**Western Alaska SAGE 2YC Workshop**

**Supporting and Advancing Geoscience Education in Two Year Colleges (SAGE 2YC)**

**Final Report**

**Workshop Conveners:**

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**Introduction**

The Western Alaska SAGE 2YC Workshop was held on 20 March, 2013 at the University of Alaska Fairbanks (UAF) Northwest Campus (NWC) in Nome, Alaska in conjunction with the Western Alaska Interdisciplinary Science Conference (WAISC). Linking this workshop with WAISC allowed for more participation as people interested in science, research and education in western Alaska were already traveling to Nome. Founded in 2008, WAISC is held each year at a western Alaskan rural hub community and brings together educators, scientists, rural leaders, students, and community members to discuss local issues and research relevant to western Alaska (<http://seagrant.uaf.edu/conferences/waisc/>).

Other than airfare and lodging in Nome there was no direct cost to attend this workshop. This workshop provided an important training opportunity for rural science instructors to meet and discuss issues in a face-to-face format.

In western Alaska, there are 5 community campuses that serve primarily rural students. These community campuses are administered through the UAF College of Rural and Community Development (CRCD). UAF CRCD offers degrees that range from Occupational Endorsements to graduate degrees, but most students are enrolled in two-year programs. This puts UAF community campuses in a unique position in that they mostly serve the two year college (2YC) mission but they also offer a few upper level courses that can lead to bachelor and graduate degrees.

The mission of UAF CRCD is to “provide academic and vocational education and outreach that promote workforce preparation, economic development, life-long learning, and community development with an emphasis on Alaska Natives, and underserved communities” (<http://www.uaf.edu/rural/>). The five CRCD community campuses in Alaska include: Bristol Bay Campus (in Dillingham), Chukchi Campus (in Kotzebue), Interior-Aleutians Campus (in Fairbanks), Kuskokwim Campus (in Bethel), and Northwest Campus (Nome). Most of students taking classes in rural Alaska are not science majors; rather they take science courses to meet the UAF core requirement for associate degrees and to a lesser extent to begin coursework towards a bachelor's degree.

There are few roads in western Alaska, so the widely dispersed rural population of western Alaska is primarily connected to community campuses through phones or internet. There is air travel but this is expensive. Thus, the instruction of science courses is based on distance education techniques.

In Alaska, the community campuses are playing an increasingly important role in forming a competent and technical rural workforce that has a foundation in science. Within the last 5 years, UAF community campuses have also increased outreach programs to K-12 teachers by providing opportunities for teachers and students to conduct research on local issues. The growing science programs in rural Alaska has substantial challenges including few full time faculty and staff, limited resources in classrooms, physical and social isolation, and scarce opportunities for professional development. This workshop provided a needed forum to discuss best practices and common problems encountered when guiding rural students through higher education programs in preparation for careers.

**Workshop Goals**

This one day workshop focused on how CRCD Science Department can better integrate science curriculum into programs offered at Alaska community campuses. The workshop main objective was to discuss the best practices of science education efforts of the UAF community campuses. It also was to identify education strategies that work recognize where more improvement is needed. It also identified some stepping stones that may help students gain university degrees or career opportunities.

Specific goals of this one-day face to face workshop included ways to build or improve:

* 2-year science programs offered at Alaskan community campuses
* Strategies for increasing the number of STEM students in Rural Alaska
* Tactics to increase retention of current students and improve graduation rates
* Approaches to better train 2YC students for STEM careers
* Ways to prepare 2YC students to attend four-year colleges and universities.
* Undergraduate research and internship opportunities for 2YC students
* Enhance cooperation between community campuses and the Fairbanks campuses
* Bridges to gaps between college-transfer and workforce programs within 2YCs and four-year programs
* Lasting partnerships between academia and employers

Before the workshop participants were asked to complete a pre-workshop survey, identify the undergraduate STEM courses they taught, and identify internship programs they are involved with.

