

College of Education and Human Development Division of Special Education and disAbility Research

Fall 2016

EDSE 590 694: Special Education Research

CRN: 82174, 3 - Credits

Instructor: Dr. Nicole Conners	Meeting Dates: 09/15/16 - 11/17/16
Phone: 571-423-4178; 703-309-9232 (cell)	Meeting Day(s): Thursdays
E-Mail: nconners@gmu.edu	Meeting Time (s): 5:00 pm - 9:00 pm
Office Hours: By Appointment Only	Meeting Location: Off-campus/Other

Note: This syllabus may change according to class needs. Students will be advised of any changes immediately through George Mason e-mail and/or through Blackboard.

Course Description

Describes fundamental concepts and practices in educational research in special education. Covers specific applications of educational research methods to problems in special education. Emphasizes review and critique of special education research, and applied classroom research for teachers.

Prerequisite(s): None

Co-requisite(s): None

Advising Contact Information

Please make sure that you are being advised on a regular basis as to your status and progress through your program. Mason M.Ed. and Certificate students should contact the Special Education Advising Office at (703) 993-3670 for assistance. All other students should refer to their faculty advisor.

Advising Tip

Are you ready to apply for graduation? Students completing their program can apply for graduation on Patriotweb. If you are graduating from a Masters and certificate, be sure to apply to graduate from each program. Visit http://registrar.gmu.edu/students/graduation/ for more information.

Nature of Course Delivery

Learning activities include the following:

- 1. Class lecture and discussion
- 2. Application activities
- 3. Small group activities and assignments
- 4. Video and other media supports
- 5. Research and presentation activities
- 6. Electronic supplements and activities via Blackboard

Learner Outcomes

Upon completion of this course, students will be able to:

- 1. Identify and understand different methods of educational research suitable for different research purposes in special education.
- 2. Describe and discuss basic theories and methods of quantitative experimental and quasiexperimental research in special education.
- 3. Describe and discuss basic theories and methods of survey research in special education.
- 4. Describe and discuss basic theories and methods of single subject research in special education.
- 5. Describe and discuss basic theories and methods of qualitative research in special education.
- 6. Critically evaluate education research and describe implications for educational practice.

Required Textbooks

- McMillan, Educational Research: Fundamentals for the Consumer, 7th edition, Pearson, ISBN 9780134013497
- American Psychological Association. (2010). Publication Manual of the American Psychological Association, 6th edition, Washington DC: American Psychological Association. ISBN 9781433805615 [Make sure you get the "2nd printing." First printing had errors.]

Required Resources

Efron, S.E & Ravid, R. (2013). Action research in education: A practical guide. New York, NY: Guilford Press. ISBN: 9781462509614 (please purchase this additional book)

Additional Readings

Other readings, including special education research studies, will be assigned by the instructor and posted on Blackboard.

Course Relationships to Program Goals and Professional Organizations

This course is part of the George Mason University, Graduate School of Education (GSE), Masters in Special Education Program. This program complies with the standards for teacher licensure established by the Council for Exceptional Children (CEC), the major special education professional organization. The CEC standards that will be addressed in this class include Standard 5: Instructional planning and strategies; Standard 6: Professional learning and ethical practice.

GMU Policies and Resources for Students:

a. Students must adhere to the guidelines of the George Mason University Honor Code [See http://oai.gmu.edu/the-mason-honor-code/].

b. Students must follow the university policy for Responsible Use of Computing [See <u>http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/</u>].

c. Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.

d. The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See <u>http://caps.gmu.edu/]</u>.

e. Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services and inform their instructor, in writing, as soon as possible. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor. [See <u>http://ods.gmu.edu/</u>].

f. Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.

g. The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing [See <u>http://writingcenter.gmu.edu/</u>].

Professional Dispositions

Students are expected to exhibit professional behaviors and dispositions at all times.

Core Values Commitment

The College of Education & Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles. [See <u>http://cehd.gmu.edu/values/</u>]

For additional information on the College of Education and Human Development, Graduate School of Education, please visit our website [See <u>http://gse.gmu.edu/</u>]

Course Policies & Expectations

Attendance.

Students are expected to (a) attend all classes during the course, (b) be actively involved in activities, and (c) arrive on time and stay for the duration of class time. Lack of attendance and professional participation at all sessions will significantly diminish the impact of the course and interfere with creating a collaborative learning community. As such, absences from any portion of the course are strongly discouraged. Please notify me in advance by phone or email if you will not be able to attend class.

