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DISASTER RISK MANAGEMENT AND ENVIRONMENTAL AWARENESS IN STUDENTS OF THE NATIONAL UNIVERSITY OF CAÑETE-PERU

María Silvia Villa Santillán
Professor at the National University of Cañete, Lima, Peru, mvilla@undc.edu.pe
Orcid: 0000-0003-1971-2545

Gladys Requejo Pacheco
Catholic University Sedes Sapientiae
grequejo@ucss.edu.pe, Orcid: 0000 0002 4262 1986

Lazaro Ruiz Barrera
Cesar Vallejo University.
rbarreral@ucvvirtual.edu.pe, Orcid: 0000-0002-3174-7321

Paula Milagros Chiok Pérez
National University of Cañete
pchiok@undc.edu.pe, Orcid: 0000-0001-7108-1432

ABSTRACT
The research determined the relationship between the variables, disaster risk management and environmental awareness in students of the Universidad Nacional de Cañete, Peru 2021. It was a study with a quantitative approach, of basic type and non-experimental design, cross-sectional, descriptive and correlational. The census sample consisted of 92 university students, selected by non-probabilistic intentional sampling. The survey technique was used and the instruments used were two questionnaires validated by Expert Judgment and the reliability was obtained from Cronbach's Alpha, with a reliability coefficient of 0.981 for the V_1 and 0.985 for the V_2 . The results reveal that in V_1 the regular level predominates with 42.4% followed by efficient with 41.3%, similarly, V_2, highlights the regular level with 53.3%, followed by efficient with 40.2%. It is concluded that there is a significant relationship between the variables disaster risk management and environmental awareness (r=0.818, P-value= 0.000) in students of the National University of Cañete, Peru 2021, at 95% confidence.
Key words: Disaster risk management, prevention culture, environmental education.

1 Introduction
Ecosystems support all forms of life on the planet, that is, the vitality of the earth and its inhabitants depends on them (United Nations Refugee Agency [UNHCR] 2021). The world must be aware of

who most deteriorates nature is the way of life of man, it is he who deforests, generates pollutants that invade the land, water and air, causing serious consequences that affect biodiversity and the human species, such as global warming (UNHCR, 2018). Scientists and technicians give evidence of the terrifying effects of climate change both on a regional and global scale.

The Economic Commission for Latin America and the Caribbean (ECLAC), an initiator in disaster assessment since 1972, states that "Latin America and the Caribbean is a region highly exposed to meteorological and hydrological phenomena" (p. 23), but, ...

It is evident that "Latin America and the Caribbean is one of the regions of the planet with the highest exposure to various natural hazards, including droughts, earthquakes, floods, forest fires, hurricanes, landslides, tsunamis and volcanoes, among others". It is evident that natural disaster events are repeated with greater frequency and severity, precisely in the last four decades, they occur three times more than in the previous ones, causing considerable damage to the planet. To cite one case, in the last two decades, "floods have directly affected about 53 million people and reached 1 billion dollars in economic losses for the region" (Useche, 2020).

Peru, according to the Tyndall Center of England, ranks third among countries with the highest level of vulnerability to global warming after Bangladesh and Honduras (National Environmental Information System [SINIA] 2015). And it is responsible for 0.4% of Greenhouse Gases (GHG), three decades ago it has decreased 22% of the 71% of the ice floe layers that corresponds to the Peruvian Andes mountain range, (Ministerio del Ambiente [MINAM] 2009). Tavera (2020), states that Peru is a land of natural hazards because it is located in:

The Pacific Ring of Fire, the result of plate tectonics of the convergence process of the Pacific plate with others that surround countries in South America, such as Peru, Central and North America, Japan, Indonesia and New Zealand, where about 90% of the earthquakes that occur in the world occur and where more than 75% of active volcanoes are concentrated.

The population of the province of Cañete, in addition to vulnerability to disasters due to earthquakes, El Niño phenomenon and pesticides faces others, such as those of Bujama Baja, district of Mala, in 2017 the Organization for Environmental Evaluation and Supervision (OEFA) found the overflow of sewage that contaminated irrigation canals of large agricultural areas (RPP, 2017), also in 2018, the Ombudsman's Office found serious environmental problems in the province that evidenced a weak management in environmental matters (Peru21, 2018). Likewise, (Castillo and Moreno, 2018) alerted the existence of high levels of contamination in the Cañete River. The Cañete river basin that emanates at 4,429 m.a.s.l. (Laguna de Ticllacocha-Yauyos) is at risk due to the effects of global warming, the economic activity of residents and pollution (Ortiz and Miranda, 2019), according to the (National Institute of Statistics and Informatics [INEI], 2007), dates a population of 342,306 people living in 601,734 km, of which 85.6% inhabit the lower part of the basin, Blundo et al. (2016).

In this context, the question is posed: What is the relationship between disaster risk management and environmental awareness in students of the National University of Cañete, Peru 2021, which

is derived in the specific problems, how disaster risk management is related to the dimensions of environmental awareness: cognitive, affective, conative and active.

