**Questions on Impact of ANDRILL ARISE**

For all Likert scale questions **1= not important / of no value** and **6 = very important / very valuable**)

General Questions  
1. Were you on-ice with MIS? Yes or No  
2. Were you on-ice with SMS? Yes or No  
3. Do you teach or have regular contact with non-scientists or undergraduate students? Yes or No

**Question about impact of educators being deployed as part of a group:**

*The majority of science immersion for educators embeds a single educator in a science research team. ANDRILL ARISE was unique in that it deployed a team of international educators together.*

1. Did you perceive there being ‘added value’ in deploying a group of educators (as opposed to a single educator)?  
   Likert Scale 1= no or little added value, 6 = significant added value
2. Provide comments or reflection on the value of deploying a group of educators (as opposed to a single educator) (open response)

**Questions about value of deploying E and O coordinator with ANDRILL ARISE team:**

*Not only did ANDRILL ARISE deploy a team of educators to the ice, they also deployed the E and O coordinator. The E and O coordinator worked with the team before, during and after the on-ice experience, facilitated the geoscience course taught by scientists, worked with NSF to provide additional opportunities like on-ice field trips, scheduled hands-on immersion into jobs on the science teams, helped coordinate outreach from the ice, and served as a liaison between educators, NSF and scientists.*

1. Did the presence of the E and O coordinator facilitate your engagement with the on-ice educators?

(1= of no value, 6= facilitated engagement)

1. Provide details supporting your response to the value of having an on-ice E and O coordinator (open response)

**Questions about attendance at the ANDRILL daily science briefings and core review in Crary Lab:**

*ANDRILL ARISE members were expected to attend the daily science briefings on coring progress and initial core description, and the core review. ANDRILL ARISE participants presented at one or more of the science briefings.*

1. Was attendance at the daily science briefings of value to you or the educators?  
   Likert scale (1= of no value, 6= of value)
2. Provide comments supporting your response to the question about educator attendance at the daily science briefings / core review (open response)

**Questions about ANDRILL on-ice jobs:**

*ANDRILL ARISE educators contributed to ANDRILL science by completing on-ice jobs with different science teams.*

1. Was an educator ‘embedded with your on-ice science team? YES or NO (if no, move to question about science course)
2. Was the time spent explaining protocols / ‘teaching’ the educator worthwhile?  
   Likert scale (1= not worthwhile, 6= worthwhile)
3. Did your understanding of challenges educators face relating to content knowledge and in-class work change as a result of work with ‘your’ educators?  
   Likert scale (1= no change, 6 = significant change)
4. Did the way in which you interact with / explain science to non-scientists – or the way you teach change as a result of your engagement with the educators?

Likert scale (1= no change, 6 = significant change)

1. Provide details supporting your responses to questions 2, 3 and 4 above (open response)

**Questions about the on-ice educator science course**

*One of the facets of the ANDRILL ARISE educator on-ice experience was participating in an on-ice ‘science course’ in which participants were introduced to or reviewed a specific aspect of the science being conducted. This only featured in the SMS deployment.*

1. Did you present material to the educators as part of the science course? Yes or No
2. Did you perceive the ‘science course’ as valuable to the understanding of science and/or ANDRILL by the educators? Likert scale (1= not valuable, 6 = valuable)
3. Did you learn anything as you prepared / presented material to the educators? Yes or No or N/A
4. Provide details supporting your responses to questions 2 and 3 above (open response)

**Questions about impact of participation in post-ice ANDRILL workshops and Conferences**

*ANDRILL ARISE educators were offered the opportunity to participate in both the May 2007 post-ice workshop at Florida State University (FSU) in Tallahassee and the SMS Science Integration Workshop in April 2010. Educators are not typically fully supported for continued involvement in research projects.*

1. Do you perceive participation by educators in the workshop and conference as being of value to their work? Your work?

Likert scale (1= not valuable, 6 = valuable)

1. Provide details supporting your response above (open response)

**Questions about impact of connections made with ANDRILL ARISE Educators during and after ANDRILL deployment**

*As a participant in ANDRILL you made connections with ANDRILL ARISE educators as well as previous or subsequent ANDRILL ARISE educators.*

1. How valuable are/were the connections you built with ANDRILL ARISE educators to your work in science and/or E and O? (1−6 on Likert scale)
2. Provide details/examples of how you have used those connections to complete your ANDRILL ARISE project or other continued and new E and O work: (open response)
3. Provide information on the collaborations that developed as a result of connections you with educators through ANDRILL ARISE (open response)

**Questions about International Aspect of ANDRILL**

*ANDRILL was a multinational cooperative scientific research project. Scientists and educators from the USA, New Zealand, Germany and Italy all participated; E and O team immersion in a multidisciplinary international project is unique to the ANDRILL ARISE experience.*

1. Overall, was the international aspect of ANDRILL ARISE participants of value? (1−6 on Likert scale)
2. Provide details or examples of how the international aspect of ANDRILL ARISE added value to the scientific endeavour, education and outreach, and / or your learning about E and O (open response)

**Question about NET ‘Secrets beneath the ice’ video**

*NSF funded an informal science grant to produce the NET Secrets beneath the Ice film / video in conjunction with ANDRILL.*

1. Have you used the ‘Secrets beneath the Ice’ video as part of your teaching or outreach? Yes or No
2. Provide feedback on your usage of the video (open response)

**Question about Flexhibit materials**

*One of the key links between E and O during the MIS season and the SMS season was the development of the Flexhibit materials.*

1. Have you use the Flexhibit materials in any way for teaching or E and O work you are involved in? YES or NO
2. Provide comments on or examples of how you used the materials to best effect: (open response)

**General Comments/Reflections**

1. Please share an anecdote that captures the impact of integrating ANDRILL ARISE educators with science teams (open response space)
2. Is there anything else you wish to share about ANDRILL's Education and Outreach Programme? (open response space)