Blended Learning

It was my first time outside of the United States, and I was more nervous than ever before. Descending from our flight all I could see was a beautiful skyline of lights in the distance of the mountains. I had a pit in my stomach, slightly from anxiousness and also pure happiness, because I knew that Jim and I had work to do. Jim Palmer, who is newly retired from Allegheny College (HI MR. JIM!), and I set out to on a journey to work on my senior thesis: “Is blended learning an effective medium for preparing instructors to teach aquaponics at La Paz Community School and Green Valley School in Costa Rica?” Simply put, I am researching to see if a combination of traditional face-to-face instruction and online instruction is an effective way to provide aquaponics resources and training to teachers in Costa Rica.

Aquaponics is a fairly new advancement in food production that combines fish production with the growth of various types of plants without soil. This technology is a good resource for Costa Rica because water conservation is a prominent issue for them. Working with the students and administration of both Green Valley and La Paz Community schools was very inspiring and influential to my personal and professional development. Many thanks to Selene, a student at La Paz Community School, who had work to do. Jim Palmer, who is newly retired from Allegheny College (HI MR. JIM!), and I set out to on a journey to work on my senior thesis: “Is blended learning an effective medium for preparing instructors to teach aquaponics at La Paz Community School and Green Valley School in Costa Rica?” Simply put, I am researching to see if a combination of traditional face-to-face instruction and online instruction is an effective way to provide aquaponics resources and training to teachers in Costa Rica.

Aquaponics is a fairly new advancement in food production that combines fish production with the growth of various types of plants without soil. This technology is a good resource for Costa Rica because water conservation is a prominent issue for them. Working with the students and administration of both Green Valley and La Paz Community schools was very inspiring and influential to my personal and professional development. Many thanks to Selene, a student at La Paz Community School, who had work to do. Jim Palmer, who is newly retired from Allegheny College (HI MR. JIM!), and I set out to on a journey to work on my senior thesis: “Is blended learning an effective medium for preparing instructors to teach aquaponics at La Paz Community School and Green Valley School in Costa Rica?” Simply put, I am researching to see if a combination of traditional face-to-face instruction and online instruction is an effective way to provide aquaponics resources and training to teachers in Costa Rica.

Aquaponics is a fairly new advancement in food production that combines fish production with the growth of various types of plants without soil. This technology is a good resource for Costa Rica because water conservation is a prominent issue for them. Working with the students and administration of both Green Valley and La Paz Community schools was very inspiring and influential to my personal and professional development. Many thanks to Selene, a student at La Paz Community School, who had work to do. Jim Palmer, who is newly retired from Allegheny College (HI MR. JIM!), and I set out to on a journey to work on my senior thesis: “Is blended learning an effective medium for preparing instructors to teach aquaponics at La Paz Community School and Green Valley School in Costa Rica?” Simply put, I am researching to see if a combination of traditional face-to-face instruction and online instruction is an effective way to provide aquaponics resources and training to teachers in Costa Rica.

Aquaponics is a fairly new advancement in food production that combines fish production with the growth of various types of plants without soil. This technology is a good resource for Costa Rica because water conservation is a prominent issue for them. Working with the students and administration of both Green Valley and La Paz Community schools was very inspiring and influential to my personal and professional development. Many thanks to Selene, a student at La Paz Community School, who had work to do. Jim Palmer, who is newly retired from Allegheny College (HI MR. JIM!), and I set out to on a journey to work on my senior thesis: “Is blended learning an effective medium for preparing instructors to teach aquaponics at La Paz Community School and Green Valley School in Costa Rica?” Simply put, I am researching to see if a combination of traditional face-to-face instruction and online instruction is an effective way to provide aquaponics resources and training to teachers in Costa Rica.

Aquaponics is a fairly new advancement in food production that combines fish production with the growth of various types of plants without soil. This technology is a good resource for Costa Rica because water conservation is a prominent issue for them. Working with the students and administration of both Green Valley and La Paz Community schools was very inspiring and influential to my personal and professional development. Many thanks to Selene, a student at La Paz Community School, who had work to do. Jim Palmer, who is newly retired from Allegheny College (HI MR. JIM!), and I set out to on a journey to work on my senior thesis: “Is blended learning an effective medium for preparing instructors to teach aquaponics at La Paz Community School and Green Valley School in Costa Rica?” Simply put, I am researching to see if a combination of traditional face-to-face instruction and online instruction is an effective way to provide aquaponics resources and training to teachers in Costa Rica.

Aquaponics is a fairly new advancement in food production that combines fish production with the growth of various types of plants without soil. This technology is a good resource for Costa Rica because water conservation is a prominent issue for them. Working with the students and administration of both Green Valley and La Paz Community schools was very inspiring and influential to my personal and professional development. Many thanks to Selene, a student at La Paz Community School, who had work to do. Jim Palmer, who is newly retired from Allegheny College (HI MR. JIM!), and I set out to on a journey to work on my senior thesis: “Is blended learning an effective medium for preparing instructors to teach aquaponics at La Paz Community School and Green Valley School in Costa Rica?” Simply put, I am researching to see if a combination of traditional face-to-face instruction and online instruction is an effective way to provide aquaponics resources and training to teachers in Costa Rica.

