

**George Mason University**  
**College of Education and Human Development**  
***Teaching Culturally, Linguistically Diverse & Exceptional Learners Program***

**EDCI 777: Section 002**  
**Research to Practice**

**3 Credits Fall 2017**  
**Thursdays, 7:20 - 10 pm, Thompson Hall, Rm. 1020, Fairfax Campus**

**Faculty**

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**Prerequisites/Co-requisites:** Completion of all other program requirements.

**University Catalog Course Description**

Provides culminating experience that synthesizes and applies essential elements of teaching culturally and linguistically diverse and exceptional learners in international contexts. Emphasizes teacher as change agent through critical inquiry into practice. Promotes collaboration among teachers and school professionals to advance achievement of diverse learners.

**Course Overview**

Teachers are often encouraged to implement “research-based” practices, required to attend workshops where research findings are presented, provided with lists of books that synthesize research, and asked to suggest changes in practice based on the implications of research.

Although these practices have their usefulness, the assumption implicit in much of the discourse surrounding educational research is that teachers are consumers and/or objects of research, rather than producers of research. The past decade has seen a growing movement to upend those assumptions through an emphasis on the importance of teacher research. Thus, the research and theory we will read about and the methodologies with which we will engage are those associated with “teacher research” (i.e., research conducted by teachers for professional purposes), and developing or deepening an inquiry stance. Teacher research positions teachers as producers of knowledge—professionals who can learn about and improve their practice by studying important questions that emerge from their own experiences and observations.

This class is designed to support you in using and building on the ideas and content you have encountered in your previous coursework. Most importantly, the course assists you as you consider ways to better support children and youth. In other words, your current and future students are at the center of our work. Toward these ends, the course requires you to conceptualize, design, and begin to implement an original research project in your school/classroom. Only if we attempt to live these action research (also called “teacher research” and “practitioner research”) processes in this course will you be able to use them eventually in your own teaching practices. Thus, for every activity in this course, you must act and study with multiple lenses—as a student, teacher, and advocate.

Although the work required to achieve these goals is intensive, the course is designed to provide you with much support. You will need to hit the ground running, starting your research project early, and working on it steadily. Through our readings, we will explore research methodologies, analyses of the history and impact of teacher research, and the efforts of other teacher researchers. Our readings and discussions will help you develop your own rationale and “road map” for your inquiry project. We will dig into readings together, write often and share our writing with one another, and support one another in our research goals.

### **Course Delivery Method**

The course is delivered through a variety of online, face-to-face, and individualized instructional approaches. During class meetings there will be large group, small group, and individual activities. Participants conduct independent and team research, as well as communicate with one another and the instructor in person and via electronic media. In general, we will engage in the following activities over the course of the semester:

1. Mini-lectures, activities, and discussions related to research methods led by the instructor and supported by course text and other selected readings
2. Discussions of the week’s readings led by the instructor and course participants
3. Research group meetings in which participants will concentrate on selected readings and provide feedback and support for one another’s writing and research process
4. Individual, small group, and whole group meetings to discuss research efforts.

\*Please note that because you have much to learn from one another, and because teaching is often a collaborative effort, you will frequently work in groups. This will give you a chance to share ideas, to be exposed to a variety of perspectives (rather than only the professor’s), and to support one another as you continue to hone your teaching and research skills.

## **Learner Outcomes**

This course is designed to enable candidates to:

1. Identify the basic elements of educational research, including methods (qualitative and quantitative), questions addressed, design, data collection and analysis, validity and reliability
2. Formulate an inquiry or action research question that is relevant to their work setting
3. Design and conduct an action research study
4. Use action research as a foundation for professional growth, improvement of instruction, and advocacy
5. Identify strategies for sharing the results of action research

## **Professional Standards**

Upon completion of this course, students will have met the following professional standards:

### **Mason Dispositions for a Career Educator I, II, and III**

- o Commitment to the Profession
- o Commitment to Honoring Professional Ethical Standards
- o Commitment to Key Elements of Professional Knowledge

