Guidelines for Developing and Processing Scannable Surveys

The Office of Institutional Research and Assessment (IR&A), in collaboration with Information Systems (IS), will offer assistance to academic and administrative departments in developing and processing scannable surveys for assessment/program review purposes.[1] The guidelines below describe the types of assistance we are able to offer and the steps departments will need to take in order to utilize these services. Please contact IR&A at 973-720-2379 for any assistance you require.

I. Developing the Survey

A. IR&A maintains a file of survey instruments, both nationally-normed surveys and surveys developed at WPU and other institutions. If you let us know the type of survey you are developing, we can check our files to see if we have any relevant resources.

B. IR&A staff offer suggestions at various stages in designing your survey, including content and format. Keep in mind that designing a good instrument is usually an iterative process involving numerous drafts.

C. When the survey questions have been finalized, IR&A provides basic guidelines for converting the survey into a scannable format (included below).

II. Making the Survey Scannable

Scannable surveys should be designed using Microsoft Word. Properly designing the survey is crucial to ensuring that it will be scanned accurately. IR&A will be able to analyze the results of the completed surveys provided the steps outlined below are followed.

A. Grouping Questions: Whenever possible, group similar questions together (i.e., all yes/no or multiple choice questions). Grouping helps to create one field compared to many individual fields and is useful to the IR&A or IS staff that will set the template for the survey. *(See example A.)*

B. Tables and columns: Use the table function in Microsoft Word to design the survey. You must eliminate all the borderlines in the table, so that lines do not show on the printed survey. Also, do not shade any rows. *(See examples A & B.)* The column function can also be used to design a survey. *(See example C.)*

Example A	Excellent	Good	Fair	Poor
How would you rate the current class?	O	O	O	O
How would you rate the student support at WPU?	O	O	O	O
Overall, rate your experience at WPU.	O	O	O	O

Example B	Yes	No
Do you plan to take an online course?	O	O
Have you previously taken any courses at WPU?	O	O

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[1] The office provides survey development and analysis services for program, department, and university-wide initiatives. Due to resource limitations, we are unable to support personal research projects.

Example C

1. Do you plan to take an online course?

   Correct Alignment   *Incorrect Alignment*

   O Yes   **O** Yes   **O** No

   O No

2. Have you studied with other students?

   O Very often

   O Often

   O Occasionally

   O Not at all

3. Overall, rate your experience at WPU.

   O Excellent

   O Good

   O Fair

   O Poor

4. Have you previously taken any courses at WPU?

   O Yes

   O No

C. Optical Mark Reader (OMR): IR&A uses OMR software that is designed to collect data from OMR marks (i.e., bubbles, circles, or barcodes). An OMR mark must have a complete shape and be printed in dark ink. To create a perfect circle that will be properly read by the scanner, use a capital letter **O** in a bolded size 12 Arial font. *(See examples A, B, and C.)*

D. Spacing OMR's: Make sure that there are at least two character spaces between OMR's (**O**) that are lined up horizontally or vertically. In order to get exact vertical positioning, center-align all of the OMR marks within each column in a table rather than using spaces to line them up. Line spacing should be 1.5. *(See examples A, B, and C.)*

   In general, leave a ½ to ¾ inch of space between the OMR's and any surrounding text on the form. Do not use any lines within ½ inch of the OMR. If necessary, use a light gray line, which will fade in the scanning process. A vertical or horizontal line in close proximity to an OMR field will make processing time longer and will cause recognition errors.

E. Paper: Letter or legal size paper is okay to use. If you use colored paper for the survey, it must be a light pastel shade. Bright or dark shades of paper will interfere with the ability of the scanner to interpret the survey responses.

F. Final Survey Review: Prior to photocopying the finished survey, it is essential that IR&A and IS grant final approval in order to make sure the survey meets the requirements of the scanner. Please provide IR&A with an electronic copy of your survey.

III. Preparing the Survey for Administration

A. Photocopying: Make photocopies of the original survey. It is critical for the copies to resemble the original as much as possible. Data cannot be scanned from copies that are not properly aligned on the page or have black toner marks on them.

   Make all the photocopies you will need at the same time. In calculating the number required, add extras so that if respondents return unusable surveys, you can copy their responses onto a clean, blank survey. *(See V. A.)*

Important: From the same batch of photocopied surveys, you must provide IR&A with two blank photocopies of the survey. These copies are needed to "train" the scanner. If the scanner is trained on a survey that is even slightly different from the copies it will be analyzing, scanning errors are likely to occur.

