Columbian College of Arts & Sciences
Survey Design and Data Analysis Graduate Certificate Program

Course Syllabus:
Questionnaire Design (STAT 6233)
Spring Semester 2012
Wednesday, 6 PM to 8:30 PM,
Alexandria Graduate Education Center

Professor:
Maria E. Ramos, M.S., M.A.
Independent Research Consultant
Phone: (571) 246-7173
E-mail: mramos@gwu.edu
Office Hours: Before or after class by appointment

Guest Lecturers (if possible):
- Gordon Willis, PhD, National Cancer Institute
- Terry Richardson, PhD, U.S. Government Accountability Office

Course Description:
This course covers questionnaire development from the perspective of modern cognitive techniques. Included are a range of questionnaire issues from choosing the mode of data collection (mail, telephone, or in-person) to selecting the respondent, to the differences between asking attitude and factual questions – even how to pretest the instrument chosen. Practical examples from government agency surveys to private sector market research studies will be discussed in class.

Required Texts:


Note: Texts are available at the George Washington University Bookstore located in the Marvin Center at 800 21st Street NW, Washington, DC or via internet at http://www.efollett.com/

Recommended Text:
Supplemental Readings:

Articles posted in Blackboard under the tab "Files/Supplemental".

Blackboard Information:

This class will operate as a paperless class to the point possible. The web site for the class is 
https://blackboard.gwu.edu/webapps/login

Course ID: 201101_Questionnaire Design_STAT_6233_SD

We will have a class forum in blackboard where students can post any questions, interesting findings or any material that augments the knowledge of the class. Please note that students are required to read and participate in the class forum.

The syllabus, outline of class sessions, and supplemental readings will be posted on this web site. All homework and projects, listed within this syllabus, must be submitted electronically by the respective due date. E-mail messages are time-stamped – assignments submitted late will result in a letter grade reduction for each hour the assignment is past due. Hard copies will not be accepted. Feedback on assignments will be returned electronically as well.

Teaching Style:

Using a seminar-style approach, the primary goal in teaching this course is to provide opportunities to acquire content knowledge in an environment conducive for learning and building critical thinking skills that facilitates dialogue among seminar participants with open discussion about particular interests and concerns. Through discussion and exercises, participants are challenged to explore possibilities and opportunities for personal growth and development. Specifically, this seminar style will help to improve each participant’s ability to communicate clearly and effectively in oral and written forms. It is not possible to disseminate all the knowledge necessary to develop a competent professional in this ever-changing field, but rather to elevate expectations for a challenging and rewarding professional career.

Learning Objectives:

At the end of this course, the seminar participant will be able to design, develop, tailor and evaluate questionnaires of medium to high complexity that most effectively answer the objectives of research studies while minimizing sources measurement errors, cost, timing and other issues inherent in various modes of survey designs and data collection methods. Additionally, the seminar participant will become familiar with cognitive interviewing techniques and aspects that could impact the quality of the information collected, as well as various strategies for designing optimum surveys.

Specifically, the seminar participant will be able to:

- Compare characteristics and uses of closed-ended versus open-ended questions
- Design and format survey instruments
- Design appropriately worded, meaningful and valid questions while avoiding biased words, negative phrasing, and socially desirable language
- Design questions to describe and evaluate people, places, and things
- Design standardized survey questions and response categories
- Determine a feasible number of questions with respect to respondent burden
- Develop mutually exclusive and exhaustive response categories

NOTE: This syllabus is subject to change at the discretion of the professor.
• Develop questions to gather factual data as well as those that measure subjective states
• Distinguish between the different types of survey instruments and methods of data collection.
• Employ pre-fielding survey evaluation techniques such as pretests, cognitive interviewing and interviewer debriefing.
• Enlist criteria for evaluating survey questions
• Identify ways to gather sensitive information
• Measure frequency, feelings, knowledge, priorities, quantity, and satisfaction
• Research survey literature for studies that advance or develop new or more comprehensive scientific knowledge in the area of survey research methods
• Understand cognitive processes related to answering questions
• Understand the issue of order effects within categorical response categories as well as within the survey instrument itself.
• Write notification and cover letters as well as introductory statements to surveys
• Write screening questions to identify specific survey respondents

Course Assignments, Exercises, Activities

The following are the assignments, exercises and activities that the students are expected to complete.

