Environmental Awareness, Attitudes and Behaviors at Benedictine University
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Abstract

The environment is degrading at an alarming rate, and in order to abate environmental destruction it is necessary for one to change their behavior towards the environment. Educating students about the environment is understood to be an important component to creating a more ecological society that participates in pro-environmental behaviors. The purpose of the current study was to assess various attitudes, beliefs, and behaviors that Benedictine students exhibited towards the environment. The investigators also wanted to see how successful Benedictine was at providing information about the environment and creating an environmentally aware community. The goal was to determine the relationship between one’s attitude, beliefs, and behaviors towards the environment and to understand how education at Benedictine may have impacted those variables. The tool used was a survey that was electronically distributed among Benedictine students using Qualtrics, a research software program. Participants were selected from a convenience sample, and all students that participated remained anonymous. Participants were selected if they were available to the researchers via email or in person and were incentivized by the possibility of winning a $100 gift card. The survey link was also distributed on Benedictine’s Environmental Tip of the Week. Various statistical tests were then used to analyze the data.

Background

The viability of the environment has been analyzed extensively over the years with the goal of understanding how humankind has not only impacted the world around them, but how aware they were of their impact. With the threat of environmental deterioration, it has become pertinent to understand what individuals are knowledgeable about and how they have used their knowledge (or lack thereof) to influence their environment with their behavior. One study found that concern for the environment has decreased over the years, and therefore individuals may not believe that they have a responsibility for the sustainability of the environment (19). There are many factors that can influence one’s awareness, attitudes and behaviors towards the environment including type of learning received, field of study, level of education, gender or emotional awareness. Multiple studies have been conducted to determine which factors influence environmental perceptions the most and why individuals may have certain beliefs about the environment.

Higher education may have a positive influence on environmental awareness, attitudes and behaviors, simply because educated individuals are more likely to be aware of environment issues, which can encourage pro-environmental behaviors (PEBs). Multiple studies support the finding that the longer a student has been in a higher learning institution the more likely they were to have knowledge about environmental factors (8, 13), have more favorable attitudes towards to environment (9), have more concern for the environment (11) and were more likely to engage in PEBs (7, 11, 12). University students were also found to engage in pro-environmental behaviors because they believed it was either the right thing to do or they would ultimately benefit from it (2). The type of learning one receives may also influence one's environmental
awareness. Traditional environmental courses seem to increase PEBs, indicating that the more knowledge a student has about the environment, the more willing they are to help it (6). One’s field of study also has a strong influence on their environmental awareness, attitudes and beliefs. Students who studied environmental conversation had more knowledge about environmental concepts (4), and students who were studying engineering or social and human sciences were found to have higher levels of environmental knowledge and were more likely to engage in PEBs (5, 13). Many studies also recommend that higher education institutions should focus more on sustainability ideals and to influence students’ direct behavior as it pertains to the environment (16, 17).

It is also possible that gender may have a strong correlation with certain perceptions about the environment. Although males tend to have more knowledge about the environment, women are more likely to engage in PEBs and have more positive attitudes towards the environment (5, 9, 12, 13, 14). This could be because of the possibility of an increased emotional awareness that is expressed by women. Studies found that individuals who were more in tune to their emotions and aware of environmental ethics were more likely to be conscious of how they affected the environment (1, 14, 20). However, there are other factors that can influence one’s environmental awareness, attitudes and behavior that may not be linked to their level of education or gender. There are many limitations when it comes to learning more about environmental awareness, attitudes and behaviors because of the many variables involved. It is difficult to determine what a person thinks about when they think of the word “environment” or why someone engages in PEBs. One study observed that some understanding of the environment may simply be superficial, with thinking of the environment in terms of trees and mountains rather than relational, with thinking in terms of how particular actions affect the environment (10). Another study found that people tend to act in their best interest, and although they may engage in certain pro-environmental behaviors, their intentions may not be to do what is best for the environment but what is best for themselves (15). It was also found that location has a significant influence on how much knowledge one has about their environment, and if an individual is in an area where they do not learn about the various aspects of the environment, then they will have virtually no knowledge of their impact on the environment (18). Some individuals may express feeling connected to the environment and engage in more PEBs only because they actively volunteer in their communities which makes them more aware of their environment (3). Therefore, it is necessary to learn more about individual’s perceptions of the environment and why they engage in certain behaviors and have certain beliefs in order to determine how humans can change their behavior to help the environment.
Beliefs Regarding Benedictine’s Influence on Environmental Sustainability

Figure 1: This graph shows how students at Benedictine University felt about Benedictine’s influence on their environmental awareness, attitudes and behaviors.
Figure 2: This graph shows Benedictine’s students’ knowledge about various pro-environmental initiatives that take place on the Benedictine campus.