The theoretical justification for the study of disaster risk management is that Peru is located inside the Pacific Ring of Fire (Tavera, 2020), which is responsible for earthquakes and climate variability, and that the phenomenon of global warming and its consequences are the result of inadequate human behavior due to the economic activities carried out for subsistence that damage the ecosystem. To address this problem, Law 29664 and the National Disaster Risk Management Plan (PNGRD) are based on classical and neoclassical management theory. From the methodology, the application of research instruments to generate new knowledge for decision making. The social aspect lies in raising awareness of the population through environmental education to students, in this university space from a social responsibility approach, with actions of prevention and preservation of the environment.

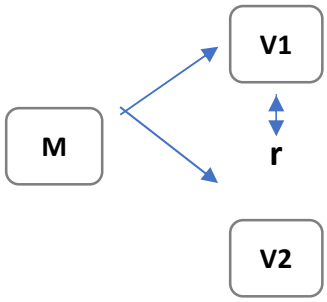
The objective of the study is to determine the relationship between the variables disaster risk management and environmental awareness in students of Universidad Nacional de Cañete, Perú 2021. Likewise, the hypothesis that guides the study asserts that there is a significant relationship between disaster risk management and environmental awareness in students of Universidad Nacional de Cañete, Perú 2021.

2 Materials and methods

Basic research has generated new knowledge from the analysis and interpretation of the observable facts of the phenomenon and the relationships established between them, CONCYTEC (2020). In this way, it has made it possible to understand and comprehend in greater depth significant aspects of the object of study.

The research design to develop this process was non-experimental, because the study variables were not manipulated, it was framed at the descriptive level to characterize their behavior in their natural space, quantifying them in the context of the academic institution to determine their correlation, that is, to know the degree of correspondence it has, and transversal because the data were obtained on a single occasion, (Hernández and Mendoza (2018). The following diagram represents the design applied to the variables:

M: Sample
(University students)
V1: Disaster Risk Management
V2: Environmental Awareness
r: Relationship



2.2 Variables and operationalization

Variable 1: Disaster risk management

Disaster risk management is defined as a social process with actions that lead to permanently prevent, reduce and control disaster risk factors in society, as well as the appropriate preparation and response to disaster events, within the framework of national policies, economic, environmental, security, national defense and sustainable territorial aspects (Law No. 29664, art.3).

The disaster risk management variable is based on three dimensions: prospective, corrective and reactive (Law No. 29664, art. 6.1). The operationalization of Variable 1 (see Annex A).

Indicators

The indicators that support the dimensions are: Risk indication, hazard assessment, vulnerability and risk assessment, public information and community participation, risk management training and education, risk integration in the IEP, implementation of protection techniques, control of hazardous phenomena, updating and control of the application of standards and codes, vulnerability reinforcement and intervention, vulnerability reinforcement and intervention, organization and coordination of emergency operations, simulation, updating and testing of international response, community preparedness and training, planning for rehabilitation and reconstruction.

Scale

The ordinal measurement scale with 5-alternative polytomous scoring.

Variable 2: Environmental awareness

Environmental awareness is the set of psychological factors that create in the person, the intention to protect and safeguard the environment. These aspects are of an affective, cognitive, dispositional and behavioral order, allowing individuals to develop a social identity with environmental values (Gomera, Villamandos and Vaquero, 2012, p.196).

The environmental awareness variable contains the cognitive, affective, conative and active dimensions, (Villamandos and Vaquero, 2012, p.196). The operationalization of Variable 2 (see Annex B).

Indicators

The indicators that support the dimensions are: Severity, personal concern, priority, adherence to values, degree of general information, specialized knowledge, opinions on environmental policy, perception of individual action, willingness to undertake various pro-environmental behaviors, willingness to assume costs associated with different policy measures, individual, collective.

Scale

The ordinal measurement scale with polytomous scoring of 5 alternatives

2.3Population, sample and sampling

The group of interest to collect the research data was formed by university students defined from the problem statement, this group of people constituted the study population, according to

(Hernández and Mendoza (2018). A population of 92 students of the Universidad Nacional de Cañete of the Academic Semester 2021-2 was delimited.

The sample was an important source of information that were studied to know the behavior of the variables, it was formed by 92 students of the National University of Cañete who according to their knowledge, experience and criteria answered the questionnaire, (Hernandez and Mendoza (2018).

2.4Data collection techniques and instruments

The data collection technique was the survey that refers to a set of procedure and resources, rules and operations for the proper handling of the instrument. It was conducted through a virtual interview to collect data from UNDC students, in this case it was census sample, (Sanchez et al., 2018).

The data collection instrument for the variables is the questionnaire (Sánchez et al., 2018). For the purposes of the study, two questionnaires of thirty questions were formulated for each variable (V1 and V2), with measurement responses on an ordinal scale according to Likert's methodology (1903-1981), with five levels of measurement, three positive and two negative. V1 collected information about the activities carried out by UNDC within the framework of Law No. 29664 (see Annex D) and V2 inquired about the students' level of environmental awareness (see Annex E).