I. **Questionnaire Design via a Series of Exercises:** Students will write a survey research proposal/SOW/SoI and based on its objectives & specifications, they will design, pre-test (using cognitive interviewing techniques) and finalize a survey questionnaire. Seven (7) exercises will guide the students through this process to a final presentation of a reviewed and completed questionnaire.

II. **Student-lead Discussion of an Article:** Students will lead a discussion of an article published in Public Opinion Quarterly, the Journal of the American Association of Public Opinion Research. Students will be assigned an article from two articles of their choice, present it and lead a discussion in class. Discussions will be scheduled throughout the semester.

Detailed information about these activities follow.

**Questionnaire Design - Exercises:** Seven (7) exercises will be completed over the course of the semester. Due dates for each assignment, as well as dates they will be available on Blackboard, are listed in this syllabus. The primary focus of each assignment is listed below.

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Development of a survey research proposal; demographic questions</td>
</tr>
<tr>
<td>#2</td>
<td>Questions for critical review - identify one or two questions from a survey that you have worked on or reviewed for in-class discussion among seminar participants</td>
</tr>
<tr>
<td>#3</td>
<td>Revision of research proposal and demographic questions, developing a final draft questionnaire including substantive and screening questions</td>
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<td>#4</td>
<td>Technical review/critique of external questionnaire</td>
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<tr>
<td>#5</td>
<td>Expert technical (blind) review of fellow student’s questionnaire</td>
</tr>
<tr>
<td>#6</td>
<td>Cognitive interviews/pretesting of questionnaire</td>
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<tr>
<td>#7</td>
<td>Final Presentations: Oral presentation describing the transformation of your survey instrument based on expert reviews and individual cognitive pretests</td>
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</tbody>
</table>

*NOTE: This syllabus is subject to change at the discretion of the professor.*
Student Led Discussion of Article

To increase awareness and promote an appreciation of survey research literature, each student will select an article published in Public Opinion Quarterly, the Journal of the American Association of Public Opinion Research, for in-class discussion. A list of articles from which you may select are listed on this syllabus. These articles have been uploaded to Blackboard under the "Files/Supplemental" tab.

These articles are methodological studies, for the most part, that either advance or apply survey research practices. Based on readings and in-class discussion, students will critically review the study for methodological flaws, questionnaire design issues, and other factors, as well as any ways in which the research contributes, if at all, to the field of survey research.

Students will be given 20 to 30 minutes of class time for review and discussion of the study. Insightful discussion, as opposed to merely summarizing the article, is expected. Peer reviews and an assessment by the professor will be completed. See Assessment sheets in this syllabus.

Articles will be assigned based on each student’s ranked priority in the order in which preferences are e-mailed to mramos@gwu.edu. You can begin e-mailing your top two preferences following the first class session but no later than January 27. Please indicate the articles’ full reference in your email. Presentations will be scheduled throughout the semester based on subject matter of the article.

Class Policies:

Class attendance is mandatory. Promptness to class, out of respect for everyone (not just the professor), is expected. Since graduate courses meet for only 14 sessions per semester, participants are expected to attend all sessions. Please note that if you must miss a session you must obtain prior approval from the professor and arrange to turn in any assignments prior to the seminar session. Each unexcused absence will constitute a deduction of 5 points from the overall grade. Any student who foressees missing more than 2 sessions is advised to take the course at a later date. In addition to physical attendance, seminar participants must read all assigned materials before coming to class and have any homework completed. It is expected that everyone will be prepared for each session and participate in seminar discussions accordingly.

