RMTD 400: INTRODUCTION TO RESEARCH METHODOLOGIES  
Summer 2015

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Texts

Required Text

Useful and important materials developed to help you better learn the material at:  
http://www.sagepub.com/bjohnsonstudy/  
Site includes:  
- lectures  
- concept maps  
- answers to study questions  
- practice multiple choice questions  
- overheads  
- bonus materials  
- three articles referred to in the book appendices  
- additional web resources  
- glossary

Additional Online Text

Other additional readings available through the library’s electronic journals will be provided by the instructor and posted on Sakai.

Recommended Text

Course Description

This course will utilize the online resource of Sakai to introduce the concept of inquiry and research methods used in education, psychology, and other social sciences. The course will cover three main methods of inquiry: Quantitative, Qualitative and Mixed Methods. Students will be able to analyze critically research and create a research proposal.

Diversity:

In concert with the conceptual framework for the School of Education, faculty and students will be expected to show respect and sensitivity to individual, cultural, social, and economic diversity. In this spirit, as we look at questions of organizational theory, instructional leadership and student achievement, it will be our challenge to create will and capacity within our schools so that all educational stakeholders can fulfill the promise of education.
Technology:
The information pertinent to school organizations and instructional leadership constantly changes. Therefore, throughout the course, students will develop and practice skills in locating and using on-line resources critical to these topics.

Academic Honesty:
Academic honesty is an expression of interpersonal justice, responsibility and care, applicable to Loyola University faculty, students, and staff, which demands that the pursuit of knowledge in the university community be carried out with sincerity and integrity. The School of Education’s Policy on Academic Integrity can be found at: http://www.luc.edu/education/academics_policies_integrity.shtml. For additional academic policies and procedures refer to: http://www.luc.edu/education/academics_policies_main.shtml

Accessibility:
Students who have disabilities which they believe entitle them to accommodations under the Americans with Disabilities Act should register with the Services for Students with Disabilities (SSWD) office. To request accommodations, students must schedule an appointment with an SSWD coordinator. Students should contact SSWD at least four weeks before their first semester or term at Loyola. Returning students should schedule an appointment within the first two weeks of the semester or term. The University policy on accommodations and participation in courses is available at: http://www.luc.edu/sswd/

EthicsLine Reporting Hotline
Loyola University Chicago has implemented EthicsLine Reporting Hotline, through a third party internet & telephone hotline provider, to provide you with an automated and anonymous way to report activities that may involve misconduct or violations of Loyola University policy. You may file an anonymous report here on-line or by dialing 855-603-6988. (within the United States, Guam, and Puerto Rico)

The University is committed to the highest ethical and professional standards of conduct as an integral part of its mission of expanding knowledge in the service of humanity through learning, justice and faith. To achieve this goal, the University relies on each community member's ethical behavior, honesty, integrity and good judgment. Each community member should demonstrate respect for the rights of others.
www.luc.edu/ethicsline

Electronic Communication Policies and Guidelines
The School of Education faculty, students and staff respect each other’s rights, privacy and access to electronic resources, services, and communications while in the pursuit of academic and professional growth, networking and research. All members of the university community are expected to demonstrate the highest standards of integrity, communication, and responsibility while accessing and utilizing technology, information resources, and computing facilities. A link to the Loyola University Chicago and School of Education official policies and guidelines can be found at: http://www.luc.edu/media/lucedu/education/pdfs/SOE_Cyberbullying_Policy.pdf.

School of Education’s Conceptual Framework
The School of Education at Loyola University Chicago, a Jesuit and Catholic urban university, supports the Jesuit ideal of knowledge in the service of humanity. We endeavor to advance professional education in the service of social justice, engaged with Chicago, the nation, and the world. To achieve this vision the School of Education participates in the discovery, development, demonstration, and dissemination of professional knowledge and practice within a context of ethics, service to others, and social justice. We fulfill this mission by preparing professionals to serve as teachers, administrators, psychologists, and researchers; by conducting research on issues of professional practice and social justice; and by partnering with schools and community agencies to enhance life-long learning in the Chicago area. This course will equip students with the knowledge, skills of inquiry, and ethics necessary to be professional and socially just researchers. The case studies used in this course illustrate how educational research can illuminate issues of social justice. In addition, the research methods used in this course also add to students’ ability to understand the diversity of perspectives that researchers use to address social problems.
School of Education Conceptual Framework Standards Addressed in this Course
- CF #4: Candidates demonstrate skills that will enable them to work effectively with diverse clients.
- CF #8: Candidates apply ethical principles in professional decision-making.