**Workshop Collaborators**

* University of Alaska Fairbanks College of Rural and Community Development (UAF CRCD)
* University of Alaska Fairbanks Marine Advisory Board (UAF MAP)
* University of Alaska Fairbanks Experimental Program for the Stimulation of Research (Alaska EPSCoR)

**Alaska SAGE Workshop Agenda**

Wednesday, 20-March-2013

8:30-9:00 **Opening remarks and introductions**

9:00-10:00 **Distance education delivery methods for introductory science courses including labs** (online, mailed and intensives)

* Speakers: Tara Borland Claudia Ihl, Todd Radenbaugh, and Dan Solie,
	+ Distance labs currently used at CRCD.
	+ What are the best practices for distance education and eLearning science courses?
	+ How can we teach science to rural Alaskans better?

10:00-10:15 Break

10:15-12:00 **Innovative learning techniques**

* Best Distance education practices for teaching science.
* Where are the gaps, what are we doing right, how can we improve?

12:00-1:00 Lunch break

1:00-2:00 **2 year to 4 year college transition**

* Panel members: Pete Pinney, Christa Mulder, Larry Duffy, Bob Metcalf
	+ How do we develop a plan to transfer students from 2YC to 4YC?
	+ Is there a role for graduate students in rural Alaska?

2:00-3:15 **Workforce development in rural Alaska**

* Roll of Rural Campuses in workforce development or 2YC to 4YC, can we do both well?
* What occupations do rural Alaskan's want and how do you meet those needs?
* How to best meet the workforce development needs of rural students? e.g. Occupational endorsements, certificates or other educational programs
* How to improve student recruitment and retention.

3:15-3:30 Break

3:30-4:00 **Developing a community of rural AK college educators**

* How is the Fairbanks campus connected to the rural campuses?
* Where are the disconnects? How can CRCD Science Department do better?
* What are the rolls of the Fairbanks science departments, EPSCoR and RAP to help rural students?
* Define the goals for the CRCD Science Department.

4:00-5:00 **Student support services needed for successful rural science programs**

* How to advise and prepare students to succeed in science courses, occupational endorsements and degrees
* Providing lab assistance to students
* Innovative ways to have students helping students

5:00-5:25 **Wrap-up Session**

* Next-step - delivering products to improve rural science education

5:25-5:30 Exit Survey

6:30-8:30 Dinner

**Key Findings from Alaska SAGE Workshop**

Held at UAF Northwest Campus, 20-March-2013

***8:30-9:00am  Opening remarks and introductions***

* One main barrier at UAF community campuses is that most of the funding for salaries and classes is grant generated and so have specific timelines, goals, and termination dates
* Most CRCD students at community campuses care less about earing a university degree, but rather attend classes for information they learn or as a requirement for a job
* Issues in how students are counted for administration purposes – e.g. degrees count for universities not really for the rural students (or their employers)
* At CRCD, a lot of students intend to start a degree but get frustrated on a few gatekeeper classes that include math and English
* Many of the students who do finish degrees move out their villages and finish degree elsewhere. Should be a way to document this so that students who do complete their first few courses and then transfer should be seen as a success for community campuses
* Most CRCD students are not traditional (start school after high school), and since there are few individuals in villages with degrees they often can get a job without a degree. This allows many students to change their mind and decide to just get a job and not finish the degree.

***9:00-10:00 am  Distance education delivery methods for introductory science courses including labs*** *(online, mailed, and intensives)*

Classes Taught by Alaskan Communty Campuses

Current Distance Labs @ CRCD

* BIOL 111X and 112X (Anatomy and Physiology) (mailed kit)
* BIOL 240 (Beginnings in Microbiology) (mailed kit)
* BIOL 104X (Nat. History of Alaska) (lab intensive)
* GEOG 111X (Physical Geography) (online lab)
* CHEM 103X (Basic General Chemistry) (mailed kit)
* PHYS 102X (Physics) (mailed kit/ lab intensive)
* BIOL 100 (Human Biology) (lab intensive)
* ENVI 260 (Field techniques) (lab intensive)
* HLRM (many classes) (lab intensive)
* PHYS 094 (Bush Physics) (mailed kit/lab intensive)
* MSL 111X (The Oceans) (mailed kit) being developed

*The ‘X’ after course number indicates is a UAF baccalaureate core requirement*

Distance education issues:

How do we give the students a similar face to face experience without the ability to have face to face labs?