### **Teachers College Columbia Teacher Expectations I and II**

- o Lifelong Learners
- o Learner-Centered Educators

### **NBPTS Propositions 2, 3, and 4**

- o Teachers Know the Subjects They Teach and How to Teach Those Subjects to Students
- o Teachers are Responsible for Managing and Monitoring Student Learning
- o Teachers Think Systematically about Their Practice and Learn from Experience

## Required Text

Mertler, C. A. (2017). *Action research: Improving schools and empowering educators*, 5th Ed. Los Angeles, CA: Sage

## Online Resources

Blackboard:

- Sample Action Research Projects
- Outlines for writing up each Stage of the ARP Process
- Collaborate Ultra – virtual office hours & team meetings

Mertler Book: <http://www.sagepub.com/mertler4e/>

- Action Research Mentor App
- Author's Video Clips, including messages from actual Action Researchers
- Author's Blog
- Sample Action Research Reports, Annotated Action Research Reports
- Action Research Portraits – examples at each stage of the Action Research process following the same two projects in every chapter
- Developmental Templates for Planning each stage of the AR process
- Chapter Resources – e-Flashcards (terminology), self-quizzes, PowerPoint slides for each chapter, chapter summaries, additional web resources, selected journal articles on Action Research

## Teacher Research Websites

[http://gse.gmu.edu/research/tr/tr\\_action/](http://gse.gmu.edu/research/tr/tr_action/) (GMU teacher research)

<http://www.accessexcellence.org/LC/TL/AR/> (teacher research)

<http://cadres.pepperdine.edu/ccar/resources.html> (international teacher research)

<http://carn.org.uk/?from=carnnew/> (international teacher research)

## More Action Research Resources

*Each starred (\*) textbook below contains at least 2 sample Action Research reports.*

Alber, S.M. (2011). *A toolkit for action research*. Lanham, MD: Rowan & Littlefield. (lots of sample data collection tools & data analysis display formats)

Dana, N. F. & D. Yendol-Hoppey. (2014). *The reflective educator's guide to classroom research, 3<sup>rd</sup> ed.* Thousand Oaks, CA: Corwin Press.

\*Hendricks, C. (2009). 2<sup>nd</sup> ed. *Improving schools through action research*. Columbus, OH: Pearson.

\*Holly, M.L., J.M. Arhar & W.C. Kasten. (2008). *Action research for teachers: Traveling the yellow brick road*. Upper Saddle River, NJ: Prentice-Hall.

James, E. A., M. T. Milenkiewicz, & A. Bucknam. (2008). *Participatory action research for educational leadership: Using data-driven decision making to improve schools*. Thousand Oaks, CA: Sage.

\*Johnson, A. P. (2011). 4<sup>th</sup> ed. *A short guide to action research*. Boston: Pearson.

McNiff, J. & A.J. Whitehead. (2009). *Doing and writing action research*. London: Sage Ltd.

\*Mills, G. E. (2010). 4<sup>th</sup> ed. *Action research: A guide for the teacher researcher*. Upper Saddle River, NJ: Prentice-Hall.

\*Moore, R. A. (2004). *Classroom research for teachers: A practical guide*. Norwood, MA: Christopher-Gordon.

\*Reason, P. & H. Bradbury-Huang. (2007). *The SAGE handbook of action research: Participative inquiry & practice*. London: Sage Ltd.

Sagor, R.D. & C. Williams. (2017). *The action research guidebook*. Thousand Oaks, CA: Corwin Press.

\*Schmuck, R. A. (2006). 2<sup>nd</sup> ed. *Practical action research for change*. Thousand Oaks, CA: Corwin Press. (contains illustrative case studies)

\*Stringer, E. T. (2007). 3<sup>rd</sup> ed. *Action research*. Thousand Oaks, CA: Sage.

## Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard, Tk20, hard copy).

### Assignments

<i>Assignment</i>	<i>% of Grade</i>	<i>Standards Addressed</i>
<b>Collaborative Design Project</b>	30	GMU I, II, III; TC I, II; NBPTS 2, 3, 4
<b>Action Research Paper *</b>	70	GMU I, II; TC I; NBPTS 3

Each written assignment will be uploaded to Blackboard and a paper copy submitted to the instructor by the due date.

