

2014 Orientation Participant Feedback Report

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Introduction

The 2014 PolarTREC Orientation and Share Fair was held in Fairbanks, Alaska, February 9-14, 2014. Thirteen incoming PolarTREC teachers met with PolarTREC staff, alumni, researchers and logistics coordinators to learn about all aspects of a successful PolarTREC experience. Participants learned about Polar science through lectures by researchers and field trips to the Museum of the North and the CRREL permafrost tunnel. They learned technical skills they will need in the field to communicate. These included tips on email, journaling, photography and videography, and how to create a PolarConnect event. Most importantly, participants were introduced to each other and the PolarTREC staff.

Sixteen participants completed the final 2014 Orientation and Share Fair feedback survey. Each day, between 14 and 19 participants completed the daily feedback surveys. Response to the event was overwhelmingly positive.

Participant Satisfaction

All participants agreed that the orientation was well planned and comfortable. One hundred percent of respondents strongly agreed that: 1) activities were carefully planned; 2) objectives were clear; 3) time was used effectively; 4) the presenters were effective instructors; 5) the presenters were well prepared; 6) questions and concerns were addressed; 7) participants were active learners; 8) interactions between presenters and participants were collegial; 9) interactions among participants were collegial; 10) the facilities were conducive to learning; and 11) an appropriate balance between presentation and interaction was achieved. Table 1 shows the results. Only two areas had less than 100% strong agreement. One person agreed (but not strongly that 1) the activities held their interest and 2) the accommodations were of high quality (hotel, meals, transportation.)

Table 1: Participant Ratings on Orientation and Environment

	Count	Strongly Disagree	Disagree	Agree	Strongly Agree
The activities were carefully planned	16	0.00%	0.00%	0.00%	100.00%
The objectives were clear	16	0.00%	0.00%	0.00%	100.00%
The time was used effectively	16	0.00%	0.00%	0.00%	100.00%
The presenters were effective instructors	16	0.00%	0.00%	0.00%	100.00%
The presenters were well prepared	16	0.00%	0.00%	0.00%	100.00%
The activities held my interest	16	0.00%	0.00%	6.25%	93.75%
My questions and concerns were addressed	16	0.00%	0.00%	0.00%	100.00%
Participants were active learners	16	0.00%	0.00%	0.00%	100.00%
Interactions between presenters and participants were collegial	16	0.00%	0.00%	0.00%	100.00%
Interactions among participants were collegial	16	0.00%	0.00%	0.00%	100.00%
The facilities were conducive to learning	16	0.00%	0.00%	0.00%	100.00%
The accommodations were of high quality (hotel, meals, transportation)	16	0.00%	0.00%	6.25%	93.75%
An appropriate balance between presentation and interaction was achieved	16	0.00%	0.00%	0.00%	100.00%

Thirteen of the sixteen respondents wrote a written comment about the organization and environment of the workshop. Nineteen percent of survey respondents commented that this was the “best professional development” they had ever attended. For example:

- *Outstanding job! This is the best professional development that I have been to. Even as an alumni, I continue to learn from others and am inspired to improve as a teacher.*
- *This was the BEST professional development ever! I was so impressed with all of the dimensions listed in this survey.*

Another 57% of respondents had a different positive comment, for example:

- *I wish you all ran everything in education! Every moment gave me something amazing that I can begin to use when I get home!*
- *Meetings were well planned and organized. Staff kept us on task and on time. All activities had a purpose. Presenters' information can quickly be put to use. Interactions were collegial and supportive. The days went fast!*
- *I really liked the pace of time to learn, then practice and do, then time to soak in for mental and muscle memory, then often a revisit the next day. OUTSTANDING OVERALL*
- *I loved the combination of excursions and learning. You never got bored and I learned so much.*

The only comment that was not completely positive was:

- *I would say in regards to "the activities held my interest" I agree, but at times things were long, and even with breaks sometimes I found my attention wandering.*

All of participants rated the opportunities presented at the workshop as good or excellent. The results are presented in Table 2. The “opportunity to consider classroom applications” was the only topic that did not receive a 100% excellent rating.

