

STUDENTS' AWARENESS ON THE SAFETY FEATURES OF THE UNIVERSITY IN RESPONSE TO EARTHQUAKE

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ABSTRACT

Everyone must prepare and be aware on how to act in any emergency so that nothing will be taken by surprise. Just like an Earthquake, where it always strikes when least expected. Earthquake can happen anywhere- at home, work or school. Awareness on the different safety features of the university is important for each student for them to know on what they are going to do, and where they will go in an event of an earthquake.

The study utilized the descriptive survey approach method and takes place at University of Cebu Lapu-lapu and Mandaue. The study adapted a researcher-made questionnaire which was patterned after the University's Emergency Evacuation Plan and Building Code of the Philippines.

The researchers equally distributed the number of respondents per course. Majority of the respondents are within the age of 15-20 years old, female and in their 4th year level. The result showed that the respondents are aware of the different safety features of the university. However, when it comes to the awareness of the Evacuation Exit it revealed that the respondents are not aware of their specific area. The researchers recommend that the findings of this study will be submitted to the UCLM Safety Team Department, which will serve as a basis for report.

Keywords: *Earthquake Awareness, Safety Features*

INTRODUCTION

Earthquakes are one of the most common unpredictable occurrences on Earth. As Philippines is located along the Pacific Oceans "Ring of Fire," there is always a chance of an earthquake, but there is no way of predicting or giving any warning to when one may occur. Earthquake can be very dangerous and can place many people at risk especially in highly populated areas. There is an often repeated saying, "Earthquake don't kill people, buildings do" (Sekhar, 2015).

According to Philippine Institute of Volcanology and Seismology, there is an average of 20 earthquakes recorded per day, 4-5 felt earthquakes per week, 5000 plotted earthquakes per year and 90 destructive earthquakes for the past 400 years (PHIVOLCS, 2017).

An earthquake may happen anytime, anywhere. Colleges and universities are just as vulnerable to an earthquake as anywhere else. Awareness on the different Safety Features of the University is important for each student for them to know on what they are going to do, and where they will go in the event of an earthquake.

During an actual earthquake which happened in the university last July 10, 2017, the researchers noticed several students who experienced panic attacks, hysteria and difficulty breathing, gathered data from the University Clinic. The researchers want to conduct this study to assess the awareness of the students on the different Safety Features of the university. Being aware to what you are going to do can minimize the risk of panic and injuries. The result of the study would serve as a basis for report.

FRAMEWORK

This study is anchored on the Social-Cognitive Theory by Albert Bandura. This theory focuses on cognition and the learner's mental involvement as an essential component of social learning. "Bandura believed that humans could learn through observation without the need for imitation; learning could be either direct or indirect (vicarious) in that one could learn through observing others' behaviors and the consequences of those behaviors." Bandura proposed that the key factors that influence learning begin with the

observation of others. Through observation of modeled behaviors, attitudes, emotional reactions, etc., the learner makes decisions about how to act. He proposes that learning happens when we take observed behavior and assimilate it into our knowledge database (Bergin & Bergin, 2011).

Another supporting theory is the Disaster Management Nursing Model by Andrea Jennings-Sanders. It was created to help in the planning process and to come up with appropriate disaster management. The theory discusses four stages that relate to each other. The first stage talks about the prevention and mitigation which encompasses the measures of preventing a definite phenomenon that may occur. Prevention is done to reduce the possibility of hazards to happen. Mitigation is also done at this stage to reduce the severity of a certain disastrous event. The overall planning process and identifying the presence of potential hazards are also done at this stage. The second stage talks about the preparation of the affected population or community. On this stage, appropriate measures are being done to prepare the whole populace whenever disaster happens. This stage talks about the readiness of the people to face any disastrous events. The third stage talks about the immediate response of the affected populace when disaster strikes. The last stage is recovery, where re-establishment, rehabilitation and reconstruction begin.

Another theory is the Theory of Planned Behavior by Edward Lee Thorndike. It started as the Theory of Reasoned Action in 1980 to predict an individual's intention to engage in behavior at a specific time and place. The theory was intended to explain all behaviors over which people can exert self-control. The key component to this model is behavioral intent; behavioral intentions are influenced by the attitude about the likelihood that the behavior will have the expected outcome and the subjective evaluation of the risks and benefits of that outcome (Lamorte, 2016).

The environment around the student provides the rich resource for observing behaviors and mentally cataloging these examples for future use in their learning environments. Learning can happen at any time and anywhere (Ormod, 2015).

