

## RESEARCH ARTICLE

### *Assessment of Environmental Awareness among Students of the University Mosul*

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#### ABSTRACT

*Background: The issue of achieving environmental awareness is not easy because it affects people's daily lives. The direct responsibility rests with everyone from home, school, university and even street, as well as, the state in providing ways to ensure a clean and healthy environment.*

*Objective: To identify the students views and concepts on the importance of the hygiene and environmental awareness and assessing their behavior towards the environment.*

*Methods: A descriptive study has been designed for a sample of subjects consist of (200) students (83) male and (117) female, aged between (18-26) years from University of Mosul.*

*The study has been conducted from 1<sup>st</sup> of January to 30<sup>th</sup> of March 2022. Data were collected through the interview of the students which included the personal information and questionnaire is distributed for them to answered which done in the classroom. The data were analyzed through the application of disruptive statistical analysis that include (Frequency and percentage).*

*Results: The study showed that environmental awareness of students was good they accounted 48.5% with a description of the environmental reality in the city with a weak at 77.5% and dissatisfaction about the cleanliness of the university at 50.5%, and that the family is the cornerstone that deepen the concepts of maintaining the cleanliness of the environment at 51%, with dissatisfaction with the student's behavior in maintaining the cleanliness of the University at 49%.The study also supported one of the difficulties faced by University to preserve the cleanliness of its environment is the absence of laws to deter and punish violators to reduce the practice of throwing garbage at 48.5% and the responsibility for cleanliness of the university lies with the student and university at 86%. The study also showed that environment education is no less important than any other curriculum, and that the student is willing to change his habits and miss conceptions to reduce their impact on environment.*

*Recommendation: The study recommended that the development of environmental awareness among students through of environmental topics in educational curriculum in educational institutions, or through educational guidance in the universities with the activation of the role of media more in the dissemination of environmental sense among the members of the community.*

**Key words:** Environmental awareness, Environmental cleanliness.



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## INTRODUCTION

The environmental awareness is very important in human life, because the environment is the place in which he lives, practices his activities and his relationship with others, so it is necessary to preserve it and not tamper with it (Aydin and Kaya, 2011; Kamal, 2013). Environmental awareness is the environmental knowledge and concepts that individuals possess in how to deal with and protect the environment, represented by the correct positive behaviours that work to preserve it (Ahmet , et al , 2014 ) .

The objectives of environmental awareness are to develop a sense of responsibility among individuals towards their environment and to give them the necessary awareness to be able to deal with it properly, protect it, maintain its components and elements, avoid harmful practices, address problems and develop solutions to them to rise to the level of environmental safety , which requires concerted efforts from all members of society , and state institutions ( Rodriguez-Ibeas , 2006 ; Ono and Maeda , 2014 ; Scruggs and Moore , 2016 ) .

The issue of achieving environmental awareness is represented by its three sides the state and its organs , the society with all its institutions , and the individuals who constitute the protectors of the environment in the event the availability of knowledge , awareness and correct understanding of their role towards the environment , or those who work to pollute it in the absence of awareness, misunderstanding and loss of a sense of responsibility towards the environment ( Royo , et al , 2014 ; Iraq Ministry of Environment , 2017 and Abdulrahman , 2017 ) . The preserve and protect the environment depends largely on the awareness of individuals by following the positive behaviours in the way they deal with their environment (Prechel, 2015; Ozdemir, 2016). In fact, with the increase and exacerbation of environmental problems, we find it necessary to spread environmental awareness among members of society and develop a sense of responsibility towards their environment to be

able to deal with it in a sound and healthy manner and not to tamper with it.

The study aimed to assess the environmental awareness of the students of the university of Mosul

## METHOD

A descriptive study design was carried out from 1<sup>st</sup> of January to 30<sup>th</sup> of March 2022. The study consists of (200) students who were chosen randomly from (10) colleges of Mosul University include 1<sup>st</sup> ,2<sup>nd</sup> ,3<sup>rd</sup>,4<sup>th</sup> stages males and females a questionnaire was prepared by researchers and included three axes:

- A. Personal information (gender, age, stage of education, original residence, current residence and socio status).
- B. The student's views and concepts on the importance of hygiene and environmental awareness.
- C. The student's awareness of the way to deal with the environment.

The validity of the questionnaire was established through panel of (8) experts, these experts were asked to review. the questionnaire for content clarity, relevancy and adequacy of orders to achieve the objective of the study , their response indicated that minor changes should be done to few items , such changes were made according to their suggestions .