Table 2: Opportunity Ratings

Please rate the PolarTREC Orientation and ShareFair on the following:	Count	Poor	Fair	Good	Excellent
Opportunity to improve your Polar Region knowledge	16	0.00%	0.00%	6.25%	93.75%
Opportunity to build your interest in the Polar Regions	16	0.00%	0.00%	0.00%	100.00%
Opportunity to network with people with similar interests	16	0.00%	0.00%	0.00%	100.00%
Opportunity to be part of a professional community	16	0.00%	0.00%	0.00%	100.00%
Opportunity to consider classroom applications of PolarTREC project	16	0.00%	0.00%	6.25%	93.75%
Opportunity to prepare for your PolarTREC experience	16	0.00%	0.00%	0.00%	100.00%

Eleven respondents commented on the opportunities. Twenty-five percent of respondents commented on the great networking connections. For example,

- *The networking opportunity, there are no words to describe. Like nothing I've ever experienced. To be able to collaborate with other top notch teachers and researchers was wonderful.*

Another 38% had a generally positive comment. For example,

- *I truly believe that I now have the information, tools, and skills to be very successful before, during, and after my expedition. Thanks!*
- *Loved how the schedule was developed to have ample time to learn new information, especially with technology and then practice, then learn about a new polar science....Excellently organized*
- *Again- all of these goals were exceeded. I feel like the biggest takeaway was the long-lasting nature of this program- building something that will last for years!*
- *I am so excited to be part of the polar education community.*

There was one suggestion for possible improvement:

- *I would have loved to learn more details about everyone else's expeditions, however I understand that that is A LOT of information that I can also learn more about on my own.*

Knowledge Outcomes

Overall, most of the teachers felt that they knew something about all the relevant topics at the end of the workshop. Table 3 shows how knowledgeable the participants felt about specific topics. Most requests for more information were related to journaling. One respondent needed “a lot” more information on conducting a PolarConnect event and one on using the "ask the team" forum. More than 25% of respondents thought a little more information would be helpful on 1) strategies for taking cutting edge science into my classroom, 2) characteristics of a successful PolarTREC experience, 3) PolarTREC requirements, 4) conducting a PolarConnect event, 5) effective outreach strategies, 6) using multimedia in journals, 7) staying safe in the field and, 8) maintaining a successful long-term collaboration between teachers and researchers.

Table 3: Knowledge Ratings

Topic	Count	I have no clue about this topic	I need a lot more information still	A little bit more information would be helpful	I am set, I don't need any more information	N/A
Strategies for taking cutting edge science into my classroom	16	0.00%	0.00%	43.75%	50.00%	6.25%
Conducting a PolarConnect event	16	0.00%	6.25%	31.25%	50.00%	12.50%
Characteristics of a successful PolarTREC experience	16	0.00%	0.00%	37.50%	56.25%	6.25%
PolarTREC requirements	16	0.00%	0.00%	37.50%	56.25%	6.25%
Effective outreach strategies	16	0.00%	0.00%	31.25%	62.50%	6.25%
Using multimedia in journals	16	0.00%	0.00%	25.00%	68.75%	6.25%
PolarTREC logistics support and processes	16	0.00%	0.00%	18.75%	68.75%	12.50%
Staying safe in the field	16	0.00%	0.00%	25.00%	68.75%	6.25%
Next steps	15	0.00%	0.00%	20.00%	73.33%	6.67%
Technical aspects of journaling	16	0.00%	0.00%	12.50%	75.00%	12.50%
E-mail journaling protocols	16	0.00%	0.00%	12.50%	75.00%	12.50%
Technical aspects of digital photography (downloading, deleting, organizing, resizing, etc.)	16	0.00%	0.00%	18.75%	75.00%	6.25%
Preparing for safe work in the Polar Regions	16	0.00%	0.00%	18.75%	75.00%	6.25%
Maintaining a successful long-term collaboration between teachers and researchers	16	0.00%	0.00%	25.00%	75.00%	0.00%
Using the PolarTREC Website to communicate	16	0.00%	0.00%	12.50%	81.25%	6.25%
Artistic aspects of digital photography	16	0.00%	0.00%	12.50%	81.25%	6.25%
Using the "ask the team" forum	16	0.00%	6.25%	0.00%	81.25%	12.50%
Components of the Education and Outreach Plan	16	0.00%	0.00%	6.25%	87.50%	6.25%
Strategies to bring PolarTREC into my classroom	16	0.00%	0.00%	12.50%	87.50%	0.00%
Journaling as a tool for reflection and outreach	16	0.00%	0.00%	0.00%	87.50%	12.50%
Characteristics of "good" journal entries	16	0.00%	0.00%	6.25%	87.50%	6.25%
Adding photos to your journal	16	0.00%	0.00%	0.00%	87.50%	12.50%
Purpose of the Education and Outreach Plan	16	0.00%	0.00%	0.00%	93.75%	6.25%
PolarTREC evaluation purpose and requirements	16	0.00%	0.00%	0.00%	93.75%	6.25%

