Instructional Design Domain
Course of Study for IDE3, IDO3 and IDP3

This Course of Study presents the required sequence of learning steps and activities to help you develop competence in the subject area of Instructional Design. Your competence will be determined as you complete a series of performance assessments (IDE3 and IDP3) and then take the IDO3 objective exam. Depending on your educational background and work experience, this Course of Study can take up to eleven weeks. Following this document sequentially is an important part of your assessment preparation. This tool is also designed to help you become an independent learner by providing multiple learning methods. These steps may be completed more quickly than shown below as determined in consultation with your mentor.

Welcome to the Instructional Design and Performance Improvement Domain. Over the past thirty years learning has shifted away from lectures by experts in a field to interactive instruction. The instruction focuses on using research-based instructional strategies to improve learning outcomes, adapting the learning environment to the individual learners and thinking creatively of how to use technology as a mindtool to help students think for effectively. In this domain you will acquire competence in the systematic design of instruction so that your teaching/learning efforts will be optimized.

The mentor for this assessment is Dr. Cynthia Leshin. Dr. Leshin received a Masters in Instructional Media and a Ph.D. in Educational Technology/Instructional Psychology from Arizona State University. Over the last 18 years she has used a variety of distance learning technologies to teach faculty about technology-based learning environments and instructional design. Dr. Leshin has written a book with Dr. Charles Reigeluth on instructional design and development and published 14 books with Simon and Schuster/Prentice Hall on the use of technology for teaching and learning.

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Preinstructional Activities
Preinstructional activities are designed to help you connect the new information you are about to learn with your prior knowledge and experiences. These activities provide an overview of the relationship between the new content and what you already know.

Content Presentation
These activities are designed to provide you with resources to learn new information, concepts, rules and principles. Content presentation follows one of two patterns – deductive or inductive. In deductive patterns information will be available to you from textbooks, articles and digital media. Inductive patterns involve discovery learning. Many excellent opportunities exist within the instructional design community to discover the correct way to do the processes in instructional design. You will have the opportunity to review case studies, submit work for feedback and review the work and feedback that other students have submitted. This guided learning approach is an excellent way to build a better understanding of how the pieces of new learning are integrated to create a coherent whole.
Learning Activities
One of the most powerful components of learning is practice. The activities you will be asked to complete are designed to enhance your learning of the competencies by providing you with an opportunity to practice what you have learned.

Examples
Examples and non-examples are excellent learning tools to help you better understand the processes in the systematic process of instructional design. You will be asked to do activities where you find examples from within your text to help you better understand the process discussed. There will be other opportunities to view examples of other students’ work to discuss the use of APA style, presentation of data and the quality expected in graduate school writing.

Summary
The summary provides an opportunity for you to reflect on what you have just learned and to see visually how the process fits into the big picture of the five stages of the systematic process of instructional design.

Study Tips
- Work through the Course of Study and do all of the readings including the ones in the electronic reserve. These are VERY IMPORTANT.
- Do the activities assigned each week. These activities are designed to help you learn the competencies for the week. The work you do will be used in your instructional design performance assessments.
- Visit the ID community to interact with other students on topics you will be learning about. Receive feedback on your work.
- Attend the weekly phone conferences on topics from the ID domain.
- Enroll in the ASCD courses to learn more about a topic or competency you are interested in or feel you need more information on in order to master the competency.

Competencies for IDO3, IDP3, IDE3
501.1.1 – Needs Analysis
The student conducts a needs analysis.

501.1.2 – Instructional Problem Solving
The student evaluates alternatives for solving instructional problems, considering instructional, performance support, or other institutional approaches.

501.2.1 – Learner Analysis
The student conducts a learner analysis.

501.2.2 – Task Analysis
The student conducts a task analysis.

501.2.3 – Performance Objectives
The student develops performance objectives.

501.3.1 – Learning Theories
The student identifies & discusses learning theories.
501.3.2 – Instructional Strategies
The student applies instructional strategies.

501.3.3 – Using Technology as a Strategy
The student uses technology as a teaching & learning strategy.

Textbooks:

NOTE: It is important to purchase the 7th edition which will be used and referenced in this Course of Study.


Additional Resources for Special Topics and Interests – Choose ONE OF THE FOLLOWING


For Health Education and Nursing Majors, please include:

WEEK #1
Preparing for Success
To successfully complete the assessments for this domain, you need the appropriate resources to help with your learning. You should also prepare a calendar to schedule times devoted to your studies. Share your calendar with family and friends so they are aware of your obligations.

Acquire Learning Resources

Arrange to obtain the learning resources listed below so there will be no delays in your studies. These items are essential for you, as this document will guide you week by week in the use of these materials. Some of these items must be shipped to you, so be sure that your mailing address information is current. If you click your name on your AAP, you can check your contact information.

☑ Order Your Textbooks
The textbooks that you will need to order for this course are listed below. You will need to order these early in order to avoid any delays in getting them when required throughout this 11 week course.

ISBN. 978-0-205-58556-4

NOTE: It is important to purchase the 7th edition which will be used and referenced in this Course of Study.


Additional Resources for Special Topics and Interests – Choose ONE OF THE FOLLOWING


For Health Education and Nursing Majors, please include:


Note: The WGU Bookstore has these books available for immediate purchase and delivery. You may shop at other online bookstores, but be sure to order early and use the correct ISBN to get the correct edition.

☐ Download WGU Library e-Reserve Readings
The WGU Library has an electronic reserve or e-Reserve of selected articles available for this course of study. Access the library from your portal resource tab, select e-Reserves and search by author for the chapters in each activity below. Download and print each chapter:

☐ Login to the Instructional Design Learning Community
The Instructional Design and Performance Improvement Learning Community complements this course of study and will be the gathering place to communicate with your Course of Study mentor and student peers during the next 11 weeks. You will also be participating in activities throughout this course of study that will require you to post and comment on selected topics as well as receive assistance as you prepare for the objective exam. Complete the following activities to become better acquainted with the learning community.

☐ Take the Pre-Assessment
As noted above, your competence in this area will be determined through a combination of performance assessments (IDE3 and IDP3) and the competency examination (IDO3). There is a pre-assessment available to help you prepare for that examination:

1. On the AAP under the “Pre-assessment Available” column IDO3, click “Yes”.
2. Click on the request to take the PADE Pre-assessment. Please set aside approximately two hours to take the pre-assessment. Do not use any notes, textbooks, or other learning resources. Remember that the purpose of the pre-assessment is to determine: (a) if you are ready to take the competency examination and (b) what specific areas you need to spend additional time studying.

If you take longer than the recommended amount of time, or if you utilize resources that will not be permitted during the actual examination, the purpose of taking a pre-assessment is defeated. Moreover, taking the pre-assessment more than two or three times significantly dilutes the value that can be gained from this tool, so do not attempt to take the pre-assessment until you honestly feel that you are ready to proceed. Once you have taken the pre-assessment, ask your mentor to review with you the preassessment detail. The two of your can analyze the results by looking at the topic sections and percentage scores, and your mentor can guide you with regard to what
Subject Title: Introduction to the Systematic Design of Instruction

This course of study provides a required sequence of learning steps and activities to help you develop competence in the subject area of Instructional Design. Your competence will be assessed as you complete the three assessments in the ID domain: IDO3, IDP3, and IDE3. Depending on your educational background, work experience and amount of time you spend on the assignments to complete the work for these three assessments will take approximately 11 weeks. Throughout this learning environment you will be given activities to support the readings you are assigned. These activities are designed to help you better understand the new knowledge and skills. The work you do on these activities will be used and incorporated into other instructional design assessments. It is very important that you complete all readings and activities.

