

PSYCHOLOGY 5480: E-LEARNING PRACTICUM

PROGRAM DEVELOPMENT REPORT GUIDELINES

(50 POINTS)

The Program Development Report is the culmination of your instructional design and development efforts for this course. It incorporates some of the same sections and components as your Program Design Specifications, but also includes the data from your program tryout/evaluation and suggestions for improving your instruction. When including information from your Program Design Specifications, you should be sure to correct any weaknesses I identified in my feedback to you on the Design Specifications. Failure to do so will result in a loss of points.

There is no length requirement or restriction for the report, but you should focus on succinctly addressing the issues below. You may use bulleted lists or other devices (such as tables, charts, etc.) when warranted, but the bulk of your report should be written in complete sentences and be free of spelling or grammatical errors. The report is worth 50 points.

Write your report so that it could be read by someone is completely unfamiliar with your project. Do not assume that the reader has any specific knowledge about the details of your project or evaluation procedure. This means you need to write out acronyms the first time you use them (e.g., Western Michigan University, not just WMU) and be as specific as possible about your evaluation procedures. Essentially, you should be able to give this report and your instructional materials to a complete stranger and they should be able to get a sense of the nature, purpose, quality, and effectiveness of your program.

The following sections should be included in your report:

Program Overview (10 points)

Title

The title of your instructional program.

Description of Problem/Need

Briefly describe the problem or need your instructional program was designed to address. Be sure to include the nature of the need or problem and the context/setting/organization of the need or problem. This can come from your Program Design Specifications.

Performance Analysis

Describe how you knew (or at least suspected) that the problem/need described above required an instructional solution. This can come from your Program Design Specifications.

Description of Target Population

Describe your instructional program's target population as best you can. This can come from your Program Design Specifications.

Contextual Analysis

Describe the orienting, instructional, and transfer context of your program. This can come from your Program Design Specifications.

Instructional Objectives

List all of the instructional objectives for your program. Note that you are listing *just* the objectives, not the content type, instructional strategy, or assessment strategy for the objectives. This can come from your Program Design Specifications.

Materials

Briefly list (and describe, if necessary) *all* of the instructional materials developed or used for your program. This might include the computer program (e.g., PowerPoint file) itself, an instructor guide, a posttest, job aids, a performance checklist, etc.

Program Evaluation

Participants (5 points)

Describe the individuals with whom conducted your evaluation. You should specify the number of participants and describe any relevant characteristics (e.g., age, education level, occupation, whatever). Be sure to note how closely these participants do (or do not) resemble the members of your target population. If they are *not* very similar to your target population, explain why you did not or could not use members of the target population for your evaluation.

Setting & Procedure (5 points)

Describe the setting and circumstances in which your instructional program was delivered (e.g., Was it delivered as part of a class? Was it delivered at the participants' workplace? Why were participants completing your instruction? Where was the instruction delivered? Did participants receive any special compensation for completing your program?). Briefly describe the procedures followed in delivering your instruction. Report how long it took each participant to complete the instruction.

Data Sources (5 points)

Describe the instruments you used to evaluate your program (e.g., pretests, posttests, surveys, observation notes, whatever). When describing your posttest, indicate the number of questions it includes, the types of questions (multiple-choice, short-answer, performance-based assessments, etc.), the number of questions for each instructional objective, and the scoring system. Here is a sample description of a posttest:

Sample Description of a Posttest

The Writing a Terrific Test posttest consists of four sections, each corresponding to one of the program's main instructional objectives. Not all of the program's objectives were of equal importance, and the number of points available per section varied according to the weighted importance of the objective it covered. Section 1 covers Objective 1 and is worth 4 total points, Section 2 covers Objective 2 and is worth 8 total points, Section 3 covers Objective 3 and is worth 10 points, and Section 4 covers Objective 4 and is worth 18 points.

Results (15 points)

Report the findings from your evaluation. Each of you should have a "Learner Achievement" subsection and a "Learner Attitudes" subsection. You will need to provide both a textual summary of the results and a table (and possibly a graph, if you wish) of the results.

