

Turning Off the Lights: Energy Conservation Efforts on the UB Campus



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Abstract

This research will focus on recognizing energy conservation efforts by students on the University of Botswana campus, or lack thereof. This research will gather an estimation of the amount of students who have their dorm room lights on/off when their rooms are unoccupied. The University of Botswana has experienced direct consequences of load shedding where the power supply would shut off. As the campus continues to be affected I am going to research whether students have started to take individual/group initiatives to address the problem.

Introduction

Areas have been experiencing power supply shortages throughout Botswana due to multiple reasons. One reason that load-shedding has been occurring is that energy conservation practices are not being implemented. Long hours of load shedding can be avoided if the public actively participated in turning off energy sources that are not in use.

The University of Botswana campus has experienced the consequences of load shedding and is an accessible area where people can be surveyed on their feelings and individual participation towards energy conservation in Botswana. It is unknown whether the propaganda about energy conservation is affecting the action of UB students. After surveying a range of UB students it will be possible to determine what actions should be taken to improve or continue the propaganda about energy conservation.

Methods

I created a simple and short survey that contains four "yes or no" questions as well as a section to answer personal information such as hostel/block number, the year the participant is studying at the University of Botswana, and their sex. I targeted these specific questions for the personal information section because I wanted to find out if there was any correlation between the answers that I receive from the environmental section of the survey, their sex and year level.

Since I decided to distribute the surveys throughout the campus I had to think of areas that were appropriate for this mission. I intended to target the refectories, the entrance area of the library, the laundry building, open areas around the campus that had seating, and the business block. Not only did I need students but my survey requires students who currently live on the University of Botswana campus.

Results

Figure 1. Survey Results

	Question 1	Question 2	Question 3	Question 4
Year 1	No-5 Yes-8	No-4 Yes-9	No-4 Yes-9	No-1 Yes-11
Year 2	No-5 Yes-12	No-6 Yes-11	No-4 Yes-13	No-0 Yes-17
Year 3	No-2 Yes-5	No-3 Yes-4	No-2 Yes-6	No-0 Yes-7
Year 4	No-3 Yes-8	No-4 Yes-7	No-2 Yes-9	No-1 Yes-10
Other/No Year	No-3 Yes-6	No-3 Yes-6	No-2 Yes-7	No-0 Yes-9
Male	No-12 Yes-14	No-6 Yes-19	No-6 Yes-21	No-2 Yes-24
Female	No-7 Yes-30	No-13 Yes-23	No-9 Yes-27	No-0 Yes-36