Ways CRCD faculty teach science labs:

1. Lab in a box – mailed as a kit to students to be completed in kitchen:

* Kits and experiments can become a liability involved with having students do labs at home
* The experiment and labs are often excellent, but the kits but cost a lot of money and often may not be returned. (Claudia tells students to use moose etc. hearts if they just got one for dissections instead of commercial sheep heart)

2. Lab Intensives – Require all students to travel to complete the labs

* Travel and lodging is very expensive, not sustainable (about $1,500 per student) - lab fees for on campus lab range from about $100 to $200
* if we want to continue labs in rural Alaska, we need to find funding, right now they are funded federally
* High Latitude Range Management faculty goes out to the student cohort to teach intensive instead of flying the students to one location. This works if there are students taking class in one village

3. Online:

* Often UAF Science Departments do not allot this as many science labs do not translate into online exercises
* Bandwidth is limited resulting in slow uploads of online labs (such as Blackboard) also loss of data often happen requiring students to start lab over
* Conductive issues: Many faculty (e.g. UAF Alaska Native and Rural Development Department) only use teleconference for distance courses and not every student can access (or know how to use) blackboard or websites that host online labs
* eLive (class participation software) can drop in and out and makes it tedious to have a synchronous online class or lab \*Recently a major bandwitdth upgrade has occurred in rural communities and should now be available libraries and school districts. Still, high speed internet is very limited in villages where it is available, only a limited amount of people actually have access
* Competition from other online universities from around the world, necessary for UAF to develop more online courses to compete
* Opposite direction of biology, want more interaction and projects for lower level courses, online courses are more money driven

Case Study: Dan Solie, Bush Physics

* Goal is to prepare students for higher level science courses and improve their math skills and basic physics
	+ Apply knowledge of science in interesting ways for modern students
	+ Cultural and place based connection is important
	+ Schedule the course so it fits with student’ personal schedule (start after hunting)
	+ Video conferencing great but many people have technical limitations and can’t
	+ Synchronous is a better way to learn than asynchronous
	+ Multiple modes of delivery important to make sure everyone can participate
	+ Problem solving is stressed
	+ Replaced Greek symbols with Inuktitut symbols, students understand the formulas much better this way
	+ Uses stories (Newton’s life and how he may have been thinking)
	+ Place based education is very important
	+ Getting students connected to blackboard is difficult for new UA students
	+ Course needs to get upgraded to a 100 level to get students to register, although developmental science is needed. Maybe eventually offer the 090 version for free for high school students
	+ Students need to understand that the developmental courses aren’t credits, it’s just to offer the proper preparation for the students in science courses
* Students also want their credits to count toward a track, which this class can’t provide

Discussion: Practices for Distance Education Labs:

* Student cohorts: means students working together through email, or students in the same community come together and do their labs together
* Hire Teaching Assistants to help students do online labs via eLive
* Keeping teachers up to date on the technology is a challenge
* Sending CDs or DVDs of lectures to students who have internet limitations
* Required tutors
* Interactive textbooks, more like an e book
* Use place based examples in lab “The concept is universal but the understanding is place based”
* Mentoring students - Elders working with teachers and students

1. Best Practices for Distance Education Labs

 Top 3 ideas:

 A. Local resources/redefinition

 B. Bucket lab kit

 C. Online labs – Student cohorts – flexible formats for students

 Other ideas:

 D. Lab intensive

 E. Elders working with students

 F. Student travel/exposure

2. Distance Lab Improvements

 Top 3 ideas:

