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## Final A&OER Report: Psych 6700 Training and Development, Taught in Spring 2019

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**Final A&OER Report**  
**Psych 6700 Training and Development**  
**Taught in Spring 2019**

**Prepared by Nathan Weidner**

## **Course Overview:**

Psych 6700 Training and Development was a new course which was developed as part of the Industrial-Organizational Psychology MS degree program at Missouri S&T. Although taught for the first-time in spring semester of 2019, the course will be offered every spring thereafter as an advanced (2<sup>nd</sup> year) required course in the I-O MS program. The Affordable and Open Educational Resource adopted for this course was *The Wiley Blackwell Handbook of The Psychology of Training, Development, and Performance Improvement*. This book is available for free to students online through the Missouri S&T e-library for free.

All classes were taught in 105 HSS which is utilized as a hybrid-distance classroom. The room is outfitted with several cameras and microphones built into a large conference table. Some students attend as on-campus or seated students, while others participate online. Every lecture is both broadcast live for the distance students to participate in addition to being recorded for subsequent asynchronous viewing.

A copy of the course syllabi as well as instructions surrounding the two major assignments for the class are included in the appendix. As part of the course, students completed weekly readings and attended lectures covering the core content. Each week, readings were assigned including chapters from the adopted book as well as other freely available materials such as journal articles which are accessible through the library. Electronic links were provided on a Canvas page set up for each week in order to make all of the readings easily accessible for students.

## **Course Enrollment:**

For Spring 2019, there were a total of 15 students enrolled in the course. The course was completed by 13 of these students. One student withdrew from school after suffering an accident, while another has taken an incomplete due to a death in the family near the end of the semester. Of these 15 students 2 of the students were seated or traditional on-campus students. The remaining 13 students including both of the students that did not complete the course were distance students.

## **Assessment:**

Because this is the first-time this course was being offered comparisons could not be directly made to previous semesters. Instead, students were given a brief survey asking them about their experiences with the course materials. Students were asked a series of six questions to evaluate the quality and usefulness of the textbook specifically. The survey was administered through Canvas and students were given activity points towards the class grade for completing the survey. To encourage honest responses the survey was set to anonymous. The questions and the class responses are summarized below followed by an overview and interpretation of the responses.

**Questions included:**

1. Please rate the overall quality of *The Wiley Blackwell Handbook of the Psychology of Training Development, and Performance Improvement* relative to textbooks that you have used in other courses.
2. Please rate how Easy or Difficult it was to gain access to the chapters from *The Wiley Blackwell Handbook of the Psychology of Training Development, and Performance Improvement* for the purposes of the course?
3. How helpful did you find the content in *The Wiley Blackwell Handbook of the Psychology of Training Development, and Performance Improvement* for the purposes of this course?
4. Did you choose to purchase a copy of *The Wiley Blackwell Handbook of the Psychology of Training Development, and Performance Improvement*?
5. Would you recommend the instructor continue to use *The Wiley Blackwell Handbook of the Psychology of Training Development, and Performance Improvement* in the future?
6. Overall, do you prefer an electronic or physical textbook for use in class?