501.1.2 – Instructional Problem Solving

The student evaluates alternatives for solving instructional problems, considering instructional, performance support, or other institutional approaches.

Topic: Overview and Problem Selection

Instruction Text/Description: Instructional systems development (ISD) is traditionally taught as a process, an orderly set of activities that one performs to develop an instructional program. Although there are many ISD models, they all possess far more similarities than differences. For example, all models follow a “systematic approach” to designing performance-based instruction and the collection of data from students to revise the instruction.

The ISD model consists of 5 phases:

1. ANALYSIS
2. DESIGN
3. DEVELOPMENT
4. IMPLEMENTATION
5. EVALUATION

The other model which follows the same processes as ISD is the ADDIE model. The ADDIE model uses the same five processes (Analysis, Design, Development, Implementation, Evaluation). These five stages of the ADDIE model help to create a path for the entire training process from the time that the question is asked, “What do people need to learn?” to a later time when one evaluates, “Did people learn what they needed?”

The instructional design domain at Western Governors University emphasizes ANALYSIS, DESIGN DEVELOPMENT and EVALUATION. The ANALYSIS phase of instructional design provides important information that will guide the development process to help ensure EFFECTIVE and EFFICIENT instruction.

The analysis phase of the ID process consists of three processes:

- Needs analysis
- Learner analysis
• Task analysis

The design phase consists of the following processes:
• Identification of instructional goal(s)
• Creation of performance-based objectives
• Identification of instructional strategies based on sound theories of learning

The development phase consists of creating the instructional lesson and assessments.

The evaluation phase consists of formatively evaluating the instructional unit for effectiveness and areas to improve.

☐ Preinstructional Activity: Instructional design case study

Preinstructional activities are designed to help you connect the new information you are about to learn with your prior knowledge and experiences. These activities provide an overview of the relationship between the new content and what you already know.

1. Read the case study by clicking on this link: Case Study
   https://web5.wgu.edu/aap/content/case_study_%20id_domain.pdf As you read the case study notice the following:
   • Title page
   • Use of APA formatting for headings, subheadings, tables, references
   • Style of graduate student writing
   • How the case study presents a problem that follows a systematic process for analyzing and designing the instructional unit.
   • Did the author present enough information for you to understand the problem?
   • Did each section of the paper transition smoothly so that the reader could follow the writing?
2. What questions do you have after reading the paper?
3. What did you find difficult to understand?
4. How do you see this process benefitting you as an educator?
5. Do you see anything new that you believe might help you better identify how to improve curriculum?

Content Presentation

These activities are designed to provide you with resources to learn new information, concepts, rules and principles.

1. Read chapter 1 of Dick and Carey, “Introduction to Instructional Design”
2. View the PowerPoint from this link:
   https://web5.wgu.edu/aap/content/id_domain_overview.pdf
3. Visit : Visit this web site for an introduction to, and definitions of, instructional design: http://www.umich.edu/~ed626/define.html

☐ Learning Activities:

The activities you will be asked to complete are designed to enhance your learning of the competencies by providing you with an opportunity to practice what you have learned.

1.) Identify an instructional problem. The instructional design domain involves the analysis, design and development of an instructional unit created to help solve a problem or need. The identification of a problem that instruction will help improve is the
starting point for your work and understanding the systematic processes for the design of instruction.

Your mentor will give you the name of your capstone facilitator to help you choose a suitable problem. If you are in the MED program you will be asked to complete a document where you identify three problems you are interested in working on.

If you are in a program other than the MED, please ask your mentor to provide you with the name of your capstone facilitator to contact. When you talk with your capstone chair ask them the following questions:

- What will my capstone project involve?
- How does the instructional design project fit into or relate to the capstone project?

We also suggest that once you have had a problem approved, that you conduct your literature review (RLT1) to learn more about what others have discovered about helping to improve or solve the problem – best practices. This initial review of the literature may help you choose new approaches to the teaching and learning of the content associated with the problem.

2. Write a one to two page overview of your problem.

Feedback on your work: You may post your problem in the Instructional Design Learning Community to receive feedback in the DISCUSSION area for “Feedback on your Problem Statement.”

□ Examples:
The case study that was given to you provides an excellent example of how a problem was chosen and how the systematic design of instruction was used to design a blueprint for creating an effective instructional unit.

Each month there will be a phone conference or graduate seminar that will discuss the case study and identification of a problem for work in the instructional design domain. Please go to the ID community to find the times of the calls.

□ Summary:
The summary provides an opportunity for you to reflect on what you have just learned and to see visually how the process fits into the big picture of the five stages of the systematic process of instructional design.

You have been asked to select a problem that you believe instruction will help to improve or solve. You have also been introduced to a systematic process for helping to create an effective and efficient unit of instruction that will help to improve the problem. Always think of the problem as central to the work you will do in the ID domain.

Consider how to keep that problem in the center of your work when you ANALYZE, DESIGN, DEVELOP and EVALUATE your instructional unit.
Week 2

Analyzing the Problem

The systematic process of instructional design involves the analysis, design, development and evaluation of instruction. In this unit you will be introduced to the concepts and procedures for analyzing the problem to help ensure the design of effective instruction.

A needs assessment is conducted to obtain information about a problem or a need in education or business.

- Is there a need for instruction or can the problem be solved by some other intervention?
- What instruction should be developed to bridge the gap between the current state and the desired state?

A “need” may be defined as the situation which occurs when what is actually happening is below that which is expected. By “need” we can mean two different things: (1) discrepancy between actual and ideal situations or states of affair, and (2) discrepancy between groups or subgroups of people.

When applying this definition to education, one might say that an educational need is the situation which occurs when student performance is below that which is specified in a behavioral objective or state standards.

Determining the Need for Instruction vs. Other Solution

One purpose of the needs analysis is to determine if instruction is a solution or if some other institutional approach would improve the problem. Other approaches include the use of performance support systems or job aids.

The word “performance” is usually associated with issues related to an individual’s work in the workplace. The word “performance” has often been used in training contexts to describe problems of workers that fail to meet organizational goals.
Competency Description:
501.1.1 – Needs Analysis
The student conducts a needs analysis.

501.1.2 – Instructional Problem Solving
The student evaluates alternatives for solving instructional problems, considering instructional, performance support, or other institutional approaches.

Needs Analysis and Performance Support Systems

A needs assessment is conducted to obtain information about a problem or a need in education or business.

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When applying this definition to education, one might say that an educational need is the situation which occurs when student performance is below that which is specified in a behavioral objective or state standards.