 A. Using culturally relevant materials that students already understand

 B. Having instructors travel to the students – develop cohorts

 C. More videos online for mail out DVDs

 Other ideas:

 D. Synchronous communication, increasing interaction

 E. Using simple, incremental experiences

 F. Placing learning into a community context

 G. Collaboration with professionals

 H. Identifying local infrastructure

I. Switch from grant funded soft money to more reliable hard money

***10:15-12:00pm  Innovative learning techniques***

Distance labs improvements: create comparable experience to face to face classroom

Results from the interactive session:

1. What are good practices for distance education?

 Top 3 ideas:

A. Faculty and students need build capacity to adapt to technology challenges, use the best or appropriate technology

 B. Meaningful student connections – students interact with each other online to build community

 C. Teachers being available for students

 Other ideas:

 D. Encouraging a relaxed learning environment (humor)

 E. Encouraging an environment for questions

 F. Project based course learning

 G. Understanding the students’ goals

2. What are some innovative ideas for improving distance science courses?

 Top 3 ideas:

 A. Make classes more modular with an asynchronous learning component

 B. Required class integration with tutoring for homework and assignments

 C. Teacher training in technology (example: iTeach Workshops)

 Other ideas:

 D. Utilizing new technology for courses

 E. Use stories from elders and locals for engagement

 F. Interactive textbook

 G. Instructor/student feedback

 H. Student paced learning (asynchronous for students with non-traditional schedules)

3. What are problems with teaching science through distance formats?

 Top 3 ideas:

 A. Students lack the background knowledge

 B. E-connectivity and other technology issues

 C. Reaching students with various learning styles

 Other ideas:

 D. Language/jargon

 E. Student/teacher feedback

 F. Student time management

 G. Teacher training

 H. Tutoring and integration with class

 I. Lack of pathway from 2yc to 4yc

 J. Students multi-tasking during class lecture

 K. Resistance of current University to DE mode of delivery

Cultural issues

* Contemporary native students often live in two worlds, cultural issues are important
* Definition of culture is important and diverse in western Alaska; instructors need to know more on how culture may interpret curriculum.
* Worldview, Western Alaskan students may see disciplines like western science does – expand western thinking
* Every village and community has a different local culture
* University needs to place the education in the student’s context. Then the students have background that they can apply to the learning.

***1:00-2:00pm  2 year to 4 year college transition***

Key points

* Often students are encouraged to get too many electives (especially one credit classes) at community campuses, a lot of these courses don’t transfer to a degree.
* Encourage more involvement of urban faculty at the rural campuses, will promote cooperation between Fairbanks departments and community campus faculty. Also help students get the classes they need for degrees.
* Important science core courses are only taught once a year slowing compilation time for students
* Rural students will not take a class if they have to pay tuition – Community campuses are creating a belief that rural education is free as many campuses offer grant paid classes to students. When this funding spent - students will have to pay tuition if they want a course. Need to start preparing students for the true cost of education. CRCD also needs to be clear on the rewards (JOBS!) So need to address the growing belief that education is free in rural Alaska

Christa Mulder (Department head of Biology at UAF):

* Faculty going away from canned labs and having students develop their own labs
* Students spend a lot of time working with other students
* Challenges for transfer students, when other students have already been working in this type of environment for a while
* No personal connections to faculty when students transfer
* Need to improve ways to get potential transfer students caught up
* Need ways to connect incoming students with ones already there

Pete Pinney (Acting CRCD Vice Chancellor):

* Having students be able to access classes where they are at and not needing to come to main campus
* CRCD community college set-up
* Get rid of main campus terminology, make it Fairbanks campus
* How do we talk about course equivalency in terms of rigor
* Open access college, not controlled by SAT scores coming in, makes it hard to control what is going out
* CRCD doesn’t own the designators for the science courses
* Program review, we need our accreditation for students to be able to get funds to attend
* What we do in teaching has a component in advising
* Needs assessment for ethnobotany, should it become a baccalaurette, need to see if enough students are interested, maybe if not, change it to a more broad discipline