1. Responses indicate the A&OER textbook adopted for this course was seen as roughly equivalent to other textbooks.

Attempts: 13 out of 13

**-0.00**

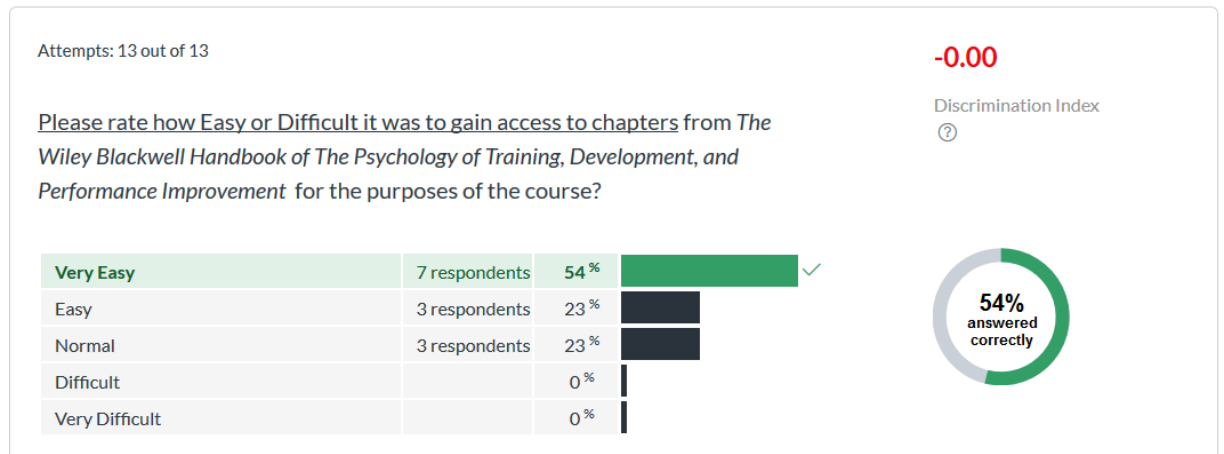
Please rate the overall quality of *The Wiley Blackwell Handbook of The Psychology of Training, Development, and Performance Improvement* relative to textbooks that you have used in other courses.

Discrimination Index  
?

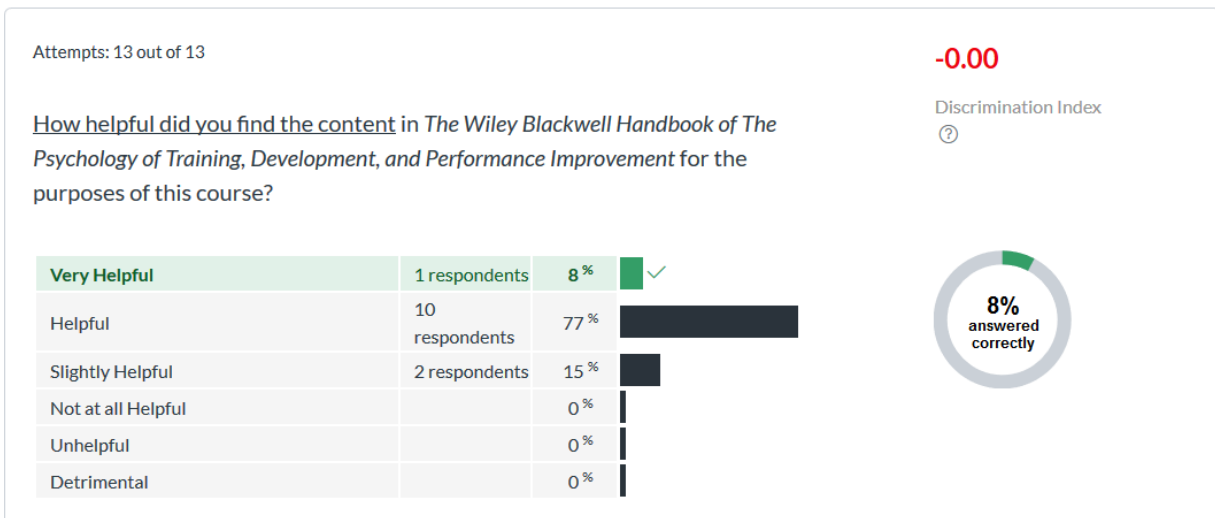
1. Far Superior		0%	✓
2. Superior	4 respondents	31%	
3. Equivalent	6 respondents	46%	
4. Inferior	3 respondents	23%	
5. Far Inferior		0%	