\*Designated Performance-Based Assessment for the program

## Course Requirements

### Action Research Paper (70 %)

This project is the designated performance-based assessment for this course for the purposes of program evaluation.

Candidates will design and conduct an inquiry project called *action research* that is relevant to their present or future teaching positions. You will write a literature review and proposal for this project, collect and analyze preliminary data, and share the results of your study with both our class (and potentially an outside audience) in a Power Point presentation.

Both pre- and in-service teachers must complete the project. It is possible to partner with another student for the purpose of sharing data and different aspects of a common topic. Partners have the option of submitting individual papers or a team report for a common grade. Each participant will also make a 5 to 10-minute presentation (ungraded) of her/his project, time permitting. Please note that projects and papers submitted for credit in another course cannot also be used for a grade in this course. With instructor approval, however, participants may build on a research topic originally presented as a significant research proposal in the EDRS 590 Education Research.

Your data sources for this project may include combinations of the following artifacts:

1) visual representations (Powerpoints, images or photos of your classroom)

- 2) student feedback related to your research questions and your teaching intervention
- 3) quotes from interviews conducted with stakeholders in your project (parents, colleagues, students)
- 4) student work samples

At the discretion of the course instructor, the Action Research Report may be submitted in parts as follows (using stages or steps of development outlined in the textbook):

- 20% Stage 1: Planning – Literature Review and Research Question
- 20% Stage 2-1: Acting-Data Collection Plan
- 30% Stage 2-2: Acting & Stage 3: Developing- Data Analysis Plan & Action Plan

See Blackboard for detailed instructions and scoring rubrics for this project.

### **Collaborative Design Project (30 %)**

Working in small groups, participants will identify one authentic, preferably contemporary media-based, method through which to share their teaching interventions or the results of their action research findings. While students will each make brief presentations of their individual research findings in class, the goal of this assignment is for your group to design and enact a presentation that moves the public understanding of your group members' studies. You might choose to create a collective presentation of your group members' teaching interventions or you might highlight one group member's project and findings. You might highlight the importance of action research or summarize the findings of your group members' efforts. You are encouraged to present these findings through creative means, with your primary goal being to demonstrate the significance of your action research to the class.

See Blackboard for details and scoring rubric for this project.

### **Other Requirements**

#### **Attendance and Participation**

Graduate School of Education students are expected to attend *all* class periods of courses for which they register. Class participation – both in face-to-face and online settings – is important not only to the individual student, but to the class as a whole. Class participation may be a factor in grading; instructors may use absence, tardiness, or early departure as de facto evidence of non- participation and as a result lower the grade (if stated in the course syllabus). Participants are expected to read the assigned materials, complete on-line activities, arrive promptly, attend all class meetings for the entire session, and participate in online and/or face-

to-face discussions. It is your responsibility to offer insights, questions, comments, and concerns from the readings and other course materials.

If, due to an emergency, you will not be able to participate in a given class, please contact the instructor as soon as possible via email.

### **LAPTOP/CELL PHONE POLICY**

Laptop use is permitted at the discretion of the instructor and for specific purposes as assigned in the class (e.g. small group work). Laptops will be closed during discussions, lectures, interactive tasks, and guest or peer presentations which call for your full attention. Cell phones must be turned off/silenced (not on VIBRATE) during class periods, but they may be used during break. Ask the instructor if you have a specific request.