Late Work.

In-depth reading, study, and work on course requirements require outside class time. Students are expected to allot class study and preparation time weekly in addition to time spent on papers and assignments. *The result of late work will be the loss of 10 points per day until the assignment is received by the instructor.* Individual situations will be addressed with students outside of class.

Withdraw.

If you are unable to meet the participation requirements of the course(s) it is strongly recommended that you drop the course. Withdrawing from the course is not an automatic process. You must inform the instructor in writing if you wish to withdraw from the course and follow GMU withdrawal processes. Failure to notify the instructor will result in an "F" on your official George Mason University transcript.

Written and Oral Language.

APA Style is the standard format for any written work in the College of Education. If you are unfamiliar with APA, it would benefit you to purchase the Publication Manual of the American Psychological Association (6th Ed.) You are required to use APA guidelines for all course assignments. This website links to APA format guidelines: http://apastyle.apa.org

Academic Integrity.

Students in this course are expected to exhibit academic integrity at all times. Be aware that plagiarism is presenting someone else's work as your own. Whether the act is deliberate or unintentional is irrelevant. You must take great care to give credit to an author when you borrow either exact words or ideas. Generally, if you use 4 or more words in a row you should use quotation marks and a proper APA citation. Remember that plagiarism is a very serious offense and can result in dismissal from the University. *Evidence of plagiarism or any other form of cheating in the class will result in a zero on that assignment and a report of the incident to the Dean's Office*.

Tk20 Performance-Based Assessment Submission Requirement

Every student registered for any Special Education course with a required performance-based assessment is required to submit the (*NO ASSESSMENT REQUIRED FOR THIS COURSE*) to Tk20 through Blackboard (regardless of whether the student is taking the course as an elective, a onetime course or as part of an undergraduate minor). Evaluation of the performance-based assessment by the course instructor will also be completed in Tk20 through Blackboard. Failure to submit the assessment to Tk20 (through Blackboard) will result in the course instructor reporting the course grade as Incomplete (IN). Unless the IN grade is changed upon completion of the required Tk20 submission, the IN will convert to an F nine weeks into the following semester.

Grading Scale

95-100% = A90-94% = A-86-89 = B+80-85 = B76-79% = C+70-75% = C>70% = F

(Total points for class: 500 POINTS)

Assignments

Performance-based Assessment (Tk20 submission required). No assessment is required for EDSE 590. (n/a)

Performance-based Common Assignments (No Tk20 submission required).

Research Paper: Completion of 1 of 2 options (100 points):

Option 1: Research Application Project (100 points) (you may work with a partner on the final project) DUE: Thursday, November 17 (*by 5:00 pm/posted in BB)

The research application project is designed to provide experience in designing, implementing, and evaluating a research application project in special education. Any of the research designs covered are appropriate. This will be an action research project in your classroom or school. Specific guidelines for the assignment will be provided.

Be sure to have your research question and design approved by the instructor **PRIOR** to beginning implementation of your project. An electronic copy of the project should be submitted by 4:30 pm on the due date.

Scoring Rubric for Research Application Project (100 points)

Exemplary paper (95-100 points): Appropriate topic, thorough and thoughtful review of previous research, appropriate and clearly described implementation procedures, careful measurement and evaluation of results, thorough and appropriate discussion of implications of findings. Good writing style, free of mechanical or stylistic errors, appropriate use of APA format.

Adequate paper (85-94 points): Good overall paper, lacking in one or two of the criteria for an exemplary paper. Not entirely reflective or thoughtful, or minor writing style errors may be present.

Marginal paper (70-84 points): Overall, acceptable but with one or more significant problems. Contains some useful information, but may have substantial problems with evaluation, writing style, or implementation of project.

Inadequate paper (1-69 points): Paper with substantial problems in important areas such as writing, implementation of intervention, evaluation of results, overall thoughtfulness. Contains little or no information of value to special education practice.

Unacceptable/no paper (0 points): Paper with no value whatsoever relative to the assignment, or no paper turned in at all. May describe a project of no value that was not approved for this assignment.