Course Objectives

As a result of this course, students will be able to:
- Discuss the philosophical underpinnings of educational research and describe the applications of the scientific method.
- Explain the difference between quantitative, qualitative and mixed methods research paradigms.
- Explain the difference between various research methods used in educational research.
- Discuss the relationships between theory, research objective, research question, design, measurement, and analysis.
- Select a research topic, state a research objective and research question.
- Conduct a review of relevant literature that synthesizes the knowledge from several research studies around the central idea or research question including identifying the existing gaps in the literature.
- Analyze and evaluate the research questions, design, ethics and conclusion of existing educational research.
- Describe and determine the correct use of different sampling techniques to answer a research question.
- Describe the measurement and data collection procedures including instrumentation and methods for determining reliability and validity. Determine the correct data collection techniques to answer a research question.
- Describe the types of quantitative and qualitative validity and methods for establishing them.
- Discuss the logic of experimental control.
- Discuss the descriptive statistical methods for representing data.
- Discuss issues around testing for statistical significance.
- Discuss the legal and ethical issues in educational research.
- Effectively engage in an online learning community.

IDEA Objectives for Course Evaluation

At the end of the course, you will have an opportunity to complete an Online IDEA course evaluation. The objectives from this evaluation in bold most closely align with this course, and the remaining objectives are also important for the course.

1. Gaining factual knowledge (terminology, classifications, methods, trends)
2. Learning fundamental principles, generalizations, or theories
3. Learning to apply course material (to improve thinking, problem solving, and decisions)
9. Learning how to find and use resources for answering questions or solving problems
11. Learning to analyze and critically evaluate ideas, arguments, and points of view

Evaluation:
Below describes the different point values associated with each assignment:

Point break down
Chapter quizzes: (5x15) 75 points
Assignments: (5x10) 50 points
Research Proposal 50 points
Class participation 10 points
- Introduction
- Activities
- Chat room and/or Forum
Total 185 points
Grading Scale (%)
100-95 A 85-84 C+ 73-72 D-
94-93 A- 83-81 C 71-X F
92-91 B+ 80-79 C-
90-88 B 78-77 D+
87-86 B- 76-74 D

Assignment Outline:
Please note that more detailed information regarding assignments will be provided as they become Open in Sakai. Also, it is imperative that you ask questions if you are unclear about assignment requirements!

Chapter Quizzes:

- There quizzes for each chapter assigned as indicated
- Quizzes are all completed by you online
- Quizzes are all open book (i.e., you can use your book and notes)
- It is important to first know the material first because you will have limited time to complete the quiz, which means you will not have time to learn the material for the first time while taking the quiz.
- If anyone in the class approaches you about sharing information about the online quizzes, it is your ethical duty to contact me. Cheating of this sort will result in dismissal from the course, with a grade of F.

Assignments:

Assignment 1: Research Ethics Essay (LiveText submission – Please see assignment details at the end of this syllabus)
Assignment 2: Developing Research Problem, Research Purpose Statement, and Research Question
Assignment 3: Annotative Bibliography
Assignment 4: Methodology Section
Assignment 5: Article Critique (LiveText submission – Please see assignment details at the end of this syllabus)

Research Proposal:

- Please remember that this is a proposal for research, so you will be writing about what your intended work - not your current or past projects
- Your proposal will have three chapters:
  1. Chapter one: introduction
  2. Chapter two: review of the literature
  3. Chapter three: methods section

Class participation:

Introduction on Forum: Post your work on the Forum introducing yourself to the class. This will consist of a brief description of yourself, your research interests, where you live/work in the Chicagoland area, and a current picture. The information will help you connect with your fellow classmates.

Activities: These are shorter reflections for you to post on the Forum and perhaps generate some comments or discussion among your classmates. Completion of these assignments is necessary for credit.
Forum participation: Creating community in an online course is tricky, so I am asking you to do either or both of the following every week for participation credit:

1. Respond to a classmate’s Activity or other Forum post
2. Post Forum question to the class

Course Guidelines
Assignment due dates
Assignments are due 5:00pm Sunday of the week assigned. Please note that Assignment 1 and Assignment 5 are posted to LiveText. Each assignment serves as an assessment of a Conceptual Framework for a standard. The rubrics for these assessments are given at the end of this syllabus.