☐ Preinstructional Activity
1. Summarize your problem in one paragraph.
2. What is the current state of this problem you defined?
3. What is the desired state? How would you like the students to be performing?
4. Make a list of questions you would like to have answered about your problem from the following:
   - Students
   - Teachers
   - Parents
   - Principle or manager
   - Test score data

☐ Content Presentation
1. Read Dick and Carey chapter 2, “Identifying Instructional Goals Using Front-End Analysis”


2. E-Reserves
Read chapter on needs analysis found in the e-reserve.
3. Read this article in the electronic reserve to learn about performance support systems

4. Visit this link to learn more about how to create a survey questionnaire
http://www.ssdd.bcu.ac.uk/learner/writingguides/1.05.htm

5. Learn more about the needs analysis tools and how to use them by visiting this excellent web site: http://www.ceismc.gatech.edu/MM_Tools/analysis.html

6. Learn how to write surveys and tutorials: http://www.statpac.com/surveys/

7. Web sites for Job Aides. Reference this website for information on how to create job aids.
http://edweb.sdsu.edu/courses/edtec540/540WWW/home.html
This website was developed for students in the Department of Educational Technology Department of San Diego State University.

☐ Learning Activities:

1. Make a list of questions you would like to have answered about your problem from the following:
   - Students
   - Teachers
   - Parents
   - Principle or manager
   - Test score data

2. Identify sources of information on your problem or need. Who could you survey or interview that would provide you with additional information on your problem and the possible solutions. Solutions will include what you will need to teach your students.

3. Select instruments for gathering data to answer your questions.

 Types of Data Gathering Instruments
   - Open-ended questions and written comments on questionnaires
   - Testimonials
   - Individual interview
   - Discussion group
   - Focus group
   - Observations
   - Field Notes
   - Documents
   - Stories
   - Case studies
   - Likert scales

4. Create your needs analysis data gathering instruments.
5. Check the schedule for phone conferences in the Instructional Design community. Every 4-8 weeks there will be a conference call on the needs analysis process.

6. Receive feedback on your work by submitting your needs analysis research questions and the data gathering instrument questions to the ID Community Discussion area for feedback on your needs analysis work.

☐ Examples:
The case study that was given to you provides an excellent example of how a problem was chosen and how the systematic design of instruction was used to design a blueprint for creating an effective instructional unit.

Link to case study: https://web5.wgu.edu/aap/content/case_study_%20id_domain.pdf

Needs analysis instruments: The following examples have been provided to help you better understand qualitative data gathering instruments.
https://web5.wgu.edu/aap/content/examples%20of%20needs%20analysis%20instruments.pdf

Each month there will be a phone conference or graduate seminar that will discuss the case study and identification of a problem for work in the instructional design domain. Please go to the ID learning community to find the times of the calls.

☐ Summary:
You were asked to select a problem that you believe instruction will help to improve or solve. You have also been introduced to a systematic process for helping to create an effective and efficient unit of instruction that will help to improve the problem. In this unit of instruction you learned about the importance of collecting data to learn more about the problem and how to bridge the gap between the current state and the desired state.

This week you began the process of ANALYZING YOUR PROBLEM by learning about the needs analysis. The needs analysis is done to learn more about how to bridge the gap between the current state (the problem) AND the desired state (your goal of instruction).

This week you were asked to:
- Identify questions you would like to have answered by other sources to learn more about how to solve the problem with an instructional unit
- Identify sources of data to help answer your questions
- Create data gathering instruments.

Reflect on how a performance analysis is different from a teacher’s needs assessment? How are they alike?
Week 3

Analyzing the Problem

This course of study provides a required sequence of learning steps and activities to help you develop and demonstrate competence in the subject area of Instructional Design - Analysis.

In week two you began to analyze your instructional problem to learn more about how to bridge the gap between the current state and the desired state.

You were asked to:

- Have your problem approved for work in the instructional design domain
- Identify questions you would like to have answered by other sources to learn more about how to solve the problem with an instructional unit
- Identify sources of data to help answer your questions
- Create data gathering instruments.

501.1.1 – Needs Analysis

The student conducts a needs analysis.

**Topic: Needs Analysis**

The topic of the needs analysis continue this week.

- **Preinstructional Activity**
  1. Review the Case Study – Group Leadership Training in the Dick and Carey text, chapter 2.
  2. What is the purpose of your needs analysis?
  3. What do you want your target population to be able to do or performance at the end of your instructional unit?
Content Presentation
Read Dick and Carey chapter 2, “Identifying Instructional Goals Using Front-End Analysis”

E-Reserves

Learning Activities
1. Conduct your needs analysis
To help get a good survey return rate you could offer to send the respondent a copy of the survey results, or make it clear in the introduction just how worthwhile your project is and that the respondent may benefit from it at some stage. Give them a time for having the results back to you. Don’t make people pay for stamps or phone calls! Use follow-up reminders.

2. Make a rubric that will be used to evaluate your goal of instruction. When your needs analysis data has been returned and analyzed you will be writing your goal of instruction.

NOTE: Depending on how you data will be gathered, the data gathering process could take 7-10 days. We recommend that if you are sending out questionnaires that you put a timeline on them for returns. Also, you may want to begin work on the next unit (week 4, learner analysis) while waiting for your data to be returned.

3. Analyze your data
This article provides an excellent discussion on how to analyze qualitative data. LINK
This web site provides excellent information on how to analyze qualitative data. Teacher Researcher – Data Analysis from George Mason http://gse.gmu.edu/research/tr/tr_analysis/

Guidelines for Qualitative Data Analysis - Narrative Data Analysis
Step 1: Get to know your data
- Read and reread your data
- Write down any impressions you have
- Consider the quality of the data

Step 2: Focus the analysis
- What key questions did you want answered from the data?
- What was the purpose of your evaluation?
- Focus by question

Step 3: Categorize the information – often referred to as “coding the data”
- Identify themes or patterns – ideas, concepts, behaviors, interactions, incidents, terminology, phrases used
- Organize into coherent categories that summarize and help to answer your question(s)
- You might identify other themes that occur
Step 4: Identify patterns and connections within the categories
- You may want to summarize the information related to one theme
- What are key ideas being expressed in each category?
- What are the similarities and/or differences being expressed by respondents?
- Which categories are more important? Count the number of times a particular theme comes up or the number of unique responses. These counts provide a rough estimate of relative importance
- You may also see that two or more themes occur together consistently in the data.
- You may find that some of these connections suggest a cause/effect relationship

Step 5: Interpret the data – Attach meaning and significance to the analysis
- Use your themes and connections to explain your finding.

**Quantitative Data - Likert scales**
Likert scales are considered to be ordinal data. The numbers in Likerts aren't real numerical values, but values that indicate a rank order. While the difference between 1 and 2 is the same as the difference between 2 and 3, the difference between "Strongly Disagree" and "Disagree" isn't necessarily the same as the difference between "Disagree" and "Neutral".

**Scoring and analysis of Likert Scales taken from**
http://www.answers.com/topic/likert-scale?cat=technology

4. Report your data through the use of APA style tables and discussion
A report of the needs analysis should include the following:
- Introduce why the needs analysis was done.
- Briefly discuss the population used and what data gathering instruments were used.
- Refer to the APA Manual on how to present your data gathered from each data gathering instrument in a table. Tables allow the researcher to present a large amount of data gathered in the research in a small amount of space.
- Following the table discuss what the data revealed to you in terms of the instructional problem or need.

