of the study was the students of IoBM, Karachi.

Sampling

The process of choosing a number or persons for a research study in such a manner that those represent the leading groups from which they were selected is called sampling. For the present research 80 students were selected.

Research Instrument

Surveys are generally accomplished by serving questionnaire. In the present study questionnaire to get opinions of the university students about disaster risk reduction education.

Reliability and Validity of the Research Instrument

Reliability and Validity of the questionnaire was checked by expert opinion and through Cronbach, s alpha .The reliability of the questionnaire was found .8.

3.6 Procedure

The questionnaire was personally administered to the respondents and most of the questionnaires were filled by the students using online resources Google Docs because of COVID-19.

DATA ANALYSIS

Occurrence of students among Institute of Business Management, Karachi

There were 80 students selected from Institute of Business Management, Karachi, from different departments. The participants' age ranged between 20-37 years. The average age of the participants was 28.65 years.

TABLE 1. Age distribution of students among Institute of Business Management, Karachi

| Age Group | Frequency | Percentage |
|-----------|-----------|------------|
| 20-25 | 20 | 25% |
| 26-30 | 28 | 28.65% |
| 31-35 | 20 | 25% |
| 36-40 | 12 | 21.35% |
| Total | 80 | 100% |

Demographic Analysis

This research study involved students (undergraduates and graduates) across multiple disciplines from one universities. The participants were chosen by a convenience sampling method to ensure that the sample represents various disciplines, both genders, and level of studies. The participants included 40 male and 40 females.

TABLE 2. Respondents' Demographic Characteristics

| Group | N (%) |
|--|--------------|
| Male | 40 (50%) |
| Female | 40 (50%) |
| Qualification | |
| Undergraduate | 40 (50%) |
| Graduate | 40(50%) |
| Discipline | |
| College of Business Management | 8(10%) |
| College of Economic &Social Development | 10 (12.5%) |
| College of computer science & information system | 10(12.5%) |
| College of Engineering science | 8(10%) |
| Department of Education | 12(15%) |
| Department of Account & Finance | 10 (12.5%) |
| Department of Electrical Engineering | 11 (13.8%) |
| Department of Engineering Management | 11 (13.8%) |

Research Question No.1 Result

What is the level of awareness among university student about Disaster Risk Reduction Education?

In order to measure the participants' level of awareness about Disaster Risk Reduction Education, they were instructed to record their answers on a 5-point likert scale, starting from 'Strongly disagree' to 'strongly agree'. We calculated the average of respondents rating for each of the items within SAS-SV. The average (with possible values ranging from 1 to 5) represented the overall level of understanding about Disaster Risk Reduction Education. Results indicated that respondents' overall understanding about Disaster Risk Reduction Education was high with a mean value of 68 % ($SD=7.986$). Participants' levels of understanding about DRRE ranged from 34 to 83. About 68% of the respondents were identified as highly understanding about Disaster Risk Reduction Education.

Table.3 Descriptive Statistics For Participants'. level of awareness About DRRE

| Gender | Minimum | Maximum | Mean | SD. Deviation |
|---|---------|---------|-------|---------------|
| MALE | 34 | 83 | 63.70 | 12.684 |
| FEMALE | 39 | 80 | 62.45 | 10.427 |
| Qualification | | | | |
| Graduate | 34 | 83 | 63.70 | 12.684 |
| Undergraduate | 39 | 80 | 62.45 | 10.427 |
| Discipline | | | | |
| College of Business Management | 39 | 83 | 65.27 | 12.799 |
| College of Economic & Social Development | 55 | 79 | 68.00 | 7.986 |
| College of computer science & information | 40 | 73 | 57.80 | 12.479 |

system

| | | | | |
|--------------------------------------|----|----|-------|--------|
| College of Engineering science | 48 | 80 | 65.88 | 10.521 |
| Department of Education | 40 | 77 | 61.83 | 10.267 |
| Department of Account & Finance | 34 | 79 | 62.78 | 13.998 |
| Department of Electrical Engineering | 38 | 79 | 64.00 | 13.678 |
| Department of Engineering Management | 45 | 67 | 58.50 | 8.718 |

Research Question .2 and Hypothesis No.1 Result

RQ.1 Is there any significant difference in understanding about Disaster Risk Reduction Education between male and female students?

H₁. There is significant differences in understanding about disaster risk reduction education between male and female students.

An independent-sample t-test was conducted to compare difference between male and female students in understanding about Disaster Risk Reduction Education “There was no significant difference in understanding about Disaster Risk Reduction Education between male (M=63.70, SD= 12.684) and female students (M= 62.45, SD= 10.427) conditions; $t(78) = .481$, $p=0.632$

TABLE 4. Group Statistics

| Disaster Risk | GENDER | N | Mean | Std. Deviation |
|---------------------|--------|----|-------|----------------|
| Reduction Education | MALE | 40 | 63.70 | 12.684 |
| Understanding | FEMALE | 40 | 62.45 | 10.427 |

TABLE 5. Independent Samples Test

t-test for Equality of Means

| Disaster Risk | Equal | F | Sig. | t | df | Sig. (2-tailed) |
|---------------|-----------|-------|------|------|----|-----------------|
| Reduction | variances | 2.012 | .160 | .481 | 78 | .632 |

| | | | | |
|---------------|---------------|------|--------|------|
| Education | assumed | .481 | 75.185 | .632 |
| Understanding | Equal | | | |
| | variances not | | | |

Research Question 3 and Hypothesis No.2 Result

RQ.2 Is there any significant difference in understanding about Disaster Risk Reduction Education between graduate and undergraduate students?