Exemplary	Adequate	Marginal	Inadequate	Unacceptable
paper	paper	paper	paper	paper
95-100	85-94	70-84	1-69	0

Option 2: A literature review paper (100 points--*based on current literature) DUE: Thursday, November 17 (*by 5:00 pm/posted in BB)

You may select to complete a literature review. You may select to complete a traditional research literature review paper of a selected intervention area. You will need to collect 10-15 original research studies on a particular topic to include in your review paper (from journals or electronic journals). Specific guidelines will be provided. Have your topic approved prior at the beginning of your research process. An electronic copy of the project should be submitted by 4:30 pm on the due date.

Scoring Rubric for Library Research Literature Review

Exemplary paper (95-100 points): Appropriate topic, thorough and thoughtful review of previous intervention research. Good writing style, free of mechanical or stylistic errors, appropriate use of APA format.

Adequate paper (85-94 points): Good overall paper, lacking in one or two of the criteria for an exemplary paper. Not entirely reflective or thoughtful, or minor writing style errors may be present.

Marginal paper (70-84 points): Overall, acceptable but with one or more significant problems. Contains some useful information, but may have substantial problems with evaluation, writing style, or review of relevant literature.

Inadequate paper (1-69 points): Paper with substantial problems in important areas such as writing, evaluation of research, overall thoughtfulness. Contains little or no information of value to special education practice.

Unacceptable/no paper (0 points): Paper with no value whatsoever relative to the assignment, or no paper turned in at all. May describe a literature of no value or relevance, or that was not approved for this assignment.

Exemplary	Adequate	Marginal	Inadequate	Unacceptable
paper	paper	paper	paper	paper
95-100	85-94	70-84	1-69	0

Other Assignments.

Class Attendance and Participation (10 points each class = 100 points). Completion of weekly class activities, participation in class discussions, and project presentation update discussions throughout the semester. Weekly warm-ups and closure activities will be included in class participation points. Points missed due to absences cannot be made up. Excessive absences can result in additional penalties and potential withdrawal from class.

Research Article Summary (50 points). Completion of a summary of a recent research study (last five years) that you could possibly extend and replicate for your own application study. Please use the "how to summarize research article" to understand the components of a good article summary. You will use this similar format for your literature review in your final project. You must identify the purpose of the study, the participants and methods, results of the study, discussion and limitations, and future research implications. Be sure to address the major components of a study: Introduction with purpose, Methods- participants, materials, process/procedures, Results of study, Discussion, etc.... DUE: Thursday, September 29th (*by 5:00 pm/posted in BB)

Weekly Readings Blogs (100 points--more directions provided on how to set this up) *Due weekly by 5:00 pm

Each blog entry should include:

- 1. Summary of readings for the week to include three big ideas that the student took away from the material
- 2. At least three questions that the reading generated for the student
- 3. How the readings can be applied to the PLC/CLT cycle and process in schools

10 possible points per blog entry x 10 classes = 100

Exemplary blog	Adequate blog	Marginal blog	Inadequate blog	Unacceptable/no
entry	entry	entry	entry	blog entry
10	8-9	7	5-6	0

Exemplary blog entry (10 points) Entry includes a well written summary of three big ideas from the readings for the week, questions that were generated about research topics, and how research connects to professional learning communities and collaborative learning teams in schools. Overall, during the semester, exemplary blogs entries will reflect student growth and understanding of action research components and how this research impacts instructional practice.

<u>Adequate blog entry (8-9 points)</u> Overall, blog entries reflect understanding of the reading material and include at least two of the three components of a well-written blog entry.

<u>Marginal blog entry (6-7 points</u>) Blog entries indicate that the student has completed the reading assignments for the week, but the entry does not include all necessary components and includes grammatical, syntactical and mechanical errors.

Inadequate blog entry (4 to 5 points) Blog entry does not follow the assignment instructions and includes none of the required elements.

<u>Unacceptable/no blog entry (0 points)</u> Student does not complete a blog entry for the week or the blog entry indicates that the student did not complete the assigned reading or did not fully understand the readings.