Safety is a state in which hazards and conditions leading to physical psychological or material harm are controlled to preserve the health and well-being of individuals and the community. It is an essential resource for everyday life. Feature is the characteristics, structure, form or appearance of a person or a structure. Therefore, Safety Feature is a term used to describe the characteristic added to ensure a person's safety.

According to UCLM Campus Safety Disaster Management Officer Mr. Ednor M. Mallarca, the key to disaster prevention is planning. This includes determination whether the site is an active fault and/or liquefaction of landslide prone area which may cause buildings to fall. Proper structural design and engineering practice is followed when a house or building is constructed. The structural soundness of buildings and important infrastructures strengthen retrofit are evaluated if it is found to be necessary. They also emphasize to prepare the place of work and residence for the event. Heavy furniture/ cabinets to the wall to prevent sliding or topping are strapped. Breakable items, harmful chemicals and flammable materials should be stored in the lowermost shelves and secured firmly and to make a habit to turn off gas tanks when they are not in use. It is also important to identify relatively strong parts of the building like door jams; near elevator shafts, sturdy tables where you can take refuge during earthquake. To learn how to use fire extinguishers, first aid kits, alarms and emergency exits. These should be accessible to get located conveniently and prominently marked. The Safety Team also stress out that heavy materials should be kept in lower shelves, the stability of hanging objects which may break loose and fell during earthquakes should be checked and an earthquake survival kit consisting of a battery powered radio, flashlights, first aid kit, potable water, candies, ready to eat food, whistle and dusk mask should be arranged.

According to CHED Memorandum Order No. 9 Series of 2013, Article IX Section 28 Safety and Security Services which they defined as the provision of a safe and secure environment and that of the members of the academic community. It was stated that there must be a safe, accessible and secure environment, buildings and facilities shall comply with government standards.

There shall be mechanisms to address disaster risk reduction and management concerns to include persons with disabilities' needs in compliance with R.A. 10121, otherwise known as the "Philippine Disaster Risk Reduction and Management Act of 2020". It was also stated that there shall be a regular conduct of earthquake and fire drills which involves majority of students, teaching and non-teaching personnel.

The Philippines frequently experiences seismic and volcanic tremors because it lies along the Pacific Ring of Fire, which is an area in the basin of the Pacific Ocean where many earthquakes occur. In recent months, for example, some earthquakes shook parts of the country. While there was no reported major damage or loss of life, these incidents could indicate that the big one is probably coming, as the major Philippine fault lines have been disturbed. Schools cannot be closed in advance due to earthquakes; neither can we suspend classes, like we do when there's a storm warning. However, with proper training and planning, everyone in our school community can be prepared to react appropriately during and after the occurrence of an earthquake (Cubero, 2016).

Last February 6, 2012, panic enveloped due to a tsunami scare in Cebu City secondary to a 6.9 magnitude earthquake that hit Cebu City and Negros at 11:49 in the morning. The earthquake's epicenters were reported 72 km west north of Dumaguete, Negros Oriental, 74 km west-northwest of Tagbilaran, Bohol and 80 km west south west of Cebu. People were running in the streets, cars were abandoned, and traffic was jammed following reports that the seawater was rising in the coastal areas of Cebu City. The Philippine Institute of Volcanology and Seismology (Phivolcs) issued tsunami alert two over the east coast of Negros and Western Cebu. It warned that the quake could trigger 3-foot (1 meter) waves. The Pacific Tsunami Warning Center did not issue a warning. But people misinterpreted the information that even caused a tragic death to a one-year-old child due to stampede. The said scenario is a just clear connotation that most Filipinos are not knowledgeable and unaware of what to do to maintain safety in case of disasters (Galarpe, Lamela & Alcantara, 2012).

At the University of Cebu (UC) campus in downtown Cebu City, some 17,000 students also joined the

earthquake drill. But rescue and emergency units that were there to observe the activities noticed that not all the participants were very enthusiastic about participating in the drill. One of the observers, Alvin Santillana, operations chief of the Cebu City Disaster Risk Reduction and Management Office (CCDRMO), noticed that it took 15 minutes before all students were able to leave their classrooms, which he said is too long if the goal is to minimize injuries during an earthquake. According to UC Vice chancellor for administration, "We will improve our disaster preparedness plan". Ver Neil Balaba, Office of Civil Defense (OCD) 7 operations chief said that he hopes that the university will implement earthquake drills every semester (Lagunda, 2015).