H₂. There is significant differences in understanding about disaster risk reduction education between graduate and undergraduate students.

An independent-sample t-test was conducted to compare difference in understanding about disaster risk reduction education between graduate and undergraduate students. There was no significant difference in understanding disaster risk reduction education between graduate (M=63.70, SD= 12.684) and undergraduate students (M= 62.45, SD= 10.427) conditions; $t(78) = -.481, p=0.632$

TABLE 6. Group Statistics

| Disaster Risk | QUALIFICATION | N | Mean | Std. Deviation |
|---------------|---------------|----|-------|----------------|
| Reduction | UNDERGRADUTE | 40 | 62.45 | 10.427 |
| Education | GRADUATE | 40 | 63.70 | 12.684 |
| Understanding | | | | |

TABLE 5. Independent Samples Test

t-test for Equality of Means

| Disaster Risk | Equal | F | Sig. | t | df | Sig. (2-tailed) |
|---------------|---------------|-------|------|-------|--------|-----------------|
| Reduction | variances | 2.012 | .160 | -.481 | 78 | .632 |
| Education | assumed | | | -.481 | 75.185 | .632 |
| Understanding | Equal | | | | | |
| | variances not | | | | | |

Conclusion

Conclusively, the research has been conducted regarding disaster management specifically in Pakistan. Therefore, on the basis of responses, it can be inferred that students have high knowledge about DRRE. However, some students are keen in learning how to tackle any disaster situation even they are ready to invest their valuable time in this specific education. Therefore, on the basis of analysis; it can be inferred that the students of Pakistan need to learn it and the media of Pakistan should play a specific and powerful role in spreading awareness and preparing students and community members for potential calamities or natural disasters.

FINDINGS, DISCUSSION, AND RECOMMENDATIONS

The prime objective of the study was to analyze the awareness of the students of IoBM,, Karachi about disaster risk reduction education and arrangements by the university management to overcome any natural or man-made disaster. For this purpose, students of the university were selected as the overall population of the study, out of which 80 students from different departments were selected for data collection. A questionnaire was prepared which consisted of 20 items comprising of 5-point Likert Scale.

Findings

Research Question No.1

To understand the level of awareness of the students about disaster risk reduction education of IoBM, Karachi. The result of question no.1 shows that student have high understanding about DRRE. The mean value of student's level of understanding is 68%, which show the deep interest of the students, however there is gap observed because this value is not so much high. They are still need knowledge and awareness about DRRE, so that they can meet any disaster situation during the academic life as well as practical life.

Research Question No2 and Hypothesis No.1

Research question No.2 result shows that there is no difference in understanding about Disaster Risk Reduction Education between male and female students. Similarly the result of hypothesis No.1 shows that that there is no significance difference in understanding about Disaster Risk Reduction Education between male and female students.

Research Question No3 and Hypothesis No.2

Research question No.3 result shows that there is no difference in understanding about Disaster Risk Reduction Education between graduate and undergraduate students. Similarly the result of hypothesis No.2 shows that that there is no significance difference in understanding about Disaster Risk Reduction Education between graduate and undergraduate students

Discussion

The United Nations General Assembly through its resolution 57/254, declared a Decade of Sustainable Development and UNESCO were nominated as the main agency for the promotion of this decade (UN DESD, 2005). At the World Conference on Disaster Reduction (2005) Kobe, Hyogo, Japan: Priority 3 of the Hyogo Framework for Action was: building the resilience of communities and nations to disasters 2005-2015 (UNISDR, 2005).

Under the idea “Disaster Risk Reduction Begins at School”, the UN ISDR (2008:5) report set goals of school disaster avoidance which contain: to save lives and avoid injuries; to prevent interruption of education due to frequent natural hazards, and to develop a resilient community able to decrease the social, economic and cultural impacts of frequent hazards. The purposes are to produce and sustain safe learning environments, impart and study disaster anticipation, and build a culture of safety around school communities with the theme of “Building a Culture of Prevention”, the (UNISDR, 2007) report states that disaster risk reduction is every person business, and to be a reality and part of everyone’s daily life a culture of disaster safety should exist within the society, and this can be completed through schools.

Keeping in view the above commitment this study was conducted to analyze the understanding level of DRRE among students .The overall purpose of the study was to critically analyze the awareness of students about disaster risk reduction education among students of IoBM,Karachi and to analyze the arrangement of the university regarding disaster management and mitigation.

Following are the conclusions drawn from the present research study:

The overall understanding of the students about DRRE is satisfactory, however the university management should arrange such activities through which students can learn more about disaster risk reduction education.

Recommendations

Recommendations from Present Research Study

Following are the recommendation from the present research:

- a. Disaster Risk Reduction Education should be given to the teachers, students of IoBM,Karchi as per their level of education.
- b. There should be a proper disaster management plan in each department which includes an escape route plan, Fire extinguisher, Emergency telephone number etc.

- c. Mock exercises, seminars, workshops should be arranged with the coordination of relevant Disaster management authorities and must ensure the active participation of the students of the said university and these are conducted regularly.
- d. Disaster risk reduction education must be included in the curriculum of the students as per their level of education.
- e. Students must know the National building codes, National disaster management policy of Pakistan and their importance and the educational institutions must be constructed as per national building codes.

Recommendations for Future Research Study

It is recommended that research on disaster risk reduction education must be conducted in all over of Pakistan at school, college and university level because the students of any nation are the backbone and play a vital role in the development of the country and they must be trained for disaster management in their academic and practical life. From these studies, a massive research-based data shall be available for all stockholders regarding disaster management at National and Provisional level.

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