Validity

It is the degree of effectiveness of a measurement method or technique, (Sánchez et al., 2018). The accuracy of the measurement of the variable was demonstrated by means of content validity in a specific manner, the expert judgment of three specialists was used, their analysis was based on criteria of pertinence, relevance and clarity. The validity of variable 1 (see appendix F) and the validity of variable 2 (see appendix G).

Reliability

According to Hernández and Mendoza (2018), reliability refers to the degree to which an instrument applied to participants repeatedly produces the same results, that is, consistency and coherence are sought in the sample. To establish reliability, a pilot test was applied to 22 students with similar characteristics to the study sample in another national university, the data were subjected to the analysis of the Cronbach's Alpha coefficient (α) and the result was 0.981 for V1 and 0.985 for V2, which according to Duncan (2004) present high reliability (see Annex H).

2.5Procedures

The procedures guide the activities in a research, they are sequential stages or steps, according to (Sánchez et al., 2018), they were carried out taking into account the type, methods and techniques of research. When the University authorized the development of the research in the institutional setting through Oficio N°433-2021-UNDC/P/VPAC (see Annex I), we proceeded to apply the questionnaires (https://forms.gle/oftnRLHT1gyrVtwM6) to students who were attending virtual

classes due to the National Health Emergency situation in which the country is in because of Covid-19.

2.6Data analysis method

From the established database, descriptive statistics determined the levels in the variables and dimensions (deficient, regular, efficient), which were represented in frequency tables and bars; likewise, inferential statistics were used to find the correlation coefficient and the hypothesis test. Based on the answers obtained, the analysis proceeded to obtain the results, conclusions and recommendations, respectively.

2.7 Ethical Aspects

The research study was conducted under the ethical principles that govern international standards, the report was written taking into account the principle of intellectual property of the authors. Based on the informed consent of the Universidad Nacional de Cañete, the students responded voluntarily to the questionnaire without any risk, likewise, all had the opportunity to participate in the survey in a fair and equitable manner and with absolute respect, in this way, the researcher assumed the commitment to maintain the anonymity of the respondents.

3 Results

The results of the statistical analysis of the variables of disaster risk management and environmental awareness among students of the National University of Cañete, Peru 2021 are presented below.

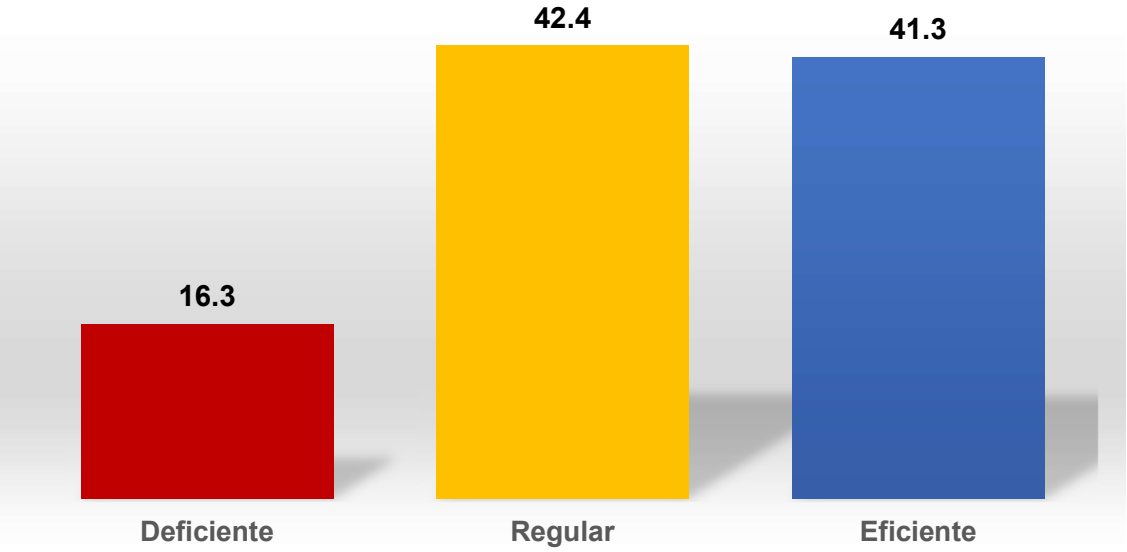
Table 1

Distribution of risk and disaster management levels.

	Frequency	Percentage
Deficient		16,3
Regular		42,4
Efficient		41,3
Total	92	100,0

Figure 1.

Distribution of risk and disaster management levels.



Interpretation: Table 1 shows that 42.9% consider disaster risk management to be regular, 41.3% of respondents that it is efficient, while 16.3% rate it as deficient.

