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BARRIERS INFLUENCING THE SUCCESS OF GREEN TEAMS

By

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Abstract

This paper summarizes the barriers Green Teams in a variety of settings may face. A survey was sent to members of a Green Team project at the University of Nebraska-Lincoln (UNL) to obtain information on barriers faced in order to compare these barriers to other organizations and businesses barriers. This comparison was done by conducting a thematic analysis, which grouped barriers into themes. The themes were compiled and recommendations on how to overcome those barriers were made. Green Teams have many benefits including waste reduction, increased employee satisfaction, and saving the planet from further damage. This study tries to maximize these benefits by providing a resource to businesses and organizations that will allow them to prepare for possible barriers faced. Barriers found within the survey given to those at UNL were consistent with barriers found in literature, implying recommendations made can be applicable to a variety of environments. Important recommendations included getting administrative and corporate assistance, knowing obstacles, having consistent goals, spreading the word, making sustainability fun, and having prescheduled time for Green Teams to meet.

Introduction

Universities and companies all over the world are implementing “Green Teams” into their organizations. These Green Teams are unique when it comes to individual organizations, but they often have a main focus- the environment. Green Teams do a variety of things. They improve sustainability efforts within an organization, provide education surrounding environmental issues, increase environmentally friendly behaviors within a space, and develop ways to reduce cost through food, energy, and water conservation. Many organizations have Green Teams to benefit the community, increase employee satisfaction, enhance public image, and to abide by new regulations put in place (GSA Northwest). In addition, the cost savings of implementing sustainable practices can have a positive impact on budget within an organization (UK city council).

The University of Nebraska-Lincoln is working each year to be a more sustainable campus. Graduate student, Cale Brodersen, has started a Green Team project that aims at making the buildings as well as people on this campus more sustainable. Cale and his team are establishing a peer-to-peer engagement program that will seek to inform and engage the community about sustainable practices, such as recycling. They plan to use local expertise to establish management practices, prepare educational materials, and recruit and train volunteers. These Green Teams will be in different departments and academic buildings on both City and East campuses. Trained volunteers will be the first line of contact for dispersing information as well as developing norms around the sustainable behaviors the Green Teams are trying to implement. The goal is for behaviors such as recycling, composting, energy conservation, and water conservation to be priorities in order to lower GHG emissions and divert more solid waste while increasing the involvement and education of faculty, staff, and students.

Green Teams have a powerful impact on companies when done correctly, but sometimes there are roadblocks that hinder teams from being successful. Barriers within the Green Teams and management of environmental change in a UK county council included many roadblocks that the Green Teams at UNL may face. They listed fear about lacking time and resources as one of their barriers. This is apparent within all organizations; if everyone already has a job and work to do, how are they going to manage being sustainable on top of that? The UK county council also talked about cost. The cost of implementing environmental action is a barrier most organizations will face. Green Teams have to consider things like new recycling bins, hiring a company to pick up that recycling, environmental education training sessions, and people's time when thinking about implementing a Green Team within an organization.

Another barrier the UK county council considered was the lack of environmental skills within an organization. Though this problem can be solved with environmental education sessions, it isn't cheap and it's possible not all of the staff and students want to be involved or care. A Nebraska Recycling Study conducted by University of Nebraska Public Policy Center in 2015 gave some self-report data on the barriers they face. The University of Nebraska Public Policy Center stated that one of the main barriers was a lack of knowledge about recycling in addition to a lack of recycling data and standards. These are things that other Green Teams can fix by implementing education programs and setting standards for recycling within their own buildings.

Team efforts have higher levels of efficiency compared to the efforts of a single person (EPA). In addition, having a variety of teams such as environmental steering committees, action teams, and process improvement teams help solve complex environmental challenges that organizations face (Moxen & Strachan, 1998). Having a Green Team can increase the likelihood

of getting green initiatives completed in an organization. The EPA also mentions that starting small within these Green Teams helps get the groundwork so that bigger issues can be tackled successfully within the organization.