Note: University Policy on Religious Holidays requires that students should notify faculty during the first week of the semester of their intention to be absent from class on their day(s) of religious observance.

Grading Criteria:

<table>
<thead>
<tr>
<th>Element</th>
<th>Points</th>
<th>Due</th>
<th>Grading Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise #1</td>
<td>10</td>
<td>Feb 8</td>
<td>A = 90 to 100</td>
</tr>
<tr>
<td>Exercise #2</td>
<td>5</td>
<td>Feb 15</td>
<td>B = 80 to 89</td>
</tr>
<tr>
<td>Exercise #3</td>
<td>10</td>
<td>March 7</td>
<td>C = 70 to 79</td>
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<tr>
<td>Exercise #4</td>
<td>10</td>
<td>March 21</td>
<td>F = Below 70</td>
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<tr>
<td>Exercise #5</td>
<td>15</td>
<td>March 28</td>
<td></td>
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<tr>
<td>Exercise #6</td>
<td>15</td>
<td>April 18</td>
<td></td>
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<tr>
<td>Exercise #7 (Final Presentation)</td>
<td>10</td>
<td>April 25 / May 9</td>
<td></td>
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<tr>
<td>Student-led discussion</td>
<td>10</td>
<td>Start on Feb 8</td>
<td></td>
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<tr>
<td>Class Attendance &amp;Participation (10); Blackboard Class Forum Participation (5)</td>
<td>15</td>
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**Academic Integrity**

I personally support the GW Code of Academic Integrity. It states: “Academic dishonesty is defined as cheating of any kind, including misrepresenting one's own work, taking credit for the work of others without crediting them and without appropriate authorization, and the fabrication of information.” For the remainder of the code, see: [http://www.gwu.edu/~ntegrity/code.html](http://www.gwu.edu/~ntegrity/code.html)

**Support for Students Outside the Classroom**

Any student who may need an accommodation based on the potential impact of a disability should contact the Disability Support Services office at 202-994-8250 in the Marvin Center, Suite 242, to establish eligibility and to coordinate reasonable accommodations. For additional information please refer to: [http://gwired.gwu.edu/dss/](http://gwired.gwu.edu/dss/)

**University Counseling Center (UCC) 202-994-5300**

The University Counseling Center (UCC) offers 24/7 assistance and referral to address students' personal, social, career, and study skills problems. Services for students include: 1) crisis and emergency mental health consultations, and 2) confidential assessment, counseling services (individual and small group), and referrals. For additional information, see [www.gwired.gwu.edu/counsel/CounselingServices/AcademicSupportServices](http://www.gwired.gwu.edu/counsel/CounselingServices/AcademicSupportServices)

