

## Research Supplies for Plant Water Use Supplies

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Award: \$400

This proposal sought to improve student success by increase student engagement with hands-on experiments. Thank for helping us improve our experimental set up and decrease the group size so that more students could participate in an active manner.

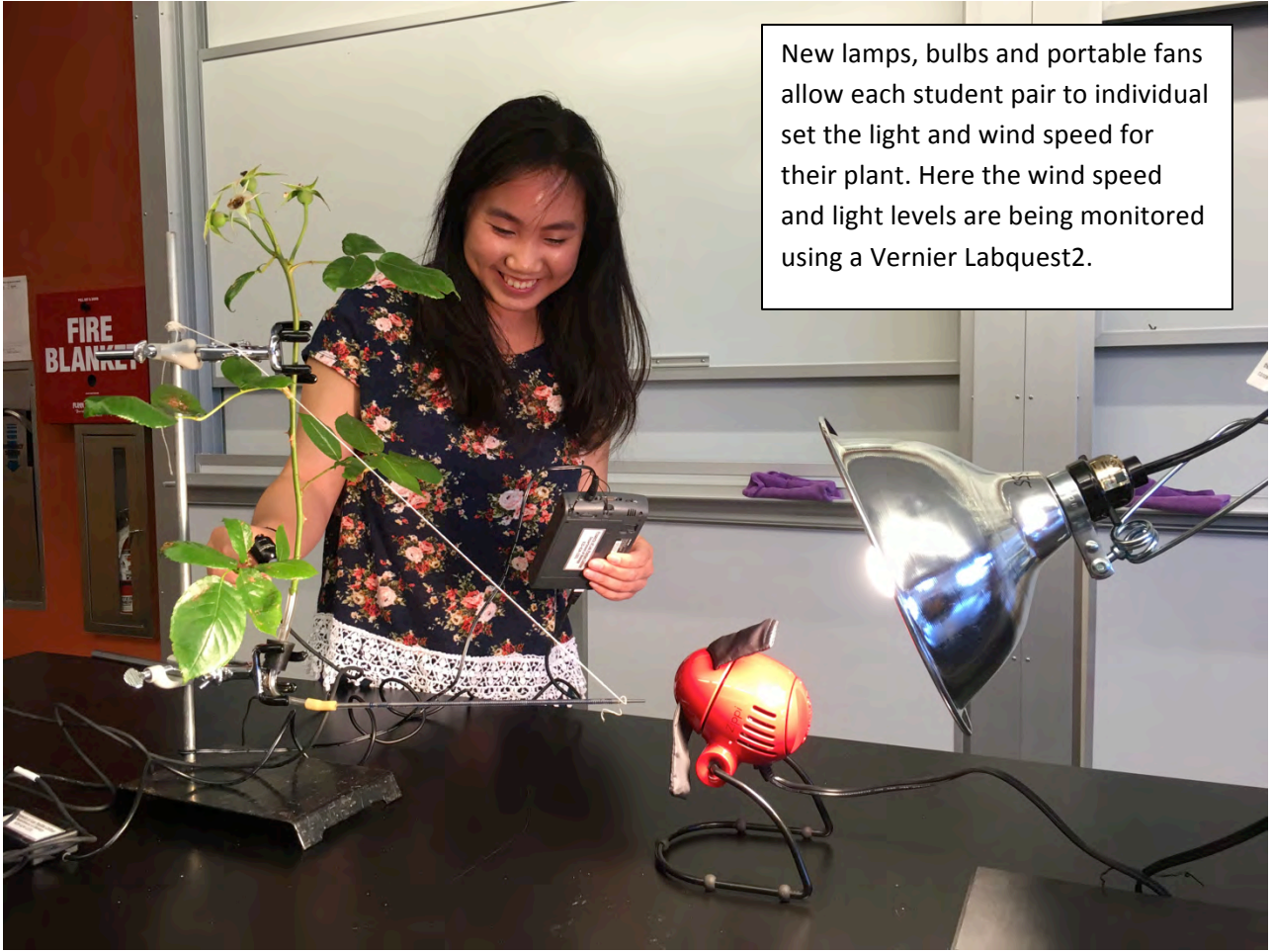
Outcome: Students used the fans, lamps and light bulbs in our water relations experiments.  
Students were able to control their own variable and improve the accuracy of the experiment.