For testing the reliability of the questionnaire a pilot study conducted by checking the internal consistency . Ten students were involved in a pilot study which excluded from the study sample Both interview and questionnaire were used for data collection by researchers when visited the colleges and meeting with students. Descriptive data analysis, frequency distribution and percentage .

## RESULTS

Table 1. Demographic characteristic of the whole sample

Variables	Frequency	Percentage
<b>1-Gender</b>	<b>NO</b>	<b>%</b>
Male	83	<b>41.5</b>
Female	117	<b>58.5</b>
Total	200	<b>100</b>
<b>2-Age years</b>	<b>NO</b>	<b>%</b>
18-20	48	<b>24</b>
21-23	98	<b>49</b>

24-26	54	27
Total	200	100
<b>3-Stage of education</b>	<b>NO</b>	<b>%</b>
First stage	52	26
Second stage	58	29
Third stage	45	22.5
Fourth stage	45	22.5
Total	200	100
<b>4-Original residence</b>	<b>NO</b>	<b>%</b>
Urban	177	88.5
Rural	23	11.5
Total	200	100
<b>5-Current residence</b>	<b>NO</b>	<b>%</b>
With the family	185	92.5
Internal Sections	15	7.5
Total	200	100
<b>6-Social status</b>	<b>NO</b>	<b>%</b>
Single	167	83.5
Married	33	16.5
Total	200	100

Table 2. The students views and concepts on the importance of hygiene and environmental awareness

Items	Frequency	Percentage
<b>1. How you value your environmental awareness ?</b>	<b>N0</b>	<b>%</b>
Very good	15	7.5
Good	97	48.5
Weak	88	44
Total	200	100
<b>2. How to describe your environmental reality?</b>	<b>N0</b>	<b>%</b>
Very good	2	1
Good	43	21.5
Weak	155	77.5
Total	200	100
<b>3. What is your satisfaction with the cleanliness of your University?</b>	<b>N0</b>	<b>%</b>
Not satisfied	101	50.5
Satisfied heavily	25	12.5
Somewhat satisfied	74	37
Total	200	100
<b>4. What do you think institutions that deepen the concepts of maintaining the cleanliness of environment?</b>	<b>N0</b>	<b>%</b>
Family	102	51
Educational institution	25	12.5
Media	14	7
Legal Legislation	31	15.5
Mosque	28	14
Whole	-	-
Total	200	100

<b>5. How satisfied you are with the student's behavior in maintaining the cleanliness of University?</b>	<b>N0</b>	<b>%</b>
Not satisfied	98	<b>49</b>
Satisfied heavily	20	<b>10</b>
Somewhat satisfied	82	<b>41</b>
Total	200	<b>100</b>
<b>6. What are the difficulties faced by the University to keep it's environment clean?</b>	<b>N0</b>	<b>%</b>
A few employees on the service and cleanliness of the University	31	<b>15.5</b>
Poor student awareness of the importance of preserving the University environment	37	<b>18.5</b>
Lack of deterrent laws for violators	97	<b>48.5</b>
Severe short comings of competent authorities and lack of efficiency	35	<b>17.5</b>
Total	200	<b>100</b>
<b>7. In your opinion, University cleaner is responsible of :</b>	<b>No.</b>	<b>%</b>
The student	20	<b>10</b>
The University	8	<b>4</b>
Both of them	172	<b>86</b>
Total	200	<b>100</b>
<b>8. In your opinion, what is the solution to reduce the wrong practices in throwing garbage in non-designated places</b>	<b>No.</b>	<b>%</b>
Increase health control and punish violators	139	<b>69.5</b>
Developing environmental awareness among students through extension	41	<b>20.5</b>
To provide information and cultural programs on the importance of environmental cleanliness and its relation to the health beauty and appearance of the city	20	<b>10</b>
Total	200	<b>100</b>