Ten teachers commented on their need for a little more information. For example,

- *What we learned in 6 days, was all of the above. And you've backed it all up in the book, drive, computer, online and with additional work on the ftp site. Perfect!*
- *As an alumni I didn't need all the support, but still got a lot out of many aspects!*
- *For the items marked as needing more information: Training was good. Anytime I can get more information about how to implement these things would be welcomed.*

- *I need to practice creating, adding and documenting multimedia in journals! I think the practice will make me more confident.*
- *When I say I need more information, I mean, I have a good sense of what this entails and is expected of me, but is perhaps still an area of uncertainty or an area in which I am shaky.*
- *The orientation has been so thorough, while I still have questions on many things, I have a strong background and now know enough to know what questions to ask.*
- *Of the things that I checked "a little more info would be helpful", I feel confident that that information will be addressed in upcoming webinars, phone calls, etc.*
- *love the improvements to the interactive and uploading portions of the website. also so impressed that someone would mention something, and a minute or two later Ronnie would say done!*
- *I feel really good right now about the requirements, but will probably need help or a review once I start with my plans*
- *Feel good!!!! Can always learn more!!!*

Most Beneficial

Nineteen respondents answered the question, “What was the most beneficial part of the PolarTREC orientation?” Eighty-one percent of the answers mentioned something about the connections with people being the most beneficial part of the orientation. Other common ideas were 1) tech support (19%), 2) feedback from alumni (18%), and 3) inspiration (13%).

The following are illustrative.

- *Helping make me part of a network of excited and engaging educators to help support me in exciting my students, community and the public with polar science and global topics.*
- *The community, the thoughtful discussions and interactions and the inspiring ideas to take back and implement.*
- *Excitement from the fellow teachers; feeling like going into this as a group*
- *Connecting face-to-face with teachers and researchers. Having tech support at the meeting to teach us and trouble shoot with us. The many resources available. The knowledge that we will have continued support in the future.*
- *The interactions I had with other PolarTREC teachers and the PolarTREC staff.*
- *Networking with other participants, learning new polar science and learning how to develop, implement and plan successful outreach.*
- *The contact with Alumni teachers was invaluable- they've done it before and they were obviously invited back to demonstrate best practices. They were excellent models.*
- *The whole thing! It was particularly great to have the alumni to let us know what questions to ask and assure us that everything was going to be fine.*
- *Collaboration sharing of ideas and energy and meeting face to face!!*

Most Useful

When asked about what could make the workshop more useful, all sixteen respondents answered the question. Eighty-one percent of them thought orientation was good as it was.

The following are illustrative.

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- *I would leave it as it is. Everything was first class.*
- *I don't think this is possible!*
- *The questions I have left should be answered when I connect with my scientist.*
- *It could not have been more useful...Perfect organization, and development and integration of so many topics.*
- *Does it have to end? I know it doesn't really end, but it's been really great.*

There were a few suggestions:

- *I know there is a time crunch, but a little more time to work on journals and posting. It would be awesome to have some of the content we got from the field excursion early on in the week. This may also satisfy peoples curiosity about the area, as well as give them good material for posting.*
- *I understand technology but I'm a slow learner- I need to do things as I'm being taught. Sometimes I was slow on the draw- I'd realize the relevance of a tech tip DAYS after it was taught to me... that was frustrating but I don't think that's reflective of your style of teaching, more my speed of learning.*
- *It would have been nice to have a little more focus on informal education, but I also realize that I'm the only person coming from this background.*

Crucial Topics

When asked what topics to cover in future orientations, all 16 people responded and 43% of those thought “All the ones you addressed in this orientation” or similar.

- *Keep it like it is. If there was a way to break up the long first two days just a little bit with something a bit physical (even if for only 1/2 hour or so) that might be nice. The following are illustrative and include the nine specific suggestions.*
- *I think you've addressed everything-but love the continuous reinforcement of support from former PolarTREC-ers as well as all of you.*
- *Curriculum development? hard to do with some many different types of classrooms.*
- *Technology topics*
- *Learning about the connection with the polar vortex, altered ocean circulation, and severe weather now being experienced on the east coast. These storms are impacting millions of people. Connecting these storms to polar science will get their attention.*
- *Current science and making real time field science applicable to the myriad of different audiences.*
- *Making teachers feel comfortable about what they are a part of, and more important excited about what they are a part of.*
- *Outreach and classroom connections*
- *I wonder if there is any time to shoehorn in some sharing of lesson plans teachers already use...for this cohort, these folks rock with so many great ideas already!*
- *Time to practice technology (which was great this time) needs to be carried to all future orientations.*
- *Communications and how to keep going.*

Daily Feedback

This year at orientation, participants filled out a short survey at the end of each day. Table 4 shows the number of respondents for each day and their role. Respondents were predominantly participants. There was less response as the week went on.