Sample Blog Entry (Effron & Ravid, Chapter 1)

In Chapter 1 of Effron & Ravid, the author's examined the differences between traditional research and action research. In traditional research, the researcher is an outside expert. However, in action research, the teacher researcher is involved and engaged in the research topic. Additionally, in traditional research, the research questions are determined ahead of time and are a reflection of the researcher's interests and area of expertise. In action research, on the other hand, the questions emerge from real life situations and challenges that the teacher experiences in the classroom. Finally, traditional research uses much more of a top-down model which explains, in part, some of the reason that there is a disconnect between research and instructional practice in the classroom. Action research, in contrast, is definitely a bottom up approach, which is much more democratic in nature, and leads to real and lasting changes in a teacher's instructional practice.

The authors also traced the historical trajectory of action research, indicating its inception in the ideas of John Dewey who encouraged teachers to reflect on and examine their instructional practice. Action research is different than other types of research in that it is constructivist, situational, practical, systematic and cyclical.

After reading Chapter 1, I wondered if the PLC/CLT process and the DuFours work originated from the action research prospective. I also wondered if action research is always done by an individual teacher or if groups of teachers can engage in action research. Finally, I wondered if action research is really more of a type of qualitative research since the research questions emerge as the teacher collects data.

I can totally see how action research is at the basis of the PLC/CLT even if that wasn't the original intention of the PLC movement. The systematic and cyclical qualities of

action research are part of the PLC/CLT process. In our CLTs we are constantly using the data to reflect upon and change our instructional practice. That's actions research! The information in Chapter 1 on action research and how if differs from traditional research helped me connect to the ideas in the PLC/CLT cycle and it makes more sense to me why we have those weekly CLTs.

Research Study Poster (100 points). *see class examples and template. More details will be provided about the format for posters. Examples of projects/posters will be provided in the first class. *DUE: Thursday, November 17 (*by 5:00 pm/picture posted in BB dropbox)*

Poster Session Presentation of research project or literature review paper. (50 points) Make a brief (15-minute) poster presentation that summarizes your written research project or literature review. Be prepared to answer questions about your project. *DUE: Thursday, November 17*

Schedule

Class Topic & Reading Assignments	Class Activities/Assignments
Introduction to Research in Education and	Assignments Due: n/a
Course Overview: Becoming a critical consumer of educational research	Blog completed at the end of the class (in-class Blog #1)
Review syllabus	Varied Class Activities
Quantitative/Qualitative Research Methodology Overview	Quantitative/Qualitative Word Sorts
What teachers think of research-based practices	Research-based practices article and summary
(research article discussion)-teacher perspectives	Action research article and activity
Basics of action research	
DIFFERENT LOCATION FOR CLASS-	Assignments Due: (for this class)
NOT AT FHS- on September 22 only, class will meet at Gatehouse Administrative	Efron & Ravid- Ch. 1 &2
Center, 8115 Gatehouse Road, Falls Church, VA 22042 - room 3050/51)	McMillan - Ch. 1, 2 (pp.32-41), 4, & 14
	Blog #2 due and posted by this class
Learning about your research topic	Come to class with a topic or idea for final project
	Introduction to Research in Education and Course Overview: Becoming a critical consumer of educational researchReview syllabusQuantitative/Qualitative Research Methodology OverviewWhat teachers think of research-based practices (research article discussion)-teacher perspectivesBasics of action researchDIFFERENT LOCATION FOR CLASS- NOT AT FHS- on September 22 only, class will meet at Gatehouse Administrative Center, 8115 Gatehouse Road, Falls Church, VA 22042 - room 3050/51)Ethical Research Practices/ Choosing and

Date	Class Topic & Reading Assignments	Class Activities/Assignments
	Overview of Research Designs & reviewing the literature and defining a question to explore	
	Overview of research designs & developing/writing an introduction & literature review	
	Replicating and extending an existing study: Writing an introduction (include purpose for study) & writing a literature review section	
	Action Research- is your teaching effective? If not, now what? Informing instructional practice	
Class 3	Qualitative Research Design and Analysis	Assignments Due: (for this class)
Thursday,	Practice with qualitative coding	Efron & Ravid- Ch. 3 & 4
Sept 29 th	Research Projects - we will spend time getting started on this process	McMillan- Ch. 11 & 12 Blog #3 due and posted by this class
	Writing a methods section: setting, participants, materials, procedures	Research Study Summary due
Class 4	Quantitative Research: Research Designs	Assignments Due: (for this class)
Thursday,	Spotlight on survey designs and creating	Efron & Ravid- Ch. 3 & 4
Oct 6 th	surveys for your application project	McMillan- Ch. 7, 8, & 9
	Approaching action research/differences between traditional research and action research	Blog #4 due and posted by this class
	Writing a methods section: setting, participants, materials, procedures	
Class 5	Quantitative Research: Research Designs	Assignments Due:
Thursday,	continued	Work on application project or literature review
Oct 13 th	Nonexperimental and experimental research designs: survey, single subject, experimental and	Efron & Ravid- Ch. 3 & 4
	correlational designs)	McMillan- Ch. 7, 8, & 9

