No Need to Return This Form!

SOCR/CAUSEway Workshop Evaluation

Workshop Participants Expectations and Understanding of Workshop Evaluation Expectations

The Statistics Online Computational Resource (www.SOCR.ucla.edu) and the Consortium for the Advancement of Undergraduate Statistics Education (CAUSE) have received a NSF funds to develop educational resources and organize workshops and professional development events for statistics educators across the United States. This requires that an external evaluation be conducted to determine the effectiveness of these events and to identify strengths and limitations. Science and Mathematics Program Improvement (SAMPI) at Western Michigan University is conducting the evaluation of this workshop. As a workshop participant, you are being asked to participate in the evaluation. All information you provide is strictly confidential. When reporting results, neither your name nor your school will be linked to the data. Only group data will be reported.

BENEFITS AND SERVICES

Participants will have access to all opportunities provided by the workshop, receive a variety of resources for supporting teaching and learning of statistics, and receive financial support as described in recruitment materials.

EXPECTATIONS. Beyond the project expectations for participation and receipt of benefits and services, workshop participants will be expected to participate in the following evaluation activities:

- Complete a pre-workshop survey (at beginning of workshop)
- Complete an end-of-workshop questionnaire (at end of workshop)
- Participate in a follow-up telephone interview during the school year following the workshop
- Complete an email survey at the end of the school year following the workshop
- Assist in arranging an evaluator site visit during the school year following the workshop (sample of participants only)
- Assist evaluators in administering pre/post statistics content assessments for college students in selected classes (sample of participants only)
- Provide copies of syllabi and other curriculum and instructional materials created as a result of participating in the SOCR/CAUSEway workshop

The evaluation team will coordinate these activities with project staff so as to minimize intrusions and inconveniences. Questions about SOCR, CAUSEway and SAMPI should be directed to the project PIs: Ivo Dinov (SOCR), Dennis Pearl (OSU) and Mark Jenness (SAMPI).

Please Complete This Form on the First Day of the Workshop (08/06/07)!

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Signature of Workshop Participant: _____ Date: _____

Please print your name: _____

This memo of agreement is not legally binding, but represents a good faith commitment to full participation in the SOCR/CAUSEway evaluation by this participant for one year beginning with the workshop.

Please Complete This Form on the First Day of the Workshop (08/06/07)!

SOCR/CAUSEway Workshop Evaluation

Pre-Program Participant Survey

As part of the required evaluation of this workshop, participants are asked to complete the following *16-question pre-program survey*. The information will be used to help us learn about the effects the program. You will be asked to complete a similar survey at the end of next school year. The information is strictly confidential--no one except project evaluators will see individual survey results. Only group data will be reported. The code number is for follow-up purposes and to analyze pre- and post-program data.

When You Have Completed The Survey, Return It To The Workshop Organizers

Thanks for taking time to complete this survey! If you have questions, please ask the facilitator.

PART A: About you.

1. What courses do you teach that include instruction in statistics? _____

_____

2. How many years have you been an instructor? _____

3. What is the subject-area of your highest college degree? _____

4. Are you a member of any national statistics education professional organizations? ____Yes ___ No

If yes, which one(s)? _____

5. Why did you choose to participate in this SOCR/CAUSEway workshop?

6. What are your expectations for this workshop? What do you want to get out of it?

7. How did you learn about this workshop?

8. Were you familiar with SOCR (the Statistics Online Computational Resource) before enrolling in this workshop?

9. Were you familiar with CAUSE (the Consortium for the Advancement of Undergraduate Statistics Education) before enrolling in this workshop?

9. Are you familiar with the www.SOCR.ucla.edu and www.CAUSEweb.org?

10. How <u>well prepared</u> are you to teach the following statistics topics in the courses you teach? Rate each item on a 4 point scale, with 1 = not adequately prepared and 4 = very well prepared.