Additionally, though it was just an exercise to test the Cebuanos' preparedness for calamities, organizers lamented that some did not take the drill seriously. "If an earthquake happened in Cebu at the time of the drill, many lives would still be lost," said Provincial Disaster Risk Reduction and Management (PDRRM) Officer Baltazar Tribunalo Jr.

According to Das & Malaviya (2014), disaster management in schools plays a significant role in educating and developing the basic skill to face any disaster. The disaster management not only makes the students aware but also inculcates the right attitude to respond to the disasters. Training and capacity building enhance the ability of the students and school communities to take the right decision during any emergency. The school disaster management team not only ensures the school, students and its various amenities safety. The capacity and their role play important role in the effective execution disaster management plan.

Furthermore, the plan that is being currently followed in the schools for an earthquake is drop-cover drill conducted and integrated safety drills. The resources which are installed or present in the school for an earthquake is the evacuation plan in detail being made on different areas of the building for the students, teachers, and staff to move out of the school during an earthquake. In one of the government-aided school, recently there is a construction of an earthquake resistant hut for some classes as the school building was not good enough to take the stress of earthquake.

A study on student's awareness of disaster preparedness campaign of USJ-R Main Campus has been conducted. The study showed that schools might cost money for implementing a proper way of publicizing the university's precautionary measure towards the student which is essential to the students' security when encountering disaster cases inside the campus. Moreover, the study also discusses about the Mainstreaming Disaster Risk Reduction in the Education Sector in the Philippines which talks about educating the students on what to do in cases of disaster that has taught by their advisers. At the same time, investing more in strengthening school-building structures before disasters take place would reduce long-term costs, protect children, and ensure educational continuity after the disasters.

According to Santos-Reyes, Gouzeva & Santos-Reyes (2017), a university strictly observes the building code of the country, the installation of infrastructures for effective response and mitigation is based on International Standards Operation (ISO 9001) certified institution. The rooms must have separate doors for entrance and exit. For larger enclosed spaces like auditoriums, gymnasiums, and rooms for large classes, it is necessary to provide students with at least three doors during the emergency. The university observes this measure in the design of its rooms and offices. For each floor level, evacuation teams are organized. Leaders, members, and their responsibilities are defined. Their functions are formally mandated by the university and are recorded in the university administrative department as part of their responsibilities as employees of the school.

Magni, Fraboni & Marincioni (2017) conducted a study on Emergency Preparedness and Management of the University of L' Aquila (Central Italy) and the Role of Students' Association. The study showed that universities might potentially represent a fertile ground to promote a culture of safety and stop this trend. Greater awareness and involvement should be pushed forward at each level (administrators, faculties, students) to plan for adverse scenarios, and to make steps toward the development of a culture of safety in Italy. Further discussion and research on Universities' emergency preparedness are necessary, also better to clarify the role that Student Associations may play to

support and spread a culture of prevention and safety.

A sense of safety can be established through the provision of information. This allows for the realistic appraisal of the current situation. Ongoing information so that people are clear as what can happen, what has happened, and what they should clarify the ambiguity. Another way might involve the removal of an individual to a safe environment and allow them to regain a sense of biological and psychological "normalcy." When this is possible the risk of anxiety and stress-related symptoms can be lessened. Further, connecting an individual with their network of support in some capacity can provide relief and a sense of having some control in the situation.

According to Erik Erikson's theory of psychosocial development which has eight distinct stages taking in five stages up to the age of 18 years and three further stages beyond is well into adulthood. Erikson suggests that there is still plenty of room for continued growth and development throughout one's life. Erikson puts a great deal of emphasis on the adolescent period, feeling it was a crucial stage for developing a person's identity. Successful completion of each stage results in a healthy personality and the acquisition of basic virtues. Basic virtues are characteristic strengths which the ego can use to resolve subsequent crises (McLeod, 2017).

Bhandary *et al.*, (2014) conducted a study about the knowledge of disaster risk reduction among school students in Nepal. The result of the study showed that younger students (i.e., <15 years) are surprisingly well familiar with disasters than the older students (i.e., >15 years). But, they were found confused about the disaster adaptation process than the older students.

Aziz & Mohammad (2014) studied the investigating factors of disaster preparedness among residents of Kuala Lumpur. The study showed that there is a relationship between the age and awareness. It was observed that as age increases, the awareness of residents is also increasing. The female showed a low level of awareness while male had an almost average level. Moreover, the relationship between socio-demographic characteristics (gender, age, and education) and disaster awareness significantly correlated with disaster awareness.