### **GRADING POLICY AND HONOR CODE**

#### **Grading**

At George Mason University course work is measured in terms of quantity and quality. A credit normally represents one hour per week of lecture or recitation or not fewer than two hours per week of laboratory work throughout a semester. The number of credits is a measure of quantity. The grade is a measure of quality. The university-wide system for grading graduate courses is as follows:

<b>Grade</b>	<b>GRADING</b>	<b>Grade Points</b>	<b>Interpretation</b>
<b>A+</b>	<b>=100</b>	<b>4.00</b>	<b>Represents mastery of the subject through effort beyond basic requirements</b>
<b>A</b>	<b>94-99</b>	<b>4.00</b>	
<b>A-</b>	<b>90-93</b>	<b>3.67</b>	
<b>B+</b>	<b>85-89</b>	<b>3.33</b>	<b>Reflects an understanding of and the ability to apply theories and principles at a basic level</b>
<b>B</b>	<b>80-84</b>	<b>3.00</b>	
<b>C*</b>	<b>70-79</b>	<b>2.00</b>	<b>Denotes an unacceptable level of understanding and application of the basic elements of the course</b>
<b>F*</b>	<b>&lt;69</b>	<b>0.00</b>	

**Note: “C” is not satisfactory for a licensure course; “F” does not meet requirements of the Graduate School of Education.**

See the University Catalog for details: <http://catalog.gmu.edu/policies/academic/grading/>

**Honor Code & Integrity of Work :** TCLDEL students must adhere to the guidelines of the George Mason University Honor Code (<http://oai.gmu.edu/honor-code/>). The principle of academic integrity is taken very seriously and violations are treated as such.



**Violations of the Honor Code** include:

1. Copying a paper or part of a paper from another student (current or past);
2. Reusing work that you have already submitted for another class (unless express permission has been granted by your current professor **before** you submit the work);
3. Copying the words of an author from a textbook or any printed source (including the Internet) or closely paraphrasing without providing a citation to credit the author. For examples of what should be cited, please refer to:  
<https://owl.english.purdue.edu/owl/resource/589/02/>
4. You may also not “reuse” fieldwork hours. Each placement must have 20 documented hours that are solely for each course that you are in; you may be at the same site, but the same hours may not be counted towards the same course.
5. See our class Blackboard web site for more information on how to avoid plagiarism.

### **Late Work Policy**

At the graduate level all work is expected to be of high quality and submitted on the dates due. *Work submitted late may be reduced one letter grade for every day of delay.* Because we live in uncertain times, if you have any extraordinary circumstances (think flood, earthquake, evacuation) that prevent you from submitting your work in a timely manner, it is your responsibility to contact the instructor as soon as possible after the circumstances occur and make arrangements to complete your work. *It is up to the discretion of the instructor to approve the late/makeup work.*

### **Course Withdrawal with Dean Approval**

For graduate and non-degree students, withdrawal after the last day for dropping a course requires approval by the student's academic dean, and is permitted only for nonacademic reasons that prevent course completion (Mason catalog). *Students must contact an academic advisor* in APTDIE to withdraw after the deadline. There is no guarantee that such withdrawals will be permitted.

### **Online Participation/Attendance Policy**

Students are expected to participate in all online discussions. Not participating in an online discussion module will be reflected with a zero for the week and as an absence. **Students with two or more absences will not receive credit for the course.**

### **Incomplete (IN)**

This grade may be given to students who are in good standing, but who may be unable to complete scheduled course work for a cause beyond reasonable control. The student must then complete all the requirements by the end of the ninth week of the next semester, not including summer term, and the instructor must turn in the final grade by the end of the 9th week. Unless an explicit written extension is filed with the Registrar's Office by the faculty deadline, the grade of IN is changed by the registrar to an F (Mason catalog). Faculty may grant an incomplete with a contract developed by the student with a reasonable time to complete the course at the discretion of the faculty member. The faculty member does not need to allow up

to the following semester for the student to complete the course. A copy of the contract will be kept on file in the APTDIE office.

### **Professional Dispositions**

Students are expected to exhibit professional behaviors and dispositions at all times. For a listing and self-assessment of these dispositions, go to:

<https://cehd.gmu.edu/students/policies-procedures/>

### **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: <http://cehd.gmu.edu/values/>.

### **GMU POLICIES AND RESOURCES FOR STUDENTS**

#### *Policies*

- Students must adhere to the guidelines of the George Mason University Honor Code (see <http://oai.gmu.edu/the-mason-honor-code/>).
- Students must follow the university policy for Responsible Use of Computing (see <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>).
- Students are responsible for the content of university communications sent to their Mason 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.
- Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see <http://ods.gmu.edu/>).
- Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.