**Using tables for displaying data**
Place tables close to where they are first mentioned in your text, but do not split a table across pages. If the data in your table requires more than 2 pages, then put the entire table in your Appendix and a shorter version in your text. Be sure to reference your table with all of the data in your text.

The Appendix should also have a copy of each instrument used.

**Please refer to the APA journal for the correct way to use tables to report your data.**

Web sites with information on how to use tables to display data in APA style
- APA table Guidelines:
5. Based on what you learned about creation of instructional goals use the rubric you created to write your instructional goal. The instructional goal describes what the learners will be able to do when they complete the instructional unit. It describes how the learners will use and apply the knowledge and skills in the REAL WORLD. The goal statement should describe the following (Dick, Carey, Carey):

- The learners
- What the learners will be able to do in the performance context (in the real world)
- The performance context in which the skills will be applied
- The tools that will be available to the learners in the performance context

The goal of instruction should be to foster meaningful learning and to help the learner transfer the new information to other learning experiences and problem solving.

6. Submit your instructional goal to the ID community Discussion area for feedback.

**Examples**

Link to instructional design case study: This excellent example provides you with an overview of how the problem statement is analyzed to learn more about the problem. The goal statement is written based on what was learned about the problem. https://web5.wgu.edu/aap/content/case_study_%20id_domain.pdf

**Examples of well written goal statements**

Goal Statement Example 1: Hillary Mays

"In response to the needs analysis, two instructional goals have been identified and may be defined as the following. Given a problem or performance task, 8th grade students at Dawson-Bryant Middle School will be able to independently select the appropriate piece of technology to complete a given assignment. While completing the assignment, these students will create a basic presentation using Microsoft PowerPoint that demonstrates the principles of good presentation design, and use Microsoft Excel to create tables and spreadsheets that aid in the organization and analysis of data”.

Goal Statement Example 2: Catherine Richards

Given an inclusive classroom setting, teachers will understand the underlying causes of the behaviors displayed by special needs students and will apply collaborative team-teaching techniques to successfully modify curriculum to ensure an optimal learning environment.

Goal Statement Example 3: Lynn Hayes

Given Anchor Banks intranet, employees will use this site as a job aid to properly fill out the new hire forms required for a new hire receiving training in Benefits Xpert, Lucidoc and Performance Pro. They will have also HR Share Point as a job aid to properly fill out the New Hire forms and review systems training at anytime.

Goal Statement Example 4: Natalie Raymundo

At the end of the training teachers will analyze benchmark assessment data from at least two different perspectives (using two or more reports) and utilize the analysis of the data to modify instruction to meet the needs of students; subsequently, students will achieve 80 percent of the goal set by the teacher in the modification of instruction.
Summary
The needs analysis is the first process in the instructional systematic design model used by instructional designers when creating effective instruction. The purpose of the needs analysis is to

1. Determine if instruction is a possible solution to the problem (rationale for instruction). If not, would a performance support system or job aid help to improve the problem?
2. Provide more in-depth insight into the problem and instructional solution by gathering data from sources knowledgeable about the topic.

The needs analysis is the first “research” that students conduct. Research is defined as having a question, creating data gathering instruments to answer the question, analyzing the data, and reporting the data in terms of what was learned about helping to improve the problem.

After the need for instruction has been ANALYZED, then the goal of instruction can be written. The goal should:
- Be linked to the identified problem;
- Linked to the gap between the current state and the desired state;
- Expression of a solution to the problem;
- Measureable actions or performance of the learners;
- Intended learners;
- Performance context, and
- Tools available to the learners in the performance context.

Week 4
Analyzing the Problem
The systematic process of instructional design involves the analysis, design, development and evaluation of instruction. In this unit you will be introduced to the concepts and procedures for analyzing the target population.

501.2.1 – Learner Analysis
The student conducts a learner analysis.

Learner Analysis
You have learned about the processes for gathering information about the problem and how to determine what content must be taught to accomplish the goal of instruction.

Not only must the designer determine what must be taught but also how the instruction will be taught using instructional strategies. In order to determine what instructional strategies to build into your lessons, it is important to identify unique characteristics of your learners. Therefore, an important part of the analysis process is gathering information about the learners. Assumptions about the learners may be inaccurate and lead to problems when the instruction is delivered. It is important to obtain the following information to identify learner deficiencies and the selection of instructional strategies.

- Demographics
Entry behaviors
Prior knowledge of the topic area
Attitudes toward the content and potential delivery system
Academic motivation
Educational and ability levels
General learning preferences
Attitudes toward the organization giving the instruction, and
Group characteristics

☐ Preinstructional Activity
Think about the target population you will be designing your instructional unit for. Do they have any unique characteristics that will influence their learning? How have you addressed these characteristics in the past?

☐ Content Presentation
Read Dick and Carey, chapter 5, “Analyzing Learners and Contexts”

☐ Learning Activities
Analyze and describe in writing the general characteristics of your target population. Refer to the 8 characteristics discussed in Chapter 5 of Dick and Carey. Use the rubric for evaluating analysis of the learners on page 107 of Chapter 5.

- Describe in writing the demographic information on your target population
- Describe in writing entry-level skills required for using your instructional unit
- Describe in writing the target populations’ prior knowledge of the topic you will be teaching
- Describe in writing the target populations’ attitudes and motivation toward the topic you will be teaching
- Describe any additional information on your target populations education level and learning styles
- Describe in writing any other unique characteristics of the target population that needs to be taken into account when designing the instructional unit.

☐ Examples
Learner Analysis – Karen Strain

Demographics
The instructional setting included three seventh grade math classrooms in a small rural school in Washington State. The population is just over fifty percent low socio-economic, the majority Caucasian, with thirty-three percent Hispanic out of a total of ninety-five students. Class sizes range from twenty-five to twenty-seven students. The students in this grouping are tracked, with the top twenty percent pulled out for advanced placement pre-algebra.

There are fifteen special education students, including one cerebral palsy child who functions four to five years below grade level, and two at-risk autistic boys. Of the twenty-three Hispanic students, all are bi-lingual, with one that is at Tier one, classified as emerging English. This means that Spanish is the native language for all these students, but the Tier one student is not yet able to converse in English, even socially. These students are the focus of the research study. Five of the Hispanic students are also classified as special education.

The content is general math with an emphasis on problem-solving. The curriculum has been carefully aligned with Washington State and National Council of Teachers of
Mathematics standards. However, this group of students has scores well below grade level on standardized tests. Only a few of the Caucasian students have passed the prior year’s state test. Classes are held every other day for the entire year on a modified block schedule with ninety-minute periods. There are multiple support personnel in the classroom, including a special education teacher who team teaches the class with the mainstreamed students and helps with modifications. There is also a part-time English Language Learner aide who works with the emerging English students. In addition there is a full-time Learning Assistance Program aide for helping students who are functioning below grade level, but who do not qualify for special education.