Dealing with a natural disaster or emergency takes its

toll on emotions and mental health. Depending on what have seen and had to deal with, a person may suffer from depression, anxiety, panic attacks, or even post-traumatic stress disorder (Ammo.com, 2017).

Gerdan (2014) conducted a study about the determination of disaster awareness, levels of awareness and Individual Priorities at Kocaeli University. The result of the study showed that there is no significant correlation between the levels of awareness of the students and their gender. Moreover, a significant difference was found between the education level of the students and their disaster awareness levels. Also, the fact that the students at the Department of Engineering have higher disaster awareness levels than the students in the other departments and the fact that the disaster-related courses given in the 3rd year provide a positive contribution to awareness rising. The lack of disaster awareness is the first obstacle encountered in disaster response. Various training programs were conducted in our country. However, none of these training programs, which are undoubtedly useful, are included in the formal education system. Yet the information learned at school is more scientific and permanent than the information learned by chance from family and the environment.

Ziauddin (2016) conducted a study on Earthquake Preparedness in schools in Dhaka North City Corporation. The result of the study showed that 70% of the students were aware of the routes on their school, while 30% of the students were not aware about it.

In addition, Mishra *et al.*, (2018) found out that only 52% participants were aware of National Disaster Response Force and merely 10% knew about it. These findings bring out the interpretation that a lot needs to be done to enrich the students' knowledge regarding various aspects of disaster causation and their management at all levels. In addition, the findings emphasize that the extent of knowledge is not yet satisfactory and there is a need of providing knowledge to the students. They are the strong elements who can disseminate the information to the wider sections of society. They are the social force that can help present and reduce risk of disasters. Moreover, disaster management can be compulsorily included in

academic curriculum of all the students. The future generation is made aware in the most promising way to sustain mankind in their era of increased branches.

This study is anchored with all these different interrelated studies and literature. Through this, the study could be strongly supported and enable to gain enough evidence and facts about Students' awareness on the Safety Features of the University.

OBJECTIVES OF THE STUDY

This study determined the awareness of the students on the different safety features of the university. Specifically, it answered the following: 1) What is the profile of the respondents regarding age, gender, course and year level. 2) Students' awareness of the different physical structure and safety features of the University and students' awareness on the exit routes and evacuation area in their specific evacuation exit and area, contingent on the building that they occupied.

RESEARCH METHODOLOGY

This study is a quantitative research, which used descriptive survey approach. This study was conducted at University of Cebu Lapu-Lapu and Mandaue located at A.C. Cortes Ave., Looc, Mandaue City. The University has a total land area of 2.5 hectares, with five main buildings. It is a private institution and is comprised of Basic Education, Senior High School, and Colleges. The respondents of the study are the Senior High School and College students of the University; respondents were chosen using the Random Sampling method.

The researcher-made questionnaire determined the awareness of the students. The various items reflected on the said instrument were based on the University's Emergency Evacuation Plan and Republic Act No. 6541 (National Building Code of the Philippines). The questionnaire is divided into three parts; the first part deals with the respondent's profile wherein respondents will be asked to fill in the necessary information including the age, gender, course, and year level. Age of the respondents is one of the most important characteristics in understanding their views about the problems; by and large age indicates level of maturity of individuals in that sense age becomes more

important to examine the response. A person's gender can have a huge effect on their way of thinking, thus majorly affecting the result of the survey. The level of education of a respondent may affect the answers that they give to certain questions (Obsurvey, 2014).

Part II focuses on the awareness of the respondents on different physical structure and safety features of the university and the assessment of the Respondent's Awareness on their specific Evacuation Exit and Evacuation Area. According to Russell (2018), to get the school ready for an Emergency such as Earthquakes, it is important to consider the buildings, secure furniture, create a cache of emergency supplies, hold earthquake drills, and to practice evacuation exits and routes. The data gathered from this study will be analyzed, tabulated, and interpreted using frequency distribution and simple percentage.

RESULTS AND DISCUSSION

The data that were gathered from this study are analyzed and interpreted by its objectives. The first section represents the Profile of the Respondents of the University Students. The second part shows the result

of the study.