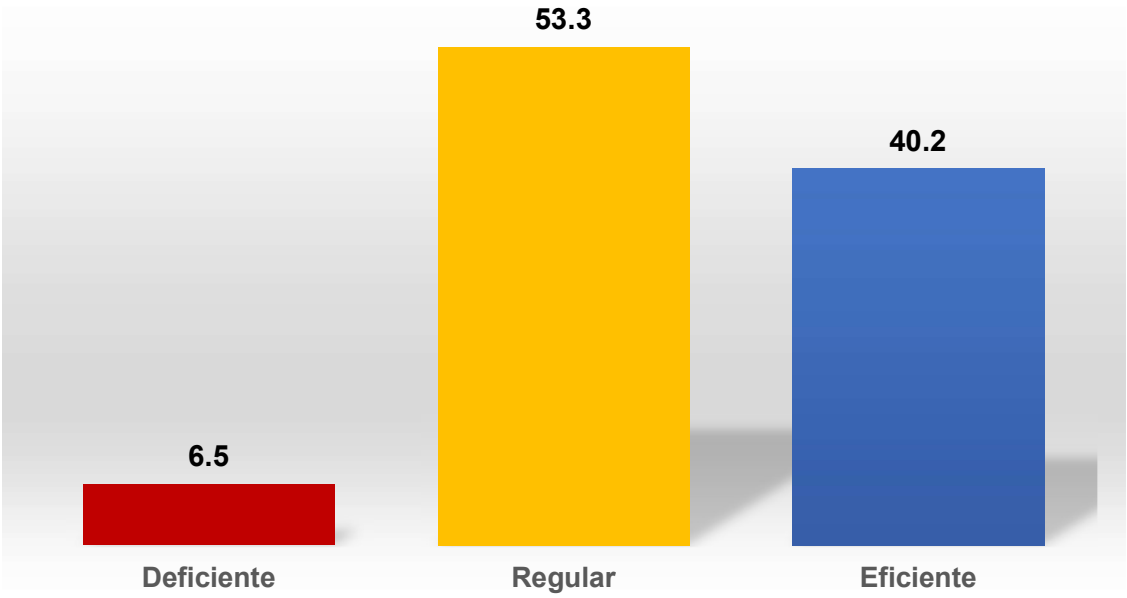
Table 2

Distribution of levels of the environmental awareness variable.

	Frequency	Percentage
Deficient		6,5
Regular		53,3
Efficient		40,2
Total	92	100,0

Figure 2.

Distribution of levels of the environmental awareness variable.



Interpretation: Table 2 shows that 53.3% of the respondents consider that environmental awareness presents a regular level, 40.2% consider that it is efficient and only 6.5% of the students of the Universidad Nacional de Cañete consider that environmental awareness is deficient.

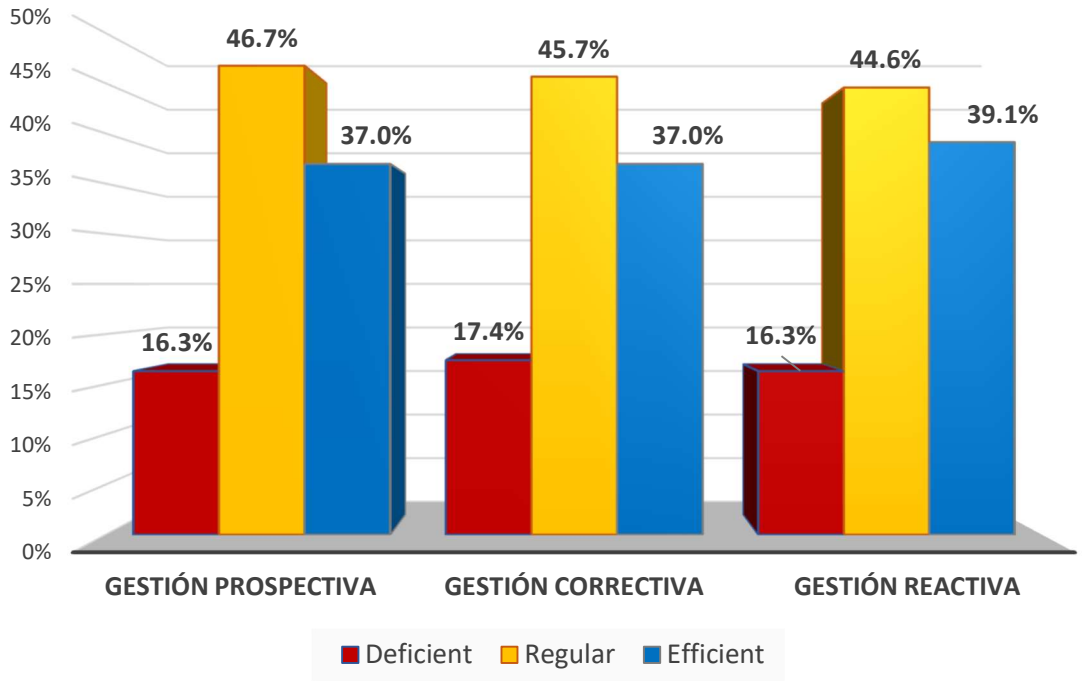
Table 3

Distribution of levels of the dimensions of disaster risk management.

	Deficient		Regular		Efficient	
	fi	%	fi	%	fi	%
Forward-looking management		16,3%	43	46,7%		37,0%
Corrective management		17,4%	42	45,7%		37,0%
Reactive management		16,3%		44,6%		39,1%

Figure 3

Distribution of levels of disaster risk management dimensions.