Late Assignments
Due to this course having multiple assignments, including many that build on one another, I strongly discourage late submission of assignments. Additionally, late submission of your work will result in minimal feedback from me. If you need to turn in an assignment late, please do so with the understanding of these matters. As such, if a situation occurs and the need to turn in work late presents itself, it is imperative that you contact me immediately.

Asynchronous, on-Line Format - What Makes it Unique:
• An instructor teacher is not talking directly to you at a set time each week
• Require more student initiative and self-discipline to complete readings, assignments, and seek help from fellow students and the instructor
• Students and instructor become accustomed to communicating, teaching and learning solely through the written/computer medium.
• Particularly for RMTD 400, this can be challenging because research methods is a lot like learning a foreign language which I believe is easier done in a classroom where everyone can have direct interaction, including verbal and nonverbal communication
• It can be easy to put off studying, fall behind, and find that catching up is difficult. Because the later chapters build on earlier chapters, getting behind is a recipe for failure
• Please note that an online course requires time, organization, and work – so be ready!
• Learning is possible if you ask questions, answer other people’s questions, and constantly interact with the other students, professor, and the learning materials

The following describes an explicit however non-exclusive list of requirements to ensure a successful semester:

Required Access
Access to (at least) a DSL Internet connection
Loyola Email Account with reliable access

Required Familiarity
Be able to download and attach files
Create and open a Zip File
Microsoft Office Package
  Microsoft Word
  Microsoft Excel
  Microsoft PowerPoint

Access to Software – All are available for free download if needed this semester.
Adobe Flash Player
Adobe Reader
Adobe Shockwave
Java Software
QuickTime
RealPlayer

In addition to hardware access and software utilization, please review the following factors that facilitate a productive and effective online learning experience.
**Course Calendar**

- Course materials are posted the Monday of every week.
- All assignments are due by 5pm on the Sunday of the week. Late submissions result in less points and limited feedback. Please note this is not the best scenario given the fact that material builds on prior weeks.
- Chapter readings and quizzes are suggested to be completed at the beginning of the week to dedicate more time to assignments.

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic Area</th>
<th>Readings</th>
<th>Weekly Assignments</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Introduction</strong></td>
<td>JC, Ch. 1, 2, 6, 5</td>
<td>Ch.1 Quiz</td>
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<tr>
<td>6/15/15</td>
<td>1: Introduction to Educational Research</td>
<td><a href="http://www.luc.edu/irb/">http://www.luc.edu/irb/</a></td>
<td>Ch.2 Quiz</td>
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<td></td>
<td>2: Quantitative, Qualitative, and Mixed Research</td>
<td>The Belmont Report</td>
<td>Ch.6 Quiz</td>
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<td></td>
<td>6: Research Ethics</td>
<td>Steneck, v, xi-xiii</td>
<td>Ch.5 Quiz</td>
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<td></td>
<td>5: How to Write a Research Proposal</td>
<td></td>
<td>Activity 1 Assignment 1</td>
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<tr>
<td>2</td>
<td><strong>Foundations</strong></td>
<td>JC, Ch. 4, 9, 10, 11</td>
<td></td>
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<td>6/22/15</td>
<td>Library Presentation: See Panopto presentation</td>
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<td>Ch. 4 Quiz</td>
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<td>4: Review the Literature and Develop research question</td>
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<td>Ch. 9 Quiz</td>
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<td></td>
<td>9: Methods of Data Collection</td>
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<td>Ch. 10 Quiz</td>
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<td></td>
<td>10: Sampling in Quantitative, Qualitative, Mixed Research</td>
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<td>Ch. 11 Quiz</td>
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<td>11: Validity of Research Results</td>
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<td>Activity 2 Assignment 2</td>
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<td>3</td>
<td><strong>Research Methods</strong></td>
<td>JC, Ch. 12, 13, 14, 15, 16, 18 (skim 13, 14, 15, 16)</td>
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<td>6/29/15</td>
<td>12: Experimental Research</td>
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<td>Ch. 12 Quiz</td>
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<td>13: Quasi-experimental and Single-Case</td>
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<td>Ch. 13/14 Quiz</td>
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<td>14: Nonexperimental Quantitative</td>
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<td>Ch. 15/16 Quiz</td>
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<td>18: Mixed Methods</td>
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<td>Ch. 18 Quiz</td>
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<td></td>
<td>Activity 3 Assignment 3</td>
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<td>4</td>
<td><strong>Analysis</strong></td>
<td>JC, Ch. 19, 20, 21</td>
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<td>7/6/15</td>
<td>19: Descriptive Statistics</td>
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<td>Ch. 19 Quiz</td>
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<td></td>
<td>20: Inferential Statistics</td>
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<td>Ch. 20 Quiz</td>
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<td></td>
<td>21: Data Analysis in Qualitative and Mixed Methods</td>
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<td>Ch. 21 Quiz</td>
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<td></td>
<td>Activity 4 Assignment 4</td>
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<td>5</td>
<td><strong>Course Review</strong></td>
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<tr>
<td>7/13/15</td>
<td>Research Proposal (Assigned)</td>
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<td>Activity 5 Assignment 5</td>
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<td>6</td>
<td></td>
<td><em>Research Proposal Due 5pm 7/24/15</em></td>
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Research Methodology Masters Program
Assessment