#### *Campus Resources*

- Support for submission of assignments to Tk20 should be directed to [tk20help@gmu.edu](mailto:tk20help@gmu.edu) or <https://cehd.gmu.edu/aero/tk20>. Questions or concerns regarding use of Blackboard should be directed to <http://coursessupport.gmu.edu/>.
- For information on student support resources on campus, see <https://ctfe.gmu.edu/teaching/student-support-resources-on-campus>

For additional information on the College of Education and Human Development, please visit our website <https://cehd.gmu.edu/students>

## Class Schedule

Week # & Date	Topics	Readings to be discussed this week
1 8/31	What is Action Research? Models of Action Research. Group dynamics: Practical aspects of collaboration, member roles. Brainstorming possible research topics. Objectives of this course. Course requirements. Extensive online resources.	<i>Mertler, Ch. 1</i>
2 9/7	Overview of Action Research process: 4 Stages, 9 Steps. Cyclical nature of the AR process. Planning - identifying and narrowing down your focus. Searching web sites for related literature. Reviewing the literature and organizing your literature review. <i>Individual &amp; Team Work Session. Sample Action Research Project A.</i>	<i>Mertler, Chs. 2 &amp; 3 Appendices A &amp; C, pp. 295-99</i>
3 9/14	Developing a research plan. Qualitative & quantitative research. Case studies to descriptive and comparative designs. From topic to research question – how to. Ethical considerations. <i>Individual &amp; Team Work Session. Sample Action Research Project B.</i>	<i>Mertler, Ch. 4 Appendices B &amp; C, p. 300</i>
4 9/21	Developing a data collection plan. Data sources - qualitative & quantitative data collection techniques. Formative & summative classroom assessments. Triangulation of data. <i>Individual &amp; Team Work Session. Sample Action Research Project - Mason.</i> <b>Deadline: Stage 1 -Planning- Literature Review &amp; RQ.</b>	<i>Mertler, Ch. 5 Appendix C, p. 301</i>
5 9/28	Triangulation Matrix. Determining data collection tools. Validity & Reliability. <i>Individual &amp; Team Work Session.</i>	<i>Mertler, Ch. 5</i>
6 10/5	Revising Data Collection Tools. <i>Individual &amp; Team Work Session.</i>	
7 10/12	<i>Individual &amp; Team Work Session.</i> <b>Deadline: Stage 2, Part 1: Acting - Data Collection Plan.</b>	
8 10/19	<b>No Class – Spring Break</b>	
9 10/26	Data analysis. Finding patterns in the data. Descriptive statistics. <i>Individual &amp; Team Work Session.</i> <b>Mid-Term Feedback Forms.</b>	<i>Mertler, Ch. 6 Appendix C, p. 302</i>

10	11/2	Data Tables: Showing Data Results. Data analysis – Interpreting the data. Reporting the data. <i>USING EXCEL to analyze your data.</i>	<i>Mertler, Ch. 6</i>
11	11/9	More on Data Tables & Analysis. Planning the Collaborative Design Project.	
12	11/16	Developing an Action Plan: Reflective Practice. <i>Team Work Session.</i>	<i>Mertler, Ch. 7 Appendix C, p. 303</i>
13	11/23	<b>NO CLASS: THANKSGIVING</b> Writing the Action Research Report – practical guidelines. Sharing and Reflecting Action Research. Making professional presentations. <i>Individual &amp; Team Work Session.</i>	<i>Mertler, Chs. 8 &amp; 9</i>
14	11/30	<b>Due today: Collaborative Design Project presentations.</b>	
15	12/7	Brief, informal presentations on your Action Research Projects. <i>Course Evaluation Forms. Feedback Forms. Materials Release Forms.</i> <b>Deadline: Deadline: Stage 2, Part 2 - Data Analysis &amp; Stage 3 - Action Plan.</b>	

Numerous examples of Action Research Projects are presented in our course textbook and on the author’s website, which includes many online resources.