Table 3. The student's awareness of the way to deal with The environment

No.	Items	Always		Some time		Never		Total
		F	%	F	%	F	%	
1.	Is the family the first brick from which the individual learns the best environmental behavior	157	78.5	43	21.5	-	-	200
2.	Do you support environmental education as important as any other curriculum?	120	60	80	40	-	-	200
3.	Do You believe that community participation in environmental events and activates has a significant impact on raising environment awareness	98	49	102	51	-	-	200
4.	Do you agree that social communication is one of the most successful means of spreading environmental awareness?	60	30	128	64	12	6	200
5.	If you notice any environmentally harmful behavior, do you inform the competent authorities?	51	25.5	78	39	71	35.5	200
6.	Are you keen to advise and guide your brothers and friends in maintaining the cleanliness of the environment?	101	50.5	81	40.5	18	9	200
7.	Share your neighbors cleaning your street?	95	47.5	86	43	19	9.5	200
8.	Are you willing to change your habits and behaviors to reduce their impact on the environment?	119	59.5	71	35.5	10	5	200
9.	Do you feel embarrassed when there is garbage in front of your home?	175	87.5	25	12.5	-	-	200

10.	Do you care about your personal cleanliness and hygiene?	165	82.5	35	17.5	-	-	200
11.	Do you take care to clean your personal room and arrange your needs?	144	72	56	28	-	-	200
12.	Do you throw the trash and the cigarette butts into the classroom, walk ways and gardens?	32	16	32	16	136	68	200
13.	After you finish your meal at the grocery store you throw the waste in the garbage container.	159	79.5	19	9.5	22	11	200
14.	What do you do when a friend sees you throwing garbage in the college garden?	74	37	106	53	20	10	200
15.	When you pass next to trash in the classroom, do you remove it by placing it in its designated place?	70	35	110	55	20	10	200
16.	Ensuring relational use of potable water.	122	61	66	33	12	6	200
17.	Health disinfectants are used to clean the house.	113	56.5	49	24.5	38	19	200
18.	Be sure to clean the bathroom after you have finished using them?	158	79	42	21	-	-	200
19.	What is your behaviour when you see one of your colleagues writing on the seats and walls, Do you advise him not to write?	93	46.5	46	23	61	30.5	200

## DISCUSSION

Table (1) shows the demographic characteristic of ( 200 ) students , the percentage of the females was higher than males , they accounted (58.51%) (41.5%) respectively, (49%) of them were age between ( 21-23 ) years old , (88.5%) of the students were from Urban areas , and (92%) live with their families , most of them are single , (83.5%) . The results showed in table (2) that the environmental awareness among university students is good at (48.51%) .They have been described for the city's environmental status as poor at (77.5%) , and they were not satisfied with the cleanliness of the university , where the percentage of answer of this point (50.5%) . The results also showed that the family plays an important role in deepening the concepts of preserving the cleanliness of the environment , they accounted (51%) .

Fourty nine percentage of them were dissatisfied with the behavior of some students in maintaining the cleanliness of the university . Moreover , (48.5%) of the students confirmed that the absence of deterrent laws for violators is one of the difficulties that the university faces in maintaining its cleanliness . Our study supported by Arba'at , et al ( 2010 ) and Naz ,( 2018 ),where they identified the differences in the level of peoples general environmental awareness based on the educational level.

A nother studies by Uzun and Saglam , ( 2007 ) , Cakars, et al , ( 2008 ) and Ahmet et al, ( 2014 ) , also confirmed that the familys culture and educational level that deepen the concepts of environmental cleanliness.Eighty six percentage of the students believe that the cleanliness of the University is responsibility of the student and

the university administration and the solution to reduce the wrong practices in dumping garbage in places other than the designated areas is to increase health control and punish violators , they accounted (69.5%) , and this agreed with Lavergne (2010) .

Table ( 3 ) show student's awareness of the way to deal with the cleantiness of the environment . Seventy eight and half percent of the students support the family as the first brick from which the individual learns the best environment behavior and the environment education is no less important than any other curriculum , they accounted (60%) , this agreed with the study of Naz , ( 2018 ) .The results also showed the student's keenness to guide his brothers and friends in maintaining the cleanliness of the environment and the participation of his neighbors in cleaning the street and he is ready to change his habits and behavior to reduce their impact environment , they accounted (50.5%),(47.5%) and (59.5%) respectively . Sixty eight percent of the students do not throw the waste into classrooms , college corridors and parks . Students supported social media as one of the most successful means of spreading environmental awareness , they accounted (64 %).

The results of our study agreed with the study Angela and others ( 2011 ) , where she stated that the development of positive student behaviors towards a clean invironment is through increasing the concept of environmental awareness and how to deal with the University environment .

In general , there is a close relationship between the behavior and habits of community members and cleanliness of the enviroment .

## CONCLUSIONS

We conclude from this study that the university student has a high environmental awareness, and that the responsibility for the cleanliness of the university lies with the student and the university together, and he is ready to change his wrong habits and behaviors to reduce their impact on the cleanliness of the University.