Prior Knowledge of Topic

Over fifty percent of the students have had no instruction in probabilities. The topic is often at the back of the traditional math textbook and is not a topic that most teachers feel comfortable teaching. The students who have had instruction in probabilities are familiar with the idea of chance and can find probabilities of simple events like the probability of flipping heads on a coin or rolling a five on a standard number cube. In addition, most of the Hispanic students and many of the low socio-economic students have never played card games and board games at home. These students do not know the number of cards in a deck, the suits, or even such cards as queen, king and jack. They have not developed an intuitive understanding of chance that students who have played games seem to develop.

These students have had some instruction in prerequisite skills. They have worked extensively with fractions and are fairly fluent at converting fractions to decimals to percents. They have also worked with ratios and have some understanding of the difference between a part-part ratio and a part-whole ratio.

Attitudes and Motivation

The high number of special education students in this group of students contributes to an overall atmosphere of defeat. Many of these students believe they cannot succeed or do well in math. They expect to fail or do poorly on tests. Like others in their age group, they are very social. They would rather talk than wrestle with a difficult problem. They do not have the strategies or the mental attitudes to persevere with challenging problems.

Homework is a difficult issue, and the staff has discussed the value of homework with this rural population of seventh graders. Eighty percent of these students are participating in school sports for the first time. They have two hour practices after school every night and on game nights are often on the road until ten or eleven p.m. In addition, the Hispanic students have a number of responsibilities outside of school, including babysitting younger siblings, translating for parents at appointments, or cleaning the house.

Most of the Hispanic students are not vocal participants in class discussions. Culturally, they have been raised to be reserved in public settings. In addition, many of the Hispanic students do not feel confident enough of their language skills to communicate answers or opinions publicly.

All of these seventh grade students want to be successful. However, they are easily defeated and do not have the confidence to stick with a topic that they find challenging. They are also reticent about asking questions. They do not want to be seen as “stupid”. Consequently, many of these students do not have the coping skills that seem inherent in their academically successful peers.
Learning Styles/ Orientation
The majority of these students are visual learners, while the Hispanic students are holistic in their thinking and approach to learning (Curtin, 2005). This population struggles with math because they have not yet developed their abstracting ability. They need concrete, visual examples that relate to their lives and frames of reference. This dependence on visual learning is compounded for Hispanic students since they rely heavily on the visual to make up for language deficiencies. Several of the special education students are identified attention deficit and/or hyperactive, which means that kinesthetic, active learning is beneficial for them.

Cultural Characteristics
Hispanic students are holistic in their thinking. They tend to think in terms of the whole picture, not the details. Thematic units that relate concepts and new learning to their lives and personal background are most beneficial. Graphic organizers, overviews and closures that generalize the context are helpful to these students.

Hispanics are reserved in public situations, particularly when conversing with adults. This means that they are very reticent to ask questions in class or seek help outside of class. Absences are often an issue with this population. Students often have to stay home to take care of siblings while parents work. In winter, many students leave for a month or two to visit Mexico.

By seventh grade, Hispanic girls are starting to prepare for their “quinceanera” or coming out party, and are more interested in the social aspects of being a young female than in education. Many of the Hispanic girls are pregnant and/or married by the time they are juniors in high school. This trend is gradually changing with the support of adult female Hispanic role models. Conversely, some male Hispanic students resent the authority of female teachers.

☐ Summary
The purpose of the learner analysis is to identify unique characteristics of your learner population to be addressed when designing the instructional unit. Instructional strategies are selected based on the learner analysis. The identification of entry level skills is also important: if the learner does not have those skills they will not be successful with the instructional materials. Consideration therefore needs to be given to evaluation of entry skills and additional instruction if needed.
Week 5
Designing Your Instructional Unit

You have learned that the systematic process of instructional design involves five processes – analysis, design, development, evaluation, and implementation. The design process begins with the identification of the goal of instruction. The goal statement should have been derived from analysis of your findings in the needs analysis. The goal should be a clear statement of what the learners will be able to do.

In this unit of instruction you will do an instructional analysis also called task analysis or goal analysis. The major purpose of this instructional analysis it to identify knowledge and skills that should be included in the instructional unit.

501.2.2 – Task Analysis
The student conducts a task analysis.

Conducting a Goal or Task Analysis

The instructional analysis is a complex process and is divided into two major steps (Dick and Carey, 2009).

Step 1: Determine the major components of the instructional goal (Dick and Carey pp. 39-57).
Step 2: Analyze each step in the goal to identify subordinate skills (Dick and Carey, pp. 58-89)

In this unit of instruction you will be working on step 1. In Week 3 you will complete step 2.

The first question to be asked is, “What would the target population be doing if the goal were accomplished?”

Dick and Carey point out (2009, p. 40) that the goal analysis is not the only way to identify instructional content but is considered to be the most effective way to ensure accomplishment of the goal of instruction. For the purpose of the competencies at Western Governor’s University this approach should be used since students are asked to begin with a problem that they believe instruction/training will help to improve.

☐ Preinstructional Activity
Write down your goal of instruction. Next, write down what would the target population be doing if the goal were accomplished.

☐ Content Presentation
Read Dick and Carey chapter 3, “Conducting a Goal Analysis”
E-Reserves – Supplemental Reading

☐ Learning Activities
1. Write down what type of learning will occur. The types of learning are referred to as “domains of learning.”
- Verbal information – require learners to provide specific responses to relatively specific questions
- Intellectual skills – problem solving skills
- Psychomotor skills – involves the coordination of physical and mental activity
- Attitudes – having the learner choose to do something
- Cognitive strategies – metaprocesses to manage our thinking (You will not be using this domain)

2. Describe step-by-step what the individual will be doing when performing the goal. Refer to Dick and Carey chapter 3 for examples of how to identify the steps for the different domains of learning.

☐ Examples
Refer to Dick and Carey, 7th edition, chapter 3 for excellent examples of tasks analysis.

☐ Summary
The goal analysis is done after you have identify a goal of instruction that clearly states what the target population will be able to do after completion of the instructional unit. The first step in identifying what content must be taught is conducting a goal analysis which we will also refer to as “task analysis” and “instructional analysis.”

The goal analysis begins with identifying the goal of instruction into one of the five domains of learning. The second step it to identify all of the steps that must be performed to achieve the goal.

REMEMBER… This initial step should only be considered a DRAFT since it may need further revision as we continue with this process.

Week 6
Designing Your Instructional Unit
In this unit of instruction you will continue to do the instructional analysis also called task analysis or goal analysis. The major purpose of this instructional analysis it to identify knowledge and skills that should be included in the instructional unit.

501.2.2 – Task Analysis
The student conducts a task analysis.

Conducting a Goal or Task Analysis

In the last instructional unit you learned that the instructional analysis is a complex process and is divided into two major steps (Dick and Carey, 2009).

Step 1: Determine the major components of the instructional goal (Dick and Carey pp. 39-57).
Step 2: Analyze each step in the goal to identify subordinate skills (Dick and Carey, pp. 58-89)

In week 2 you identified the steps that the learners must know or be able to do before they can accomplish the goal of instruction. You learned that this is necessary to examine each step to determine what students must LEARN or be ABLE TO DO.
In this unit you will do the next step of identification of the subordinate skills for each step you identified in the last unit of instruction (week 2). Note if this step is eliminated one of two things could occur: Required skills are omitted that are necessary for effective instruction, and; “Nice to know” but not necessary information that will take additional time but not necessarily needed for accomplishment of the goal.