Table 1: EPA’s checklist for forming a Green Team

Goal	Action Steps
Getting Organized	<ul style="list-style-type: none"> ● Meeting with management to get approval ● Properly recruiting members
Planting the Seeds of Success	<ul style="list-style-type: none"> ● Spreading the word ● Getting people to unplug unused electronics and putting them in power save mode ● Using more energy efficient light bulbs in the work space
Grow Green Together	<ul style="list-style-type: none"> ● Various forms of education related to environmental issues such as, employee training sessions, energy IQ testing, and the idea that people need to celebrate Earth Day every day.
Other	<ul style="list-style-type: none"> ● Encouraging a corporate committee to join ● Putting a plan of action into writing ● Maintaining open communication about improvements that need to be made

The EPA’s checklist for forming a Green Team includes meeting with management to get approval for initiatives and properly recruiting members. Proper recruitment of members is essential to ensure there are motivated members willing to participate in Green Team activities. Next is Planting the Seeds of Success. This entails spreading the word, and getting people to unplug unused electronics, putting them in power save mode when not in use, and using more energy efficient light bulbs in the work space. This step is the action phase. It takes environmental education a step farther by having members act upon the knowledge presented in

the Green Team. The third step is called Grow Green Together. This step includes various forms of education related to environmental issues such as, employee training sessions, energy IQ testing, and the idea that people need to celebrate Earth Day every day. Lastly, the EPA recommends taking the Green Team a step farther. This includes encouraging a corporate committee to join, putting an action plan into writing, and maintaining open communication about the improvements that still need to be made. This Green Team plan is lacking is a proper assessment of the recommendations given. They are mainly promoting the Energy Star organization by trying to get organizations to join.

Though environmental initiatives have been talked about for a long time, assessment of these initiatives are rapidly evolving and are increasingly important (Sadler & Dalal-Clayton, 2012). Public education of environmental assessment has been argued to increase involvement with these issues, ingraining environmental stewardship from a young age (Sinclair, & Diduck, 1995). This issue, if solved could not only improve the health of our Earth, but also improve the quality of life for all life all over the globe.

Practice Greenhealth put together a PowerPoint that is designed to help medical professionals create effective Green Teams in health care (Moxen & Strachan, 1998). This document provides explicit details relating to the assessment of Green Team effectiveness. A key to assessment is to gather baseline data of various things such as recyclables, hazardous materials, donated supplies, construction and demolition debris, and medical waste. They also pose important questions that organizations should be asking themselves throughout the process of Green Team implementation:

- Are we meeting or exceeding our goals?
- Is the hospital leadership plugged in and supportive?

- Is the team meeting regularly and is it well attended?
- Are you reporting relevant data to the team regularly?

Practice Greenhealth advocates for the use of annual eco-assessments to assess progress, identify opportunities for improvement, and assess awareness of the program and to obtain feedback.

GSA Northwest has a slightly different way of assessing Green Team success. They recommend that the organization calculate their Carbon Footprint to develop an understanding for current measurements, targets, and projects and their impact on greenhouse gas emissions from individual buildings. GSA Northwest has representatives who can view the data from this tool to help make an Agency Sustainability Plan. They use a combination of this data to set priorities for the team that could include holding an event to promote awareness, energy fairs, and waste audits. The success is measured by how the team meets the targets set within the priorities.

Kay et al. (2018) focuses on how teaching via curriculum and research to help improve sustainability efforts may not be the most efficient way to do it. Kay and his team studied undergraduate students from two universities about how collegiate Green Teams offered an innovative way to promote business action on sustainability. They assessed success by collecting data using participant surveys, administrator's observations, and managerial assessments of Green Team reports and presentations (Kay, Kay, Tuininga, 2018). These authors reported significant team learning and performance on tasks in addition to boosted and broadened engagement within business employees, which lead to action on sustainability.

The idea of Green Teams is not just something that occurs in the United States. These issues have global impact. Green Teams are used everywhere. Brazil is using them within some

of their companies. Jabbour et al. (2017) analyzed connections between Green Teams and the maturity level of environmental management in companies. They found that a whopping 82% of the studied companies have Green Teams and, of those, the companies that use them more intensely are the most proactive and advanced in terms of environmental management (Jabbour et al. 2013).

Purpose and Significance

The purpose of this research is to identify possible barriers of implementing Green Teams within different environments. This will make it easier for higher education institutions to implement Green Teams on their campuses and give them the ability to plan ahead and prepare themselves for these barriers. This will allow for more efficient Green Teams and higher education institutions save money and resources while also protecting the environment from further damage.

Identification of barriers allows for those planning and implementing Green Teams within their university to take note of the possible things they may encounter that could hinder the process and success of the teams. This makes it easier for them to assess, handle, and solve the problems as they arise and make a plan of action that will result in faster problem solving, allowing Green Teams to focus their attention on the Green Teams goals.

There has been much research studying behavioral changes in people. These changes come at an individual and social level according to Lorenzoni (2017). This same article also touched on how the public's understanding of climate change influences how they perceive the barriers associated with it. A little over half of the British population thought that changing their behavior would have an impact on climate change. It was also found by Darier and Schule

(1999) that many people in the UK believe that the government should impose regulations to make action happen because they feel that collective action is the most effective when talking about climate change. Though universities and businesses aren't the government, they can still foster a sense of collective action that can motivate those who don't think their single actions help. These are major barriers that need to be overcome if Green Teams are going to be successful in any environment.