Aquaponics is a fairly new advancement in food production that combines fish production with the growth of various types of plants without soil. This technology is a good resource for Costa Rica because water conservation is a prominent issue for them. Working with the students and administration of both Green Valley and La Paz Community schools was very inspiring and influential to my personal and professional development. Many thanks to Selene, a student at La Paz Community School, who had work to do. Jim Palmer, who is newly retired from Allegheny College (HI MR. JIM!), and I set out to on a journey to work on my senior thesis: “Is blended learning an effective medium for preparing instructors to teach aquaponics at La Paz Community School and Green Valley School in Costa Rica?” Simply put, I am researching to see if a combination of traditional face-to-face instruction and online instruction is an effective way to provide aquaponics resources and training to teachers in Costa Rica.

Aquaponics is a fairly new advancement in food production that combines fish production with the growth of various types of plants without soil. This technology is a good resource for Costa Rica because water conservation is a prominent issue for them. Working with the students and administration of both Green Valley and La Paz Community schools was very inspiring and influential to my personal and professional development. Many thanks to Selene, a student at La Paz Community School, who had work to do. Jim Palmer, who is newly retired from Allegheny College (HI MR. JIM!), and I set out to on a journey to work on my senior thesis: “Is blended learning an effective medium for preparing instructors to teach aquaponics at La Paz Community School and Green Valley School in Costa Rica?” Simply put, I am researching to see if a combination of traditional face-to-face instruction and online instruction is an effective way to provide aquaponics resources and training to teachers in Costa Rica.

Aquaponics is a fairly new advancement in food production that combines fish production with the growth of various types of plants without soil. This technology is a good resource for Costa Rica because water conservation is a prominent issue for them. Working with the students and administration of both Green Valley and La Paz Community schools was very inspiring and influential to my personal and professional development. Many thanks to Selene, a student at La Paz Community School, who had work to do. Jim Palmer, who is newly retired from Allegheny College (HI MR. JIM!), and I set out to on a journey to work on my senior thesis: “Is blended learning an effective medium for preparing instructors to teach aquaponics at La Paz Community School and Green Valley School in Costa Rica?” Simply put, I am researching to see if a combination of traditional face-to-face instruction and online instruction is an effective way to provide aquaponics resources and training to teachers in Costa Rica.

Aquaponics is a fairly new advancement in food production that combines fish production with the growth of various types of plants without soil. This technology is a good resource for Costa Rica because water conservation is a prominent issue for them. Working with the students and administration of both Green Valley and La Paz Community schools was very inspiring and influential to my personal and professional development. Many thanks to Selene, a student at La Paz Community School, who had work to do. Jim Palmer, who is newly retired from Allegheny College (HI MR. JIM!), and I set out to on a journey to work on my senior thesis: “Is blended learning an effective medium for preparing instructors to teach aquaponics at La Paz Community School and Green Valley School in Costa Rica?” Simply put, I am researching to see if a combination of traditional face-to-face instruction and online instruction is an effective way to provide aquaponics resources and training to teachers in Costa Rica.

Aquaponics is a fairly new advancement in food production that combines fish production with the growth of various types of plants without soil. This technology is a good resource for Costa Rica because water conservation is a prominent issue for them. Working with the students and administration of both Green Valley and La Paz Community schools was very inspiring and influential to my personal and professional development. Many thanks to Selene, a student at La Paz Community School, who had work to do. Jim Palmer, who is newly retired from Allegheny College (HI MR. JIM!), and I set out to on a journey to work on my senior thesis: “Is blended learning an effective medium for preparing instructors to teach aquaponics at La Paz Community School and Green Valley School in Costa Rica?” Simply put, I am researching to see if a combination of traditional face-to-face instruction and online instruction is an effective way to provide aquaponics resources and training to teachers in Costa Rica.

Aquaponics is a fairly new advancement in food production that combines fish production with the growth of various types of plants without soil. This technology is a good resource for Costa Rica because water conservation is a prominent issue for them. Working with the students and administration of both Green Valley and La Paz Community schools was very inspiring and influential to my personal and professional development. Many thanks to Selene, a student at La Paz Community School, who had work to do. Jim Palmer, who is newly retired from Allegheny College (HI MR. JIM!), and I set out to on a journey to work on my senior thesis: “Is blended learning an effective medium for preparing instructors to teach aquaponics at La Paz Community School and Green Valley School in Costa Rica?” Simply put, I am researching to see if a combination of traditional face-to-face instruction and online instruction is an effective way to provide aquaponics resources and training to teachers in Costa Rica.