- **Preinstructional Activity**
  Review your goal analysis that you did in week 2. Review the steps that you identified are necessary to accomplish the goal.

- **Content Presentation**
  Read Dick and Carey chapter 4, “Identifying Subordinate and Entry Skills”

- **Learning Activities**
  1. Do the appropriate analysis (cluster or hierarchical analysis) for the steps identified in step 1 (week 5). Refer to the Dick and Carey chapter 4 for discussion on how to do this and for excellent examples.

    **NOTE**: This analysis will be different for the different learning domains.

    **NOTE**: Some instructional units will require two types of learning and the analysis involves techniques for a combination of domains (Dick and Carey, pp. 67-68). An example of this is often found in the learning of mathematics.

    **SUGGESTION**: Use the rubric (Dick and Carey, p. 85) for evaluating subordinate and entry skills to assist you.

  2. Identify entry level skills or what learners must have already mastered in order to learn the new skills (Dick and Carey, pp. 70-74).

    **SUGGESTION**: Use the rubric (Dick and Carey, p. 85) for evaluating subordinate and entry skills to assist you.

- **Examples**
  Refer to Dick and Carey, 7th edition, chapter 4 for examples.

- **Summary**
  A very important part of creating effective instruction is to
  - first analyze the problem – needs analysis
  - based on the needs analysis write a goal of instruction
  - analyze the goal to determine the steps necessary to perform the goal
  - determine the knowledge and skills associated with each step, and
  - in this unit to identify the main tasks (subordinate skill analysis) learners must perform in order to accomplish the goal of instruction.

  The instructional analysis is different depending on whether the type of learning involves
• Verbal information – require learners to provide specific responses to relatively specific questions
• Intellectual skills – problem solving skills
• Psychomotor skills – involves the coordination of physical and mental activity, or
• Attitudes – having the learner choose to do something

WEEK #7
Performance Objectives
This course of study provides a required sequence of learning steps and activities to help you develop competence in the subject area of Instructional Design – Design.

501.2.3 – Performance Objectives
The student develops performance objectives.

Design of Instruction-Writing Performance Objectives

The performance objective is a detailed description of what students will be able to do when they complete a unit of instruction. The performance objectives are derived from the knowledge and skills identified in the task or instructional analysis.

The need for these clear and precise statements is often attributed to Robert Mager who has greatly influenced the educational community with his work on objectives and their relationship to assessment. Mager’s model for an objective contains these three major components: ACTION/BEHAVIOR, CONDITION, CRITERIA. All of the objectives in your work must follow the Mager model.

Your performance objectives will identify the CONDITIONS under which the task/skill must be performed, the PERFORMANCE/SKILL to be learned and the CRITERIA for successful performance.

☐ Preinstructional Activity:
Assemble the following work you have completed:
• Problem statement for your instructional unit
• Needs analysis data and results of analysis
• Goal of instruction
• Task Analysis

Review your and critique your work. Does your
• Problem statement describes the current state that you would like to improve with instruction?
• Does your goal statement accurately state the desired state of what you would like the target population to do when they complete the unit (problem improved or made better)?
• Does your task analysis identify all of the content the target population will need to perform your goal?

If all of these components line up then you are ready to write the performance objectives to measure learning of the tasks identified in the task analysis.

Do you see a relationship between these components of your instructional unit? Do you understand why each is important and how it influences the next process? If you
have any questions, please post these in the Instructional Design community DISCUSSION area.

☐ Content Presentation
  1. Read Dick and Carey chapter 6, “Writing Performance Objectives”
  2. Visit this web site with Mager’s Tips on Instructional Objectives: http://www2.gsu.edu/~mstmbs/CrsTools/Magerobj.html
  3. Review this Guide to Writing Performance Objectives using Blooms Taxonomy – LINK
  4. Review the Principles of Writing Performance Objectives - LINK

☐ Learning Activity
Complete the following table. Refer to your text, Dick and Carey, chapter 6 pp. 114-120

<table>
<thead>
<tr>
<th>Task or Subtask in Task Analysis</th>
<th>PERFORMANCE</th>
<th>CONDITIONS</th>
<th>CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Step 1:** Identify the desired PERFORMANCE. Select a verb for performing the learning task (see list of verbs following Blooms Taxonomy above under web sites). Determine if the verb you have chosen best describes the type of behavior that the learners need to display after instruction.

Background of the Different Types of Verbs for Learning - Blooms Taxonomy
As teachers teach, they generally ask questions to see if students have learned the information presented. All questions can be classified as to difficulty by using Bloom’s Cognitive Taxonomy. There are six levels in the taxonomy, ranging from Knowledge (simplest) to Evaluation (most difficult). Teachers need to realize that their questions reflect different taxonomy levels.

- **Knowledge**-Remembering previously learned materials
- **Comprehension**-ability to grasp the meaning of material
- **Application**-ability to use learned material in new and concrete situations
- **Analysis**-ability to break down material into its component parts so that its organizational structure may be understood.
- **Synthesis**-ability to put parts together to form a new whole
- **Evaluation**-ability to judge the value of material for a given purpose

NOTE: A performance objective can only have ONE MEASUREABLE performance (verb) in each objective. Each objective will have one assessment measure to evaluate the learning of one task.
Step 2. Determine under what CONDITIONS the task must be performed. What will you give the learner to use to perform the task?

Step 3: Determine what CRITERION or STANDARD you will use to evaluate the mastery of the objective. How well must the student perform the skill described in the objective on the assessments you provide?

Use the rubric in the Dick and Carey text, page 127 to evaluate your objectives. Have you written quality objectives to measure learning of your tasks. Will the learning of all of your objectives lead to your goal of instruction being met?

Receive feedback on your performance objectives by posting them in the ID Community Discussion area.

Examples
Refer to the Dick and Carey text, chapter 6 for examples of objectives for the different domains of learning.

Summary
The performance objectives begin the DESIGN phase of the instructional systematic design model. To summarize you have done the following:

1. Identified a problem that you believe instruction will help improve.
2. Conducted a needs analysis to learn more about how to solve the problem through instruction and/or instructional strategies.
3. Based on the needs analysis have provided a rationale for instruction (you have verified that instruction should help solve or improve the problem).
4. Based on the needs analysis you have identified and written a goal of instruction (a statement of the desired state for the target learners).
5. Identified the content, knowledge and skills that the target learners must know in order to accomplish the goal of instruction.- the task analysis.
6. Written a performance objective for each task to evaluate learning of the task and the need for revision in the instructional unit.
Reflection

- How do the performance objectives relate to your problem statement?
- Why is it important to have 3 components of a performance objective?
- How do the performance objectives relate to your goal of instruction?
- What is the relationship between the performance objective and the assessment?

Week 8
Designing the Instruction

In this unit you will learn important information about theories of learning that support the design and use of instructional strategies and the incorporation of technology as a tool for learning.