Table 1: Awareness of the Respondents with regards to the Safety Features of the University in case of Earthquake (Old Building Occupants) n= 128

Part I. Profile of the Respondents

VARIABLE	F	%
AGE		
15-20	79	62
21-25	39	30
26-30	8	6
31-35	2	2
GENDER		
Male	60	47
Female	68	53
YEAR/GRADE LEVEL		
Grade 11	0	0
Grade 12	0	0
2 nd Year	41	32
3 rd Year	44	34
4 th Year	43	34

Part II. Awareness of the Safety Features

Questions	Aware		Not Aware	
	F	%	F	%
2.1 Building Structures				
There is an adequate space outside that can be used as safe post-earthquake assembly area.	108	84	20	16
Alternative routes are accessible if evacuation routes are blocked.	93	73	35	27
Exit routes and stairways are clear from any obstruction.	113	88	15	12
Awareness of the Exit route and Evacuation area, if aware please indicate below: Old Building (Nursing, Engineering, Criminology, & Computer Studies)	76	59	52	41

2.2 Fire Alarm				
Emergency bells are functioning well.	105	82	23	18
Bells can be heard loudly to alarm the students about the occurrence of the earthquake.	122	95	6	5
2.3 Signage				
Exit signs are properly labeled and are noticeable.	110	86	18	14
Posters and tarpaulins provide information about the safety routes and evacuation area.	100	78	28	22
Floor plan and evacuation plan is drawn and posted on noticeable places.	107	84	21	16
2.4 Emergency Equipment				
Emergency equipment is checked and being tested from time to time.	68	53	60	47
First aid stations are accessible all the time	81	63	47	37
First aid kits are easy to locate and complete in medical supplies	78	70	50	30
2.5 Electrical				
Emergency lights are functional	82	64	46	36
2.6 Seminars and Drills				
Earthquake drills conducted regularly.	97	76	31	24
Safety Awareness Seminar is conducted once every semester.	91	71	37	29
2.7 Communication				
Safety Personnel are at their designated are and facilitates during an Earthquake	102	80	26	20

Table 1 part 1 revealed that 53% of the respondents were female and most of the respondents were between 15-20 years old. Part 2 shows awareness of the students on the safety features of the university in response to earthquake. Number 4 statement specifies the evacuation exit and evacuation area of a certain building in the university whose occupants includes Nursing, Engineering, Criminology and Computer Studies. The result shows more than half of the populations occupying the old buildings were aware on the safety features and the evacuation exit and evacuation area and most of the respondents who answered correctly were from the Engineering department.

This supports to the study of Gerdan (2014) regarding the determination of disaster awareness, attitude levels and individual Priorities at Kocaeli University. The result of the study showed that there is no significant correlation between the awareness levels of the students and their gender. Moreover, a significant difference was found between the education level of the students and their disaster awareness levels. Also, the fact that the students at the Department of Engineering have higher disaster awareness levels than the students in the other departments and the fact that the disaster-related courses given in the 3rd year provide a positive contribution to awareness rising.

Table 2: Awareness of the Respondents with regards to the Safety Features of the University in case of Earthquake (Annex 1 Occupants) n=96

Part I. Profile of the respondents

VARIABLE	F	%
AGE		
15-20	54	56
21-25	37	39
26-30	3	3
31-35	2	2
GENDER		
Male	25	26
Female	71	74
YEAR/GRADE LEVEL		
Grade 11	0	0
Grade 12	0	0
2 nd Year	32	33
3 rd Year	28	29
4 th Year	36	38

Part II. Awareness of the Safety Features

Questions	Aware		Not Aware	
	F	%	F	%
2.1 Building Structures				
There is an adequate space outside that can be used as safe post-earthquake assembly area.	85	89	11	11
Alternative routes are accessible if evacuation routes are blocked.	67	70	29	30
Exit routes and stairways are clear from any obstruction.	82	85	14	15
Awareness of the Exit route and Evacuation area, if aware please indicate below: Annex 1 (Commerce, Customs, & HRM)	31	32	65	68
2.2 Fire Alarm				
Emergency bells are functioning well.	82	85	14	15
Bells can be heard loudly to alarm the students about the occurrence of the earthquake.	89	93	7	7