Aquaponics is a fairly new advancement in food production that combines fish production with the growth of various types of plants without soil. This technology is a good resource for Costa Rica because water conservation is a prominent issue for them. Working with the students and administration of both Green Valley and La Paz Community schools was very inspiring and influential to my personal and professional development. Many thanks to Selene, a student at La Paz Community School, who had work to do. Jim Palmer, who is newly retired from Allegheny College (HI MR. JIM!), and I set out to on a journey to work on my senior thesis: “Is blended learning an effective medium for preparing instructors to teach aquaponics at La Paz Community School and Green Valley School in Costa Rica?” Simply put, I am researching to see if a combination of traditional face-to-face instruction and online instruction is an effective way to provide aquaponics resources and training to teachers in Costa Rica.

Aquaponics is a fairly new advancement in food production that combines fish production with the growth of various types of plants without soil. This technology is a good resource for Costa Rica because water conservation is a prominent issue for them. Working with the students and administration of both Green Valley and La Paz Community schools was very inspiring and influential to my personal and professional development. Many thanks to Selene, a student at La Paz Community School, who had work to do. Jim Palmer, who is newly retired from Allegheny College (HI MR. JIM!), and I set out to on a journey to work on my senior thesis: “Is blended learning an effective medium for preparing instructors to teach aquaponics at La Paz Community School and Green Valley School in Costa Rica?” Simply put, I am researching to see if a combination of traditional face-to-face instruction and online instruction is an effective way to provide aquaponics resources and training to teachers in Costa Rica.
Creek Connections is Focused on the Importance of Healthy Waterways

By Laura Branby, Creek Connections Educator

A reminder of the importance of healthy creeks and rivers and that we all live downstream came to folks along the Ohio River with the chemical spill in West Virginia last month. Public drinking water supplies along the Ohio River were threatened by the spill as it moved downstream. Another ‘we all live downstream’ reminder will come soon to folks downstream of all the ice on area creeks and rivers. As the weather warms and the ice begins to break up... ice and floodwaters are likely to affect areas downstream. Be aware if you live in an area prone to flooding.

Remember to make yourself look at the creeks and rivers as you’re traveling. Once you do it for a while, it happens automatically! I can’t remember the last time our local creek was frozen as far as the eye could see! It’s so beautiful to see that ribbon of snow winding through the valley!

West Virginia counties with drinking water supplies directly affected by spill of 4-methylcyclohexane methanol, or MCHM in January, 2014.

Bird watching

By Laura Branby, Creek Connections Educator

There’s so much excitement in the bird world right now! Snowy owls have been seen from Presque Isle to the Pittsburgh International Airport this year. They’re a tundra species so it’s very rare to see them this far south!

In Pittsburgh, webcams have been installed at both a bald eagle nest on the Southside and a peregrine falcon nest on the Cathedral of Learning on Pitt’s campus. It’s nesting/egg-laying time for an explanation of the event by Bob Mulvihill, an ornithologist with the National Aviary.

Have you seen all the gulls on the rivers in Pittsburgh? They are visiting because the Great Lakes (and all the other lakes) are full of ice. There was an excellent article about the event in the Pittsburgh Post-Gazette with an explanation of the event by Bob Mulvihill, an ornithologist with the National Aviary.

http://www.aviary.org/nestcams.

Kate St. John writes a blog about the peregrine falcons: http://www.wqed.org/birdblog/.

http://www.aviary.org/nestcams.
Feature Creature

by Sahar Arbab, Allegheny College graduate

I am a very unique creature. You may call me an underwater architect! Along with stoneflies and mayflies, my presence in creeks is an indicator of clean water. As an adult, I usually live for about 1-2 weeks. Throughout my larval lifespan, I use silk, which I secrete from my salivary glands for building. I am divided into different behavioral groups based upon how I build. Sometimes I make nets and sometimes I make cases. Both of these help me survive in the creek until I transform into my adult stage. Look at the picture to see me in my different forms. What am I? See last page.

Testing Tip

By Levi Lundell, Allegheny College Student

Water testing and data recording is extremely important, along with data accuracy. This is why two samples rather than just one are collected and used for every test. By taking two samples, it assures that we have the right values for our test, and no mistakes have been made. Often enough however, data has outliers-values that are erroneous, and skew the data when taking the average. In order to prevent this, we recommend carefully taking and testing a third sample. This will allow for more accuracy. An example of two very different data values would be for the Nitrates test with readings of 0.02 mg/L for Sample A and 0.2 mg/L for Sample B. At first glance these values may not seem very different, both are quite close to zero. However, there is a difference of 10 times! In this case, a third sample should be tested by carefully following the directions. The outlier reading should be thrown out and the other two reported. If you ever have questions about whether the values you acquire are reasonable, always ask a creeker. We are here to help!
A Look Back

Group photo from our very first Creek Camp in 2006! Now you too can join us in the Creek! Current 9th & 10th graders can apply for either session I: June 22-27 or session II: July 6-11 and everyone else can register for Family Creek Camp. Look here for more information: http://creekconnections.allegheny.edu/

Feature Creature: from page 3, caddisfly, Trichoptera