**0%**  
answered correctly

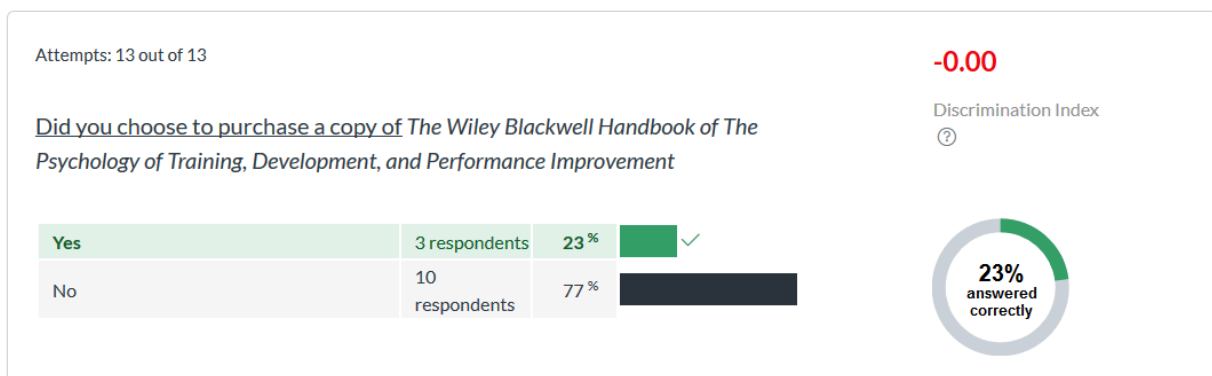
2. In general, the assigned chapters were rated as easy to access.



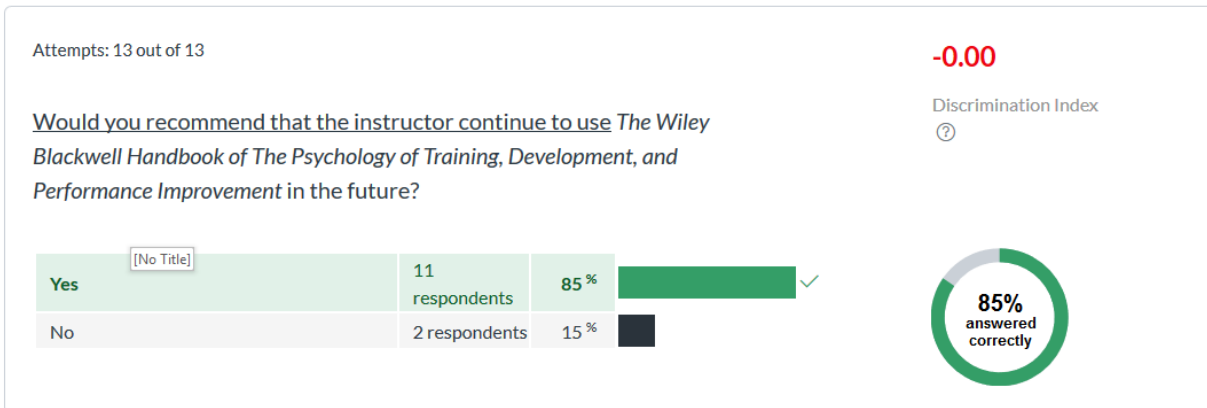
3. The content was seen as “Helpful” for the course.



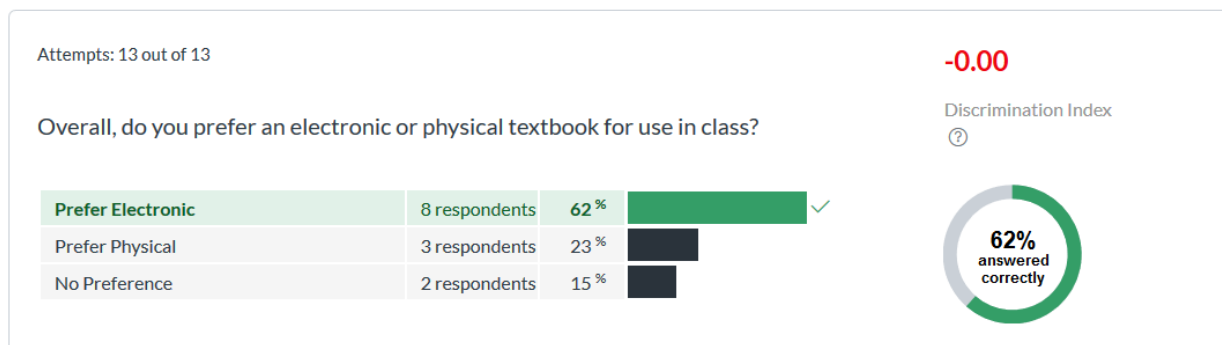
4. Approximately 23% of students choose to purchase the textbook even though it was available for free.