Course: RMTD 400 – Introduction of Research Methodologies
Core Assessment: Critical analysis of a research study
CF Standard: 4

For this core assessment, each student will identify a research article related to an area of the student’s interest. The purpose of this assessment is to demonstrate an understanding of the research methodology used in the study, and assess the results. Students are expected to include both a summary and a critical review of the article that discusses elements, such as the following:

1. Purpose of the study
2. Methodology (e.g., case study, ethnography, grounded theory, phenomenological study)
3. Research methods (e.g., interviews, observations, document analysis)
4. Sampling (e.g., purposive)
5. Role of the researcher
6. Data interpretation and analysis

Assessment Rubric

<table>
<thead>
<tr>
<th>Conceptual Framework Standard</th>
<th>Target</th>
<th>Acceptable</th>
<th>Unacceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF4: Candidates demonstrate an understanding of the diversity of research methodologies used in educational research.</td>
<td>The research article critique clearly represents an understanding of the research methodology employed in the study. The research paper weaves together the summary and analysis of the article supporting claims with sufficient evidence from the article.</td>
<td>The research article critique demonstrates a good understanding of the research methodology used in the study. The research paper attempts an integration of the summary and analysis with some evidence provided for claims.</td>
<td>The research article critique presents a limited understanding of the research methodology used in the study. The research paper does not successfully integrate the summary and analysis of the article, and/or provides little supporting evidence for claims.</td>
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</table>
Research Methodology Masters Program
Assessment

Course: RMTD 400 – Introduction of Research Methodologies
Core Assessment: Essay on research ethics
CF Standard: 8

For this core assessment, the student will read an article or case study provided by the instructor that addresses an aspect of research ethics. One example is the following:

Please read the New York Times Magazine article from November 28, 1999, entitled, “The biotech death of Jesse Gelsinger.” In a 2-3 page essay, please address the following questions.

a. How would you assess the ethics of this study given the Belmont Report principles of respect for persons, beneficence and justice? This report can be read online at http://www.hhs.gov/ohrp/humansubjects/guidance/belmont.htm

b. A major criticism of the trial that resulted in Jesse’s death centers on the informed consent procedures. What is your assessment of the informed consent procedures? If you were in Jesse’s place, what information and procedures would you demand before you volunteered for a trial?

c. The medical ethicist of this research project would not allow infants as subject in this experiment because parents could not freely give consent knowing that their infant had only a few hours to live. What is your opinion of this decision? How would you argue your case?

Assessment Rubric

<table>
<thead>
<tr>
<th>Conceptual Framework Standard</th>
<th>Target</th>
<th>Acceptable</th>
<th>Unacceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF8: Candidates demonstrate an understanding of the major principles of research ethics in research with human subjects.</td>
<td>The essay clearly represents an understanding of the principles of the Belmont report: respect for persons, beneficence, and justice. The essay assesses the ethical issues present in the case study, and provides a clear and well-supported argument for its claims.</td>
<td>The research article critique demonstrates a good understanding of the principles of the Belmont report: respect for persons, beneficence, and justice. The essay addresses some of the ethical issues present in the case study, and provides some support for its claims.</td>
<td>The research article critique presents a limited understanding of the principles of the Belmont report: respect for persons, beneficence, and justice. The essay partially addresses the ethical issues present in the case study, and provides little or no support for its claims.</td>
</tr>
</tbody>
</table>
Research Methodology Masters Program
Dispositions

These dispositions, Professionalism, Fairness, and the Belief that all students can learn, are indicators of growth for different levels in the program. Full transparency will be critical to ensure that candidates are able to meet the expectations of the developmental disposition standards. Please note the disposition that will be assessed in the course in the rubric below.

