

2001 Colorado Science and Engineering Fair Scientific Review Committee Report

I will begin this year's report with the positives that improved from looking at last year's report and comparing it to this year's problems.

1. There were only two or three projects that were turned in using old ISEF forms. This was a huge improvement over last year. I will continue to send the previous year's adult sponsors the new ISEF booklet in the Fall along with a copy of this report. Also, if I have extras, I will take requests for this material from other teachers through the web site: www.csef.colostate.edu.
2. I only had to request Form 1C for a couple of projects that did not submit them for Research Institute work – this is much better!
3. The same goes for the Designated Supervisor Form 3. I don't think we had to ask for very many of those. Again, the biggest issue was getting the qualifications of a Designated Supervisor working with a student using firearms or other hunting equipment. We are asking these people submit their qualifications along with the Form 3.
4. Registration forms for teams went much better this year. I think I got it across that all students working on a team project must register and pay. I think I only had to track down a couple of students from one region (where the RFD was new). I also had fewer issues with teams using the same Form 1B – I think there were only two! Actually, registration forms overall were much better this year – although there were a couple of really late ones!

Now on to the areas that still need improving and some new issues that have come up.

1. We are still having trouble with the dating of forms. Either not using the correct year (especially ones signed in January) or signing forms AFTER the research start date. I must reiterate that the only form that is suppose to be signed after the research is complete or while the research is being conducted, is the Research Institute Form 1C.

My best solution to this issue is to offer this suggest to teachers:

Have students begin with Forms 1A (Research Plan) and 1B (Approval Form). Complete them to the best of their ability – including part #9A-C of Form 1A (Problem Statement, Hypothesis & DETAILED Procedures). Use this plan to complete Form 1, making sure that Form 1A #8 matches what you believe to be the type of project the student wants to work on. Sign both of those forms at this time. Then help the student fill out the other forms that might be required (Forms 2, 3, 4A, 4B, 5 &/or 6) and get the appropriate SRC and/or IRB approval signatures. Then fill in the research start date (Form 1A #5). This will force the student to wait until all approvals have been made to begin the RESEARCH part of their project. Remember, a student can always be doing their library and background research while this is going on. Research Start Date means when the experimentation begins – not when a student may begin background research!

2. I had a heck of a time getting Form 1A #9A-D from some students this year. SRC **MUST** have this information in order to do their evaluation of the project to make sure it followed all of the rules. It also must be **DETAILED**. I had several procedures that were one sentence – we can't determine anything from that! My best advice is to remind students that if someone reads your procedures, they should be able to recreate your experiment without too much difficulty from what you wrote. Also, always IDENTIFY the different parts of the research plan. Do not write everything in a single paragraph. It should also be written in the FUTURE tense as opposed to the past tense we got on several plans. Writing this in the past tense leads us to believe that the plan was not reviewed before it was conducted – by anyone, including the adult supervisor.

3. We are still having trouble with abstracts as well. Abstracts are different from the research plan, because this is the place to talk about what happened during experimentation, including what you set out to do, what actually came about, the results and conclusions. This document should be written in the PAST tense and is **NOT** to be a copy of the research plan!!!
4. Form 1 and Form 1A #8 are still not consistent. Make sure that when the adult sponsor is reviewing the project, that what they believe the project involves and what the student put in #8 are the same and mark both forms the same. And when the registration form for state is filled out, simply transfer the Form 1A #8 information onto #3f for me. A lot of time and energy was spent making sure these two forms matched for a lot of students. I think in the future, if I find these inconsistencies, I am simply going to send an e-mail and ask that the originals be fixed and ask for a reply when they have been fixed and then I will correct my copies so we are not faxing silly mistakes.

I know I already talked about registration forms, but I didn't want this message to get lost in what I said above. Parents need to do a better job of letting me know that a student may need to miss part of the fair for whatever reason. There is a reason we put the times when the students are required to be at fair events and have the parents, students, and sponsors sign the registration form. I do not want to let a student go and then find out later that he/she was not suppose to be released early – and God forbid something happened to that student. That is why I require a note from parents **PRIOR** to the fair explaining why they must be allowed to leave early on Saturday. Then I can give the student an excuse slip – similar to school – and the volunteers will allow them to leave the exhibit area with their project. If something comes up during fair, parents still need to give me something in writing so I have a record of it.

5. A new issue that raised its ugly little head was the confusion over the different types of work sites. Here are some definitions to go by:
Research Institute – any place of business where the student might do all or part of their research (i.e.: universities, medical centers, business labs, or industrial settings).
School is any private or public school for grades K – 12 and does not have to be the student's school – please identify the school by name.
Home is any private residence and does not have to be the student's home – please identify like this: Smith's residence.
Field is any outside setting where the student might be collecting data, unless it is an outside area that is part of a research institute.
6. Another issue that just about drove me to an ulcer was not including a copy of consent forms used with human subjects. I would like to reiterate that CSEF would prefer that even if it is minimal risk, consent forms be used. Also, I only need a sample of the form used – not a copy of all consent forms for all of the subjects. Let's save paper where we can!