5. Most students (85%) recommend that I keep using the same textbook in future semesters.



6. Electronic textbooks were generally seen as more preferable than physical textbooks by this class.



### Summary of Student Survey Responses:

The students viewed the adopted textbook positively. In addition to being freely available, the textbook was rated equivalent in quality of content to textbooks used in other classes. The content in the textbook was seen as helpful for the course. The students generally indicated that they recommend the continued adoption of the textbook and predominantly indicated that they preferred electronic textbooks over physical copies. While some students did indicate a preference for physical copies of the textbook over an electronic one, these may be the students that chose to purchase a copy. Future analyses of the course material may benefit from a more thorough evaluation using an external survey site which can link responses across questions. It may be interesting to examine whether or not evaluations of the quality of this book related to more general preferences for electronic materials in general.

### **Instructor Assessment of Textbook:**

My own experience with the textbook was rather mixed. In particular, I was able to obtain a physical copy from the publisher which I found quite useful. I find that I am more comfortable reading printed material than online materials. I also found the online scrolling feature to progress through the pages was disconcerting. It would occasionally jump pages in a manner that made it difficult for me to appropriately focus. As this was my first time developing the course and all materials, I read each chapter thoroughly. Having access to a physical copy was my preferred method for completing the readings. I would be highly reluctant to develop a course for which there was not a physical copy of the textbook available. Perhaps one solution to consider would be a tablet with an e-paper quality display.

As for the quality of the textbook itself, I again had mixed feelings. I found the chapters to be highly variable in quality. While some chapters were excellently written and quite useful others were virtually useless. In future semesters, I will likely continue to utilize this textbook, but I would further supplement with additional journal articles and other readings. In truth, I wouldn't want to pay for this particular textbook, nor would I recommend adopting it, if it were not freely available through our e-library. The publisher is of good quality and many of the contributors did write excellent chapters. I think the focus of the textbook was a bit off from what I would desire for the class. I would prefer a textbook that provides additional information about the development of training programs. For an applied program such as ours, I think a textbook that focuses more on the "nuts and bolts" of developing training programs along with accompanying supportive research.

Assigning the readings and using the e-textbook was easy. I was able to directly link the assigned chapters to the course's Canvas site. I was easily able to copy specific tables, charts, and diagrams from the text and incorporate them into my PowerPoint presentations for the class lectures. In this way, using an e-textbook had some advantages over a traditional printed textbook in that it made that process much easier and the resulting presentation looked much cleaner.

Given the positive student support for the e-textbook, it is certainly something that I would take into consideration when developing future classes. I believe that I will continue to search for a new open source textbook on training and development. I will plan to continue using this textbook for the foreseeable future unless I am able to find an alternative freely available textbook which I believe is of a better quality or which I believe has content which is more suitable for the specifics of the class.

### **Review of CET Scores for the Course:**

Overall, the ratings of Teacher Effectiveness were a 4.0 for section 1-A (on-campus students) with a 100% response rate (2 students) and a 3.5 for section 1-DIS (Distance) with 6 of 13 students responding. None of the comments provided by students as part of the CET reference the textbook.

**PSYCHOLOGY 6700**  
**Training and Development**  
**Spring 2019**

<u>Course Information</u>	<u>Instructor Information</u>
<b>Title:</b> Psych 6700 Training and Development	<b>Name:</b> Nathan Weidner
<b>Section:</b> 1A/1-DIS	<b>Office:</b> 110 HSS
<b>Time:</b> T 4:00 -6:30 PM	<b>Email:</b> WeidnerN@mst.edu
<b>Location:</b> 105 HSS	<b>Office Hours:</b> T 3:00 to 3:50 or by appointment

**Note:** This syllabus establishes rules and procedures for this course. Your decision to remain enrolled in the class indicates that you agree to follow these rules.