B. Two-Sided Photocopying: If possible, please use two-sided copying. Since the scanner can process both sides of the paper at the same time, it makes scanning more efficient. Two-sided copying also reduces the number of pages that need to be numbered *(see V. C3)*, and it eliminates the need for stapling. Stapling should always be avoided. If your survey orientation is portrait view, make sure you print double-sided with the option "flip on long edge" selected. If your survey orientation is landscape make sure the "flip on short edge" print setting is selected.

IV. Administering the Survey

A. Ask the individuals who will be administering your surveys to emphasize the importance of **completely filling in** the OMR marks of the selected responses (i.e., ●). Check marks (√) or **"X"** marks will not be recognized by the scanner.

B. Surveys being administered to University alumni *(see V. C7)*.

V. Preparing the Survey for Analysis

A. Please review the completed surveys before they are delivered to IR&A. Make sure that the OMR's have been completely filled in *(see IV. A)*. If respondents did not fill in the circles but instead drew circles around the responses, put check marks (√), or made other kinds of marks (e.g., X), you will need to transcribe their responses to a new copy of the survey.

B. If respondents have changed a response by crossing out one response and filling in another, please leave it as is. This will cause a multiple response error (if the item has been flagged as one for which only a single response is acceptable) and we will manually review the survey and correct it. **DO NOT ATTEMPT TO CORRECT THIS TYPE OF ERROR WITH "WHITE OUT" AS IT WILL CAUSE THE ENTIRE BLOCK OF QUESTIONS TO BE FLAGGED AS ERRORS.**

C. In order to expedite processing of your completed surveys, the following must be done:
  1. Remove all blank surveys and keep them for your files.
  2. Remove all staples from the completed surveys.
  3. Please number each survey in the upper right-hand corner as follows:
     - For one-page surveys (printed single-sided or back-to-back): Number the first survey in the upper right hand corner. Use 1 as the first survey ID number. Number the next person's survey 2, and so on.
     - For multiple-paged surveys: Each separate page of the survey requires a number (in the upper right-hand corner). If, for example, your survey is printed back-to-back on the first sheet and printed only on one side of the second sheet, the front of the first page will be numbered as 1A and the front of the next page will be 1C. The next person's survey would begin with 2A and 2C, etc. All survey sheets belonging to the same respondent should have the same number.

     This is a very important step in preparing your surveys for scanning. Numbering the pages enables us to find the original survey in the event that we encounter problems during scanning or analysis. Please contact our office if you have any questions about the numbering system; we will be happy to assist you.
  4. Remember to send two blank photocopies of the survey to IR&A *(see in Section III.A)*.
  5. Complete an *"IR&A Scannable Survey Submission Form"* and include it with the surveys. It is important that this form be completed, as it helps us to process your surveys more efficiently and effectively. Please complete a separate form for each set of surveys you administer. (Note: a "set" could mean different surveys or the same survey administered during different semesters). Surveys submitted without this form may be returned to the client.

     The form is available on the IR&A web page: http://www.wpunj.edu/dotAsset/110275.pdf

6. Please mail or hand deliver completed and "cleaned-up" surveys, along with the *IR&A Scannable Survey Submission Form* to the Office of Institutional Research and Assessment in College Hall.
7. Please note surveys administered to **alumni** must ask the alumni office to:
   - Supply the alumni population
   - Administer the survey
   - Send IR&A an e-mail authorizing this office to process the survey

VI. Analyzing Survey Results

A. IR&A, with assistance from IS staff, will scan the surveys and analyze the results, typically producing frequency tables and, if appropriate, means and standard deviations. Additional analyses (e.g., cross tabs) can also be provided. IR&A can assist you in thinking about what type of analysis would be meaningful. IR&A can also provide you with a data set (with the exception of alumni data) so that you can do further analysis on your own, if desired.

B. Due to limited resources, it usually takes about three weeks to complete the scanning process and produce the results, assuming that all guidelines have been followed. During times of peak demand, it may take longer.

C. Since analyses typically produced by IR&A are of a quantitative nature, results from small sample sizes often yield unreliable results. As a rule, we ask that all surveys have an **N of 25** or greater. If this is not the case, analyses for smaller Ns will be produced at the discretion of the IR&A office.

VII. Obtaining Survey Results/Retrieving Survey Forms

A. Analysis of survey results will be sent to you as an MS Word document via e-mail.

B. If surveys were mailed to IR&A, we will mail them back to you in the original envelope(s) when the analysis is completed.

C. If the original surveys were delivered in person, or they are of a confidential nature, you must arrange to come to IR&A's office to retrieve them once the analysis is complete. Due to space constraints in the office, we cannot guarantee that we will retain the surveys for more than two weeks after we have sent you the analysis.

D. Please indicate how you would like to retrieve the surveys by responding to the related question on the *IR&A Scannable Survey Submission Form.*

Thank you. We look forward to helping you with your project.