

INSYS 415
Systematic Instructional Development
Wednesday 6:40-9:30
409H Keller Building
Fall 2005

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REQUIRED TEXTS

Smith, P. L., & Ragan, T. J. (2005). *Instructional Design* (Third ed.): John Wiley & Sons, Inc.

Ertmer, P. A., & Quinn, J. (2003). *The ID Casebook: Case Studies in Instructional Design* (Second ed.). Upper Saddle River, NJ: Prentice Hall.

SUGGESTED REFERENCE

American Psychological Association (2001). *Publication manual of the American Psychological Association* (5 ed.). Washington, DC: American Psychological Association.

INTRODUCTION

Think about a time when you have designed something – a computer program, a garden, a class project, etc. Chances are that while you were designing, you followed a series of steps and thought carefully about what you were doing in order to accomplish the task. Instructional design (ID) is very similar since it also involves a systematic set of steps and a reflective process. The biggest difference is that ID always involves the development of instruction to produce desired learning outcomes. Regardless of whether your career takes you to a corporate or educational environment, there are underlying principles of instructional design that can be applied to each setting. In this course, you will learn and practice those principles. Through readings, class discussions, activities, projects, and case studies you will be given opportunities to reflect on what you are learning and apply the concepts to contexts in and out of class. My responsibility is to facilitate your learning of instructional design and its process; however, in order to do well in this course you must actively participate, continuously try to apply the concepts, and ask questions if you do not understand.

COURSE GOALS

Instructional design “refers to the systematic and reflective process of translating principles of learning and instruction into plans for instructional materials, activities, information resources, and evaluation” (Smith & Ragan, 2005). This course will give you the opportunity to design, develop and implement instructional materials for a specific setting along with helping you develop your own skills as a designer. By the end of this course, you should be able to:

- Identify the individual steps in the instructional design process
- Analyze the needs, learners, and learning context using appropriate methods.
- Write appropriate instructional objectives based on lesson goals.
- Design and develop instructional materials based on given instructional objectives.

- Implement and evaluate instructional materials to identify agreement with learning objectives.
- Evaluation and customize the design process to suit different contexts.
- Develop your own personal framework of design to guide future design endeavors.

COURSE ACTIVITIES

This course will allow you to experience both aspects of the instructional design process – the systematic steps and the reflective nature. A good designer does not just plow ahead through the process but instead, takes the time to reflect on each step, the goals of the project, and the needs of the client.

To learn the steps of instructional design, you will have the opportunity to work through solutions to real-world cases, participate in mini-design activities, and create an instructional product that meets the requirements of a particular client. By the end of the semester, you will have the beginnings of a design portfolio that contains your mini-designs as well as a final project report that describes the analysis, design, development, and evaluation of instructional materials for a specific learning goal.

COURSE ASSIGNMENTS

The course assignments and corresponding descriptions are listed below:

GROUP ASSIGNMENTS

1. Group project I – Instructional Product and Design Document

This group project is designed to give you the opportunity to engage in real-world design. During the second class meeting, you will be assigned to groups and given a description of a project and a client for whom you will be designing an instructional module during the semester. Each section of the project will be handed in separately in order for me to give you feedback on what you are creating. Sections 1.1, 1.2, 1.3, 1.4, and 1.5 maybe resubmitted with corrections (for a maximum of one-half of the points lost) once you receive my feedback and your initial grade. Resubmissions are due within one week after your assignment is returned.

1.1. Problem analysis document:

Describe the learners, learning environment, and gaps (if any) between actual and optimal learning outcomes. Provide specific details on the following information:

- 1.1.1. Brief background and description of the problem situation.
- 1.1.2. Needs assessment procedures used for gathering data.
- 1.1.3. Learner characteristics.
 - 1.1.3.1. Learners' entry behaviors and prior knowledge of topic.
 - 1.1.3.2. Learner's motivation and attitudes.
 - 1.1.3.3. Learners' educational and ability levels, and demographics.
- 1.1.4. Actuals, optimals, and discrepancies for learning outcomes, environment, and learner population.
- 1.1.5. Classification of outcome list as instructional or non-instructional

- 1.1.6. Prioritized listing of outcomes that can be addressed by instruction or training.
- 1.1.7. Constraints and resources for instructional development.