Interpretation: It is observed that 46.7% of the respondents consider prospective management to be regular, 37% efficient and 16.3% deficient; regarding corrective management, 45.7% consider it to be regular, 37% efficient and 17.4% deficient; likewise, 44.6% consider reactive management to be regular, 39.1% efficient and 16.3% deficient.

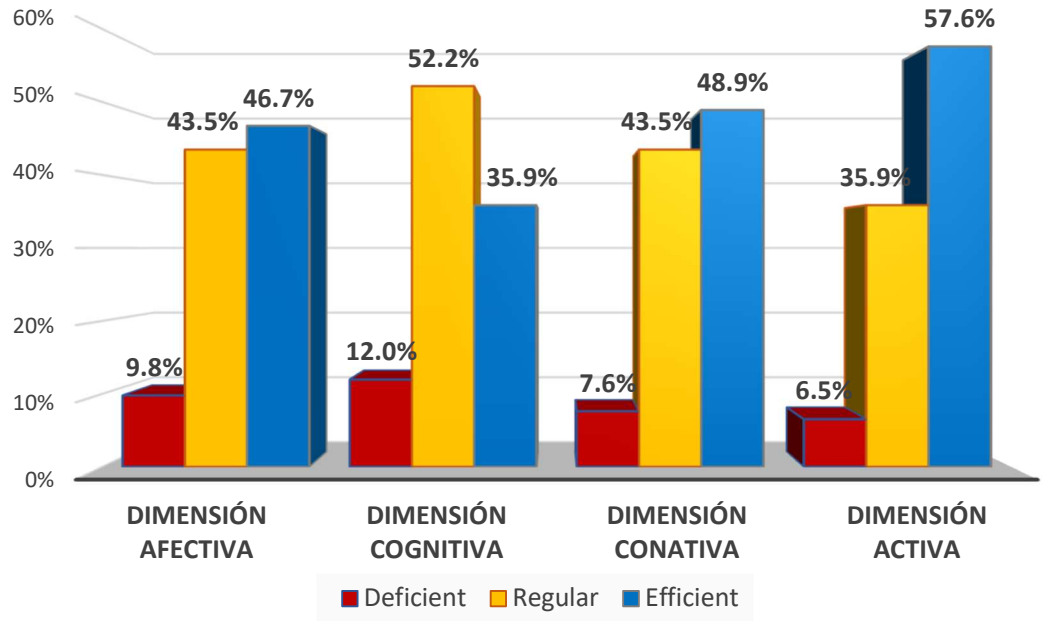
Table 4

Dimensions of levels of environmental awareness dimensions

	Deficient		**Regular**	**Efficient**	
	fi	%	fi % fi % fi % fi % fi % fi % fi % fi % fi % fi % fi % fi %		fi % fi % fi % fi % fi % fi % fi % fi % fi % fi % fi % fi %
Affective dimension		9,8%	43,5%		46,7%
Cognitive dimension		12,0%	52,2%		35,9%
Conative dimension		7,6%	43,5%	45	48,9%
Active dimension		6,5%	35,9%		57,6%

Figure 4

Distribution of levels of the dimensions of environmental consciousness



Interpretation: It is observed that 46.7% of the respondents consider the affective dimension of environmental awareness to be efficient, 43.5% consider it to be regular and 9.8% deficient, while in the cognitive dimension 52.2% of the respondents rate it as regular, while 35.9% consider it to be efficient and 12% as deficient; in the conative dimension 48.9% consider it to be efficient, 43.5% regular and 7.6% deficient.In the conative dimension, 48.9% considered it efficient, 43.5% regular and 7.6% deficient, while in the active dimension, 57.6% considered it efficient, 35.9% regular and 6.5% deficient.

4.2. Hypothesis Testing

The statistical results are presented below with respect to the contrast of the hypotheses proposed in the research.

Testing of the general hypothesis:

H_0 : There is no significant relationship between disaster risk management and environmental awareness in students of Universidad Nacional de Cañete, Peru 2021.

H_1 : There is a significant relationship between disaster risk management and environmental awareness in students of Universidad Nacional de Cañete, Peru 2021.

Significance level: Alpha = 5%.

Table 05

Relationship between disaster risk management and environmental awareness.

	Disaster risk management	Awareness Environmental

Spearman's Rho	Disaster risk management	Correlation coefficient	1,000	,818*
		Sig. (bilateral)	.	,000
		N	92	R92
	Environmental awareness	Correlation coefficient	,818*	1,000
		Sig. (bilateral)	,000	.
		N	92	92

Since p-value = .000 < .05, then there is sufficient statistical evidence to reject the null hypothesis. It is evident that there is a significant relationship between disaster risk management and environmental awareness (r=0.818, P-value= .000) in students of Universidad Nacional de Cañete, Peru 2021, at 95% confidence.

Specific hypothesis 1:

H_o : There is no significant relationship between disaster risk management and the cognitive dimension in students of the Universidad Nacional de Cañete, Peru 2021.

H_1 : There is a significant relationship between disaster risk management and the cognitive dimension in students of the National University of Cañete, Peru 2021.

Significance level: Alpha = 5%.

Table 06

Relationship between disaster risk management and the cognitive dimension.