	Not Adequately Prepared			Very Well Prepared
a. Data collection (surveys and experiments)	1	2	3	4
b. Summary statistics and graphics (such as histograms and boxplots)	1	2	3	4
c. Probability	1	2	3	4
d. Sampling distributions	1	2	3	4
e. Confidence intervals	1	2	3	4
f. Hypothesis testing (one sample for means and proportions)	1	2	3	4
g. Simple linear regression and correlation	1	2	3	4
h. Using graphing calculators in statistics	1	2	3	4

11. How well prepared are you to facilitate the following in the classes you teach? Rate each item on a 4-point scale, with 1 = not adequately prepared and 4 = very well prepared.

	Not Adequately Prepared			Very Well Prepared
a. Emphasizing statistical literacy	1	2	3	4
b. Developing statistical thinking	1	2	3	4
c. Using real data	1	2	3	4
d. Focusing on conceptual understanding rather than mere knowledge of procedures	1	2	3	4
e. Fostering active learning among my students	1	2	3	4
f. Using technology for developing conceptual understanding	1	2	3	4
g. Using technology to analyze data	1	2	3	4
h. Use assessment to improve student learning	1	2	3	4
i. Using assessment to evaluate student learning	1	2	3	4

12. About <u>how often</u> do you do each of the following in a class? Rate each item on a 5-point scale:
<u>1=never; 2=Rarely (1-2 times/ term); 3=Sometimes (3-4 times/ term); 4=Often; and 5=in almost all lessons</u>

a. Introduce content through formal presentations	1	2	3	4	5
b. Use open-ended questioning strategies	1	2	3	4	5
c. Require students to explain their reasoning when giving an answer	1	2	3	4	5
d. Encourage students to explore alternative methods for solutions	1	2	3	4	5
e. Help students make connections between statistics and real-world situations	1	2	3	4	5

f. Read and comment on reflections students have written in their notebooks or journals	1	2	3	4	5

13. About <u>how often</u> do each of the following occur for your statistics classes? Rate each item on a 5-point scale, with 1 = never and 5 = during almost all lessons.

	Never	Rarely	Some times	Often	Almost always
a. I have access to a computer lab to use with my students during class.	1	2	3	4	5
b. When teaching, I have access to a computer projection system in my classroom.	1	2	3	4	5
c. When teaching, I have access to an Internet connection in my classroom.	1	2	3	4	5
d. My students have access to graphing calculators.	1	2	3	4	5

14. Below are several statements about statistics teaching and learning. Rate the degree to which you agree or disagree with each statement on a 5-point scale, with 1 = strongly disagree to 5 = strongly agree.

	Strongly Disagree				Strongly Agree
a. Every student should feel that statistics is something she/he can do.	1	2	3	4	5
b. It is sometimes productive for students to work together during statistics class to conduct investigations or solve statistics problems.	1	2	3	4	5
c. You have to study statistics for a long time before you see how useful it is.	1	2	3	4	5
d. Memorization plays an important role in learning statistics.	1	2	3	4	5
e. A lot of things in statistics must be simply accepted as true and remembered.	1	2	3	4	5
f. Students' achievement in statistics is directly related to their teacher's effectiveness in teaching these subjects.	1	2	3	4	5
g. When teaching statistics, I usually welcome student questions.	1	2	3	4	5

15. About how often do your students take part in each of the following types of activities as part of their statistics lessons? Rate each on a scale of 1 to 5:

1=never; 2=Rarely (1-2 times/ term); 3=Sometimes (3-4 times/ term); 4=Often; and 5=in almost all lessons

a. Participate in discussion with the teacher to further statistical understanding	1	2	3	4	5
b. Work independently	1	2	3	4	5
c. Make formal presentations to the class	1	2	3	4	5
d. Answer textbook/worksheet questions	1	2	3	4	5
e. Work on solving a real-world problem	1	2	3	4	5
f. Share ideas or solve problems in small groups	1	2	3	4	5
g. Engage in hands-on statistical activities (simulations, data collection, etc.)	1	2	3	4	5
h. Design or implement their own investigation	1	2	3	4	5
i. Work on extended investigations or projects (a week or more in duration)	1	2	3	4	5
j. Write a description of a plan, procedures, or problem-solving process	1	2	3	4	5
k. Write reflections in a notebook or journal	1	2	3	4	5
l. Use calculators for learning or practicing skills	1	2	3	4	5
m. Use calculators as a tool (e.g., spreadsheets, data analysis).	1	2	3	4	5
n. Use calculators to develop conceptual understanding	1	2	3	4	5
o. Use computers for learning or practicing skills	1	2	3	4	5
p. Use computers as a tool (e.g., spreadsheets, data analysis)	1	2	3	4	5
q. Use computers to develop conceptual understanding	1	2	3	4	5
r. Take short-answer tests (e.g., multiple choice, true/false, fill-in-the-blank)	1	2	3	4	5
s. Take tests requiring constructed responses (e.g. definition-type questions)	1	2	3	4	5
t. Engage in performance tasks (i.e. create a product, make a presentation) for assessment purposes	1	2	3	4	5