1.2. **Task analysis document:**

Based on the listing of learning outcomes derived in the last document, select one specific outcome. Analyze the instructional tasks, learners, and environment and provide the following information:

- 1.2.1. Overall instructional goal for the project.
- 1.2.2. Hierarchical analysis of learning outcome and subordinate learning skills.
- 1.2.3. Appropriately written performance objectives derived from hierarchical analysis.
- 1.2.4. Test items corresponding to individual performance objectives.

1.3. **Instructional design document:**

Based on the performance objectives identified in the last section, design instruction that will allow learners to meet the required learning outcomes and provide this information:

- 1.3.1. Overview of instructional materials, instructional schedule, and learning environment.
- 1.3.2. Details on pre-instructional activities, information presentation, learner participation, testing, and follow-through activities.
- 1.3.3. Description of instructor and learner activities.
- 1.3.4. Description and justification for media selection.
- 1.3.5. Budget, schedule, and personnel considerations for creation of materials.

1.4. **Draft of materials:**

Prepare actual instructional materials based on prior instructional design decisions. Based on the scope of your project, you may need to prepare materials for one module or more—this decision will be made in consultation with the instructor. The instructional materials should contain:

- 1.4.1. Overview of materials and instructions on its use for the instructor.
- 1.4.2. Instructional content, including appropriate media and tests.
- 1.4.3. Description of follow-up activities and evaluation to be implemented by the instructor.
- 1.4.4. Listing of resources used to create instruction.

1.5. **Implementation plan:**

Describe a formative evaluation plan for ascertaining the utility of the instructional materials. Include the following details:

- 1.5.1. Specific questions to be addressed by the formative evaluation.
- 1.5.2. Description of type of formative evaluation and justification.
- 1.5.3. Overview of schedule and sequence of evaluation activities.
- 1.5.4. Process for selecting expert evaluators and/or learners.
- 1.5.5. Explanations provided to learners, teachers, and/or experts evaluators.
- 1.5.6. Procedures and instruments to be used.

1.6. Final project report:

Compile the individual documents created above into a typewritten, professional document. The only new information to be presented is a summary of results of the formative evaluation, suggestions for improving instructional materials, and suggestions for appropriate summative evaluation. A suggested outline for the final document is provided. You may, however, use any format that is appropriate for your project. The final project report **may not exceed 30** pages (excluding appendices and references).

- 1.6.1. Executive summary
- 1.6.2. Introduction or background
- 1.6.3. Project learning goals and analysis
- 1.6.4. Task analysis
- 1.6.5. Instructional design
- 1.6.6. Implementation plan
- 1.6.7. Summary of results from formative evaluation regarding clarity, impact, and feasibility of instruction
- 1.6.8. Conclusions and recommendations for modifying instruction.
- 1.6.9. Suggestions for an appropriate summative evaluation.
- 1.6.10. References
- 1.6.11. Appendices

1.7. Individual Reflections on the Process:

Similar to the Initial Perspectives Assignment, this final piece of the project should include your reflections on the Instructional Design Project. In 4 or 5 paragraphs, you should describe any challenges you faced during the project and the impact they had on you as a designer as well as a description of how your philosophy of Instructional Design has changed from the beginning to the end of the course. The points for this section of the project will count separately from the group grade for the project

2. Group project II – Presentation on interview with expert instructional designer

In groups of 2, 3, or 4 (to be decided) you will select an “expert” instructional designer, interview this person, and present the results of the interview to the class. The interview is a mechanism to give you further insights into how experts conceive of their roles and their personal design frameworks and to then share your insights with the rest of your peers. You will need to make an argument about why this specific person was selected (i.e., what makes her/him an expert), provide brief educational and professional background information, and then interpret and present the interview results. The presentation should be a maximum of 20 minutes in length.