Environmental Awareness/ Knowledge Assessment

Figure 3: This graph shows the amount of answers that were correct out of a total of twelve questions about the environment. A passing score was given if a person scored 9 or more correct out of 12. About 1/3 or 32.8% of the population earned a passing score on environmental awareness.
1. There are many different kinds of animals and plants, and they live in many different types of environments. What is the word used to describe this idea? Is it...
2. Carbon monoxide is a major contributor to air pollution in the U.S. Which of the following is the biggest source of carbon monoxide? Is it...
3. How is most of the electricity in the U.S. generated? Is it...
   a. By burning oil, coal, and wood  b. With nuclear power  c. Through solar energy  d. At hydroelectric power plants? E. Don’t know
4. What is the most common cause of pollution of streams, rivers, and oceans? Is it...
   a. Dumping of garbage by cities  b. Surface water running off yards, city streets, paved lots, and farm fields  c. Trash washed into the ocean from beaches  d. Waste dumped by factories  e. Don’t know
5. Which of the following is a renewable resource?
   a. Oil  b. Iron ore  c. Trees  d. Coal  e. Don’t know
6. Ozone forms a protective layer in the earth’s upper atmosphere. What does ozone protect us from?
   a. Acid rain  b. Global warming  c. Sudden changes in temperature  d. Harmful, cancer-causing sunlight  e. Don’t know
7. Where does most of the garbage in the U.S. end up?
   a. Oceans  b. Incinerators  c. Recycling centers  d. Landfills  e. Don’t know
8. What is the name of the primary federal agency that works to protect the environment?
   a. Environmental Protection Agency (the EPA)  b. Department of Health, Environment, and Safety (the DHES)  c. National Environmental Agency (the NEA)  d. Federal Pollution Control Agency (the FPCA)  e. Don’t know
9. Which of the following household wastes is considered hazardous waste? Is it...
10. What is the most common reason that an animal species becomes extinct?
    a. Pesticides are killing them  b. Their habitats are being destroyed by humans  c. There is too much hunting  d. There are climate changes that affect them  e. Don’t know
11. Scientists have not determined the best solution for disposing of nuclear waste. In the U.S., what do we do with it now? Do we...
    a. Use it as nuclear fuel  b. Sell it to other countries  c. Dump it in landfills  d. Store and monitor the waste  e. Don’t know
12. What is the primary benefit of wetlands?
    a. Promote flooding  b. Help clean the water before it enters lakes, streams, rivers, and oceans  c. Help keep the number of undesirable plants and animals low  d. Provide good sites for landfills  e. Don’t know