#### ETHICAL CONSIDERATIONS COMPLIANCE WITH ETHICAL GUIDELINES

Prior to actual collection of data administrative approval was obtained from colleges of University of Mosul.

#### FUNDING

The researchers did not receive any grant and the study was conducted by self-financing.

#### AUTHOR'S CONTRIBUTIONS

Study concept: Dr. Bayda A. Yahya; Writing the original draft Bayda A. Yahya and Doha N. Saad; Data collection: Shahad H. Ali; Reviewing the final edition: All Authors.

#### DISCLOSURE STATEMENT:

There is no conflict of interest for all researchers a written report.

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#### REFERENCES

Abdulrahman, S. A. (2017). Failure to securitise environmental problems in Iraq: the case of the Alwand and Sirwan Rivers. *International Journal of Environmental Studies*, 74(4), 540-557.

Ahmet, A.; Selcen, T.; Lokman, T.; Sureyya, A. and Bekir, F. K. (2014). Environmental awareness level of secondary school students: A case study in Balikesir (Turkiye), *Procedia-Social Behavioral Sciences*, 141. P:1208-1214. Published by Elsevier Ltd.

Angela Maria de, C. M.; Elias, S. and Laercio, A. G. J. (2011). Environment and environmental awareness: how university students conceive and act. *Acta Scientiarum. Biological Sciences*, vol 33. Na 2. PP. 209-214.

Arba'at, H.; Tajul, A.N. and Suriati, S. (2010). The status on the level of environmental awareness in the concept of sustainable development amongst secondary

school students. *Procedia social and Behavioral Sciences* 2, 1276-1280

Aydin, F. and Kaya, H., (2011) Evaluation of social sciences high school student's sensitivity towards environment. *Marmara Geographical Review*, 24(2), p:229-257.

Çakar, H., Güneş, A., and Erdoğan, N. (2008). Investigation into Environmental Awareness of Grade School Students in Bayındır, Izmir. *International Journal of Agriculture and Environment*, 4(2), 32-46.

Iraq Ministry of Environment (2017) The National Environmental Strategy and Action Plan for Iraq (2013-2017), Limited Nations Environment Programme. [Online] Available from <https://wedocs.unep.org/rest/bitstreams/1497/retrieve> [Accessed on 23 August 2017].

Kamal, M. (2013). Environmental thought in the Islamic civilization, *Historical and Periodical*, volume 6: 20, p:54-69.

Lavergne, K. J., Sharp, E. C., Pelletier, L. G., and Holtby, A. (2010). The role of perceived government style in the facilitation of self-determined and non self-determined motivation for pro-environmental behavior. *Journal of Environmental Psychology*, 30(2), 169-177.

Naz, S.A. (2018) Public Environmental awareness in the Kurdistan Region in Iraq = factors and Policy recommendations. *International Conference. Accounting, Business, Economics and Politics*. ISBN 978-0-9962570-9-1

Ono, T., and Macda, Y. (2014) On the index of environmental awareness. *Environmental Economics and Policy* 521 pp 167-178.

Ozdemir, M. (2016). Raising Environmental Awareness Among Secondary School Students, (A Case Study In Erbil). *Ishik University. 3th International Conference on Energy Environment and Applied Science*. 10-11 April, 2016, Erbil, Iraq. ISBN: 978-0-9962570-5-3 [Online] Available from <http://www.ishik.edu.iq/conf/iceens/> [Accessed on 12 August 2017].

Prechel, H. (2015) Organizational Political Economy and Environmental Pollution. *Sociology Compass*, Volume 9 (9), pp.828-840.

Rodriguez - Ibeas, R. (2006) Environmental Product Differentiation and Environmental

Awareness . Environmental and Resource Exams , Volume 36 123 , pp.237-254.

Royo, S.; Yetano, A, and Acerete, B. (2014). E-participation and environmental protection: Are local governments really committed?. *Public Administration Review*, 74(1), 87-98.

Scruggo , C. and Moore , R. ( 2016 ) Challenges and opportunities in dating public awareness eppemeilt on UN seaticals policy Arnal of Environmental Studies and Sciences , Volume 8:35 , pp.500.579.

Uzun N. , Saglam N. , ( 2007 ) The Environmental Education in Secondary School Teachers Opinions Environmental Education Programs . *Eurasian Journal of Educational Research* , 26 : 176-187 .