2.3 Signage				
Exit signs are properly labeled and are noticeable.	84	87	12	13
Posters and tarpaulins provide information about the safety routes and evacuation area.	82	85	14	15
Floor plan and evacuation plan is drawn and posted on noticeable places.	86	90	10	10
2.4 Emergency Equipment				
Emergency equipment is checked and being tested from time to time.	52	54	44	46
First aid stations are accessible all the time	59	61	39	39
First aid kits are easy to locate and complete in medical supplies	53	55	43	45
2.5 Electrical				
Emergency lights are functional	71	74	25	26
2.6 Seminars and Drills				
Earthquake drills conducted regularly.	76	79	20	21
Safety Awareness Seminar is conducted once every semester.	69	72	27	28
2.7 Communication				
Safety Personnel are at their designated are and facilitates during an Earthquake	73	76	23	24

In table 2, part 1 shows that mostly are within the ages of 15-20, female and in the 4th year level. In part II where in the respondent's awareness on the different safety features of the university were assessed it was presented that they are aware of the safety features except to the statement where the respondents' awareness on their evacuation area and exit were evaluated, it revealed that more than half of the respondents are not aware.

The result did not support the study of which state that

formal education has positive relationships with preparedness actions (Muttarak & Pothisiri, 2013). Formal education may also enhance individual cognitive and learning skills as our findings show that disaster-related training is the most effective among individuals with high educational attainment. Accordingly, it is assumed that disaster preparedness increases with education because highly educated individuals have better economic resources to undertake preparedness actions.

Table 3: Awareness of the Respondents with regards to the Safety Features of the University in case of Earthquake (Annex 2) n=64

Part I. Profile of the Respondents

VARIABLE	F	%
AGE		
15-20	46	72
21-25	16	25
26-30	2	3
31-35	0	0
GENDER		
Male	20	31
Female	44	69
YEAR/GRADE LEVEL		

Grade 11	16	25
Grade 12	16	25
2 nd Year	10	16
3 rd Year	10	16
4 th Year	12	18

Part II. Awareness of the Safety Features

Questions	Aware		Not Aware	
	F	%	F	%
2.1 Building Structures				
There is an adequate space outside that can be used as safe post-earthquake assembly area.	53	83	11	17
Alternative routes are accessible if evacuation routes are blocked.	32	50	32	50
Exit routes and stairways are clear from any obstruction.	52	81	12	19
Awareness of the Exit route and Evacuation area, if aware please indicate below: Annex 2 (Business Ad & Senior High)	10	16	54	84
2.2 Fire Alarm				
Emergency bells are functioning well.	53	83	11	17
Bells can be heard loudly to alarm the students about the occurrence of the earthquake.	58	91	6	9
2.3 Signage				
Exit signs are properly labeled and are noticeable.	56	88	8	12
Posters and tarpaulins provide information about the safety routes and evacuation area.	53	83	11	17
Floor plan and evacuation plan is drawn and posted on noticeable places.	50	78	14	22
2.4 Emergency Equipment				
Emergency equipment is checked and being tested from time to time.	16	25	48	75
First aid stations are accessible all the time	35	55	29	45
First aid kits are easy to locate and complete in medical supplies	28	44	36	56
2.5 Electrical				
Emergency lights are functional	31	48	33	52
2.6 Seminars and Drills				
Earthquake drills conducted regularly.	39	61	25	39
Safety Awareness Seminar is conducted once every semester.	44	69	20	31
2.7 Communication				
Safety Personnel are at their designated are and facilitates during an earthquake	50	78	14	22

Table 3 part 1 showed that most of the respondents are female between 15-20 years old and the occupants of the Annex 2 Building consists of the Grade 11, 12 and College students, which shows that they have almost the same number of respondents per year level. Part 2 revealed that most of the respondents are aware of the Safety Structures and claimed that seminars and drills are conducted. And ticked that they are aware of the other safety feature that are discern in the University.

But when the researchers assessed their knowledge on the exit route evacuation area, it showed that more than half of the respondents in the Annex 2 (Business Administration and Senior High) are not aware of the Evacuation Exit and Area. Moreover, contradicts to the study of Bhandary *et al.*, (2013) in which states that younger students (i.e., <15 years) are surprisingly well familiar with disasters than the older students.