**Security**

In the case of an emergency, if at all possible, the class should shelter in place. If the building that the class is in is affected, follow the evacuation procedures for the building. After evacuation, seek shelter at a predetermined rendezvous location.
<table>
<thead>
<tr>
<th>Session #/Seminar Date</th>
<th>Theme</th>
<th>Required Readings</th>
<th>Important Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Jan 18</td>
<td>Introduction; Overview of the Course; Introduction to the Tailored Design</td>
<td>Dillman Chapter 1: Turbulent Times for Survey Research&lt;br&gt;Dillman Chapter 2: The Tailored Design Method</td>
<td>NOTE: This syllabus is subject to change at the discretion of the professor.</td>
</tr>
<tr>
<td>2. Jan 25</td>
<td>Mode of Survey Administration: Face to Face Surveys; Mail and Internet Surveys</td>
<td>Dillman Chapter 8: When More than One Survey Mode is Needed&lt;br&gt;Email Top 2 Preferences for Student-led AAPOR article by January 27</td>
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<tr>
<td>3. Feb 1</td>
<td>Writing Questions</td>
<td>Willis (2005), Chapter 2: First Principles of Questionnaire Design&lt;br&gt;Dillman Chapter 4 : The Basics of Crafting Good Questions</td>
<td>Deadline for submission of article selection</td>
</tr>
<tr>
<td>4. Feb 8</td>
<td>Writing Questions continued …</td>
<td>Dillman Chapter 5: Constructing Open- and Closed-Ended Questions&lt;br&gt;Willis Chapter 2: First Principles of Questionnaire Design</td>
<td>Exercise #1 Due&lt;br&gt;Student-led AAPOR article discussions start</td>
</tr>
<tr>
<td>5. Feb 15</td>
<td>Constructing the Questionnaire</td>
<td>Dillman Chapter 6: From Questions to a Questionnaire&lt;br&gt;&lt;i&gt;Optional&lt;/i&gt;: Folwer Chapter 6: Designing Questions to be Good Measures</td>
<td>Exercise #2 Due</td>
</tr>
<tr>
<td>Session #/ Seminar Date</td>
<td>Theme</td>
<td>Required Readings</td>
<td>Important Dates</td>
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| 7. Feb 29               | Pretesting and Cognitive Interviewing | Willis Chapter 1: Introduction to Cognitive Interviewing  
   Expert Technical Reviews  
   Willis Chapter 3: Background and Theoretical Origins: The CASM Approach  
   Willis Chapter 4: Cognitive Interviewing in Practice: Think-Aloud, Verbal Probing, and Other Techniques | Tentative: Visit Gordon Willis |
| 8. March 7              | The Intricacies of Verbal Probing | Willis (2005), Chapter 5: Developing Standard Cognitive Probes  
   Willis (2005), Chapter 6: Beyond the Standard Model of Verbal Probing  
   Willis (2005), Chapter 7: Cognitive Testing as Expansive Interviewing  
   Willis (2005), Chapter 8: Avoiding Probing Pitfalls | Exercise #3 Due |
|                         | SPRING BREAK                      |時間未定 | |
   Willis (2005), Chapter 10: Planning and Conducting Cognitive Interviews  
   Willis (2005), Chapter 11: Analyzing and Documenting Cognitive Interview Results | Exercise #4 Due |

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<thead>
<tr>
<th>Session #/ Seminar Date</th>
<th>Theme</th>
<th>Required Readings</th>
<th>Important Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. March 28</td>
<td>Other Issues and Topics regarding Cognitive Testing</td>
<td>Willis (2005), Chapter 12: Special Applications of Cognitive Interviewing</td>
<td>Exercise #5 Due</td>
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<td>Willis (2005), Chapter 13: Evaluation of Cognitive Interviewing Techniques</td>
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<td>Willis (2005), Chapter 15: Recommendations and Future Directions</td>
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<td>Dillman Chapter 3: Coverage and Sampling.</td>
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<tr>
<td>12. April 11</td>
<td>Tailoring to the Survey Situation</td>
<td>Dillman Chapter 9: Longitudinal and Internet Panel Surveys</td>
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<td>Dillman Chapter 10: Customer Feedback Surveys and Alternative Delivery Technologies</td>
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<td>Dillman Chapter 12 Surveying Businesses and Other Establishments</td>
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<td>Dillman Chapter 11: Effect of Sponsorship and the Data Collection Organization</td>
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<tr>
<td>13. April 18</td>
<td>Challenges/ Trends in Data Collection</td>
<td>Dillman Chapter 13: Coping with Uncertainty</td>
<td>Exercise #6 Due</td>
</tr>
<tr>
<td>14. April 25</td>
<td>14th Class Session</td>
<td>Final Presentations</td>
<td>Exercise #7 Due</td>
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<tr>
<td>15. May 9</td>
<td>Final Exam Week</td>
<td>Continuation of Final Presentations (if needed)</td>
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</table>

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# Selected Articles from Recent Issues of Public Opinion Quarterly

(Available through your AAPOR Account at [www.aapor.org](http://www.aapor.org))

<table>
<thead>
<tr>
<th>#</th>
<th>Article</th>
<th>Details</th>
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22. Benjamin L. Messer, Don A. Dillman. *Surveying the General Public Over the Internet Using Address-Based Sampling and Mail Contact Procedures.* Public Opinion Quarterly Fall 2011 75: 429-457


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Exercise #1

For this first exercise, you will be proposing a survey research project. Keep in mind that this exercise lays the groundwork for future exercises.