For each subsection, you should have a paragraph (or two) summarizing the results for that measure. If you evaluated your instruction with 4 or fewer participants, report both individual results and mean results. If you evaluated your instruction with 5 or more participants, report just mean results (in the text description; report individual results in the table described below). Here is a sample results section (for a program evaluated with 5+ participants):

Sample Results for Learner Achievement

The mean percentage scores of the students on the pretest and posttest are shown in Table 1. Students' overall mean score on the pretest was 48 percent, while their mean score on the posttest was 94 percent. Pretest scores were below 50 percent for objectives 1, 2, 3, and 5, but much higher for objective 4 and 6 (86 percent and 71 percent, respectively). Posttest scores were above 90% for every objective except objective 3, which had a mean score of 83 percent. Students' posttest mean scores on objectives 4 and 6 were 100%.

Sample Results for Learner Attitudes

The participants' responses to the Learner Survey can be found in Appendix A. Mean ratings were calculated using the following Likert-type scale: 4 for a rating of strongly agree, 3 for a rating of agree, 2 for a rating of disagree, and 1 for a rating of strongly disagree. Overall, students responded positively to the items, with no item receiving a mean rating below 3.00. All students responded with agree or agree strongly to all of the items, except two: "there was enough opportunity to interact with other workshop participants" and "this workshop increased my interest in learning more about how to develop quality tests." Both of these items received one disagree rating (but maintained an overall mean of 3.50 and 3.00, respectively). The statement receiving the strongest agreement was "there was enough opportunity to interact with the instructor/facilitator," with a mean rating of 3.83. All students agreed that the workshop was "about the right length."

When asked what they liked most about the workshop, two participants identified the workshop booklet, one noted the "Q & A" with others, one claimed the hands-on activities, and another simply wrote "the jokes." Responses to the question of what they liked least about the workshop also varied, and included: the instructions for applying the scoring rubric, having to take the test (followed by a smiley-face), having to read everything, and, of course, "the jokes." Suggestions for improving the workshop included adding more examples, as well as adding

You should create a table summarizing your **achievement data** and include it in the "Learner Achievement" subsection. Report both individual and mean results. It may be useful to report results by section or objective. Follow APA style for creating your table. Below is a sample table (note: you do **not** have to arrange your table exactly like this – depending upon the nature of your data and posttest, some other arrangement may be more useful):

Table 1
Raw Pretest and Posttest Scores by Section for Each Participant

		Total (40 possible)	Section 1 (4 possible)	Section 2 (8 possible)	Section 3 (10 possible)	Section 4 (18 possible)
Participant 1	Pretest	14.5	1.0	4.0	4.5	5.0
	Posttest	30.5	3.0	6.0	9.5	12.0
Participant 2	Pretest	14.0	2.0	3.0	3.0	6.0
	Posttest	37.5	4.0	6.0	9.5	18.0
Participant 3	Pretest	13.0	1.0	4.0	2.0	6.0
	Posttest	31.0	4.0	8.0	8.0	11.0
Mean	Pretest	13.50	1.33	3.67	3.17	5.67
	Posttest	33.00	3.67	6.67	9.00	13.67

For **attitude data**, you should summarize the data in a manner similar to the survey results sheet in Appendix A. Basically, you should create a frequency distribution of responding for each question (e.g., count the number of people who circled "agree" to question 1, etc.) and calculate a mean (this is similar to calculating your GPA – each response of "strongly agree" is worth 5 points, each response of "agree" is worth 4 points, etc.). You must also list **all** answers to open-ended questions and attach the actual survey forms completed by the learners.

Revisions (10 points)

In this section you should describe any and all revisions that you believe should be made to your program based on the evaluation data. In all cases, be *as specific as possible*, and use your evaluation data to support your reasoning. Some specific issues to consider:

- Did the pretest reveal that your learners already knew how to perform some of your objectives? If so, you may wish to limit or eliminate instruction on those objectives.
- Did the posttest reveal that your learners did not learn some of your objectives very well? If so, you may need to bolster the instruction and/or practice for those objectives. Be specific about how you would do this.
- When observing your learners, did they seem to struggle with the program's interface or navigation system? If so, you may need to modify it. Be specific about how.
- Pay attention to the learner attitude data. Did learners dislike the program? Did they think it was too long? Did they find it worthwhile? Suggest revisions or modifications based on these data, but remember that achievement data is of primary importance!