In addition, instructors may make available to you Action Research Projects written by previous students in this course via the class Blackboard web site.

A number of other textbooks also include sample Action Research Projects (see P. 5 of this syllabus).

## Stage 1: Planning - Literature Review & Research Question

SCORE	Research Question	Analysis	Relevance	Integration	Writing
<b>4</b>	Drafts research question appropriate to the topic, based in the body of literature, that does not assume an answer, specifying independent and dependent variables, and with potential for informing future teacher actions.	Accurately analyzes research to justify instructional intervention for the target population, provides extensive context and trends related to the topic, and indicates how theory and practice have informed each other.	Selects research directly relevant to research question and uses citations that support points made.	Integrates review of research by theme and subtopic rather than by individual researcher.	Writes clearly and cohesively with few errors in grammar, syntax, mechanics, or word choice.
<b>3</b>	Drafts research question appropriate to the topic but that may not be based in the body of literature, may assume an answer, or may not specify independent or dependent variable, with potential for informing future teacher actions.	Analyzes research with weak or only partial justification for using the instructional intervention with the target population or misinterprets findings.	Selects research indirectly relevant to research question or excludes relevant aspects of the topic and uses citations that support points made.	Organizes review of research by theme and subtopic and by individual studies reviewed.	May lack cohesion in writing or include basic errors in grammar, syntax, mechanics, or word choice.
<b>2</b>	Drafts research question inappropriate to the topic, that is not based in the body of literature or assumes an answer, does not specify independent or dependent variable or that may not have potential for informing future teacher actions.	Analyzes research but does not use it to support intervention with target population and misinterprets findings.	Selects research indirectly relevant to research question or conducts a limited or narrow review; may use citations inappropriately.	Organizes review of research by individual research studies.	Writes with lack of cohesion and clarity and includes basic errors in grammar, syntax, mechanics or word choice.
<b>1</b>	Drafts research question inappropriate to the topic, that is not based in the body of literature, assumes an answer, does not specify independent or dependent variable, and does not have potential for informing future teacher actions.	Describes but does not analyze research.	Selects research not relevant to research question and uses citations inappropriately.	Organizes review of research by individual studies as an annotated list.	Writes with lack of cohesion and clarity and many basic errors in grammar, syntax, mechanics and/or word choice.

## Stage 2-1: Acting - Data Collection Plan

SCORE	INSTRUCTIONAL	VALIDITY &	DATA COLLECTION	WRITING
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	<b>INTERVENTION</b>	<b>RELIABILITY</b>	<b>TOOLS</b>	
<b>4</b>	Clearly describes and justifies a single teaching intervention with details on procedures, materials, activities, and learner tasks.	Shows how each data source ensures validity and reliability of results.	Attaches a variety of assessment tools that reflect the nature of the research question and justifies assessment design and scoring format for each one.	Presents a well-organized plan with few errors in writing and uses citations to course textbook and those providing the theoretical basis for the project.
<b>3</b>	Describes the teaching intervention but may leave unanswered questions on procedures, materials, activities, and learner tasks.	Shows how some but not all data sources ensure validity and reliability or may contain inaccuracies in describing validity or reliability.	Attaches a variety of assessment tools but some may not reflect the nature of the research question and/or does not defend assessment design and scoring format for each one.	Presents a plan that needs re-organization or contains errors in writing or needs elaboration. May use citations that do not support points made or incorrect citation format or may omit references.
<b>2</b>	Describes more than one teaching intervention or leaves many unanswered questions.	Contains numerous inaccuracies in description of validity and reliability.	Attaches similar assessment tools, some may not reflect the nature of the research question and/ or does not defend assessment design and scoring format.	Presents a plan that needs re-organization and elaboration and contains numerous errors in writing. Uses few citations.
<b>1</b>	Does not describe the teaching intervention.	Does not address validity and reliability for each data source.	Describes assessment tools that do not reflect the nature of the research question and does not defend assessment design and scoring format. Does not attach assessment tools.	Presents a plan that lacks organization and coherence and contains numerous errors in writing. Uses few and/or irrelevant citations.