Table 4: Awareness of the Respondents with regards to the Safety Features of the University in case of Earthquake (Basic Education Building Occupants) n= 32

Part I. Profile of the Respondents

VARIABLE	F	%
AGE		
15-20	14	44
21-25	15	47
26-30	3	9
31-35	0	0
GENDER		
Male	2	6
Female	30	94
YEAR/GRADE LEVEL		
Grade 11	0	0
Grade 12	0	0
2 nd Year	10	31
3 rd Year	10	31
4 th Year	12	38

Part II. Awareness of the Safety Features

Questions	Aware		Not Aware	
	F	%	F	%
2.1 Building Structures				
There is an adequate space outside that can be used as safe post-earthquake assembly area.	30	94	2	6
Alternative routes are accessible if evacuation routes are blocked.	23	72	9	28
Exit routes and stairways are clear from any obstruction.	26	81	6	19
Awareness of the Exit route and Evacuation area, if aware please indicate below: Basic Education Building (Teacher Education)	3	9	29	91

2.2 Fire Alarm				
Emergency bells are functioning well.	27	84	5	16
Bells can be heard loudly to alarm the students about the occurrence of the earthquake.	30	94	2	6
2.3 Signage				
Exit signs are properly labeled and are noticeable.	29	91	3	9
Posters and tarpaulins provide information about the safety routes and evacuation area.	26	81	6	19
Floor plan and evacuation plan is drawn and posted on noticeable places.	26	81	6	19
2.4 Emergency Equipment				
Emergency equipment is checked and being tested from time to time.	15	47	17	53
First aid stations are accessible all the time	15	47	17	53
First aid kits are easy to locate and complete in medical supplies	13	41	19	59
2.5 Electrical				
Emergency lights are functional	17	53	15	47
2.6 Seminars and Drills				
Earthquake drills conducted regularly.	24	75	8	25
Safety Awareness Seminar is conducted once every semester.	22	69	10	31
2.7 Communication				
Safety Personnel are at their designated are and facilitates during an Earthquake	22	69	10	31

In Table 5, part 1 revealed the profile of the respondents in which 97% are male and majority was from the age of 15-20 years old. Part 2 showed awareness on the safety features of the university in case of an earthquake specifically the basic education building occupants which are from the college of teacher education. The result revealed that most of the respondents were aware. However, this excludes the safety feature with regards to the emergency equipment in which more than half of the respondents revealed to be unaware.

Furthermore, the result of the study regarding the knowledge of the respondents to the evacuation exits and evacuation routes of the university showed that majority of the respondents are unaware. Moreover, the findings strongly contradict to the study of Ziauddin (2016) about Earthquake Preparedness in schools in Dhaka North City Corporation which found out that 70% of the students were aware of the routes on their school, while 30% of the students were not aware about it.

Table 5: Awareness of the Respondents with regards to the Safety Features of the University in case of Earthquake (New Building, Maritime & NSA Building) n= 64

Part I. Profile of the respondents

VARIABLE	F	%
AGE		
15-20	35	55
21-25	28	44
26-30	1	1
31-35	0	0
GENDER		
Male	62	97
Female	2	3
YEAR/GRADE LEVEL		
Grade 11	0	0
Grade 12	0	0
2 nd Year	20	31
3 rd Year	21	33
4 th Year	23	36

Part II. Awareness of the Safety Features

Questions	Aware		Not Aware	
	F	%	F	%
2.1 Building Structures				
There is an adequate space outside that can be used as safe post-earthquake assembly area.	59	92	5	8
Alternative routes are accessible if evacuation routes are blocked.	52	81	12	19
Exit routes and stairways are clear from any obstruction.	61	95	3	5
Awareness of the Exit route and Evacuation area, if aware please indicate below: New Building, Maritime & NSA Building (Marine Engineering & Transportation)	9	14	55	86
2.2 Fire Alarm				
Emergency bells are functioning well.	48	75	16	25
Bells can be heard loudly to alarm the students about the occurrence of the earthquake.	54	84	10	16
2.3 Signage				
Exit signs are properly labeled and are noticeable.	55	86	9	14

Posters and tarpaulins provide information about the safety routes and evacuation area.	56	88	8	12
Floor plan and evacuation plan is drawn and posted on noticeable places.	55	86	9	14
2.4 Emergency Equipment				
Emergency equipment is checked and being tested from time to time.	46	71	18	29
First aid stations are accessible all the time	54	84	10	16
First aid kits are easy to locate and complete in medical supplies	45	70	19	30
2.5 Electrical				
Emergency lights are functional	47	73	17	27
2.6 Seminars and Drills				
Earthquake drills conducted regularly.	48	75	16	25

The part 1 of table 6, revealed that 55% of the respondents belong to the age range of 15-20 years old, with 97% male. In part 2, students claimed awareness on the Safety Structures of the University in response to earthquake.

