TOM 460 Name: _____

DATA CRITERIA & RESEARCH METHODOLOGY

Subproblem to be resolved: _____

_____

Data/Information to be employed in resolving the subproblem: _____

_____

1. Who: _____

_____

2. Where: _____

_____

3. When: _____

_____

4. What: _____

_____

_____

5. How: _____

_____

_____

RESEARCH METHODOLOGY JUSTIFICATION

Why the method specified under “5. How,” above, is the best for this situation: _____

_____

_____

CRITERIA FOR ADMISSIBILITY OF THE DATA

Criteria are "established rules for testing something." They are a "standard to measure things against." To assist you in collecting your data, you will need establish criteria to determine whether or not a certain piece of information is to be included as part of the data you collect for your study. These criteria focus on the issues of who, where, when, what, and how. Each of these issues is presented below.

WHO

The issue is "who is involved" in the collection of the desired information. In most subproblems, you, as "the researcher," are involved. In addition, list all the other people who are involved, such as the client, supervisors, employees, subordinates, people you have to get permission from, people you are going to interview, people you are going to survey using a questionnaire, and so on. People are usually referred to by title or function, rather than by their actual names.

WHERE

The issue is "where is the data collection activity going to take place." In most subproblems, the location is at the place of business of the client. Include a specific address, if this does not violate confidentiality. Other likely locations include the library, your home, or the survey recipient's home.

WHEN

The issue is "when is the data collection activity going to take place." In most subproblems, you will need to state a specific time frame for data collection. If the data is from archival sources, then you need to state the time period in the past the data are collected from, giving specific beginning and ending dates. If the data are being collected in the present, then you need to state specifically when you are going to start and when you are going to end your data collection process.

WHAT

The issue is "what information are you collecting." You must be specific and exact. Vague generalities are not acceptable. Depending on the subproblem, this could be a list of names to send a survey to taken from a membership roster of an organization, attitudes and opinions of survey respondents regarding a particular topic, or the results of a previous subproblem. This could also be numerical values extracted from company records concerning sales, profit, loss, accounts receivable, insurance, overhead, wages, salaries, benefits, production, scrap, inventory, shipping, warehousing, receiving, and so on. This could also be information from annual reports, stock prices, financial ratios, bond ratings, and so on. Also included could be information from the Small Business Administration, the Census Bureau, the Department of Commerce, or other government agency.

HOW

The issue is "how are you going to accomplish the collection of the data." In many subproblems, this is done by photocopying ("xeroxing") the needed information. In others, it is a matter of entering the information into a computer spreadsheet. In yet others, it is a matter of distributing and retrieving a paper and pencil survey from specified respondents, or interviewing certain people using an audio tape recorder. Observations often require the use of a stopwatch, a frequency counter, or a video camera and video tape recorder. Sometimes, calling up certain files from a computer is required.

Examples from actual student homework assignments are attached for your information and use. Note especially the way the criteria are worded to make it clear what is included as valid data for the study.

JUSTIFYING THE RESEARCH METHODOLOGY

The focus here is on the "How" issue from the previous page. You must state why the particular method of data collection you are using is the best one for this particular situation. To put things in perspective, realize that "you can't study DNA with a survey questionnaire, and you can't study attitudes with an electron microscope." You must use the proper instrument for the data needed.

For example, if you are studying the how the price of a stock changes over time, photocopying ("xeroxing") the information from the Wall Street Journal and entering it into a computer spreadsheet for input into a forecasting program would be the best method. In other cases, perhaps the information could be downloaded from an Internet source directly into a computer spreadsheet.

For example, if you are studying the opinions of people, using a survey questionnaire would be best if you are going to be gathering the data from hundreds of respondents. The survey questionnaire could be mailed, with included return envelope. An alternative may be to post the survey on the Internet, and have respondents reply. On the other hand, if you are only going to be gathering the opinions of just a few people, then perhaps an interview would be the best method.

For example, if you are going to be studying the sales figures for a particular company, perhaps photocopying ("xeroxing") the needed records would be best. If the sales records are stored in a computer file, then calling up the file and copying it onto a disk, or transferring a copy of the file to another program would be best.

Examples from actual student homework assignments are attached for your information and use.

Results of Practical Application, page 110.

The Statement of the Problem: A survey will be conducted to compare the perceived quality of package car loading service a U.P.S. driver in the Whittier U.P.S. Center is receiving to the perceived quality of package car loading service the U.P.S. loading personnel is providing.