			Disaster riskDimension	
			management	cognitive
Spearman's Rho	Disaster risk management	Correlation coefficient	1,000	,843*
		Sig. (bilateral)	.	,000
		N	92	92
	Dimension cognitive	Correlation coefficient	,843*	1,000
		Sig. (bilateral)	,000	.
		N	92	92

Since p-value = .000 < .05, then there is sufficient statistical evidence to reject the null hypothesis. It is confirmed that there is a statistically significant relationship between disaster risk management and the cognitive dimension (r=0.843, P-value= .000) in students of the National University of Cañete, Peru 2021, at 95% confidence.

Specific hypothesis 2:

H_o : There is no significant relationship between disaster risk management and the affective dimension in students of the Universidad Nacional de Cañete, Peru 2021.

H_1 : There is a significant relationship between disaster risk management and the affective dimension in students of the Universidad Nacional de Cañete, Peru 2021.

Significance level: Alpha = 5%.

Table 07

Relationship between disaster risk management and the affective dimension.

			Disaster risk management	Dimension affective
Spearman's Rho	Disaster risk management	Correlation coefficient	1,000	,785*
		Sig. (bilateral)	.	,000
		N	92	92
	Dimension affective	Correlation coefficient	,785*	1,000
		Sig. (bilateral)	,000	.
		N	92	92

Since p-value = .000 < .05, then there is sufficient statistical evidence to reject the null hypothesis. It is affirmed that there is a statistically significant relationship between disaster risk management and the affective dimension (r=0.785, P-value= 0.000) in students of the National University of Cañete, Peru 2021, at 95% confidence.

Specific hypothesis 3:

H_0 : There is no significant relationship between disaster risk management and the conative dimension in students of the Universidad Nacional de Cañete, Peru 2021.

H_1 : There is a significant relationship between disaster risk management and the conative dimension in students of the Universidad Nacional de Cañete, Peru 2021.

Significance level: Alpha = 5%.

Table 08

Relationship between disaster risk management and the conative dimension.

			Disaster risk management	Dimension conative
Spearman's Rho	Disaster risk management	Correlation coefficient	1,000	,504*
		Sig. (bilateral)	.	,000
		N	92	92
	Dimension conative	Correlation coefficient	,504*	1,000
		Sig. (bilateral)	,000	.
		N	92	92

Since p-value = .000 < .05, then there is sufficient statistical evidence to reject the null hypothesis. It is corroborated that there is a statistically significant relationship between disaster risk management and the conative dimension (r=0.504, P-value= 0.000) in students of the National University of Cañete, Peru 2021, at 95% confidence.

Specific hypothesis 4:

H_0 : There is no significant relationship between disaster risk management and the active dimension in students of the Universidad Nacional de Cañete, Peru 2021.

H_1 : There is a significant relationship between disaster risk management and the active dimension in students of the National University of Cañete, Peru 2021.
Significance level: Alpha = 5%.

Table 09
Relationship between disaster risk management and the active dimension.

			Disaster risk management	Dimension active
Spearman's Rho	Disaster risk management	Correlation coefficient	1,000	,385*
		Sig. (bilateral)	.	,000
		N	92	92
	Dimension active	Correlation coefficient	,385*	1,000
		Sig. (bilateral)	,000	.
		N	92	92

Since p-value = .000 < .05, then there is sufficient statistical evidence to reject the null hypothesis. It means that there is a statistically significant relationship between disaster risk management and the active dimension (r=0.385, P-value= 0.000) in students of the National University of Cañete, Peru 2021, at 95% confidence.
For (Sánchez, et al., 2018) the discussion integrates all the information obtained from the study to explain it and interpret the results achieved with respect to the hypotheses raised in relation to the theoretical framework.
The results obtained show that the general hypothesis established that the risk and disaster management variable corresponds significantly with the environmental awareness variable in the students of the Universidad Nacional de Cañete, 2021, with (r=0.818, P-value= 0.000) at 95% confidence, meaning that, by improving disaster risk management to an efficient level by the university, the student's behavior and that of their family environment with the environment will improve, that is, their environmental awareness will be raised. In this sense, the university plays a fundamental role in the development of environmental education. In this context, from its mission, the UNDC assumes the professional formation in the scientific, technological and humanistic field of the student framed in sustainable development. The results express the degree of associativity between the variables and are similar to Arriola, (2017) where he states that there is a relationship between the variables studied: environmental education and the level of development in environmental awareness in UCV students, which confirms that environmental education strengthens environmental awareness, through which students incorporate knowledge progressively on a par with their experience and relate it to their environment, participate in activities of their community according to their needs as Maslow (1943) sustains them in his theory of the hierarchy of needs, where he argues that individuals develop new needs from satisfying the

needs that precede them, they need to be accepted in a social group where they relate and share their values, beliefs, customs, and the interesting thing is that they show a tendency towards self-realization and that places them in the predisposition to learn continuously and drive their behavior towards a change. Environmental education has the purpose of changing habits and behaviors in society, it is an understanding that allows individuals to become aware of environmental problems and to know how to prevent and solve them in a timely manner.