Based on the respondent's perception, it proves that majority of the respondents claimed that they have observed the safety features comprising the Building structures, Fire alarm, Signage, Emergency Equipment, Functional Electrical Lights, Seminars and Drills, and Communications between Safety Personnel. This survey produced evidence that the Safety Feature of the University is embedded in the student's mind. However, in the statement number 4 where the researchers assessed the awareness of the students with regards to their specific Evacuation Exit and Area it shows that the occupants of the Basic Education Building which is the College of Teacher Education shows the highest percentage of not aware in their Evacuation Exit and Evacuation Area followed by the New Building, Maritime NSA Building, Annex 2 Building and Annex 1 Building. While on the other hand the occupants of the Old Building which is the Nursing, Criminology, Computer Studies and Engineering revealed that more than half of the respondents are aware of their Evacuation Exit and Area.

The Social-Cognitive Theory by Albert Bandura also

lay emphasis on the cognition and the learner's mental involvement as an essential component of social learning. "Bandura believed that humans could learn through observation without the need for imitation; learning could be either direct or indirect (vicarious) in that one could learn through observing others' behaviors and the consequences of those behaviors." Bandura proposed that the key factors that influence learning begin with the observation of others. Through observation of modeled behaviors, attitudes, emotional reactions, etc., the learner makes decisions about how to act. He proposes that learning happens when we take observed behavior and assimilate it into our knowledge database (Bergin & Bergin, 2011).

The result has a positive correlation to the study of Gerdan (2014) which states that the lack of disaster awareness is the first obstacle encountered in disaster response. Various training programs were conducted in our country. However, none of these training programs, which are undoubtedly useful, are included in the formal education system. Yet, the information learned at school is more scientific and permanent than the information learned by chance from family and the environment.

In February 2018, Mishra found out that only 52% participants were aware of National Disaster Response Force and merely 10% knew about it. These findings

bring out the interpretation that a lot needs to be done to enrich the students' knowledge regarding various aspects of disaster causation and their management at all levels. In addition, the findings emphasize that the extent of knowledge is not yet satisfactory and there is a need of providing knowledge to the students. They are the strong elements who can disseminate the information to the wider sections of society. They are the social force that can help present and reduce risk of disasters. Moreover, disaster management can be compulsorily included in academic curriculum of all the students. Making the future generation aware in the host promising way to sustain mankind in their era of increased branches.

The safety of the students is one of the priorities in relation to earthquakes at universities and as part of emergency procedures, an effective evacuation plan is necessary. This includes evacuation routes which should be marked and informed.

Ziauddin (2016) conducted a study on Earthquake Preparedness in schools in Dhaka North City Corporation, found out that 70% of the students were aware of the routes on their school, while 30% of the students were not aware about it. However, based on the result, the study strongly contradicts to it.

Earthquake drills are very significant to reduce panic to the students in preparation for an actual earthquake scenario however it can also be one of the factors that may contribute to lack of awareness if it's not taken seriously.

Lagunda (2015) found out that during the earthquake drill in the University of Cebu (UC) Campus in downtown Cebu City, some were seen reading newspaper and others were just taking selfies. Furthermore, rescue and emergency units that were there to observe the activities noticed that not all the participants were very enthusiastic about participating in the drill. One of the observers, Alvin Santillana, operations chief of the Cebu City Disaster Risk Reduction and Management Office (CCDRMO), noticed that it took 15 minutes before all students were able to leave their classrooms, which he said is too long if the goal is to minimize injuries during an earthquake.

The environment around the student provides the rich resource for observing behaviors and mentally

cataloging these examples for future use in their own learning environments. Learning can happen at any time, anywhere (Ormod, 2015).

CONCLUSION

The student's awareness on the safety features of the university is an important consideration to be able to keep themselves secured and safe during an earthquake. The respondents claimed that they are aware; however, it does not coincide with the assessment of their awareness on the evacuation exit and area. Despite the signages, seminars and drills conducted every year, it showed that there is not enough understanding and knowledge on the safety features of the university in response to earthquake, specifically the evacuation exits and evacuation areas.

RECOMMENDATIONS

Based on the finding of the study the following are suggested:

Strict compliance & adherence on the drill conducted by the university safety team must be observed. Strengthen connections is done between students & safety team by conducting seminars and awareness to provide good communication and positive outcomes. Placing of evacuation plans & evacuation guides to more noticeable area one very classrooms is also done. Effectivity of the drills, seminars/ awareness must be evaluated from time to time. Evacuation areas and evacuation exits must be included in several exams which are to be retained and nailed on the students' mind.

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