Larry Duffy (UAF Dean of Graduate School):

* What are the educational and career goals today’s rural students? ~60% of US high school graduates go on to college – less in rural Alaska? What are students going for, knowledge or credentials, job training…?
* What is the faculty attitude towards science students?
* Barriers to student success – more need to be identified but include their preparedness for university level course.
* When students are doing poorly they need to know things like the how to drop a course.
* Do (should) students have contacts in Fairbanks when they transfer? Are they satisfied with the learning environment at UAF (both at Fairbanks and community campuses)? Do students have clear goals and objectives? Need to hook up with a cohort or mentor at 4yc.
* Engaging students in the subject matter, how does it connect to their goals and their lives?
* Disconnect in communication, sometimes both sides assuming that understanding is reached when it is not
* Courses that are important are often only taught once a year and if you come in at the wrong time

Bob Metcalf (UAF North West Campus Director):

* Rural campus student to a larger campus the issues are different for each student. Are they right out of high school or older students with experiences somewhere else?
* Checklist of other experiences, activities, and advising we would suggest a rural student should have
* True assessment of where each student truly is, whether moving to a more urban larger school experience is wise
* Assess what their goals are, what their financial restrictions are
* Talk to both successful and unsuccessful students who transferred to larger campuses

Brian Rasley (UAF Alaska native science and engineering program ANSEP):

ANSEP tries to help students either straight from high school or rural campuses

1. Provides academic support for difficult courses (chemistry/math) (tutoring)

* Bridge the gap between rural communities and larger campuses

2. Provide support for professional development in stem disciplines

* Require the students to make resumes and do an internship, join professional societies in their field of study

3. Provide help with financial support

* Paid summer internships, ask them to provide money for academic year scholarships

Retention rate in the program is around 80% but it also may take some students longer because of developmental courses (6-7 years) to complete

*Open discussion:*

* ANSEP great program to direct students to
* CRCD does not offer the prerequisite science courses for students to enter science degrees. More science classes needed if we want to get rural science major. Class can be taught but there is little demand presently.
* Course availability at rural campuses is limited especially in fields that are very sequence dependent like engineering, so it may make the degree take much longer to complete
* 6-7 year graduation length is common for all students, not just innate to rural students
* Build a support group for transfer students of all kinds. Assign the students to advisors that bring them together before the semester begins
* RSS does a great job with STEM and all rural students. Monitors them closely
* Arctic slope regional corp has sponsored a small dorm for rural students, environment with students with similar backgrounds
* What role do elders play in ANSEP? Not a whole lot but Brian would like to start doing more of that. ASIS does more community based speakers, most students in ANSEP are involved with ASIS.
* Brought elders in along with students from Fairbanks to come in and discuss student success, STEM fields and science and connecting with elders cultural background
* Difficult to advise a student through a cerificate program if they plan to go onto a 4 yr. Need to have more stepping stone options to help them complete work that transfers.
* Rural campuses don’t have the classes offered for students to go onto a 4yr
* Evolve a less targeted AA
* Problem when students come without a strict endpoint. Get students to start small and then they build onto that success. Slowly build them up to a 4yr degree.
* All the courses we offer in science don’t lead to a bachelors in science
* Courses you take that don’t count toward a degree can count against you because of new federal regulations (financially)
* AS is useless in rural Alaska because we don’t offer the major science courses there
* CRCD science courses are not for science majors, the students need them for the core for their degree fields
* If we taught the more aggressive science courses they would be more expensive and our students wouldn’t excel with them
* Majority of rural Alaska students want to be teachers or health professionals
* 300 or 400 courses can’t be offered because of financial constraints, getting a teacher approved can cause issues and you might be doing that for just one student
* There is little resistance from UAF science departments for distance delivery of 300-400 courses that do not have a lab. Lots of resistance for rural faculty to teach science core 100 level classes.
* Free courses offered by community campuses are creating a belief that there is no cost for rural education.
* No more covering tuition 100%, maybe make the students pick up a portion