This project will focus on identifying the barriers commonly found within Green Teams, using the EcoHuskies (a new Green Team project) as an example. The research question is, what are the barriers Green Teams are facing in higher education and how do those compare to barriers in other organizations and businesses? It is predicted that barriers faced within university settings will be similar to those in other organizations and businesses. The hypothesis is that the identification of barriers can make it easier for others to implement Green Teams within their organizations because teams can strategize solutions before problems even arise.

Importance

This topic is important to me because I want organizations to implement more environmentally-friendly initiatives within their work space so it becomes the new norm and new culture. In addition, I would like it to be easier for companies to adopt something such as a Green Team into their daily operations. This is crucial because many companies may have the idea to implement something related to environmental issues, but they may not have the means of doing so without a guide. It is also important to me that a proper assessment of Green Teams is accessible to organizations. There is a gap in research related to this topic in an academic setting. There are assessment guidelines for a few organizations, like medical professionals and those working in the government, but very little literature or data on Green Teams. I believe that a few

of the assessments online can be restructured and applied to other organizations, such as an higher education institution, but that could be just another step hindering a college or other organization from implementing Green Teams. GSA Northwest mentions that having sustainability assessments is one of the best ways to get a team to establish goals to accomplish in a long-term setting.

Methods

This research included sending anonymous surveys to the 20 participants of the Green Team project, therefore the data is self-report and qualitative. All but one question were open ended. The one question that was not open ended read, “Please select all of the barriers you have faced while being involved with this Green Team project. Please explain.” I added this to ensure the survey takers didn’t forget a common barrier when they answered the open-ended question, “What are some of your biggest challenges moving forward with your goals? Please list and describe all.” These survey data were analyzed using a thematic analysis. According to About Thematic Analysis, it is important and useful because it allows us to find patterns of meaning within a dataset that helps us answer a research question. From the same article, thematic analysis has an advantage over other methods of data analysis because it’s flexible; being able to be applied to different types of research questions. This recognition of patterns within the answers has allowed me to draw conclusions of possible common barriers.

Data collection via a literature review also occurred for other businesses, schools, and organizations that have Green Teams. In addition, data between the Green Teams at UNL and other businesses/organizations were compared to find possible generalizable patterns within the implementation of Green Teams. Recommendations on how to overcome these barriers within different environments were made based off the patterns found within these data.

Results and Discussion

<p>Out of the 20 surveys sent, 7 people responded resulting in a 35% response rate. The top barriers listed were time and cost. 20 percent of respondents stated cost was a barrier while 15 percent of respondents said time was a barrier. The thematic analysis found that barriers listed in Table 1. were similar to other organizations and businesses as discussed in the introduction. Listed below are the barriers in order from mentioned the most to least by UNL Green Team survey takers: Barrier</p>	<p>Response Percentage*</p>
<p>Cost</p>	<p>5/20 - 25%</p>
<p>Time</p>	<p>4/20 - 20%</p>
<p>Meeting goals</p>	<p>3/20 - 20%</p>
<p>Lack of environmental education</p>	<p>3/20 - 15%</p>
<p>Couldn't get approval</p>	<p>3/20 - 15%</p>
<p>Not enough support/direction</p>	<p>3/20 - 15%</p>
<p>Others don't care</p>	<p>2/20 - 10%</p>
<p>Too busy for the project/unsure what to do</p>	<p>2/20 - 10%</p>
<p>UNL Office of Sustainability</p>	<p>1/20 - .5%</p>
<p>*Percentages will add up to more than 100% because survey takers could select more than one barrier.</p>	

Table 1. Summary of survey responses given by Green Team leaders						Barriers Listed				
Question	Survey Response									
What are your goals for your Green Team?	Environmental awareness	Waste and consumption reduction	Bicycle parking	Composting	Increase recycling					
What barriers have you faced being involved with the Green Team project?	Time and money	Others don't seem to care about my Green Team	Getting things moving and meeting goals	UNL Sustainability Office	Couldn't obtain approval					
What recommendations do you have for future Green Teams?	Make Green Teams a priority for senior administration	Knowing the obstacles	Consistent goals	Changing the culture	Getting the word out University wide					
What are some of your accomplishments as a Green Team Member?	Composting bins put in break rooms	Dishes and silverware in both break rooms	Installing plastic, aluminum, and paper recycling on all floors of building	Recycling bins added to each personal office	Recycling bins in general purpose rooms					
Organization/Researcher										
UK County Council						Lacking time	Lacking resources	Cost	Lack of environmental skills	
University of Pennsylvania						Lack of understanding by administration	Lack of support	Time	Engaged participants	
Green Biz						Environmental benefits not recognized by administration	Goals not well defined	Cost		
Nebraska Policy Center						Lack of knowledge	Lack of data	Lack of standards		
Lorenzoni						Public's understanding of climate	Behavior change			