Date	Class Topic & Reading Assignments	Class Activities/Assignments
	Writing a methods section: setting, participants, materials, procedures	Blog #5 due and posted by this class
Class 6	GUEST INSTRUCTOR	Assignments Due:
Thursday, Oct 20 th	 Foundations of Educational Measures: Basic statistical analysis and statistical inferences Data collection tools and using assessment data in action research Educational Measurement and Measures- basic statistics and statistical inferences Writing a results section: Quantitative/Qualitative Research Data Analysis 	Work on application project or literature review Efron & Ravid- Ch. 5 & 6 McMillan- Ch. 6 & 10 Blog #6 due and posted by this class
Class 7 Thursday, Oct 27	Foundations of Educational Measures: Basic statistical analysis Educational Measurement and Measures- basic statistics and statistical inferences Writing a results section: Quantitative/Qualitative Research Data Analysis (data analysis and interpretation)	Assignments Due: Work on application project or literature review Efron & Ravid- Ch. 5 & 6 McMillan- Ch. 6 & 10 Blog #7 due and posted by this class
Class 8	Statistical Analysis: Statistical Inferences	Assignments Due:
Thursday, Nov 3	 Writing, Sharing, and Implementing Research Findings Data analysis and interpretation Writing your discussion, conclusions, and further research section Bring in draft papers/projects – working time on project, poster, etc 	Work on application project or literature review Efron & Ravid- Ch. 7 & 8 McMillan- Ch. 15 Blog #8 due and posted by this class
Class 9	Writing, Sharing, and Implementing	Assignments Due:
Thursday, Nov 10	Research Findings Data analysis and interpretation	Work on application project or literature review and poster
		Blog #9 due and posted by this class

Date	Class Topic & Reading Assignments	Class Activities/Assignments
	Writing your discussion, conclusions, and	Efron & Ravid- Ch. 7 & 8
	further research section	McMillan- Ch. 15
	Bring in draft papers/projects – working time on	
	project, poster, etc	
Class 10	Poster Presentations in rotations	Assignments Due:
Thursday,	Online evaluations	In-class Synthesis Blog #10 completed in class
Nov 17		Research paper, research poster, presentation due

Appendix

Scoring Rubric for Research Application Project (100 points)

<u>Exemplary paper (95-100 points)</u>: Appropriate topic, thorough and thoughtful review of previous research, appropriate and clearly described implementation procedures, careful measurement and evaluation of results, thorough and appropriate discussion of implications of findings. Good writing style, free of mechanical or stylistic errors, appropriate use of APA format.

<u>Adequate paper (85-94 points)</u>: Good overall paper, lacking in one or two of the criteria for an exemplary paper. Not entirely reflective or thoughtful, or minor writing style errors may be present.

<u>Marginal paper (70-84 points)</u>: Overall, acceptable but with one or more significant problems. Contains some useful information, but may have substantial problems with evaluation, writing style, or implementation of project.

<u>Inadequate paper (1-69 points)</u>: Paper with substantial problems in important areas such as writing, implementation of intervention, evaluation of results, overall thoughtfulness. Contains little or no information of value to special education practice.

<u>Unacceptable/no paper (0 points)</u>: Paper with no value whatsoever relative to the assignment, or no paper turned in at all. May describe a project of no value that was not approved for this assignment.

Exemplary	Adequate	Marginal	Inadequate	Unacceptable/no
paper	paper	paper	paper	paper
95-100	85-94	70-84	1-69	0

Scoring Rubric for Intervention Research Literature Review (100 points)

<u>Exemplary paper (95-100 points)</u>: Appropriate topic, thorough and thoughtful review of previous research. Good writing style, free of mechanical or stylistic errors, appropriate use of APA format.