<table>
<thead>
<tr>
<th>Disposition</th>
<th>Target</th>
<th>Acceptable</th>
<th>Unacceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systematic Inquiry IL-LUC-DISP.1</td>
<td>Candidate communicates effectively and appropriately with faculty and peers.</td>
<td>Candidate is working on communicating effectively and appropriately with faculty and peers.</td>
<td>Candidate is unable to communicate effectively and appropriately with faculty and peers.</td>
</tr>
<tr>
<td>Responsibilities for General and Public Welfare IL-LUC-DISP.1</td>
<td>Candidate’s written work is appropriate and effective for the course.</td>
<td>Candidate’s written work is sometimes appropriate and effective for the course.</td>
<td>Candidate’s written work is inappropriate and ineffective for the course.</td>
</tr>
<tr>
<td>Timeliness IL-LUC-DISP.1</td>
<td>Candidate is able to meet all deadlines.</td>
<td>Candidate is sometimes able to meet all deadlines.</td>
<td>Candidate is unable to meet all deadlines.</td>
</tr>
<tr>
<td>Accountability IL-LUC-DISP.1</td>
<td>Candidate attends all classes and fulfills all professional obligations.</td>
<td>Candidate sometimes attends classes and fulfills professional obligations.</td>
<td>Candidate is unable to attend classes and fulfill professional obligations.</td>
</tr>
<tr>
<td>Collegiality IL-LUC-DISP.1</td>
<td>Candidate is able to work with peers.</td>
<td>Candidate sometimes respects the viewpoints of others.</td>
<td>Candidate has difficulty respecting the viewpoints of others.</td>
</tr>
<tr>
<td>Integrity/Honesty IL-LUC-DISP.2</td>
<td>Candidate respects the viewpoints of others.</td>
<td>Candidate sometimes respects the viewpoints of others.</td>
<td>Candidate has difficulty demonstrating empathy for others.</td>
</tr>
<tr>
<td>Interpersonal Integrity/Honesty IL-LUC-DISP.2</td>
<td>Candidate recognizes potential conflicts and handles them appropriately.</td>
<td>Candidate sometimes recognizes potential conflicts and handles them appropriately.</td>
<td>Candidate has difficulty recognizing potential conflicts and handling them appropriately.</td>
</tr>
<tr>
<td>Academic Integrity/Honesty IL-LUC-DISP.2</td>
<td>Candidates appropriately represent procedures, data, and findings – attempting to prevent misuse of their results.</td>
<td>Candidates represent procedures, data, and findings in a manner that is likely to allow the misuse of their results.</td>
<td>Candidates misrepresent procedures, data, and findings. There is minimal attempt to prevent misuse of their results.</td>
</tr>
<tr>
<td>Maximizing Benefits &amp; Reducing Harm IL-LUC-DISP.3</td>
<td>Candidate understands the cost-benefit ratio of particular research designs for addressing important research questions.</td>
<td>Candidate sometimes understands the cost-benefit ratio of particular research designs for addressing important research questions.</td>
<td>Candidate does not understand the cost-benefit ratio of particular research designs for addressing important research questions.</td>
</tr>
<tr>
<td>Social Equity IL-LUC-DISP.3</td>
<td>Candidate demonstrates appropriate empathy for others.</td>
<td>Candidate sometimes demonstrates appropriate empathy for others.</td>
<td>Candidate has difficulty demonstrating appropriate empathy for others.</td>
</tr>
</tbody>
</table>
| Respectful Communication IL-LUC-DISP.3 | Candidate communicates research in a manner that respects | Candidate attempts to communicate research in a manner that respects | Candidate makes no clear efforts to communicate research in
| Respect for People IL-LUC-DISP.3 | Candidate respects differences when planning, conducting, analyzing, and reporting research results. | Candidate attempts to respect differences when planning, conducting, analyzing, and reporting research results. | Candidate does not respect differences when planning, conducting, analyzing, and reporting research results. |