501.3.1 – Learning Theories
The student identifies & discusses learning theories.

Learning Theories

The last two decades have provided extraordinary understanding of the nature of learning. Brain-based research helps us to better understand how the brain acquires, connects, stores and retrieves information. Educators and trainers who understand how the brain works when learning find that they can design and develop more effective and exciting teaching and learning environments.

With information and knowledge growing at a far more rapid rate than ever before in the history of mankind, it is very important that the goal of education is to help students develop intellectual tools and learning strategies to acquire knowledge that will help them think productively about new information they are learning. The basis for this type of learning is a sound understanding of how the mind works and processes new information that we are asking our students to learn.

In this week’s unit of instruction you will be introduced to three learning theories—behaviorism, cognitivism and constructivism. Additionally you will be introduced to the latest brain-based research that supports many instructional strategies. Dr. Judy Willis’s fascinating book, Research-based Strategies to Ignite Students Learning, provides scientific information from brain mapping research to show educators how they can use these powerful discoveries to help students learn more effectively.

Guiding principles of brain-based learning include:
- Multiple complex and concrete experiences are essential for meaningful learning and teaching.
- Before students can make memories or learn, someone must capture their attention.
- Our brains are structured to remember novel events that are unexpected. Surprise can be used to bring students’ brains to ATTENTION.
- The more regions of the brain that store data about a subject, the more interconnections there are.

Preinstructional Activity
Think about the following and write down your answers for discussion.
• Did you ever attend a workshop, seminar or class and not remember anything that was discussed? Why do you think this happened?
• Did you ever cram for a final exam and find that in several months you could not recall much of the information you had studied for the exam. Why do you think this occurred?
• What was your most powerful learning experience in school or college? Why do you think you remember this and feel so positive about it?
• Why do you think that you are a better teacher now then when you first got out of college?
• What do you think makes a subject matter expert, an expert?
• How do you think that information is stored in your mind?
• Why do you think that you learn better when you have had experience with a subject area related to the new information?
• Do you currently use constructivism in your classroom. Provide an example. Why do you think this approach encourages learning?

□ **Content Presentation**

Read these books and chapters in the order listed. Web sites are provided for additional supportive information to support your learning and understanding of learning theories.

1. Read chapter 3 on "Learning Theories and Integration Models," in Roblyer’s Integrating Educational Technology into Teaching, Merrill: Upper Saddle River, NJ. Found also in WGU’s electronic reserve.
4. ASCD (Association for Curriculum and Instruction) mini-course, “Bridging Learning Theory.”
5. Go to the Learning Resource page for the Instructional Design assessments and ENROLL. No cost.

**Web sites to Support the Learning of Learning Theories**

Learning Theories and Instructional Strategies

About learning: Links to learning theories and brain-based research
http://www.funderstanding.com/about_learning.cfm

Learning Theories and Their Relationship to Instructional Design
http://www.usask.ca/education/coursework/802papers/mergel/brenda.htm

Adult Learning Theory: From Theory to Practice an Adult Learning Theory Course
http://www.nald.ca/adultlearningcourse/index.htm

Constructivism: http://carbon.cudenver.edu/~mryder/itc_data/constructivism.html
Brain-based Learning Strategies
http://www.sabine.k12.la.us/vrschool/brainPBLinquir.htm

□ Learning Activities
Create a table like the one below and add your information based on what you read in the above readings.

<table>
<thead>
<tr>
<th>Name of Learning Theory</th>
<th>Description of Theory and How Learning is Promoted</th>
<th>How this Theory Can be Used in the Classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behaviorism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cognitivism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constructivism model</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Directed Model</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

□ Examples
Use the readings and Internet resources to complete the following table with you examples of each theory/model

<table>
<thead>
<tr>
<th>Learning Theory or Model</th>
<th>Example of How This Theory or Model Was Used to Promote Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behaviorism</td>
<td></td>
</tr>
<tr>
<td>Cognitivism</td>
<td></td>
</tr>
<tr>
<td>Constructivism model</td>
<td></td>
</tr>
<tr>
<td>Directed Instruction model</td>
<td></td>
</tr>
</tbody>
</table>

□ Summary
In this module you were introduced to three learning theories (behaviorism, cognitivism, and constructivism) and brain-based learning. This module should have provided you with an opportunity to reflect on

- What is learning?
- Why is knowledge of learning theories important to the design and development of curriculum and training?
- How have these learning theories contributed to what I currently do with my students?
- How does this statement from “brain-based learning” fit with Gagne’s first event of instruction, “Before students can make memories or learn, someone must capture their attention.”
- Why does technology fit so perfectly as a tool to enhance learning based on how the mind works?
Week 9

Designing the Instruction

This unit continues to explore theories of learning that support the design and use of instructional strategies and the incorporation of technology as a tool for learning.

501.3.1 – Learning Theories
The student identifies & discusses learning theories.

501.3.3 – Using Technology as a Strategy
The student uses technology as a teaching & learning strategy.

Learning Theories and Application to Technology-based Lessons

The last two decades have provided extraordinary understanding of the nature of learning. Brain-based research helps us to better understand how the brain acquires, connects, stores and retrieves information. Educators and trainers who understand how the brain works when learning find that they can design and develop more effective and exciting teaching and learning environments.

With information and knowledge growing at a far more rapid rate than ever before in the history of mankind, it is very important that the goal of education is to help students develop intellectual tools and learning strategies to acquire knowledge that will help them think productively about new information they are learning. The basis for this type of learning is a sound understanding of how the mind works and processes new information that we are asking our students to learn.

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- Our brains are structured to remember novel events that are unexpected. Surprise can be used to bring students’ brains to ATTENTION.
- The more regions of the brain that store data about a subject, the more interconnections there are.

Preinstructional Activity
Complete a table with highlights of each learning theory

<table>
<thead>
<tr>
<th>Learning Theory</th>
<th>Example of How You Used this Theory to Promote Learning in your Classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behaviorism</td>
<td></td>
</tr>
<tr>
<td>Cognitivism</td>
<td></td>
</tr>
</tbody>
</table>
**Content Presentation**
Read these books and chapters in the order listed. Web sites are provided for additional supportive information to support your learning and understanding of learning theories.

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Brain-based Learning Strategies
http://www.sabine.k12.la.us/vrschool/brainPBLinquir.htm

**Learning Activities**
Complete this table

<table>
<thead>
<tr>
<th>Learning Theory</th>
<th>Example of how you could use this theory in your learning environment to promote student learning using technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behaviorism</td>
<td></td>
</tr>
</tbody>
</table>
Cognitivism

Constructivism model

**Summary**

In this module you were introduced to three learning theories (behaviorism, cognitivism, and constructivism) and brain-based learning. This module should have provided you with an opportunity to reflect on

- What is learning?
- Why is knowledge of learning theories important to the design and development of curriculum and training?
- How have these learning theories contributed to what I currently do with my students?
- How does this statement from “brain-based learning” fit with Gagne’s first event of instruction, “Before students can make memories or learn, someone must capture their attention.”
- Why does technology fit so perfectly as a tool to enhance learning based on how the mind works?