Adapted from Environmental Knowledge (Roper, 2000)
Figure 4: This graph shows the amount of students who are aware of their environmental citizenship activities which is associated with pro-environmental behavior.
Figure 5: This graph shows various pro-environmental behaviors that Benedictine University students expressed having.
<table>
<thead>
<tr>
<th>#</th>
<th>Field</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>We are approaching the limit of the number of people the Earth can support.</td>
<td>5.97%</td>
<td>10.45%</td>
<td>14</td>
<td>29.80%</td>
<td>36.81%</td>
<td>134</td>
</tr>
<tr>
<td>2</td>
<td>Humans have the right to modify the natural environment to suit their needs.</td>
<td>10.37%</td>
<td>11.05%</td>
<td>43</td>
<td>20.09%</td>
<td>39</td>
<td>130</td>
</tr>
<tr>
<td>3</td>
<td>When humans interfere with nature it often produces disastrous consequences.</td>
<td>2.96%</td>
<td>4.44%</td>
<td>6</td>
<td>15.56%</td>
<td>21</td>
<td>135</td>
</tr>
<tr>
<td>4</td>
<td>Human ingenuity will insure that we do not make the Earth unliveable.</td>
<td>8.10%</td>
<td>14.61%</td>
<td>20</td>
<td>32.59%</td>
<td>44</td>
<td>135</td>
</tr>
<tr>
<td>5</td>
<td>Humans are needlessly abusing the environment.</td>
<td>1.48%</td>
<td>2.22%</td>
<td>3</td>
<td>8.15%</td>
<td>11</td>
<td>135</td>
</tr>
<tr>
<td>6</td>
<td>The Earth has plenty of natural resources if we just learn how to develop them.</td>
<td>2.22%</td>
<td>12.59%</td>
<td>17</td>
<td>18.52%</td>
<td>25</td>
<td>135</td>
</tr>
<tr>
<td>7</td>
<td>Plants and animals have as much right as humans to exist.</td>
<td>2.96%</td>
<td>7.41%</td>
<td>10</td>
<td>11.11%</td>
<td>15</td>
<td>135</td>
</tr>
<tr>
<td>8</td>
<td>The balance of nature is strong enough to cope with the impacts of modern industrial nations</td>
<td>14.07%</td>
<td>30.20%</td>
<td>53</td>
<td>20.74%</td>
<td>28</td>
<td>135</td>
</tr>
<tr>
<td>9</td>
<td>Despite our special abilities, humans are still subject to the laws of nature.</td>
<td>0.00%</td>
<td>1.48%</td>
<td>2</td>
<td>17.78%</td>
<td>24</td>
<td>130</td>
</tr>
<tr>
<td>10</td>
<td>The so-called &quot;ecological crisis&quot; facing humankind has been greatly exaggerated.</td>
<td>25.19%</td>
<td>36.30%</td>
<td>49</td>
<td>21.46%</td>
<td>29</td>
<td>135</td>
</tr>
<tr>
<td>11</td>
<td>The Earth is like a spaceship with very limited room and resources.</td>
<td>2.22%</td>
<td>8.15%</td>
<td>11</td>
<td>27.41%</td>
<td>37</td>
<td>135</td>
</tr>
<tr>
<td>12</td>
<td>Humans were meant to rule over the rest of nature.</td>
<td>31.34%</td>
<td>23.10%</td>
<td>39</td>
<td>20.15%</td>
<td>27</td>
<td>134</td>
</tr>
<tr>
<td>13</td>
<td>The balance of nature is very delicate and easily upset.</td>
<td>1.48%</td>
<td>6.89%</td>
<td>12</td>
<td>17.76%</td>
<td>24</td>
<td>135</td>
</tr>
<tr>
<td>14</td>
<td>Humans will eventually learn enough about how nature works to be able to control nature.</td>
<td>11.94%</td>
<td>26.12%</td>
<td>35</td>
<td>34.33%</td>
<td>46</td>
<td>134</td>
</tr>
<tr>
<td>15</td>
<td>If things continue on their present course, we will soon experience a major ecological catastrophe.</td>
<td>0.73%</td>
<td>5.21%</td>
<td>11</td>
<td>14.83%</td>
<td>20</td>
<td>134</td>
</tr>
<tr>
<td>16</td>
<td>I feel hopeless when I think about what I can do to help the environment.</td>
<td>5.69%</td>
<td>21.60%</td>
<td>29</td>
<td>29.52%</td>
<td>39</td>
<td>133</td>
</tr>
<tr>
<td>17</td>
<td>I am concerned about the future because of environmental degradation.</td>
<td>0.00%</td>
<td>5.97%</td>
<td>8</td>
<td>14.93%</td>
<td>20</td>
<td>134</td>
</tr>
<tr>
<td>18</td>
<td>Environmental degradation is an issue of social justice.</td>
<td>0.74%</td>
<td>5.93%</td>
<td>38</td>
<td>26.13%</td>
<td>38</td>
<td>130</td>
</tr>
<tr>
<td>19</td>
<td>I am disappointed with people’s lack of commitment to the environment.</td>
<td>2.96%</td>
<td>22.22%</td>
<td>8</td>
<td>20.00%</td>
<td>27</td>
<td>135</td>
</tr>
<tr>
<td>20</td>
<td>I believe global warming is real.</td>
<td>2.22%</td>
<td>2.96%</td>
<td>4</td>
<td>11.85%</td>
<td>16</td>
<td>135</td>
</tr>
</tbody>
</table>

**Figure 6:** This graph shows various sentiments about the environment, and these questions were a measure of attitudes students have towards the environment.
Relevant Statistics

57% of students reported they either agree or strongly agree with a ban on the sale of plastic water bottles on Benedictine’s campus and 16% were indifferent.

55% of students believe each individual’s actions are the most important component to helping the environment.

References