Below are two *partial* samples of a revisions section:

Sample Revisions Section #1

The program evaluation indicated several revisions that should be made to this instructional unit. First, the exceptionally high pretest scores on questions about objective 4 (primary and secondary reinforcers) and objective 6 (schedules of reinforcement) suggest that these topics could be covered in a much briefer fashion, or treated and assessed with greater sophistication. The material on schedules of reinforcement, especially, was pared down in this unit to avoid confusion about the more technical types of schedules, but pretest results indicate further detail about this topic may be appropriate. Second, the lower posttest scores on the positive and negative reinforcement section, along with observations of classroom discussion about this material, suggest more time should be devoted to this topic. Students especially struggled with the terms "positive" and "negative" being used in the mathematical sense of "adding" or "removing," rather than as value statements about the experience. Further instruction on how these terms are used differently in operant conditioning is needed, along with more practice identifying the differences between positive and negative reinforcement. In addition, and related to the previous revision, it may be helpful to include instruction on punishment procedures and aversive conditioning in the unit. Contrasting negative reinforcement with punishment more explicitly would likely help with student misconceptions about some of these issues. Responses to the Instructor Survey also suggest more examples and optional enrichment activities may be useful.

Sample Revisions Section #2

The program evaluation indicated multiple revisions that should be made to this instructional unit. Based on the posttest scores, observations of workshop discussions, responses to the surveys, and informal feedback from several participants, a number of revisions to the workshop booklet would be prudent:

- Some of the guidelines for writing the different test items need further clarification. For example, the guideline that suggests avoiding the use of negative expressions (such as “not”) in multiple-choice items should note that if it is necessary to use a negative expression, the negative expression should be emphasized (such as by writing the word “not” in all capital letters or boldening it).
- Some of the guidelines should also be accompanied by the reasoning behind them, when it is not obvious. A number of participants, for instance, questioned why choices such as “none of the above” or “more than one of the above” should be avoided in multiple-choice items, particularly since they have seen such items on standardized tests.
- A section listing additional resources (such as relevant textbooks, web sites, etc.) should be included at the end of each lesson or at the end of the booklet. Some students expressed a desire for this material during informal discussions.

Appendixes

As part of your Results section, you must include summary information for the learner survey as an appendix (see sample Appendix A on the next page) **and** attach the original surveys completed by your learners.

APPENDIX A
Responses to Learner Survey

1	2	3	4	5
strongly disagree	disagree	undecided	agree	strongly agree

	<u>sd</u>	<u>d</u>	<u>u</u>	<u>a</u>	<u>sa</u>	<u>mean</u>
1. I liked this training program.	0	0	0	2	3	4.60
2. The overall quality of instruction was good.	0	0	1	2	2	4.20
3. It was worth my time to complete this training program.	0	1	1	0	3	4.00
4. The training program was well organized.	0	0	0	1	4	4.80
5. There was enough opportunity to practice the skills and knowledge I learned during the training program.	0	1	1	2	1	3.60
6. I learned a lot from this training program.	1	0	1	1	2	3.60
7. I would recommend this program to other people.	0	0	2	2	1	3.80
8. The training program was: a) about the right length (4) b) too long (1) c) too short (0)						
17. What did you like <i>most</i> about the training program?						
• <i>Easy to use</i>						
• <i>Focus on practical knowledge</i>						
• <i>Cool graphics!</i>						
• <i>Lots of examples and demonstrations</i>						
18. What did you like <i>least</i> about the workshop?						
• <i>Kinda boring</i>						
• <i>Having to take the test</i>						
• <i>Having to read everything</i>						
• <i>The jokes</i>						
• <i>Some of the links and buttons did not work correctly</i>						
19. What could be done to improve the workshop?						
• <i>More examples</i>						
• <i>It's fine</i>						
• <i>?</i>						
• <i>More instruction</i>						
• <i>Fewer examples</i>						
• <i>Fix links and buttons</i>						
20. Additional comments or suggestions:						
• <i>Much better than our current training!</i>						
• <i>Good stuff</i>						