**Required Text:**

Kraiger, Passmore, Santos, & Malvezzi, (2015). The Wiley Blackwell Handbook of the Psychology of Training Development, and Performance Improvement. Wiley Blackwell, Malden, MA

- **NOTE: This book is available online via the Missouri S&T e-library for free.** Students are welcome to purchase a copy, but are not required to do so.

**Useful Text:**

Goldstein & Ford (2002). Training in Organizations 4<sup>th</sup> Edition. Wadsworth, Belmont, CA

- **NOTE: Relevant chapters from this book will be made available as .pdf files on Canvas.**

**Course Description/Objectives:**

This course will examine research and practice related to formal training programs in organizations. More specifically, this is a course that examines the science, methods, and practice of organizational training programs with an emphasis on a psychological perspective. You will be exposed to the ways in which psychological principles are used to describe, understand, and predict how to develop and maximize the effectiveness of training programs in organizations and how this knowledge can be applied to enhance the effectiveness of the workplace. The goals of this course will be achieved through three learning objectives:

1. ***Building the Foundation*** — Reviewing the major content areas of the field of Training from a psychological point of view.
2. ***Research in Action*** — Discussing current research articles, and how they contribute to our scientific understanding of the role of training programs in organizational functioning.



3. **Practice** — Applying psychological theories and principles from the field of psychology to address practical workplace situations related to the successful development and implementation of organizational training programs.

Class sessions will often include discussions of issues not covered in the readings. Additionally, topics that are covered sufficiently in the readings may not be discussed in class. Thus, the best strategy for learning the class material is: (1) regular attendance at class sessions, (2) advanced preparation by reading assigned materials **before** class, and (3) thoroughly reviewing material after class discussions and before exams.

### **Prerequisites and Expectations**

This is a graduate psychology course. As such, students will be expected to be able to read and understand advanced level research from psychology journals on their own. Students will be required to demonstrate a sufficient understanding and use of APA style writing appropriate for the graduate level. Having a basic understanding of social and cognitive psychology in addition to an understanding of basic research methods and statistics will be helpful for this course as well.

### **My Role as the Instructor:**

- 1.) To **ASSIST** students in learning material relevant to the course through activities, lectures, and assignments. To maintain a learning environment within the classroom where students can focus, learn, and productively contribute to the learning of their fellow students.
- 2.) To **ASSESS** student performance through quizzes, activities, projects, and examinations. To ensure that grades reflect knowledge and application of concepts as well as participation and contribution to the learning environment of the class.

### **Course Requirements and Evaluation:**

<b>Requirements</b>		<b>Evaluations</b>	
15%	Exam 1	90% + :	A
18%	Exam 2	80% to 89.99%:	B
22%	Exam 3	70% to 79.99%:	C
20%	Training Program- Materials	<70% :	F
20%	Training Program- Report		
5 %	Review Questions		

### **Examinations:**

Graduate exams will include both short answer/essay and multiple choice questions. They will be open book and will be administered through Canvas online. Exams will be semi-cumulative covering predominantly the most recent information, but also relating back to previous lessons.

#### Exams will cover:

1. Text book readings as well as additional assigned readings
2. Class lectures and class discussions
3. Any supplementary materials distributed, assigned or presented in class

### **Review Questions:**

Prior to each exam, you will have one week to write and share two multiple choice questions and one short-answer/essay question relating to the material covered in the class thus far. All questions will be shared on a discussion board available on Canvas. You should be sure to indicate the correct answers to your questions at the end of your post. Questions should focus on the most recently covered material (i.e. material covered since the previous exam). The discussion boards will remain active throughout the semester to serve as a study-guide for exams.

### **Training Program Materials / Report:**

This class will focus largely on the role of employee training in organizations. More specifically, much of the content focuses around how training in organization promotes organizational functioning. It is, however also important to understand elements of instructional design. This project will focus around the development of a small training program. In addition to developing a set of training materials related to one of the available topics, you will also write a report which will detail out how your training program and materials incorporate research supported best practices. See additional instruction sheet for further details.