***2:00-3:15pm  Workforce development in rural Alaska***

Occupational Endorsements:

* OE are leading toward a high level of success
* Seemed to be significant need for the OE in sustainable energy
* Big deal to see if the student (applicant) has completed things like an OE
* Give the community the skills they need to be successful in their careers
* Rural human services certificate successful with a pathway to an AAS in rural human services
* Good to create some more clear pathways like that one
* Pathways allow for them to keep working and pay for their education
* Hard to find industries that would hire folks with the OE
* Native corporations demand lots of professional skills and that they would like to see them taught in an OE or certificate.
* Must have industry partnerships and potential jobs to create new OE or certificate.
* Soft skills, how to report on a grant, how to use office
* Try not to get too technical, it’s not the technical training that is holding folks back, it’s the soft skills that are more necessary. Want to know that the applicant can be trained to their more specific technical skills

Are OE good to explore, we agree that they are.

OE may be an important avenue to address many of the workforce issues now facing rural Alaska

Graduate students for rural campuses:

* Local committee member for graduate students who need to come to rural campuses for research
* Interdisciplinary graduate degrees are potential
* With support faculty graduate degrees for rural students and a cohort of graduate students they can be successful
* Encourage more grad students from other departments to utilize the rural campuses
* Rural campuses can serve the function of being a local base and support for students doing research in rural areas
* UAF could be very supportive of having grad students serve as TAs at rural campuses
* Other departments would love to have other sources of funding for their students
* Faculty at rural campuses could really use a TA’s for their science courses
* More collaborative work with graduate students is good to explore.
* Having graduate students exposed in rural campuses will help encourage more future faculty to work in rural areas

***3:30-4:00pm  Developing a community of rural AK college educators***

* Need to strengthen science in elementary and high schools
	+ In rural communities science teachers are not present
* ANSEP reaches down to grade 6 but only through Fairbanks or Anchorage. How can we get that to rural schools?
	+ The do have a 2 week summer program [www.ansep.net](http://www.ansep.net) for more info.
	+ Would be nice to have a community based program (like the computer build) it is logistically hard to get the teachers and equipment to rural areas.
* Citizen science projects are important, have a website that lists all the opportunities in Alaska each summer
* Maybe have the University get involved in pushing the citizen scientist projects at the schools
* Need more faculty and staff interactions between campuses. Most participants in the pre-survey checked that they only communicate with folks at their own campus. For UAF community campuses this is a very limited number of people.
* Create a listserve of rural science educators and who would do it? Would be a great idea. Maybe use the Google Circles thing to create our community of rural science educators. Starting with our science department monthly meetings but it would be great to have a more inclusive group.

Recommendations for CRCD:

* Department structure of CRCD is different than other schools because of location of separate schools
* Inherited the community college structure from 20 years ago and it hasn’t changed much since then so it makes it complicated when all science faculty have different bosses
* Limit Community Campus Directors academic roles, should be only administrative. Put academic decisions back into the hands of the faculty.
* How do you distribute the cost of paying for the extra time for the department chair of the science department? Does it only fall on their campus budget or should it be split or paid by CRCD?
* Whole purpose of having science department meetings is to serve the students better
* Encourage the departments at Fairbanks and community campuses working together:
	+ Faculty at Fairbanks campus and community colleges collaboration on research
	+ Develop outreach programs in departments
	+ Community campus facility invite Fairbanks faculty to give talks and work on projects. This could help to build trust and relationships.
* CNSM Laura Connor, new public outreach department – make more use of this program.
* Build regular connections with the UAF science department chairs, (ex UAF Biology Dept. is getting a new head at the end of July 2013).