	change			
Kay et al.	Lack of collective action			

Table 2. Barriers found in other businesses and organizations

A thematic analysis was used to obtain the results in the first three rows of Table 1. The last row summarizes accomplishments of the Green Teams. The thematic analysis compared answers from the UNL Green Teams and compared them to answers found in the literature which is summarized in Table 2. Barriers found within the literature show that there are themes that coincide with the UNL Green Teams such as a lack of time, money, environmental skills, and outside support in various forms.

This literature was then compiled into themes. All of the themes match except one outlier. This outlier can be found in the second row in the fourth column survey responses. This survey participant’s answers were often inconsistent with the others, but I decided to keep this data because they did express honesty in the barriers faced, which give some insight into the project and how it is viewed from the inside. Goals, barriers, and recommendations given by UNL survey takers were otherwise consistent with literature found on other organizations and businesses. **Conclusions and Recommendations**

Results from this study found that the University of Nebraska-Lincoln is facing similar barriers to other organizations and businesses regarding the implementation of Green Teams. This implies that recommendations from this research can be applied to a variety of environments and could potentially increase the probability of success. By being aware of the barriers these organizations could face, they could put in place a plan to avoid possible

complications.

Recommendations are based on EPA's checklist for forming a Green Team and survey responses. To begin, proper preparation for these green teams is essential. Being sure to schedule regular meetings with management allows these green teams to obtain approval in addition to physical, financial, and administrative help. Contracting with a corporation can help the corporation expand their social responsibility campaign while giving the green team extra support in a variety of ways. Another critical step in the preparation phase is preparing for obstacles and formulating a plan of action in writing. This can give green teams the tools they need to overcome hurdles and stay on track if they lose focus. Lastly, having a good recruitment strategy in place can ensure you have active and motivated team members to help accomplish goals. While it's important to prepare, being a successful green team also needs proper implementation. This includes maintaining consistent goals, spreading the word out to the entire organization, and hosting fun educational events to promote an eco-friendly culture.

Reflection upon my experience shows me that my methods of data collection could have been greatly improved. Had I had the time to interview each member of the UNL Green Team project, I believe I would have a more conclusive answer that painted a picture of the work done and barriers faced. Topics that need further examination include what makes a Green Team more successful. It would be interesting to know if having the data provided in this study helps Green Teams with the implementation of their projects or if they will stumble due to the roadblocks.

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Appendix A

UNL Green Team Assessment

Q1 What are your goals for your Green Team? Please list and describe all.

Q2 What kinds of approval have you had to seek to move forward with your goals? Ex: Approval from boss to bring in recycling bins. Please list and describe all.

Q4 What are some of your biggest challenges moving forward with your goals? Please list and describe all.

Q14 How do you think you can best overcome these challenges you face? Please list and explain.

Q3 What are some of your accomplishments as a Green Team member? Please list and describe all.

Q5 Do you have a plan of action in writing? Please describe.

Q6 Do you feel as though you have a strong enough background in issues related to sustainability/climate change to be in charge of a Green Team? Please explain why.

Q7 Have you actively tried recruiting members? If so, how?

Q8 Have you tried spreading awareness about your Green Team? If so, how?

Q10 Have you had any students become involved with your efforts? If so, how have they benefited your Green Team?

Q9 Have you maintained open communication with Cale/team members about what improvements need to be made? If so, how? Ex: Through email or meetings.

Q12 How have others in your building reacted to the efforts of your Green Team?

Q13 Did you volunteer to be a Green Team leader or were you asked to become one?

Q11 What recommendations do you have for future project leaders to make their Green Teams more successful? Please list and explain why they would be helpful.

Q15 Please select all of the barriers you have faced while being involved with this Green Team project. Please explain.

- Cost (1)
- Lack of environmental education (2)
- Not enough support/direction (3)
- Lack of motivation (4)
- Too busy for this project (5)
- Unsure of what to do for project (6)
- Didn't think my actions would have an impact (7)
- Felt pressured to join/be a part of this project (8)
- Others don't seem to care about my Green Team (9)
- Unclear instructions for project (10)
- Wasn't meeting my goals for my Green Team (11)
- Couldn't get approval for my project (12)
- Other (13)