***FEEDBACK:***

## Stage 2-2 - Acting & Stage 3 - Developing: DATA ANALYSIS & ACTION PLAN

SCORE	1	2	3	4
<b>DATA ANALYSIS</b>	Includes major inaccuracies in reporting results and/or patterns of change or does not report changes and does not provide a description of revisions made to post-testing tools based on pre-testing results; provides few or no data tables or graphs.	Includes major inaccuracies in reporting results and/or patterns of change and/or does not report changes or may not provide a description of revisions made to post-testing tools based on pre-testing results; data tables and/or graphs may show results for only some data sources and may contain inaccuracies.	Includes some or minor inaccuracies in reporting results and/or patterns of change or may not report changes for each data source, or may not provide a complete description of revisions made to post-testing tools based on pre-testing results; data tables and graphs show results of each data source but may contain inaccuracies.	Accurately reports results and patterns of change for each data source and includes a complete description of revisions made to post-testing tools based on pre-testing results. Provides data tables and graphs that clearly and accurately show results of each data source or assessment tool.
<b>DATA INTERPRETATION</b>	Does not interpret the data.	Makes few or inaccurate interpretations and unsupported inferences from the data and/or does not compare results to the literature review.	May not interpret results for each data source, makes inaccurate or unsupported inferences from the data, or does not consistently and effectively compare results to those found in the literature review. May include some description rather than interpretation.	Thoroughly interprets results of each data source, making valid and complete inferences from the data, consistently and effectively comparing results to those found in the literature review.
<b>VALIDITY &amp; RELIABILITY</b>	Includes serious threats to validity and reliability and does not address validity and reliability for each data source.	Includes serious threats to validity and reliability or contains major and/or numerous inaccuracies or omissions in defense of validity and reliability for each data source.	Contains minor inaccuracies or provides incomplete defense of validity and/or reliability for each data source.	Accurately defends various types of validity and reliability of results for each data source.
<b>ACTION PLAN</b>	Does not make connections between data results and proposed action plan and does not reflect on effectiveness of methodology used in Action Research study.	Makes incomplete and/or inaccurate connections between data results and proposed action plan and does not reflect on effectiveness of methodology used in Action Research study.	Makes incomplete connections between data results and proposed action plan and may not reflect on effectiveness of methodology used in Action Research study.	Makes clear connection between data results and proposed action plan and reflects on effectiveness of methodology used in Action Research study.

## Collaborative Design Project

**Presenters:**

**Date:**

**Score:**

SCORE	1	2	3	4
<b>Rationale</b>	Explains how presentation relates to research questions and teaching interventions but lacks overall clarity and omits essential information.	Explains how presentation relates to research questions and teaching interventions with some lack of clarity or omission of information.	Explains how presentation relates to research questions and teaching interventions but may omit some information.	Clearly and thoroughly explains how presentation relates to research questions and teaching interventions.
<b>Teaching Intervention</b>	Reports on the teaching intervention rather than leading a simulation and lacks clarity or accuracy throughout.	Presents little simulation or demonstration or lacks clarity and accuracy in some areas.	Presents the teaching intervention but may simulate or demonstrate only parts of it in an incomplete experience of the teaching intervention, lack some clarity, or contain some inaccuracies.	Clearly and accurately demonstrates and simulates all aspects of the teaching intervention.
<b>Engagement</b>	Does not engage participants in activities.	Engages only some participants in activities or has few activities.	Engages participants with some experience of the teaching intervention.	Actively engages all participants in activities for a complete experience of the teaching intervention.
<b>Self-Assessment</b>	Does not submit a self-assessment report.	Submits self-assessment but does not analyze both strengths and weaknesses. Needs elaboration and includes inaccuracies, lack of clarity, and/or omissions. May miss the deadline.	Submits self-assessment, analyzing strengths and weaknesses of the demonstration with some inaccuracies, lack of clarity, or omissions. May miss the deadline.	Submits thorough and accurate self-assessment by the deadline, analyzing strengths and weaknesses of the demonstration.