Table 4: Daily Feedback Response by Role

	Participant	Alumni	Researcher	Total
Sunday	13	2	2	17
Monday	12	5	1	18
Tuesday	11	3	1	15
Wednesday	12	4	1	17
Thursday	10	4	0	14
Total	58	18	5	81

Table 5 shows how satisfied the participants were each day. The response was overwhelmingly positive.

Table 5: Daily Feedback Satisfaction

	Satisfied	Very Satisfied	Total Count
Sunday	0.00%	100.00%	17
Monday	5.56%	94.44%	18
Tuesday	0.00%	100.00%	15
Wednesday	11.76%	88.24%	17
Thursday	14.29%	85.71%	14
Total	6.17%	93.83%	81

Each day participants were asked what they learned. Tables 6 through 10 show the common themes that people commented on for each day. On Sunday, people met the PolarTREC team and each other, learned about the program expectations and what technology they would be using to interact with PolarTREC.

Table 6: Things Learned on Sunday

Theme	Count	Percent of Responses
Meet the team	8	44.44%
PolarTREC expectations	7	38.89%
Insight from Alumni	8	44.44%
Technology	11	61.11%

For example,

- *I learned some new ways that I could incorporate polar lessons and polarTREC into my classroom (as well as other great science ideas). For example, I would like to try to go to a senior center to*

share my experiences. Also, at this point I am focused more on incorporating PolarTREC ideas into my classroom, but I forget how important it is to share with other schools and the community.

Some people learned other things:

- *I learned that flying into Fairbanks a day before orientation made it so much easier to feel rested and comfortable this first day. I also learned that there seems to be no end to the good amazing amounts of energy this program creates in me and my fellow teachers*
- *I learned some new ways that I could incorporate polar lessons and PolarTREC into my classroom (as well as other great science ideas). For example, I would like to try to go to a senior center to share my experiences. Also, at this point I am focused more on incorporating PolarTREC ideas into my classroom, but I forget how important it is to share with other schools and the community.*

On Monday, participants learned something about Polar Science, the purpose and expectations of the program evaluation and journaling techniques on their computers.

Table 7: Things Learned on Monday

Theme	Count	Percent of Responses
Polar Science	12	66.67%
Evaluation	4	22.22%
Journal Techniques	15	83.33%

For example,

- *In the morning we learned about the dynamics of the polar regions. Steve's discussion was fascinating regarding the density differences and the role that density plays in the heat transfer system. Heidi's discussion regarding the contrasting regions of the Antarctic region was powerful. Both researchers had amazing images that easily portrayed the science discussion. We also received useful information from the alumni in the form of skits/chats. Such a valuable resource for the "newbies". Toward the end of the day we worked on journal writing and publishing the journals.*

One person learned something about him/herself.

- *I'm not going to win a Best Actor award.*

Tuesday included a field trip to the Museum of the North, where participants were given the opportunity to hold a hibernating Arctic ground squirrel. In the morning they learned about photography and movie making.

Table 8: Things Learned on Tuesday

Theme	Count	Percent of Responses
About squirrels	12	80.00%

Photos and movie methods	14	93.33%
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For example,

- *Wow! We learned all about how to take quality photographs and videos for uploading into our journals. We also learned everything about circadian rhythms and hibernation of wildlife in the Arctic, especially concerning the Arctic squirrels. We were able to actually hold a hibernating squirrel!*

Wednesday was about Polar safety, logistics and satellite phones. There was a science talk by Julie Brigham-Grette about lake sediment cores.