<u>Adequate paper (85-94 points)</u>: Good overall paper, lacking in one or two of the criteria for an exemplary paper. Not entirely reflective or thoughtful, or minor writing style errors may be present.

<u>Marginal paper (70-84 points)</u>: Overall, acceptable but with one or more significant problems. Contains some useful information, but may have substantial problems with evaluation, writing style, or review of relevant literature.

<u>Inadequate paper (1-69 points)</u>: Paper with substantial problems in important areas such as writing, evaluation of research, overall thoughtfulness. Contains little or no information of value to special education practice.

<u>Unacceptable/no paper (0 points)</u>: Paper with no value whatsoever relative to the assignment, or no paper turned in at all. May describe a literature of no value or relevance, or that was not approved for this assignment.

Exemplary	Adequate	Marginal paper	Inadequate	Unacceptable/no
paper	paper		paper	paper
95-100	85-94	70-84	1-69	0

Scoring Rubric for Weekly Blogs (100 points)

Exemplary blog entry (10 points). Entry includes a well written summary of three big ideas from the readings for the week, questions that were generated about research topics, and how research connects to professional learning communities and collaborative learning teams in schools. Overall, during the semester, exemplary blogs entries will reflect student growth and understanding of action research components and how this research impacts instructional practice.

Adequate blog entry (8-9 points). Overall, blog entries reflect understanding of the reading material and include at least two of the three components of a well written blog entry.

Marginal blog entry (6-7 points). Blog entries indicate that the student has completed the reading assignments for the week, but the entry does not include all necessary components and includes grammatical, syntactical and mechanical errors.

Inadequate blog entry (4 to 5 points). Blog entry does not follow the assignment instructions and includes none of the required elements.

Unacceptable/no blog entry (0 points). Student does not complete a blog entry for the week or the blog entry indicates that the student did not complete the assigned reading or did not fully understand the readings.

Exemplary blog	Adequate blog	Marginal blog	Inadequate blog	Unacceptable/no
entry	entry	entry	entry	blog entry
10	8-9	7	5-6	0

Scoring Rubric for Poster (100 points)

<u>Exemplary poster (95-100 points)</u>: Poster clearly describes major elements of the project; poster reflects clarity, organization, knowledge and interest in the content being presented; reflects a high level of preparation; makes effective use of visual format and presents an interesting, attractive appearance.

<u>Adequate poster (85-94 points)</u>: Good overall poster, but may be lacking in one or two of the criteria specified in exemplary response.

<u>Marginal poster (70-84 points)</u>: Poster provides relevant information, but demonstrates only a limited understanding of the topic or project. Style, organization, or visual elements may be less than adequate.

<u>Inadequate poster (1-69 points)</u>: Weak overall poster that reflects very little knowledge of topic or project. May appear very poorly prepared, or may not have followed directions. Style or visual elements may be inadequate or lacking.

<u>Unacceptable/no poster (0 points)</u>: Completely unsatisfactory presentation, with no reasonable reference to topic or project; or no presentation made.

Exemplary	Adequate	Marginal	Inadequate	Unacceptable/no
poster	poster	poster	poster	poster
95-100	85-94	70-84	1-69	0

Scoring Rubric for Poster Presentation (50 points)

<u>Exemplary presentation (45-50 points)</u>: Presenter describes very clearly the methods under consideration; presentation keeps the audience engaged; provides information of interest and value to audience. Presenter is able to answer basic audience questions about the proposal with poise, clarity, and thoughtfulness.

<u>Adequate poster (40-44 points)</u>: Good overall presentation, but may be lacking in one or two of the criteria specified in exemplary response.

<u>Marginal poster (36-39 points)</u>: Presenter provides relevant information, but demonstrates only a limited understanding of the topic or project. Style, organization, or other elements may be less than adequate.

<u>Inadequate poster (30-35 points)</u>: Weak oral presentation that reflects very little knowledge of topic or project. May appear very poorly prepared or may not have followed directions. Style or other elements may be inadequate or lacking.

<u>Unacceptable/no presentation (0-30 points)</u>: Completely unsatisfactory oral presentation, with no reasonable reference to topic or project; or no presentation made.

Exemplary	Adequate	Marginal	Inadequate	Unacceptable/no
presentation	presentation	presentation	presentation	presentation
45-50	40-44	36-39	30-35	0-30