Figure 2. Answers from 1st Years

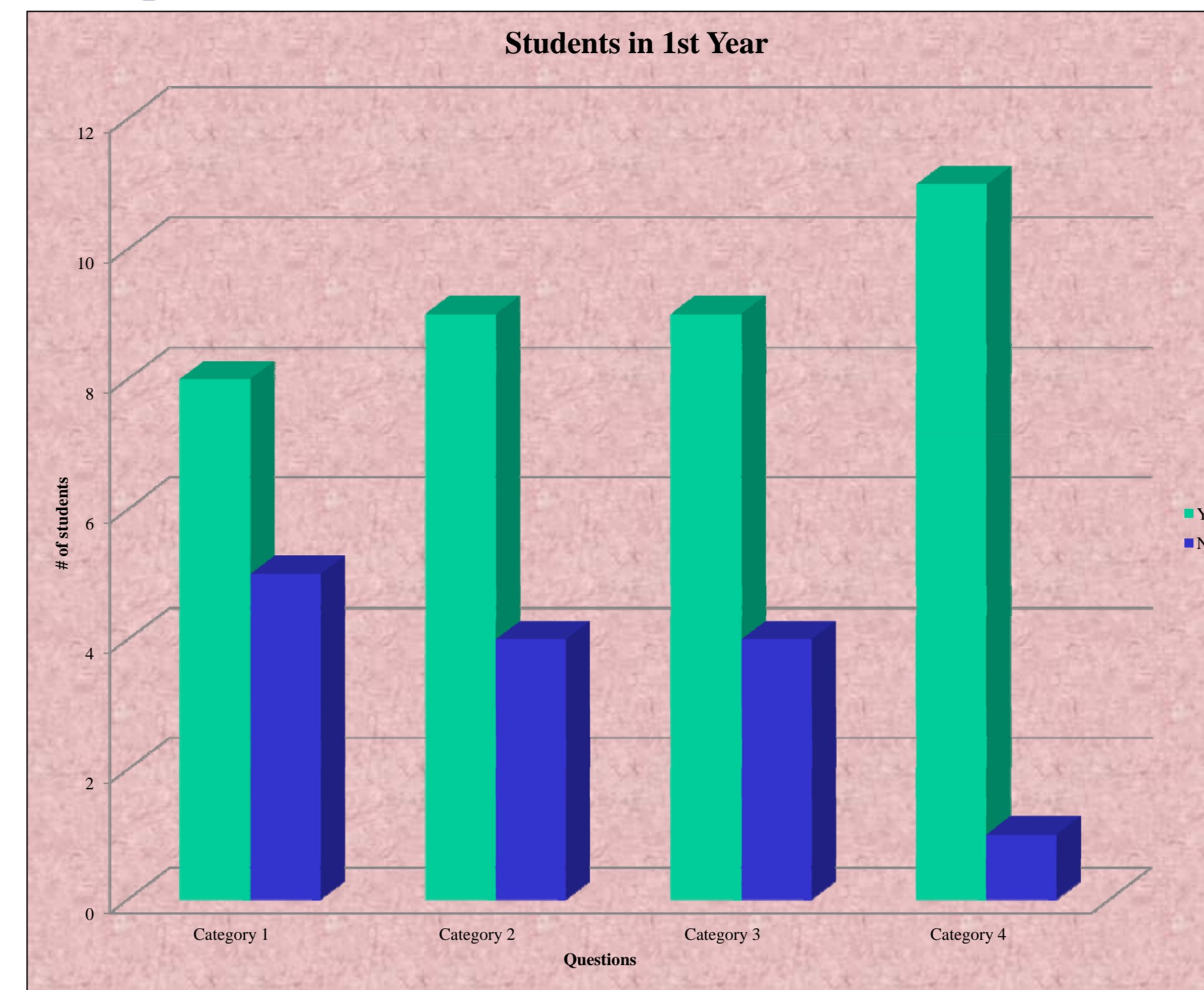


Figure 4. Males vs. Females