Table 9: Things Learned on Wednesday

Theme	Count	Percent of Responses
Polar logistics	11	64.71%
Satellite phone use	12	70.59%
Sediment cores	8	47.06%

For example,

- *My focus for today was to become comfortable with Satellite phone transfers. Actually getting my hands on one and experiencing my sense of reality was extremely helpful.*
- *I first learned about doing science and had a fun activity where we looked at mud cores. Then I learned how to be safe on my trip. We talked about logistics, I learned to use a satellite phone, and we visited CH2M Hill Polar Services to learn about clothing and equipment.*

And one of the presenters learned:

- *I learned about the diversity of the teachers and something of their enthusiasm for what they will be doing. I didn't get to see each of them blossom but was impressed and humbled by their interest in the material I was presenting. At dinner I learned from a few of them how much anxiety they have about standing up to climate deniers in their school systems and in the parents of the students they work with.*

Thursday Michelle Brown gave a talk about bringing the PolarTREC experience into the classroom. There was a technical information session about email and a field trip to the permafrost tunnel.

Table 10: Things Learned on Thursday

Theme	Count	Percent of Responses
Michelle's talk	2	14.29%
Technical information	10	71.43%

Permafrost tunnel	11	78.57%
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For example,

- *I learned about permafrost- some of it's formations, its ability to preserve fossils and ice structures inside it. I learned about satellite phones and gained experience working with them. I learned some strategies for bringing my experiences back into the classroom and making this a long-term endeavor, not just an isolated experience. I also learned how to submit journals by email and I understand why I'd need to do that.*

The survey asked respondents what aspects of the day determined their satisfaction rating. Table 11 lists the common themes in the responses over all 5 days. Meeting organization and learning science and technology skills each accounted for more than 30% of the positive satisfaction ratings.

Table 11: Daily Suggestions

Theme	Count over 5 days	Percent of total responses over 5 days
Organization	28	34.57%
Learning Science/useful information	26	32.10%
Field trip	8	9.88%
Technology/practical skill/practice	27	33.33%
Everything	8	9.88%

On Wednesday, there was one suggestion for improvement:

- *Group logistics was interesting, but it almost felt as though it may have been more useful to break up further group wise- the arctic expeditions have such a wide array among themselves- perhaps a conversation with those camping/more remote and one with those at well supported field stations.*

When asked for a suggestion for the following day, 72% of the responses said, “no suggestion” or similar. The following are the specific suggestions for each day.

Sunday

- *Janet and Sarah are doing a fabulous job- they are professional and patient and knowledgeable and orientation is going well! The computer stuff was a little too fast for me.*
- *Create a technology question list where participants can place tech questions on post its to answer. Overall, I am very please.*
- *Mix everyone up so everyone gets a chance to meet everyone else better :)*

Monday

- *Additional snacks and 60 second stretches in between. (you could even use "A Minute to Win It" video clip on youtube to keep us on the clock!*

Tuesday

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- *It might just be me, but in the future it'd be really helpful to have someone who can help trouble shoot mac/non-mac issues compatibility issues.*
- *I kinda wish we also had name placement cards that we put out in front of us everyday. I know some peoples names but still struggle with others. It would be great if I could look across and see their first name to help me remember.*
- *More time to practice would be good.*
- *Love the change up of scenery, it really re-energized the group.*
- *I could have used more time on my computer actually posting and practicing. Too much time listening and not enough doing. I was on information overload and just wanted to try it myself (with assistance if needed). The chance to get out of the building and look around was great. You should try to do this earlier in the workshop, even if just a short tour to get our bearings.*
- *I don't need this tomorrow or even this week, but a three-hole punch would come in handy. Papers are slipping out of my binder. Keep in mind for next year.*
- *Encourage Zeb to make additional training videos; they are a hoot.*

Wednesday

- *Would it be possible next year to give the Satellite phone folks the phone training and then have their homework specifically to be completed using the phones. After I wrote this, I realized the height of the hotel is an issue. I am learning.*
- *Practice the tech stuff, time for questions...*
- *Glad we will have more time for tech practice and application tomorrow.*
- *Going well. I think the practice time in class is great. They should be getting more practice on their own in the evening and should take the seriously is they are unsure.*

Thursday

- *Leave some unstructured time to apply what we have learned.*
- *I would love to have some ways for our community continue sharing ideas on into the future.*
- *I don't have any suggestions for tomorrow, but think that talking about outreach, as already planned, is the perfect way to end the week.*
- *Not for tomorrow, but I think some folks would like a bit of time to share specific lesson plans they've developed about the polar regions*
- *Sleep! Stop working so much! I'm worried you are burning out by putting SO much energy into this wonderful orientation!*
- *I am eager to learn about the outreach portion as that is actually what makes me the most anxious.*
- *The Mac tips and tricks today were very helpful more of those would be great. In addition to going over outreach, it'd also be helpful to do a few more minor media things like learning how to add attachments and sound files a to journals*