Excerpt from Application: *Supplies purchased with the support of a CARE grant will make the plant water use experiment more meaningful to students and will improve student learning."*



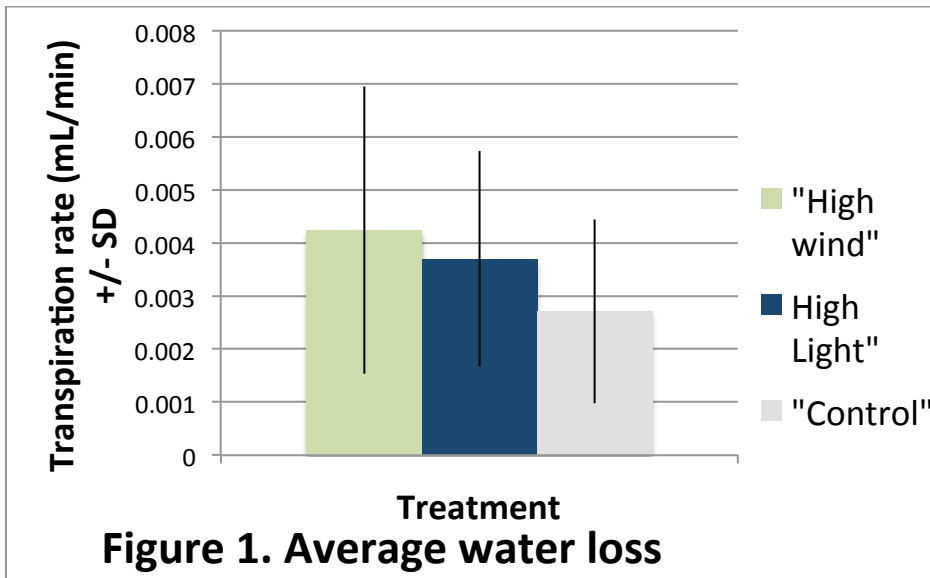
New lamps, bulbs and portable fans

New lamps, bulbs and portable fans allow each student pair to individual set the light and wind speed for their plant. Here the wind speed and light levels are being monitored using a Vernier Labquest2.



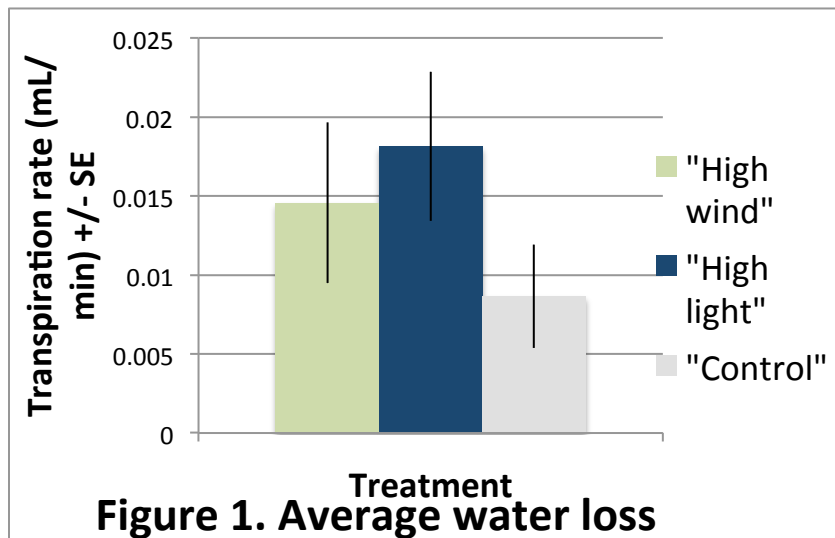
Individual use of fans and lights improved student engagement, as groups could be in pairs instead of four members groups. In addition, it decreased the variation of the experiment. This improved student understanding.

### Spring 2014



The error is large enough that we could not determine if the high light and high wind treatments were clearly higher than the control in Spring 2015. This is with the old equipment.

### Spring 2015



The high light and high wind treatments are clearly higher than the control in Spring 2016. This is with the use of the new equipment.