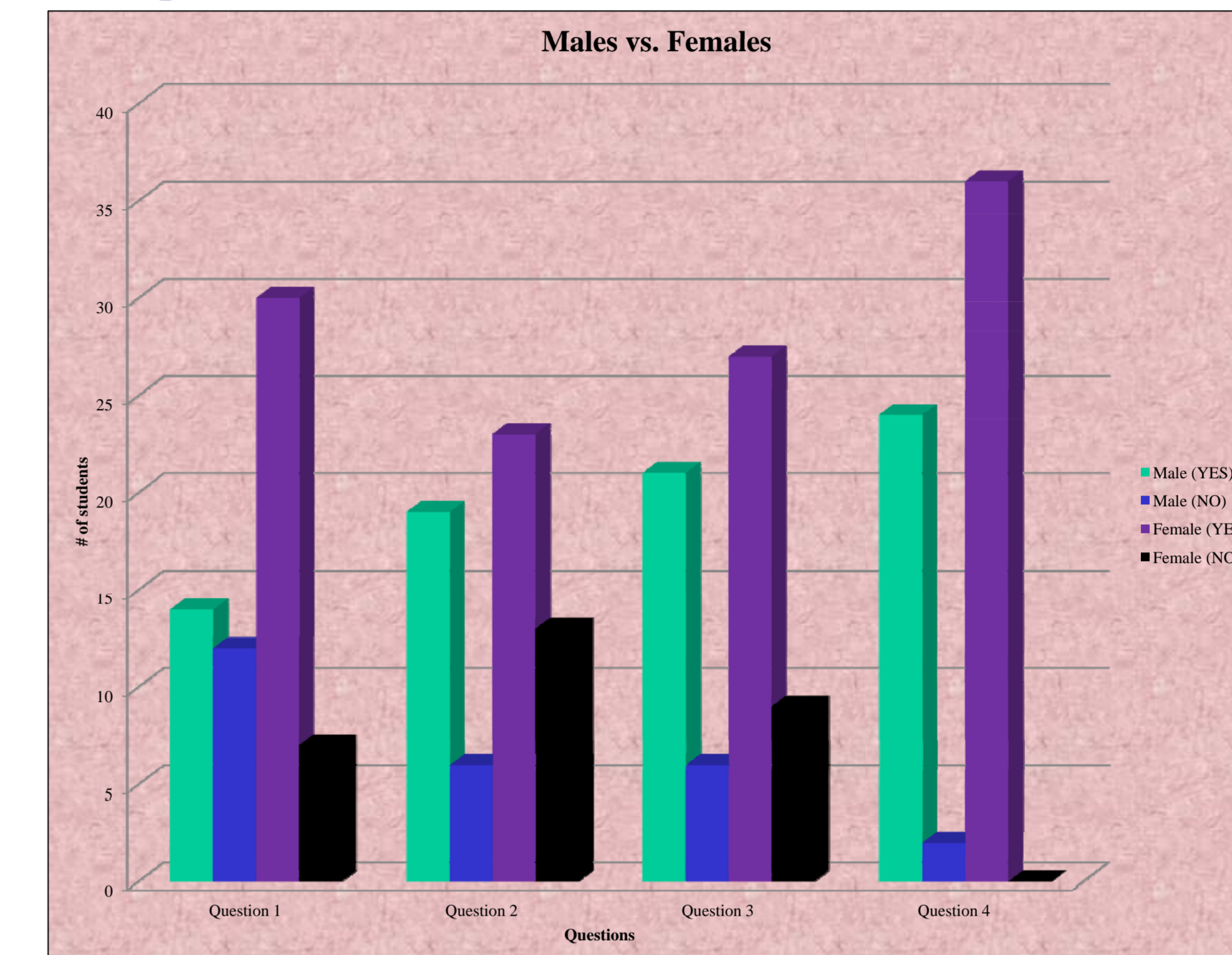
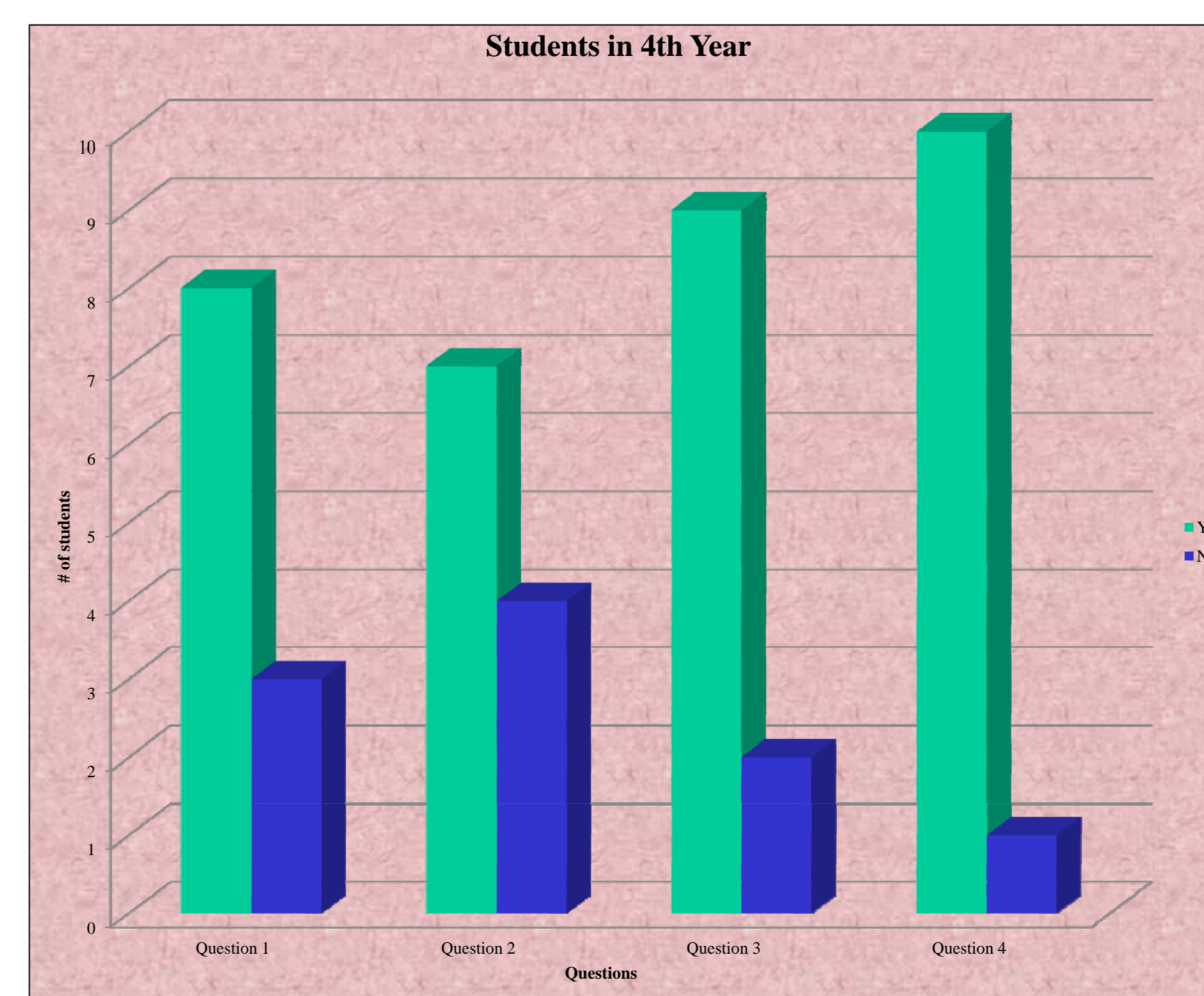


