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Student Exposure to Eastern Africa: The Value of Experiential Learning in Biology

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University of Portland//  
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Senior Honors Project

The Goal
My vision for my senior honors project was to make an inspirational and informative documentary video about the Evolution, Ecology and Culture of Eastern Africa class that traveled to Tanzania over Spring break of 2015.

The Process
Deciding to make a documentary movie about the pioneer interdisciplinary, international, experiential learning course co-taught by Dr. Vail Fletcher and Dr. Tara Maginnis was a much bigger undertaking than I ever anticipated. Prior to flying from Portland to Amsterdam and on the Arusha, Tanzania, I spent a total of 15 hours collecting all the european-style outlet chargers, SD-cards, audio-recorder and malleable tripod that I would need to capture the video and the audio that I would use in creating the documentary. I also spent prep-time watching GoPro tutorial videos on YouTube to learn about what the best settings would be for filming. During the trip, I tried to film as incognito as possible, aware that the knowledge of being filmed can make people uncomfortable and alters their behavior. Exceptions of this were the few direct interviews that I was able to collect. I noticed that, at the start of the trip, everyone was more reserved and they were not ready to share. However, by the end of the trip (especially the last night) everyone was bursting with stories and narratives and desiring to share what they thought about experiential learning. Watching this transition was one of my favorite parts of

"The only source of knowledge is experience."

~Albert Einstein
intentionally searching for the meaning of experiential learning.

We flew out on March 5th, returning to Portland on March 17th after 20 long hours split between two flight legs. I had accumulated 5 hours of video .mpg and 2 hours of audio .wav files. With only 40 days before the finished product was to premiere in the culminating public presentation of the documentary, I had a lot of work ahead of me.

My first challenge was to download the massive amount of footage onto my external hard drive and organize it so that it would be accessible to me. I took my SD cards and my hard drive to the Digital Lab, where Mr. Jose Velazco was an invaluable help in introducing me to the Adobe Premiere Pro software that I used to edit the footage. I organized my footage in bins by date, then began to go through and watch, for the first time, what kind of footage I had collected and what I had to work with. This was a nerve-wracking experience. Since my GoPro doesn’t have an LED viewfinder backpack, I couldn’t see what my frames looked like while I was filming. As I watched the first clip, I began to panic. There was no sound. Doubts rushed into my mind: Had I accidently muted the internal audio recorded in the settings on the GoPro?! I nearly broke out in tears. A mistake like that would have made the rest of my endeavor useless. Luckily, after about 20 more minutes of buffering, the audio loaded and played perfectly in sync with the video clips.

Next, I began to watch each clip and trim out pieces that I thought would be useful for communicating the vision of my documentary. At this point, I didn’t have a clear storyline. Originally, I wanted to move through the documentary chronologically. After discussing it with Jose Velazco, I decided to create a mash-up of the clips that flowed in a chronological way, but that was not strictly chronological. Once I had my ’rough cut’ I had 2 hours of video that I needed to trim down to under 30 minutes. This portion of the editing was by far the most time intensive, exasperating, and exhausting.

On top of the final production, I assembled a 2-minute trailer that was shown at the Founders Day
group class presentation as a teaser for people to get interested in coming to the full documentary viewing. At this point, I realized that I really needed music to play in the background of the clips to pull them together. I easily found appropriate fast-paced background music for the lively, active jump cuts that needed energy on a site called epidemic sound which sells royalty-free music. However, I was struggling to find good slow-paced contemplative music for the conversation scenes and the opening campfire shot. During the trip, I had brought my ukulele and would play it by the fire as we talked after dinner. I wanted to recreate this mood in the documentary. I brought my ukulele into the audio recording room associated with the Digital Lab in the Library and recorded myself playing one of my favorite riffs with a few variations. I used this newly created audio file as background music for the slow-paced clips in the very beginning of the film and during the fireside conversation about conservation that we had at our campsite on the rim of the Ngorongoro Crater.

Putting the clips together into a cohesive story included making sure transitions between clips and scenes were coherent and smooth. This meant choosing to use either a jump cut or a cross-fade. I used jump cuts for fast paced scenes and cross-fades for slow scenes. I also decided to use subtitles and include text for explanation of the purpose of the trip, as well as give credit to the subjects of the film and include choice quotes that I hoped would help the audience think and engage with the meaning of experiential learning. For this, I used the "Titles" feature in Adobe Premiere.