### **Cheating and Academic Integrity**

Of course, I have no expectation of encountering plagiarism or cheating of any kind in this class, and would be truly disappointed should it be discovered. On occasion, ignorance of what constitutes plagiarism can lead to unintended offenses. Thus, a brief discussion of the topic may be useful.

Appropriate conduct is discussed in section 200.010 (pg 30-31) of the 2010-2012 Student Academic Regulations (<http://registrar.mst.edu/academicregs/index.html> ([Links to an external site.](#))[Links to an external site.](#)). You should familiarize yourself with the university definitions of Academic dishonesty including cheating, plagiarism, sabotage, and forgery.

In short, plagiarism and cheating in any form will **not** be tolerated. Instructors have a wide range of options when cheating or other academic integrity violations are discovered. At a minimum, the exam, quiz, or paper/presentation in question will be counted as a zero. Other possible consequences include academic probation, and failure of the course.

**Students with disabilities**

Students with certifiable disabilities that require any type of accommodation are responsible for contacting me prior to exams or in-class projects so that appropriate accommodations may be made.

**Emergency egress route**

Please familiarize yourself with the emergency egress route for this classroom:

<http://designconstruction.mst.edu/floorplan/> (Links to an external site.)[Links to an external site.](#)

**Request for reconsidering a grade**

If you feel that a paper or other work you submitted was improperly evaluated, you can ask to have it reviewed and the grade reconsidered. To do this, prepare a written statement (one or two paragraphs) explaining what you believe to be erroneous about the grade. While I am decidedly unreceptive to being asked to review work simply because a poor grade was received, I truly appreciate the opportunity to correct a mistake. Please recognize that a new grade could be lower or higher than the original grade.

**Tentative Course Calendar (Dates Subject to Change):**

<b>Date</b>	<b>TOPICS</b>	<b>Canvas Page for Readings</b>
1/22	Syllabus/Introductions/Training overview	Week 1
1/29	The Training Context	Week 2
2/5	Needs Assessment	Week 3
2/12	Learning in Training Programs	Week 4
<b>2/19</b>	<b>Exam 1</b>	<b>No Class</b>
2/26	E-Learning	Week 6
3/5	Training Delivery Methods	Week 7
3/12	The Role of Trainers	Week 8
3/19	Training Transfer	Week 9
3/26	<b>Spring Break</b>	<b>No Class</b>
4/2	<b>Exam 2 (SIOP Week)</b>	<b>No Class</b>
4/9	Training Evaluation	Week 12
4/16	Specific Training Programs	Week 13
4/23	Development in Organizations part 1	Week 14
4/30	Development in Organizations part 2	Week 15
<b>5/7</b>	<b>Exam 3</b>	<b>No Class</b>
<b>5/14</b>	<b>FINAL Projects Due</b>	

## Training Program Materials & Report

This project has two related components (Materials & Report). You will receive separate grades for each component. Instructions for each component are given separately below, however it is important to note that the two components are each part of the same project.

### Development of Training Program -- Materials

For this component, you will be developing your own training materials. Training materials can come in a variety of forms. You may develop a training manual, an instructional power-point with notes, a recorded training video, a series of worksheets, sample data sets, or other materials that you feel will help to best develop the appropriate skill sets. You have a great deal of flexibility in determining how your training would be provided (self-paced, classroom based, available online, gamified, etc.). Information about how your program would be delivered can be included in your Report (see below).

You will need to develop **all** of the necessary materials in order to deliver your training program. While there are other materials and “how-to” guides already available online, you will be expected to develop your own. If you are unfamiliar with the following technical skills, then I would highly recommend you view some of the available tutorials to familiarize yourself with the basics before attempting to highlight the most important elements which you wish to include in your own program.