In this sense, Villa (2020) recognizes the importance of achieving a culture of prevention through training. People learn more as they become involved in the problems of the community, as they become informed about the consequences of their actions on the environment, since the beginning human beings have made use and abuse of nature and have put it at their service in an irrational way and its effects seem irreversible, generating a chain effect of one effect after another, To understand the problem, human beings must understand and assume responsibility for the consequences of their actions, which will allow them to be open to understanding and face challenges, showing interest in changing their way of life, with a new perception of their relationship with society and their environment. The results of Arriola (2017) found that the environmental education variable corresponds significantly with the cognitive, affective, active conative dimensions of environmental awareness in the students of the FIC of the Universidad César Vallejo. Oseda et al. (2020) emphasize that environmental awareness is achieved by educating society at all times and in all spaces. It is important to educate to make society aware, from the initial level involving their families, it is important to understand the environmental problems and the importance of acting proactively, he also adds that universities and training centers should also teach with practice, promote projects related to the subject. In that order of ideas, Arriola (2017), specifies that environmental education seeks sustainable development and in harmony with the actions of people and their environment that surrounds them, seeking to respond appropriately with responsible behavior in favor of the environment, with human sense thinking about current and, above all, future generations. On the other hand, the UNDC as a promoter of development of the province of Cañete interrelates with population in all aspects of risk management-administration, for (ISO 31000 Standard.2018), its principles apply to both people and organizations, because they are constantly facing changes, events or adverse situations, many of these changes mean events of uncertainty, risk or threat that threaten the safety of the population, it is important to attend and listen to the knowledge, experiences, experiences, points of view, perceptions and expectations, in front of the events of the stakeholders.

Regarding the first specific hypothesis, the results reveal that there is a significant relationship between disaster risk management and the cognitive dimension in students of the National University of Cañete, Peru 2021, with (r=0.843, P-value= 0.000) in students, at 95% confidence. The descriptive analysis indicates that risk and disaster management stands out in the regular level with 42.4%, and the same level in the cognitive dimension with 52.2%. This result asserts that the training of students requires adequate information regarding the actions of the UNDC with respect

to the environmental problems of their community, given that students are part of it and are not oblivious to the reality, it should be noted that in the first place it is important to have information to make a diagnosis to locate the most vulnerable areas according to the level of risk. Education and the environment are not new, they are consubstantial, the environment contains empirical knowledge, it is part of the context of the academic environment, it contains the didactic resources that education requires for teaching and learning. From the perspective of the National Plan for Disaster Risk Management (PLANAGERD 2014-2021) proposes to incorporate knowledge of risk from the preparedness phase where there is a demand for accurate and timely information regarding the situation of vulnerability that is evident. On the other hand, Gervacio and Castillo (2020), conclude that it is possible to rely on knowledge and awareness to deploy appropriate attitudes, it is necessary to put into practice actions with a clear commitment, with appropriate methods that contribute to solve the current complicated environmental situations and that these responses involve the active participation of students. This premise is related to the entity that leads education in Latin America and the Caribbean, we refer to Unesco as a promoter of environmental education, summons its representatives and other institutions such as universities to assume commitments for environmental education to society. Martines (s/f) admits that the nature of the environment is quite complex because diverse factors interact such as: physical, biological, social, cultural, economic, among others, that is why such conditions require a holistic understanding, understanding its magnitude, its management should be oriented towards responsible practices for sustainable development.

In the same way, the second specific assumption states that there is a positive relationship of the variable disaster risk management with the affective dimension of environmental awareness in students of the National University of Cañete, Peru 2021, finding that (r=0.785, P-value= 0.000) in students at 95% confidence. Now let's see from the descriptive statistics, disaster risk management highlights the regular level with 42.4%, on the contrary, in the affective dimension the efficient level is superimposed with 46.7%. It means that students relate in an affective way, likewise, with others and their environment, they are quite motivated by the subject, this dimension is quite linked to the cognitive one because both dimensions generate an interaction in teaching-learning. In the same way, Valencia and García (2020) propose to execute actions oriented to generate balanced relationships between man and the environment, based on values and active participation, from this point of view, human beings experience feelings of emotion seeking harmony with their environment and start from their own lived experience. It is similar to that of Saavedra et al. (2021), regarding the importance that the students of the military institution show with respect to the subject and awaken interest from themselves to their surroundings where they identify environmental problems. On the contrary, Gervacio and Castillo (2020), found in a university in Mexico, that students have a minimum level of environmental awareness, in their actions they do not show interest in the care or protection of the socio-environmental environment, they are not interested in solving problems in their locality. The results indicated that their

behaviors and experiences on environmental issues range from "scarce" to "regular". In that order of ideas Reyes (2018), demonstrated that the group to whom he applied his experiment modified their way of thinking and acting, left inadequate practices for attitudes and behaviors oriented to foresighted practices in the face of dangerous circumstances, which will influence their future life and the way they will make their decisions. This result is a product of the environmental education that is oriented to consolidate an environmental conscience of the individual and his community in their lifestyle and culture, and that such coexistence favors interpersonal relationships and their level of self-esteem.

