**Recommendations for Kill-a-Watt**

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Kill-A-Watt is a campus program aimed at making the dorms more environmentally conscious and ultimately more green. They have approached this in the past through an annual competition between dorms. Although this has yielded results, they desire to continue making it more effective. Based on our research, it seems that they should utilize feedback, communication, accountability, and personalization in order to further advance the program’s effectiveness.

Research shows that providing competition and incentive based programs to reinforce behavior tends to only sustain behavior during the competition period and for a short time after (Spiteri 2006). This would suggest that either dropping or redesigning the Kill-A-Watt competition is necessary. Education is also important in creating awareness, but yields even less long-term behavior-changing results than competition based programs (Abrahamse 2005). It seems that implementing a method to personalize the program would create the most positive behavior-changing results. Combining the competition with education is one way that this might be done. The UM student body does not hold their dorms personally enough for the competition alone to yield great results. A method of combining these could be making it inter-collegiate, against MSU or OSU, or making it between floors so that there is more sense of group pride. This would be furthered by providing feedback on what progress students have made and what impact could be made (Keller 1991).

Additionally, an important part of any program or initiative is gaining commitment and accountability from those you are trying to involve. In Clayton & Brook’s Social Psychological Model of Conservation Behavior, the first premise is that people are influenced by their context, which includes both the social and physical environments. Behavior is easily affected by the behavior and expectations of others (Clayton & Brook 2005). Social acceptance can be a high priority, especially in college, so Kill-A-Watt should try to find a way to get University Housing residents to commit themselves to sustainable and energy-saving practices.

To further this point, research done by Richard Katzev on the impact of commitment on consumers’ energy-saving practices should be considered. Studies found that public, written commitments may be the most effective way of getting people to take ownership of their energy-conservation behaviors. While incentive-based programs are effective at changing behaviors in the short-run, written commitments that take place in a public sphere are able to make more of a lasting impact on individuals’ behaviors (Katzev 1986). Applying this to Kill-A-Watt, perhaps residents of University Housing could be prompted to sign up or pledge themselves to the program, so that they will be more likely to continue energy saving behaviors when they move off-campus. If students feel like they are choosing to be a part of the program, instead of being forced into it, they could be more enthused to contribute and make a difference in reducing energy use in residence halls.
Furthermore, feedback can be a key factor when trying to make steady participation and long-term behavior change with students participating in the competition.  Kill-A-Watt hosts seminars in the residence halls to keep students updated as well as educated on other conservation practices. Unfortunately Kill-A-Watt has low attendance from students (Altomare 2011). In addition to these seminars Kill-A-Watt should use real-time feedback. In a study of energy consumption done by John E. Petersen and colleagues (Petersen 2007), the feedback given to students should directly and immediately show students resource use and the financial and environmental consequences of this use. In their study, a way of achieving the disbursement of this direct and immediate information is by real-time feedback on an Internet website where students can see their energy use. By using meters and data logging devices in the residential buildings that monitor electricity use and that then transfer the information to the website, students can be given real-time feedback on their personal consumption, their floors consumption, and the whole building's consumption. This direct feedback can motivate students participation in the competition by being able to see their competitor’s energy consumption as well (Petersen 2007). Feedback on the financial and environmental impact of the student’s role in the program should also be a subject discussed in the seminars that are already held by Kill-A-Watt. Another great thing about real-time feedback is that students can go on the website even after the competition is over and stay informed with their energy consumption. This will also help students stay committed to low electricity use and could also help with long-term behavior change.

In terms of advertising for their program, Kill-A-Watt needs to get students to associate the competition with positive feelings. Their posters should empower students and make them feel like they can make a difference in the world by participating in Kill-A-Watt or at least by following their energy-saving advice.  Many advertisements utilize Pavlovian conditioning to reach out to the public. This means that Kill-A-Watt could publicize better if they could connect themselves with things that already elicit a positive emotional response like social gatherings, friends, certain celebrities, or humor (Grant 2010). Kill-A-Watt could connect their program with a celebrity who would function as a type of role model (and a really ambitious goal would be to get that celebrity to endorse the Kill-A-Watt program).

Also, some simple changes to their posters could be made. A study by Marans (2010) found that a significant percentage of U of M students/faculty are unaware of the universities energy conserving efforts, and that most were not aware of the energy-related posters that had been posted around campus for that purpose. Posters should be placed in areas where they do not have to compete with other posters for attention, and to have more concise, memorable messages (Marans 2010). Another study by Chowdhury (2008)  found that for advertisements seeking to elicit only a positive or negative response through images, one high intensity image is better than multiple images. Therefore, Kill-A-Watt’s posters should contain:

- A single strong, and emotionally moving image; ideally to incite positive feelings to empower students. Because many studies show, and we have learned that negative “scare tactic” messages/images can cause people to ignore, get defensive about and/or feel helpless to an issue, making them not willing to participate (Norgaard 2006).

- A simple, catchy and humorous phrase that will help students remember Kill-A-Watt

- Provide actual suggestions of what students can do to reduce energy (i.e turn off the lights, turn off your power cord etc.)

Kill-A-Watt is a very new organization on campus and will likely continue to evolve and improve its methods in the next few years. Hopefully our recommendations will provide Kill-A-Watt with some helpful, practical ways that they can really become a major force of environmental improvement on campus.

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