The Subproblems:

The First Subproblem: The first subproblem is to blueprint the service delivery process for the preloading of package cars.

Who: Only data gathered by the researcher from the drivers and loading personnel will be admissible.

Where: Only data gathered from the U.P.S. Whittier Center, 13233 Moore St., Cerritos, CA will be admissible.

When: Only data gathered during the third week of December, 1997, starting at 1:00 am, will be admissible.

What: Only data regarding the preloading service methods will be admissible.

How: Only data gathered from the U.P.S. Methods Manual for preloading package cars, and from observation of the preloading process will be admissible. A flowchart of the service delivery process using Microsoft PowerPoint will be constructed.

The Second Subproblem: The second subproblem is to develop and pilot test a survey regarding quality of service for the package car drivers and loading personnel working in the Whittier Center.

Who: Only data gathered by the researcher from the package car drivers and loading personnel will be admissible.

Where: Only data gathered from the U.P.S. Whittier Center, 13233 Moore St., Cerritos, CA will be admissible.

When: Only data gathered during the second week of January, 1998, starting at 1:00 am, will be admissible.

What: Only data gathered from the pilot survey will be admissible.

How: Only data gathered from the service blueprint developed in subproblem one will be admissible. Develop an appropriate survey question format, and appropriate survey questions based on service blueprint, using reference material (Edwards, Jack, *How to Conduct Organizational Surveys*, 1997).

The Third Subproblem: The third subproblem is to ensure package car drivers and loading personnel working in the Whittier Center participate in the survey.

Who: A minimum of 100 package car drivers and 50 loading personnel only from the Whittier Center will be surveyed. Supervisors only from the Whittier Center will be used.

Where: Only data gathered from the U.P.S. Whittier Center, 13233 Moore St., Cerritos, CA will be admissible.

When: Only data gathered during the second and third week of January, 1998, starting at 1:00 am, will be admissible.

What: Participation of drivers and loading personnel.

How: Cooperation from other supervisors, who will encourage participation in the survey by describing the benefits to be derived, and discourage paranoia and suspicion by describing safeguards. Use of incentive of soft drinks and donuts. Provide company time to complete

the survey.

The Fourth Subproblem: The fourth subproblem is to distribute and collect the quality of service survey from the drivers and loading personnel.

Who: The researcher, and only the drivers, loaders, and supervisors from the Whittier Center will be used.

Where: Only data gathered from the U.P.S. Whittier Center, 13233 Moore St., Cerritos, CA will be admissible.

When: Only data gathered from February 7, 1998, through February 28, 1998, starting at 1:00 am, will be admissible.

What: Only service quality survey responses from the drivers and loaders from the Whittier Center will be admissible.

How: A color-coded quality of service survey, along with an attached envelope, will be placed in package car drivers' cubby hole. For loaders, a color-coded quality of service survey, along with an attached envelope, will be stapled to their paychecks. A box will be placed outside the Whittier Center for the package car drivers and loaders to deposit their surveys. Only surveys from the deposit box will be used. Only forms which are completely filled out will be used.

The Fifth Subproblem: The fifth subproblem is to analyze and interpret the data collected from the quality of service survey.

Who: Only the researcher will conduct the analysis.

Where: Data analysis and interpretation will take place only at the researcher's home.

When: During the third and fourth week of March, 1998.

What: Only service quality survey responses from the drivers and loaders from the Whittier Center will be admissible.

How: Using Microsoft Excel, the survey responses will be entered into a spreadsheet. The statistical analysis will consist of : 1) descriptive statistics for the sample respondents, 2) frequencies, means, and percentages for each question, 3) cross-tabulation analysis between the drivers and loaders, and 4) noting the statistical significance (if any) between the responses of the drivers and the loaders. After the analysis, norms will be created to help interpret the results of the survey.

The Sixth Subproblem: The sixth subproblem is to make recommendations based on the analysis and interpretation of the quality of service survey.

Who: Only the researcher will write the recommendations.

Where: Recommendations will be written at the researcher's home.

When: During the months of April and May, 1998.

What: Only the results from the data gathered in subproblems one through five will be admissible.

How: Using Microsoft Word, a set of recommendations will be developed based on the results of the quality of service survey. Charts and graphs will be included to illustrate the results and support the recommendations for improvement of the service delivery system.

RESEARCH METHODOLOGY JUSTIFICATION

Given the number of people involved (150) and the subject matter of investigation (opinions), it is

the conclusion of the researcher that a survey questionnaire is the best way to gather the required information.