The topic, as well as the mode of administration, is your decision. There are three parts to this assignment.

1. Propose a topic and name for your survey.

2. Describe the context in which your proposed survey will take place by describing its background, purpose/objectives, sampling design including a description of the respondents and how they would be sampled*, privacy requirements, method (research design, mode of data collection), analysis, reporting, timing, and resources needed.

3. Write any demographic questions you feel are important for your final analysis. You are limited to 10 demographic questions. Think about how you may want to display the data, what comparisons you may want to make, etc.

Due Date: Assignment is due electronically Wednesday, February 8, 2011 by 6 PM. Send to Maria E. Ramos at Mramos@gwu.edu

*Not required to provide a full sample design
Exercise #2

Question(s) for Critical Review

To improve critical analysis and review of survey questions, each student will identify one or two questions from a survey that have worked on or reviewed for in-class discussion among seminar participants.

Questions or responses options, though not necessarily obvious, should have some type of measurement issue (e.g. biased question stem or response options in one or multiple directions, biased or slanted introduction, biased tone of the question, categories that may not be mutually exclusive or exhaustive, questions that mix beliefs with attitudes, questions that require too much precision or unnecessary respondent burden, questions that may be too sensitive or objectionable, questions that promote socially desirable responses, vaguely worded questions and responses produce useless information, etc).

Due Date: Assignment is due electronically Wednesday, February 15, 2012 by 6 PM. Send to Maria E. Ramos at Mramos@gwu.edu

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**Exercise #3**

For this third exercise, you will be building up on the first exercise. Based on feedback from the professor, modify your topic, mode of data collection, etc., to reflect real world challenges and other issues identified from the first exercise.

1. Modify demographic questions as appropriate.

2. Write no more than 25 additional questions, which include any type of screening questions as well as substantive questions related to your research.

3. Organize and group the questions into a layout conducive to your mode of survey administration that is consistent with class discussions and reading materials.

   Your survey, regardless of mode, should include the following primary sections of a survey instrument: an introduction, screening questions and respondent selection, substantive questions, and demographics.

   **Physical document:**
   - For mail or self-administered surveys, please refer to class notes on acceptable multi-page formats. The product should be dissemination ready quality.
   - For telephone surveys, you should develop a CATI lite version of the survey instrument.
   - For web surveys, you could program your survey using the Instant Survey software and a PDF file should be developed to share with the class. Or you could develop it on acceptable multipage formats per class notes.

4. Depending on the mode of administration you chose, write a cover letter or introduction for your survey, ensuring that the following elements are covered:

   - Background of the study
   - Purpose/Goals/Objectives of study
   - How respondent was selected and reasons why
   - Why respondent is important to the study
   - Promise or assurance or confidentiality
   - Phone number and contact to call with questions, this might include a link to a Web site, sponsoring organizations, etc. That is, anything that adds credibility and veracity to the research and that would entice potential respondents to participate.

   If you chose to conduct a telephone or web survey, your introduction should include the elements above. In lieu of a cover letter, you should include those elements within your introduction and include a script for leaving messages on telephone answering machines.

**Due Date:** Assignment is due electronically **Wednesday, March 7, 2012 by 6 PM.** Send to Maria E. Ramos at Mramos@gwu.edu

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Exercise #4

Using the questionnaire distributed in class, review and critique survey questions.

Specifically, review the questions using systematic technical review tools discussed in class for issues as well as materials from reading assignments and class discussion related to question wording and format.

Stronger reviews will specify references to texts, articles, etc. For example, if questions violate certain principles set forth by Dillman, Fowler, Willis, or others, then note the specific principle(s) violated.