The final steps of editing were in adjusting the audio so that both the background music and the voices of the students could be heard. This was a big challenge, because lots of the audio was "washed out" by wind during interviews and especially during incognito filming. I’m still a little dissatisfied with the audio that is washed out by wind, however, I did the best I could with what I had.

I recorded my hours spent working in the Digital Lab on Adobe Premier Pro, and they total 134. With the final product lasting about 27 minutes, this means 4.96 hours of editing went behind each minute of the final video. Working in Adobe Premiere Pro had a steep learning curve. I had never used Adobe Premiere Pro prior to attempting my first video production endeavor. Now, I am very familiar with Adobe Premiere Pro, and am confident in my ability to use the software successfully.

The Content

"Don't let school get in the way of your education."
~Mark Twain

As I assembled the full documentary I looked to emphasize how activation of our basal senses (smell, feel, taste, sight, and hearing) is like a trampoline
that launches us into fully engaged learning. This activation of our senses is not the end goal of experiential learning. The end goal is to force students to evaluate what's going on around them at a deeper level. The engagement of the senses is a platform for this because it triggers curiosity and opens up the opportunity for students to connect their knowledge to a lived experience and a personal story.

Other definitions that our class came up with about experiential learning included:

- A chance to make mistakes and learn from them
- Turning the abstract into concrete
- Putting theory into practice

In the video production, I specifically chose clips that showed people exclaiming about what they were seeing, feeling, hearing, smelling, (and not really tasting...) or how they processed what they were experiencing. Examples of "senses" clips are where Ryan Kain is exclaiming in fear over the large wasp, or where Fahad is freaking out about how Elephants are keystone species. Examples of "processing" clips are the conversations with Erin and Fahad about what wilderness is, or Matt's narrative about how seeing the lone leopard made his heart break and inspired him all at the same time.

The content of the video was difficult to trim down, and I wish I could have included much, much more. However, in order to keep the video short (ish), quick, and to highlight specific points I am quite satisfied with the clips that I used to frame the storyline of my documentary.

**The Conclusion**

This idea about experiential learning that I've formulated really started 8 years ago when, as a freshman in high school, I traveled with my fellow science nerds to Round Island Walrus Refuge and got my mind blown in my first academically situated 'experiential learning' endeavor. Upon returning from 9 days sleeping huddled in wet tents on a tree-less cliff-edged island on the rim of Bristol Bay in Western Alaska I realized: I couldn't forget even if I wanted to. Forever, I will know how the puffins catch eulachon and how the inbred foxes raid kittiwake nests. I feel like this trip to Tanzania was a capstone in understanding experiential learning for me. Now, I can say that I will never ever be able to forget how the grumble of an elephant "roar" vibrates my ribcage like the marching band's bass drum at the 4th of July parade, and how strangers became like family to me.

In my interview near the end of the film, I explain how I came to realize that the simple fact of engaging our senses is the backbone of what brings meaning to experiential learning. This is the conclusion to my investigation. I like it because it is simple, elegant and accessible. It also relates to a discussion that my Evolution class had earlier this Fall. We were speaking about how to get people to care about biology. I brought up one of my favorite quotes (shared in the movie!):
In the end we will conserve only what we love. We will love only what we understand. We will understand only what we are taught.” ~ Baba Dioum, Senegalese Conservationist

My classmates responded with the question: “How do we get people to care about what they are taught!?” I think that experiential learning is the answer to this question. In a world with information overload, simply putting information "out there" isn't enough. The information is not absorbed. However, people can't ignore their own life experience. Travel and wilderness adventures and wildlife encounters are the kinds of first-hand, smack-you-in-the-face, "teaching" that make people care. The meaning of experiential learning boils down to this. What is going to impact people's lives? The Evolution, Ecology and Culture of Eastern Africa course impacted my life, and has reoriented my 'north star' towards effecting impacts in other people's lives through experiential learning.

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Link to Documentary Video by Sarah Donohoe

https://www.youtube.com/watch?v=GPiCWwPN1f0