***4:00-5:00pm  Student support services needed for successful rural science programs***

Student support services are important for student success. Well-staffed and knowledgeable student services personnel are necessary. In the past such important positions have been vacant at community campuses. What can CRCD do when positions are vacant in rural areas – could they help with advising and advertising programs?

* If student support services are not in place, it falls on the faculty
* Need good student advisors where they don’t get mixed messages from multiple sources
* IAC has a great student support services model, they work directly with students and communicate with faculty
* IAC has faculty who are faculty advisors for the students
* Problem is when students sign up last minute for all their courses and it makes it difficult to advise them
* Create a safe environment among staff with a clear vision of how to help the student and communicate non-stop
* Really analyze different options with the students so they have a clear idea of what each path leads to
* Weekly advisor audio to touch base helps, bounce ideas off each other, advice, assistance
* Communication between university departments and faculty is key to successful partnerships.
* Two-way communication with students, get concepts of what is important from them
* Faculty need to communicate with the student advisors regarding students and programs
* Students may go in and out of programs but they will always have their student advisor
* Call ahead of time when they visit villages so students know when you will be there
* Have students help students by having students commenting on blogs about what other students put up
* Encourage students to work together on labs even if by phone or web
* Promote student tutors

**Alaska SAGE Workshop Convener Reports**

**Todd Radenbaugh**

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**A. My experience of designing and leading the workshop**

Since I was able to attend the 18-20, July, 2012 SAGE workshop in Tacoma, WA I had some experience in terms of what to include in a SAGE agenda. In Tacoma I learned much about what the SAGE can offer to small 2YC. However, given the limited about of time in the Alaska workshop we had to limit time spent on many topics

 I felt that the participants got much out of the Alaskan workshop, especially in terms the gaps in the current curriculum taught and how the CRCD Science Department can better coordinate classes and serve students. It was very rewarding to be involved in the process. I also feel that the design of the workshop was able to fit the needs of UAF CRCD. It is important in rural Alaska programs and student’s needs are much different than other 2YC in the lower 48 states.

**B. SAGE 2YC support for the workshop**

I felt that the SAGE 2YC support for this workshop both helpful and necessary. The three teleconferences with Jan Hodder helped us focus out broad ideas into a workable agenda. The technical and web services offered by John McDaris were timely and supportive. This greatly improved our ability to get the workshop information and agenda to participants. The registration tools and website templates were an excellent resource that make designing the workshop easier.

**C. Suggestions for improving the process**

The process of hosting a local SAGE workshop is mostly a local planning committee but the advice and support provided by Jan Hodder and John McDaris were valuable. Their administrative and technical support helped us focus the limited time available on the most important topics. There was a small issue navigating the website editing tools but for the most part it was figured out (although the upload images were clumsy). The initial financial output for food and supplies by the local organizing committee was a bit of a burden as this was taking from individual accounts. The reimbursement process was a bit complicated and takes a long time.

**D. Advice for future local workshop leaders**

In rural Alaska it is difficult (and expensive) to hold face to face meetings. The Alaskan workshop could not have been held without the support of a regional conference. I would suggest having future local SAGE workshop in cooperation with other regional meetings.

The interactive sessions were useful and allowed many people to interact and discuss issues. They also helped participants to better get to know each other. The discussion in the meeting was most useful as it involved the acting CRCD Vice Chancellor, Biology Department Head, Dean of the Graduate School, and Community Campus Director. This allowed faculty and staff to ask direct questions about policy. Communication between these groups sometimes is rare at across community campuses.

**Tara Borland,**

Rural Science Lab Coordinator

University of Alaska Fairbanks College of Rural and Community Development

(taborland@alaska.edu**)**

**A. My experience of designing and leading the workshop**

This is the first workshop I have had the pleasure of helping to implement. It was very rewarding to be involved in the process. I came into the group in the middle of the process and I feel that it might have been easier if I had been a part of the designing of the workshop from the beginning. I had never been to a SAGE workshop before and I had to spend some of the time learning what the program was meant to focus on. Now that I know all about SAGE workshops I am very interested in attending a national conference. It was great to be able to design the workshop to fit the specific needs of our institution. As a rural Alaska school our programs and student’s needs are unique and it was valuable to be able to gear the workshop to be able to address our specific situations.