**Week 11**

**Designing the Instruction**

In this unit of instruction you will learn about important strategies to be used when designing instruction to help ensure that learning occurs.

501.3.2 – Instructional Strategies

The student applies instructional strategies.

**Learning Theories and Instructional Strategies**

An important component of the DESIGN process is to consider how instruction will be sequenced and presented to the learner. The use of instructional strategies includes a variety of teaching/learning activities that will be included within a lesson to help ensure that students learn.

These strategies are referred to as microstrategies and are a part of an overall macrostrategy. The macrostrategy is the total delivery of the instruction and is usually created by and delivered by a teacher or instructor. Macrostrategies include:

- Defining the performance objectives
- Writing of lesson plans and tests
- Motivation of the learners,
- Presentation of the content
- Engaging the student in learning
- Administration of the assessments

The first step in developing an instructional strategy is to identify the sequencing of the content as identified in the instructional analysis.

The second step involves determining how much information will be presented in a unit.
The third step involves careful consideration of learner characteristics and entry level skills to determine what you will do before the content is presented, how it will be presented and what the learners will do with the content.

The concept of instructional strategy originated with Robert Gagne’s (1985) Nine Events of Instruction. For Gagne, the nine events represented external instructional activities that supported cognitive processing of new information. Gagne’s nine events include:

7. gain learner attention
8. motivate learner
9. stimulate recall of prior knowledge or past experiences
10. provide overview of lesson informing learner of objectives
11. present, explain or demonstrate knowledge/skills
12. practice with supervision
13. summarize information to be learned
14. assess learning providing feedback and performance correctness
15. enhance retention and transfer

A few modifications and enhancements have been made throughout time. More recently Dick and Carey have organized Gagne’s events into five major learning components that are grounded in learning theory and are purposeful and prescriptive. The Dick and Carey model is constructivist in its approach of being more student centered than teacher centered. The five major learning components of the Dick and Carey model include:

1. pre-instructional activities (motivate and arouse interest, establish purpose, gain attention, stimulate prior knowledge)
2. content presentation (discovery, exploration, lecture, examples)
3. learner participation (meaningful interaction with new knowledge/skills, FEEDBACK, INTERACTION)
4. assessment
5. follow-through activities (enhance retention and transfer of learning)

In this unit you will learn about developing instructional strategies and the use of different strategies for different types of learning. Additionally you will learn about Keller’s motivational ARC model and its relationship to the five major learning components.

☐ Preinstructional Activity
Preinstructional activities are designed to help you connect the new information you are about to learn with your prior knowledge and experiences.

Think back to when you were in school or college. Write down 4 approaches or strategies that were used by your teachers or professors for learning that helped you remember the information past the end of term tests.

Reflection
What do you remember from your middle school years? Why
What do you remember from your high school years? Why
What is most memorable from your college classes? Why

☐ Content Presentation
Read chapter 8 in Dick and Carey
Additional Learning Resources found on the Internet to Support Your Understanding and Learning of Instructional Strategies

**Gagne’s Events of Instruction**
Gagne’s Events of Instruction [http://ide.ed.psu.edu/idde/9events.htm](http://ide.ed.psu.edu/idde/9events.htm)

**Gagne’s Events of Instruction** [http://www.e-learningguru.com/articles/art3_3.htm](http://www.e-learningguru.com/articles/art3_3.htm)


**Keller’s ARCS model**
Keller’s web site: [http://www.arcsmodel.com/home.htm](http://www.arcsmodel.com/home.htm)

**More on Keller’s ARCS (add S) model**
[http://coe.sdsu.edu/eet/Articles/attention/start.htm](http://coe.sdsu.edu/eet/Articles/attention/start.htm)


**Multiple Intelligence**
Howard Gardner’s Project Zero (Harvard University): Project Zero’s mission is to understand and enhance learning, thinking, and creativity in the arts, as well as humanistic and scientific disciplines, at the individual and institutional levels.
[http://www.pz.harvard.edu/index.cfm](http://www.pz.harvard.edu/index.cfm)
Multiple Intelligence [http://www.thomasarmstrong.com/multiple_intelligences.htm](http://www.thomasarmstrong.com/multiple_intelligences.htm)
Multiple intelligence in education [http://www.infed.org/thinkers/gardner.htm](http://www.infed.org/thinkers/gardner.htm)

## Learning Activities

1. Complete the practice activities in chapter 8 found on page 218. See page 219 for feedback on your work.
2. Refer to the “Rubric for Evaluating an Instructional Strategy” on page 216 and make a Job Aid for you to use when you create your instructional unit and will be developing instructional strategies for each unit or instruction.
3. Refer to the “Rubric for Evaluating an Instructional Strategy” on page 216 and make a Job Aid for your instructional strategy design
4. Complete the following table using all of your performance objectives.

**NOTE**: If you plan to incorporate multiple intelligence theory or other instructional strategies, build these activities into the following framework from the Dick and Carey five instructional component model. They fit very nicely into any of these components.

<table>
<thead>
<tr>
<th>Performance Objective</th>
<th>Preinstructional Activity</th>
<th>Content Presentation</th>
<th>Learner Participation and Feedback</th>
<th>Assessment</th>
<th>Follow-Through Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Objective 1</td>
<td></td>
<td></td>
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</tbody>
</table>
Evaluate your instructional strategy with the rubric from Dick and Carey chapter 8, page 216-217.

**Examples**  
Refer to the examples in chapter 8 and make instructional strategies for a lesson that follows constructivism. Include strategies for the five major learning components.

**Summary**  
This unit introduced you to instructional strategies that will be used to improve student learning. You should now have an in-depth understanding of how each of these strategies is designed based on unique learner characteristics. You should also understand how brain-based learning research and theories of learning support these important instructional strategies. You will be expected to discuss your use of the strategies, provide examples and discuss how a particular theory supports this activity to promote learning.

**Conclusion**  
Congratulations on completing all the weeks for Instructional Design and Performance Improvement! Your studies included the elements of systematic instructional design-needs analysis, learner analysis, task analysis, goal statements, performance objectives, and instructional strategies. Consider what strategies helped you learn the material? Write these down and share with your students in the future. You now need to demonstrate your competency in Instructional Design and Performance Improvement by passing the objective exam and performance assessments.
**Objective Exam**

Take the pre-assessment for the IDO3 exam, available through your AAP. The results will provide a percentage for each of the bright blue topics in this COS. You should then review your notes for topics with low scores. Your textbook will have additional online resources to check your understanding. Another way to check your understanding is to start with blank paper and write down your understanding of the topic. Pretend you are teaching this topic to a student. You can also post your understanding in the community for review. Once you have confidence with your new knowledge, take the pre-assessment again. Schedule the IDO3 exam after passing the pre-assessment.

**Performance Assessment**

Talk to your mentor about being referred for RFE3 and RFP3 through your AAP. After being referred, you will be able to access the RFE3 and RFP3 tasks within TaskStream. The tasks can be completed in any order. The directions for each task are in TaskStream. After writing up your task, check that you have covered all the requirements in the rubric. If you need help, contact the community facilitator.

**Feedback**

If you wish to provide feedback on this Course of Study, please contact Dr. Alec Testa at atesta@wgu.edu.