

This is a short report on the sustainability project devised and implemented by Group 2: CPI Dip (Bailey Slee, Leo Coroneos, Justin Stean and Jason Parre). It summarises the goals and outcomes of our sustainability project.

Sustainability

BSBSUS401 – Implement and monitor environmentally sustainable work practices
– ASSESSMENT 3

Leo Coroneos

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Our group

Our group, which the Diploma students dubbed Group 2: CPI Dip, consists of four members: Bailey Slee, Justin Stean, Jason Parre and myself (Leo Coroneos). Our responsibility was to take power readings of two computer banks in D23 room of South Regional TAFE D Block, as well as to survey the efficiency of the water fountain on the same floor. The latter is my responsibility and this report summarises the resulting outcome.

The aim of our project

Here is our aim as stated in my project proposal:

“Our aim is to minimise the consumption of power in D block. To this end, we are conducting measurements to determine the current level of power consumption. What we want to monitor is the level of Kilowatts per hour as it is apparent that this is increasing over time, thereby adding to the environmental and financial costs of its use.”

Our approach for the project was to reduce the power consumption of the two computer banks by taking measures such as a) switching off computer monitors when the computers were not in use, and b) shutting down computers when not in use.

Water sustainability

There was nothing that could be done for the water fountain in terms of sustainability, but we monitored its power consumption anyway. We were pleasantly surprised at the result: the water fountain used up 2.59Kw/h less during the second week in which we took the measurements than in the first week, for a total saving of approximately 53 cents. There are other water-related sustainability projects which have been undertaken at this campus, listed as an excursus below.

Clean drinking water must be supplied in the workplace. The legislation regarding its provision is as follows:

- Occupational Safety and Health Act 1984, s 21
- Occupational Safety and Health Regulations 1996, section 3.16
- Compliance Code for Workplace Amenities and Work Environment, sections 34-39

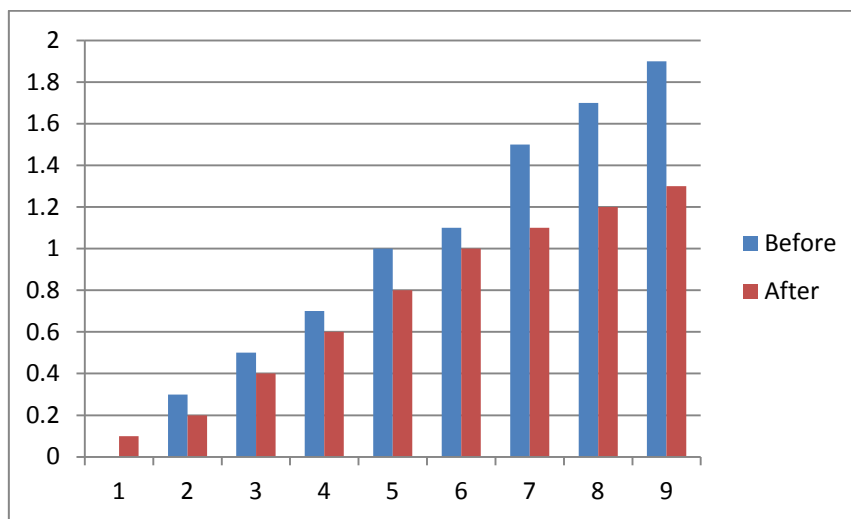
South Regional TAFE acts in compliance with this legislation, providing one water fountain for each of the two floors of D block. The power consumption of the top water fountain was the saving grace of our project; it happened to decrease over the period of time we spent carrying out our recordings, i.e. approximately two months.

Design and implementation

We anticipated that the entire implementation of our sustainability measures would save the school a significant amount of money, but these measures were not actually put into practice. Therefore we were faced with the embarrassing result that the power costs for the computer banks actually *increased* over the course of our project. We would not be able to save the school any money if we were to repeat the same project, unless we specifically and consistently carried out such measures as we initially proposed.

Results

Here is a column graph indicating the weekly power consumption of the water fountain on the top floor of D block, measured in Kwh (kilowatts per hour). The blue columns represent the readings before we carried out our sustainability measures and the red columns indicate the ones taken after we implemented them.



Weekly measurements of power consumption of top water fountain

Excursus: further ideas

Some other sustainability-related changes specifically to do with water which could be or have been put into place here at South Regional TAFE are as follows:

- * Low water-use and low-maintenance plants and soil (“waterwise gardens”)
- * Rainwater tanks
- * A settling pond
- * Vegetated swales
- * External aquaculture area

These ideas and their respective implementations are accessible via the South Regional TAFE website at <http://www.gsit.wa.edu.au>.

Conclusion and links

In summary, the proposed changes to the power usage of the two centre computer banks in D23 were not implemented, and so this part of the project was not a success since the measures we outlined were not in fact put into practice. The monitoring of the power usage of the top water fountain, on the other hand, was a success in the following sense: we were able to record a trend of reduced consumption. Nevertheless there was nothing to which we could attribute the reduction in power usage over this period of time, and there is nothing to say that the level of the top water fountain’s power usage will not increase again in the future.

If we wish to maintain the power-related and financial savings that occurred while we regularly monitored the status of the top water fountain, it would no doubt be advisable to encourage others to avail themselves of drinking water as little as possible, instead perhaps considering the purchase of bottled water or alternative beverages. The fountain should be used on an “as-needed” basis in

order to minimise waste and total cost. This idea can be extended to other facilities, such as all of the computer banks in D23 (and other computer rooms in D block), which would naturally use less power if they were powered down while not in use or if the monitors were switched off.

One can extend this conclusion – that of the *minimisation* of the wastage of resources (in this instance, power and water) – to other sustainability matters. The following are two websites that discuss and promote sustainability in south-west WA:

<http://riaus.org.au/articles/albany-in-2030/>

<https://www.albany.wa.gov.au/residents/community/sustainable-communities/>