**B. SAGE 2YC support for the workshop**

I found the SAGE 2YC support to be invaluable. We arranged several teleconferences with Jan Hodder and every time she was able to provide us with direction and great ideas. The teleconferences served to keep us on track and also helped us solidify our agenda. I am also grateful for the support of John McDaris who was able to quickly assist us whenever we had SAGE website issues. His support was always readily available and I really appreciated that. Having the registration system and website templates was also served as a great resource.

**C. Suggestions for improving the process**

The process of putting on the SAGE workshop was relatively straight forward. The inclusion of a template for a workshop flyer on the SAGE website would be great. We found some difficulty navigating the editing tools of the website. It was unclear to us how to go in and edit the participant survey. Also, we found it difficult to properly upload images onto the pages. We couldn’t get our logo to be a good size, it came out huge and we couldn’t seem to change that. I would suggest an online tutorial for using the website. The tutorial would be able to focus on some of the main functions of the website and be available to users at any time to reference.

**D. Advice for future local workshop leaders**

Our workshop was solely focused on having open discussions with everyone. This was a great format but I think it could have used a few short presentations throughout. Having a short power point presentation at the beginning of each session could serve to break up the monotony and introduce the next topic to be discussed. We had two different interactive sessions in the first half of the meeting. These worked really well and helped to get participation from everyone. The second half of our meeting was strictly discussion and I think it would have been good to have had an interactive session at some point in the afternoon as well.

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**A. My experience of designing and leading the workshop.**

We held the workshop in conjunction with the 6th Western Alaska Interdisciplinary Science Conference, which ran for 2 days right after the workshop. Overall, the preparations for the workshop were relatively minor on my end; as the person on location in Nome, I took care of local logistics, such as reserving the venue, ordering lunch, and recruiting local participants. A challenge in the workshop organization was to adjust the Sage objectives to our special situation, which is to administer science courses (not just geography) to rural Alaskan students, mostly by distance education.

We were able to pull together educators from within our college as well as from the main campus in Fairbanks and representing several disciplines. This interaction is important to us, because our challenges and activities can easily go under the radar of the main campus faculty and administrators.

**B. Sage 2YC support for workshop.**

The regular planning meetings with Jan Holder were very useful and alternative and helped in mapping out an agenda and keeping us on track. It was also nice to have some financial support for lunch and dinner; although the money was barely enough to cover 25 participants. Food prizes in rural Alaska are at least 50-100% of prices elsewhere; so money does not reach as far up here.

**C. Suggestions for improving the process**

The Sage website was somewhat difficult to navigate. Also, the registration process for the workshop was a bit cumbersome and time-consuming, which may have prevented some attendees from registering. We eventually managed to get everyone to register, but we had to capture some participants and sit them down in front of a computer and walk them through the registration. A simpler, quicker, registration might result in higher registration numbers. Even so, we were very pleased with having about 25 participants.

As mentioned above, lunch and dinner money was a bit tight. Maybe the amount of money available for this could be adjusted to the number of participants and also the location of the workshop.

**D. Advice for future workshop leaders**

Our workshop was a round-table discussion, which in our case was timely and needed. We brought together a mix of people who had never before discussed these issues together in this way. Although we opted not to interrupt discussions with power point presentations, this would certainly be an option. A few short presentations might be useful to guide discussions and generate ideas. Most importantly, it would be useful to expand from the discussion to some kind of action item list and to assign tasks to people to follow up with the issues brought up in the workshop. Although we used the workshop to make each other aware of the pressing issues regarding distance education in the Alaska bush, we now need to figure out how to actually implement the changes we desire. This will be the greater task.