Likewise, the third specific hypothesis demonstrates a correlation of disaster risk management and the conative dimension in the students of the National University of Cañete, Peru 2021, with (r=0.504, P-value= 0.000) in students at 95% confidence. In the same way, the descriptive statistics from the descriptive approach, disaster risk management highlights the regular level with 42.4%, while the conative dimension with 48.9% efficiency. This dimension defines the parameters or alignments of behavior within the framework of values that guide the individual's actions in favor or against the environment. It implies that people act guided by common interests and assume pro-environmental leadership, as in the case of the young Swedish environmental activist Greta Thunberg, who mobilizes young people around the world to demand decisive measures to halt the effects of climate change. For Saavedra et al. (2021), this relationship allows officials to understand the guidelines and act in that direction. A actively participate in actions to improve their police training institution and their community. Saavedra et al. (2021) states that by broadening their knowledge on the subject of disaster risk management, students contribute to strengthening their interrelationship with their environment. On the other hand, the results of Valencia and García (2020) reveal that environmental education is presented as the articulating axis between risk management and environmental sustainability. Next, Rivera et al. (2020), argue that risk assessment is to highlight and analyze the vulnerabilities they face. At the same time of understanding the area and the hazard situations, it is also important to know the response capacities of the community. In Medellin, risk management aims to guide adaptation and social and environmental transformation in the physical space where they are located, to know and meet their needs, improve their quality of life in a sustainable manner, so that it is possible to reduce the possibility of repeating new risks. On the other hand, Villa (2020), found that the seminar-workshops to develop competences or technical assistance allow to sensitize the participants; this form of training strengthens the capacities of the groups of stakeholders or actors of a community. This dimension requires people to be trained, i.e., they need to strengthen their capacities in order to act.

In the fourth specific hypothesis, there is evidence of a correspondence of the risk and disaster management variable with the active dimension in students of the National University of Cañete, Peru 2021. It is a significant relationship with (r=0.385, P-value= 0.000) in students, at 95%

confidence. Next, the disaster risk management variable prevails the regular level with 42.4%, in the same way, in the active dimension which is the dimension that widely surpassed the other dimensions in 57.6% of efficient. This relationship indicates that the students have a high predisposition to participate in events of a pro-environmental nature in favor of their community, it highlights the proactive characteristics of the students and their culture; for the university it is an excellent opportunity to develop environmental education as part of their professional training. This result is related to Saavedra et al. (2021), assures that it allows students to have satisfactory experiences product of participation in environmental events that strengthens their feeling individually and with their peers. In this way, Pasek de Pinto (2004) confirms that the complexity of environmental problems demands response capacity; it demands that people react and move from a submissive attitude to a critical attitude. Likewise, Kurt Lewin (1890-1947) explains that people perceive and interpret their environment according to their current needs and maintains that the motivation of behavior is a consequence of a dynamic field of coexistent fact, which means that a university not only provides knowledge, but also requires sharing ecosystems to promote environmental education and sustainability in practice. In that context, a modern organization focuses its management on sustainability to ensure its prosperity, social equity and environmental quality, (Chiavenato, 2014). Likewise, Ordoñez, et al. (2018) evidence that in Latin America and the Caribbean, they found that there is a solid administrative and legislative organization on the subject, however, there is a great lack in the management of social projects to reduce the risk of disasters, i.e. minimum level of prevention culture. As stated by Ordoñez, et al. (2018), that environmental education is a social instrument and the university is the right one to assume the commitment to lead environmental education to generate environmental awareness in society.

4 Conclusions

At a general level, the existence of a significant relationship between the variable disaster risk management and environmental awareness in students of the National University of Cañete, Peru 2021 is affirmed. This means that if UNDC achieves an efficient level of disaster risk management, it will have a favorable impact on the environmental awareness of students, as well as that of their family environment and society, i.e., with this the university will achieve its mission and institutional vision. Confirming that education is the means to achieve environmental awareness in students and therefore in society as a whole.

The results explain the first specific objective: that there is a significant correspondence between disaster risk management and the cognitive dimension in students of the National University of Cañete, Peru 2021. This means that, in the educational process of professional training at the university, students progressively incorporate knowledge into their experience, relate it to their environment, interact and participate in pro-environmental activities.

The results achieved demonstrated specific objective 2, establishing a significant relationship between the risk and disaster management variable and the affective dimension in students of the National University of Cañete, Peru 2021. The affective dimension allows students to have self-

knowledge of their feelings, manage their emotions from their values and principles in relation to the surrounding environment where they interrelate with their peers in the context of university management.

With the results achieved, they determined the specific objective 3, which establishes the significant relationship of the variable disaster risk management with the conative dimension in the students of the National University of Cañete, Peru 2021. In this relationship, the student sustains a value judgment regarding the environmental problem and assumes a position and orients his decision in favor or against it.

The results achieved determined the specific objective 4, which establishes the significant correlation of the variable disaster risk management and the active dimension in the students of the National University of Cañete, Peru 2021. UNDC students know their rights and obligations, participate individually and collectively in pro-environmental activities. An active form of participation will be in academic activities, specifically in the field of scientific research, social responsibility and environmental education.

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