Your training program will address one of the following four topics:

1. How to develop and utilize pivot tables and pivot charts in Microsoft Excel to examine and present data. This may include the use of the Power Pivot add-in for Excel.
2. How to use [ggplot2 \(Links to an external site.\)](#)[Links to an external site.](#) to design creative and visually appealing graphs. You may assume a basic familiarity with R for this task, but will walk people through how to get your data into a usable format in R.
3. How to set up and use a small SQL database (e.g. [MySQL Community Edition \(Links to an external site.\)](#)[Links to an external site.](#) or [Microsoft SQL Server 2017 Express edition \(Links to an external site.\)](#)[Links to an external site.](#)). This intro should cover the basics of what a SQL database is and how we can use them to upload, store, and download data.
4. How to use [Google Analytics \(Links to an external site.\)](#)[Links to an external site.](#) to track and analyze website data. You can use their [demo account \(Links to an external site.\)](#)[Links to an external site.](#) as a sample website or develop and use your own website. Your training should be sure to demonstrate how to utilize the data being collected. Note: Developing your own website can be a helpful contribution for your vita.

I am open to suggestions for an alternative topic, but you will need to convince me that it is both relevant for an I-O Psychologist and of comparable accessibility to make it a good project. I will describe in class why I have specifically identified the four topics provided above.

## **Development of Training Materials -- Report**

In addition to the development of your training program materials, you will also provide an APA style written report/literature review which will further describe your training program include specifics about what research supports the use of your chosen structure and design elements. The report should be written in APA style and including a properly formatted cover page. An abstract is not needed for this report/literature review. This report should include specific learning objectives outlining what your training materials are designed to cover. Your training program should demonstrate an understanding of the application of theories and principles of learning and incorporate research supported best practices for enhancing learning and transfer from a training program.

As part of this report, it is acceptable to describe how your training program will be made available and delivered. As we will discuss in class, the proper context of training is important. While we can not always control environmental elements in industry you may feel free to highlight appropriate steps that should be taken before, during, or after delivering your training. As noted above, it will be important to highlight the relevant research literature which supports your chosen methods.

**You will need to complete the project in a series of 4 steps as outlined below.**

### **Step 1. Identification of Learning Outcomes. Due February 19th 2019**

Step 1 is simply to explore your options given the topics above. You should begin with a basic outline of what your learning objectives will be. What are the essential components involved with the given task? In what order should they be presented? You may divide this up into smaller lessons with multiple objectives in each lesson if you need to. This should be submitted as a rough outline. Your specific lessons and objectives may shift somewhat as your project develops.

### **Step 2. Identification of Design and Learning Principles. Due March 19th, 2019**

Step 2 is fundamentally a rough draft of your final report. A rough draft should be an honest first attempt at a completed report. A report which demonstrates a lack of effort will receive a lack of effort in feedback and a correspondingly low grade. At this stage, you should have identified the specific materials that you are developing to support your learning objectives. This draft should include a description of the specific design elements are you choosing to incorporate to support learning and transfer as part of your training. Be sure to cite research to support the method that you are using. While this is a report, it will be include cited research to support your method similar to a literature review. The report should be written in APA style and include appropriate APA citations and a reference section. This is a rough draft and you will receive feedback in time to adjust your final report accordingly.

**Step 3. Pilot Testing of Materials. Due April 16th, 2019 / April 30th, 2019**

For Step 3, I will help to facilitate a peer-review process in which you will make your materials and report available to your fellow students in this class. Students will be expected to participate by peer reviewing two other students training programs (which I will assign) and to provide developmental feedback. Students will have the drafts of their materials due to me by April 16th 2019 and will be required to submit me their developmental feedback on the programs I have assigned to them to peer review by April 30th 2019.

**Step 4. Final Training Materials and Report. Due Tuesday, May 14th 2019**

Step 4, the final step will involve submitting a complete set of materials along with your final report to your instructor. Depending upon the nature of the materials that you have developed, this may be done via e-mail or file sharing software such as Google Drive or Dropbox. Both your training materials as well as your report/literature review will receive separate grades. While the materials will be evaluated concurrently, their grades will focus on different aspects of the assignment. The materials will be evaluated based on their practical usefulness (i.e. are they well-designed, easy to use, do they cover sufficient depth on the topic to be of use?). The report will be evaluated based on the identification and inclusion of elements related to training effectiveness (i.e. were theories of learning and empirically supported best practices effectively integrated into the training program?).