INDIVIDUAL ASSIGNMENTS

1. Self Evaluations

While there are really no right or wrong answers in this assignment, its completion will help me learn more about you and your design background entering the course. This assignment (located in the Week 2 folder on ANGEL) should be handed in during the 2nd class meeting.

2. Initial Perspectives on Design

Similar to the self evaluation assignment, the Initial Perspectives on Design assignment will allow me to gain a better understanding of who you are as an instructional designer, your philosophy of instruction design, your understanding of the design process at the beginning of the semester, and the reasons why you decided to study the field of Instructional Design. For this assignment, you should write a 4 or 5 paragraph paper addressing the points listed above. This assignment should be submitted using the ANGEL drop box for Week 2 before coming to class.

3. Self-Assessments

The purpose of the self-assessments is to give each of us – you and me – the opportunity to check for your understanding of key concepts in the outside readings in the course. Furthermore, since the notes, discussions, and assignments in the class are based on these readings it is important that I know before class if there are any concepts that require further explanation in class. For this reason, your self-assessments (found on ANGEL) are due by 5pm on the day before class. This will give me opportunity to enhance my presentation if necessary. (You may take the self-assessments multiple times if you wish.)

4. Reflection Questions

To practice the reflective skills that are part of the process, I will be giving you reflection questions throughout the semester to help you think about the process with respect to class activities, course readings, and your own emerging design philosophy. Reflection questions provide you the opportunity to apply the concepts and design principles in the course to different situations. These will not only provide you an opportunity to show me what you know but also give you the opportunity to reflect on what you have learned in the course and your growth as an instructional designer. Your answers to these questions should be handed in using the ANGEL drop box for the week they are due before the beginning of class.

5. Preliminary Case Analyses

In this class, I plan to use case-based learning to help you better understand the variety of situations that could occur during the different design phases. While we will be working on most of these during class time, your weekly assignment will be to answer the preliminary analysis questions in order to be prepared for helping your teammates solve the cases. These assignments should be handed in using the ANGEL drop box for the week they are due before the beginning of class. A copy of your answers should also be brought with you to class to your own use.

GRADING

Grades in this course are calculated numerically based on points and I will follow the grading scale of the University and the College of Education.

Group Component

Group Project I

Problem Analysis Document	20 points
Task Analysis Document	8 points
Instructional Design Document	10 points

Draft of Materials	8 points
Implementation Plan	12 points
Final Project Report	30 points
Group Project II	20 points
Sub-Total Group	108 points

Individual Component

Self Evaluation Assignment	3 points
Initial Perspectives on Design Assignment	10 points
Self Assessments 5 @ 5 pts.	25 points
Reflection Questions 5 @ 5 pts.	25 points
Preliminary Case Analysis 9 @ 3 pts.	27 points
Individual Reflection (from ID project)	10 points
Class Participation	20 points
Sub-Total Individual	120 points
Maximum Points for Semester	228 Points

Final Grades will be assigned as follows:

A :	219 – 228 points	A-:	205 – 218 points
B+:	198 – 204 points	B:	191 – 197 points
B-:	182 – 190 points	C+:	171 – 181 points
C:	159 – 170 points	D:	136 – 158 points
F:	135 or less points		

COURSE POLICIES

Attendance: You are responsible both for all the material covered in class discussions as well as for the readings. Frequent absences will negatively impact your performance.

Assignments: All assignments are due on the dates specified on the syllabus. The University has careful policies about your rights and responsibilities in the case of emergency and illness. Please, be familiar with them and do not try to abuse them.

Academic Integrity: Penn State defines academic integrity as the pursuit of scholarly activity in an open, honest and responsible manner. All students should act with personal integrity, respect other students' dignity, rights and property, and help create and maintain an environment in which all can succeed through the fruits of their efforts (Faculty Senate Policy 49-20).