The focus of this exercise is on individual questions and not on overall flow of questions, design, and format of the instrument.

Due Date: Assignment is due electronically Wednesday, March 21, 2012 by 6 PM. Send to Maria E. Ramos at Mramos@gwu.edu

NOTE: This syllabus is subject to change at the discretion of the professor.
Exercise #5

You have been assigned to complete a critical review of a survey, which was developed by a fellow classmate(s). You will receive by e-mail background information, cover letter/introduction (depending on the mode) and the survey instrument itself.

Review this questionnaire in much the same way you reviewed questions from Exercise #4

Feel free to use systematic technical review tools discussed in class for issues as well as materials from reading assignments and class discussion related to question wording and format, flow of questions, and overall design and format of the instrument. Any disconnects between the proposal or background information and the questionnaire should be highlighted as well.

This review will be a blind review and will be shared with the person who developed the survey. This person will not know your identity unless you specifically disclose this information to them. So, please do not include your name anywhere in the review.

Due Date: Assignment is due electronically Wednesday, March 28, 2012 by 6 PM. Send to Maria E. Ramos at Mramos@gwu.edu

NOTE: This syllabus is subject to change at the discretion of the professor.
Exercise #6

Preliminary Steps:

Using your final questionnaire submitted for exercise #3, consider comments from the blind expert review by another student (Exercise #5) and by the professor. These reviews will be e-mailed individually to each of you.

Start scheduling your individual pretests while you finalize your questionnaire. Based on feedback and consideration of comments in the reviews, revise your survey accordingly.

Cognitive Interviews

Interview at least three individuals (preferably five) to denote cognitive issues, using course materials and supplemental materials disseminated on Blackboard and in class discussions and the video presentation of “Cognitive Testing of the US/Canada Joint Health Survey in Rural Mississippi.” You should employ a variety of different cognitive testing strategies, reporting which strategies you used, why you chose a particular strategy, and what these strategies revealed.

Your report should also include basic statistics and information on individual interviews. Provide some rationale on why these respondents were chosen. In addition, note the range of interview times as well as average survey time if you use a retrospective probing approach. Based on timings of your interviews, does the interview seem too long, too short, or about right? If it is too long, make recommendations and provide rationale (based on substantive review or cognitive testing) for deleting specific questions.

This project may rely on family and friends as respondents and as a result, may present certain shortcomings as compared to real world pretesting strategies. If you desire, one of your cognitive interviews may be of other student(s) from our class. Please note that you may interview no more than one fellow student if you conduct a total of 3 cognitive interviews. If you conduct at least 5 cognitive interviews, you may interview up to, but no more than two fellow students. Note any such shortcomings in using another student (if you did so).

Briefly describe how your approach may differ if resources permitted (i.e., if you had more resources, if time were not a limiting factor, how you would recruit pre-test respondents, etc). Please note that this exercise is for educational purposes only and no identifiable information should be collected from any individual so that if disclosed would put that individual at any type of harm.

Due Date: Assignment is due electronically Wednesday, April 18, 2012 by 6 PM. Send to Maria E. Ramos at Mramos@gwu.edu

NOTE: This syllabus is subject to change at the discretion of the professor.
Exercise #7

Exercise #7 will be an in-class presentation that describes the transformation of your survey based on expert reviews and individual cognitive pretests.

Final oral presentations will be made on Wednesday, April 25th (or May 9th if necessary). Your individual presentations will be limited to 20-25 minutes each with 5 minutes of Q&As. **All students are expected to attend both sessions - not just the session you’re scheduled to present.**

If you require audio/visual equipment (e.g. overhead or LCD projector) for your presentation, please let professor know ahead of time.

Students will be assigned to a date and time. Date and time preferences can be adjusted as needed in advance.

Students will provide a peer evaluation for each of the presenters' class project and presentation.

**NOTE:** This syllabus is subject to change at the discretion of the professor.