Figure 3. Answers from 4th Years



Discussion

On the survey, participants had the choice of circling an answer of 'Yes' or 'No' so this has been distinguished within each cell. There were a total of 18 first years, 18 second years, 7 third years, and 12 fourth years that took the survey. The Other/No Year section in the figures applies to those who did not write in their year at UB; which consisted of 9 people.

The data confirms that those who said 'Yes' to turning off their lights also switch off their outlets when appliances are not in use. While there isn't any way to determine which participant provided which answers, the numbers in Figure 1 are especially telling. The number of the first, second, third, fourth, and other years who circled 'Yes' for Question 1 was either the same or within one of the number of first, second, third, fourth, and other years who circled 'Yes' for Question 2.

Not only does this research reveal the physical actions of University of Botswana students regarding electricity, but it also demonstrates if these UB students are aware of the meaning 'load shedding'. Question 3 asks: 'Do you know what 'load shedding' means?' and this is the question on the survey that is intended to touch base on what knowledge UB students have concerning energy conservation. This study shows that three times more UB students who live on campus understand the meaning of the term than not.

Figures 2 and 3 show that from the 18 first year UB students, 30.7% of them did not know what the term 'load shedding' meant. And from the 12 fourth year UB students, 36.3% of them did not know what the term 'load shedding' meant.

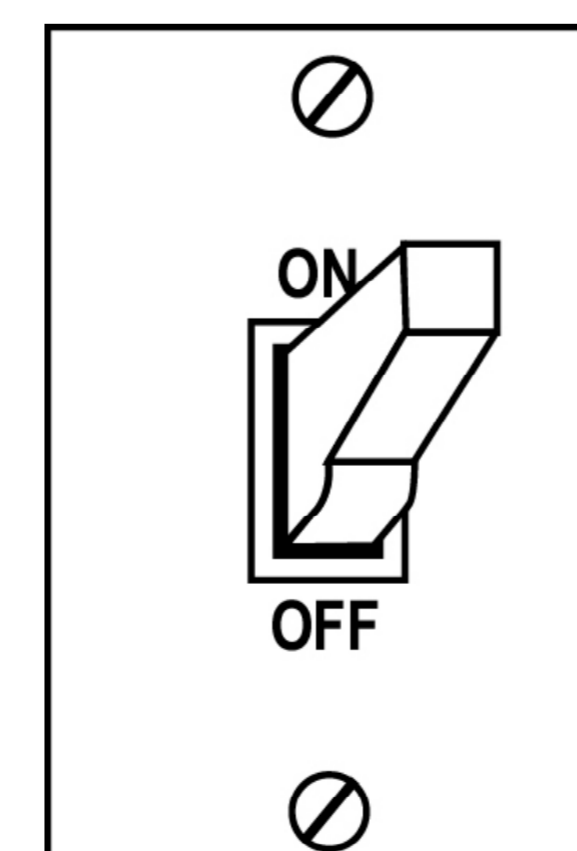
Figure 4 illustrates the difference between the males who answered that they do turn off the lights and the males who answered that they do not turn off the lights is minute compared to the answers by the females. Almost half of the males, about 46%, that were surveyed claim to not turn off the lights when they leave their rooms; whereas only 18.9% of the females that were surveyed claim to not turn off their lights when they leave their room. Based on the results more females switch off their lights when they leave the room than males.

Acknowledgments

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References

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