Dishonesty of any kind will not be tolerated in this course. Dishonesty includes, but is not limited to, cheating, plagiarizing, fabricating information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. Students who are found to be dishonest will receive academic sanctions and will be reported to the University's Judicial Affairs office for possible further disciplinary sanction.

Disability: The Pennsylvania State University encourages qualified people with disabilities to participate in its programs and activities and is committed to the policy that all people shall have equal access to programs, facilities, and admissions without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. If you anticipate needing any type of accommodation in this course or have questions about physical access, please tell me as soon as possible.

COURSE SCHEDULE

Week	Date	Topic	Reading Due***	Assignment due Red – Group Assignment
1	8/31	What is Instructional Design?	None	<ul style="list-style-type: none"> None
2	9/7	ID History & Models	S&R Ch 1 ANGEL Week 2 Case & 22	<ul style="list-style-type: none"> Initial Perspectives on Design Self-Evaluation Self-Assessment #1 – due by 5pm on 9/6
3	9/14	Learning Theories & Taxonomies	S&R Ch. 2 ANGEL Week 3 Case 13 & 28	<ul style="list-style-type: none"> Case 13 – Preliminary Analysis Reflection Question #1
4	9/21	Instructional Analysis & Needs Assessment	S&R Ch. 3,4,5 to p. 96 ANGEL Week 4 Case 16 & 26	<ul style="list-style-type: none"> Case 26 – Preliminary Analysis Self-Assessment #2 – due by 5pm on 9/20
5	9/28	Assessing Learning	S&R Ch. 5 (pp. 96-102), Ch. 6 ANGEL Week 5 Case 12 & 17	<ul style="list-style-type: none"> Case 17 – Preliminary Analysis Self-Assessment #2 – due by 5pm on 9/27
6	10/5	Instructional Design Strategies	S&R Ch. 7 ANGEL Week 6 Case 3 & 5	<ul style="list-style-type: none"> Case 5 – Preliminary Analysis Reflection Question #2 Problem Analysis document; Task Analysis Document
7	10/12	Real World Design	Case 4	<ul style="list-style-type: none"> None
8	10/19	Instructional Strategies (cont'd.) & Media Selection	S&R Ch. 8-16 ANGEL Week 8 Case 6 & 25	<ul style="list-style-type: none"> Case 25 – Preliminary Analysis Self-Assessment #4 – due by 5pm on 10/18
9	10/26	Development & Implementation	S&R Ch. 17,18 ANGEL Week 9 Case 14 & 15	<ul style="list-style-type: none"> Case 14 – Preliminary Analysis Reflection Question #3 Instructional Design Document
10	11/2	Evaluation	S&R Ch. 19 ANGEL Week 10 Case 2 & 30	<ul style="list-style-type: none"> Case 2 – Preliminary Analysis Self-Assessment #5 – due by 5pm on 11/1
11	11/9	Presentations on interviews with expert instructional designers	Case 1 & 32	<ul style="list-style-type: none"> Case 1 – Preliminary Analysis Reflection Question #4 Instructional Design Interview Presentation
12	11/16	Group Work	Case 11 & 31	<ul style="list-style-type: none"> Case 31 – Preliminary Analysis Reflection Question #5

				<ul style="list-style-type: none"> • Draft of Materials; Implementation Plan
13	11/23	NO CLASS		<ul style="list-style-type: none"> •
14	11/30	The Future of ID *Poster Session	S&R Ch. 20 ANGEL Week 14 Case 23 & 27	<ul style="list-style-type: none"> • None
15	12/7	Project Presentation *Poster Session		<ul style="list-style-type: none"> • Final Project Report

*** S&R - Smith & Ragan; Case – Ertmer & Quinn; ANGEL – Readings on ANGEL

* Poster Session: This session is an exhibition of student work in the department. The exact date of the session has not been determined. We will discuss this in more detail when the date becomes available.