16. What are the major issues or concerns for you related to the teaching and learning of statistics at your grade level? Use back of this page if you need more room.

Please Complete this Form on the Last day of the Workshop (08/08/07)!

End-of-Workshop Evaluation Questionnaire

As part of the required evaluation of SOCR and CAUSEway, workshop participants are asked to respond to the following about the 2007 SOCR/CAUSEway workshop. Your comments are important in helping us improve our materials, extend our resources and fine-tune our pedagogical approaches. Your responses are anonymous & confidential. They will be compiled and reported only as group data. ***DO NOT WRITE YOUR NAME ON THIS FORM.***

The evaluation of this Workshop is being conducted independently by SAMPI. If you have questions, please contact Mark Jenness (Email: mark.jenness@wmich.edu or http://www.wmich.edu/sampi). **We appreciate your comments!**

A. ABOUT YOU:

1. What **courses** do you teach (that the material of this workshop may be relevant to)? Please include: title, Upper/Lower/Graduate division, number of students and number of offerings per year.

   _____

   _____

   _____

2. How many years have you been an instructor in these courses?

3. What attracted you to apply and take part in this Workshop?

B. WORKSHOP OUTCOMES. The workshop sessions were designed to address various strategies for teaching introductory statistics. Please rate each one of the associated objectives according to:
1) Your perception of the VALUE (V) of the session objective and
2) Whether you think it was ACCOMPLISHED (A)
Note: "1" represents the lowest score; a "5" represents the highest score. Please make comments.

The workshop sessions helped me to do the following:

		1	2	3	4	5	
1. Learn how to emphasize statistical literacy	V						Comments:
	A						
2. Learn how to develop statistical thinking	V						Comments:
	A						
3. Learn to use real data	V						Comments:
	A						
4. Learn how to focus on conceptual understanding rather than only knowledge of procedures	V						Comments:
	A						

5. Foster active learning among your students	V						Comments:
	A						
6. Learn to use technology for developing conceptual understanding	V						Comments:
	A						
7. Learn to use technology to analyze data	V						Comments:
	A						
8. Use assessment to improve student learning	V						Comments:
	A						
9. Use assessment to evaluate student learning	V						Comments:
	A						

C. WORKSHOP SESSIONS. Rate the following on their usefulness in helping you with teaching and learning of mathematics on a scale of 1-5, with 1 = not useful and 5 = very useful. Please make comments.

	1	2	3	4	5	
10. Planning a conceptual course using common threads and big ideas						Comments:
11. Making the class interactive with activities						Comments:
12. Finding resources using CAUSEweb						Comments:
13. Finding and using real data						Comments:
14. Using technology in the classroom						Comments:
15. Assessment in the classroom						Comments:
16. Participant discussion and presentation						Comments:

D. WORKSHOP ARRANGEMENTS. Rate the following on a scale of 1-5, with 1 = Disagree and 5 = Agree.

	(Disagree) 1	2	3	4	5 (Agree)	
17. Workshop facilities were satisfactory.						Comments:
18. Workshop facilitators were effective in communicating ideas and issues						Comments:
19. Workshop facilitators were effective in organizing sessions so that I was actively involved.						Comments:
20. A collaborative and helpful tone was established during the session.						Comments:

21. What two or three BIG ideas about the teaching and learning of statistics did you learn during this workshop?

22. In what ways could this workshop be improved?

23. In what ways do you plan to use what you have learned in this workshop in your own teaching?