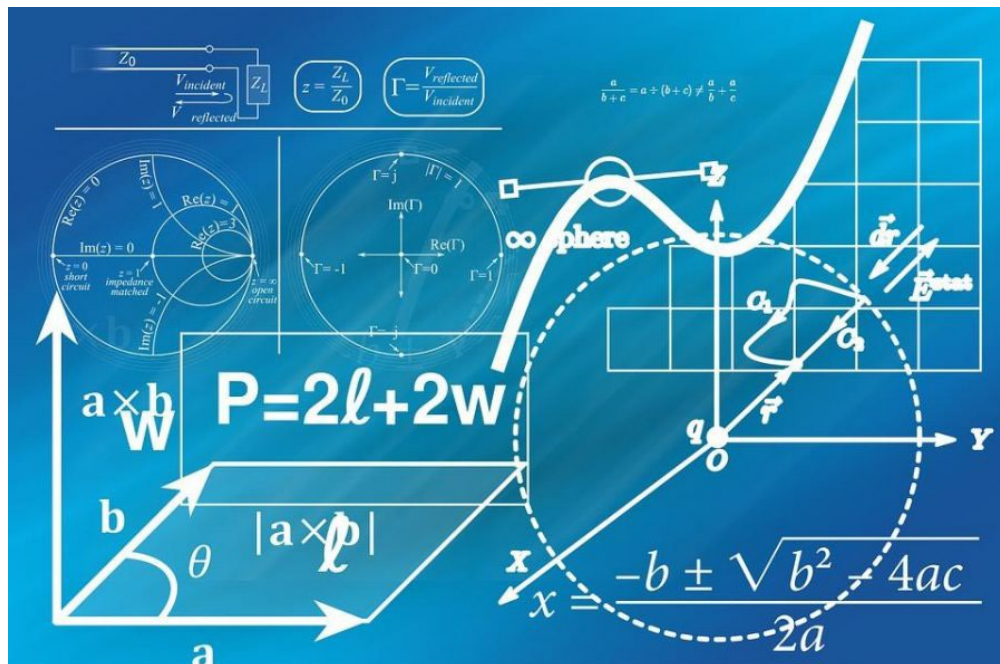# Treatment Plan

CSC 101: Comparison Shopping

Prepared for EME6613 Instructional Systems Design

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The Instructional Treatment Plan includes course objectives based on the subordinate skills analysis completed in the Analysis Report. The subordinate skill analysis was modified to reflect skills specific for online assessment (Appendix C). The plan encompasses one terminal objective and two enabling objectives. Various methods of assessment have been designed and are detailed below.

Course Title: CSC 101: Comparison Shopping

Module Number and Title: Module 5.0: Calculate the Difference Between Costs from Each Retailer

Terminal Objective: 5.0 in a shopping scenario, learners will utilize mental math or a cell phone calculator to compute the difference between costs from various retailers with an accuracy of 90% or above.

Enabling Objective 1: 5.1 In a practice test, learners will utilize mental math or a cell phone calculator to compute price discounts with accuracy rate of 90% or above:

● 5.1.1 Compute percentages

● 5.1.1.A Divide

● 5.1.1.B Move decimal

Enabling Objective 2: 5.2 In a practice test, learners will demonstrate understanding of calculating the total cost of a product by unit(s)with an accuracy rate of 90% or above:

● 5.2.1 Covert to same units of measure

● 5.2.1.A Compare units of product choices

Prerequisites: Basic ability to add, subtract, and recall units of measure.

Time Requirements: Module 5 will take approximately two hours. Since this is self-paced, the overall length could vary by learner.

Resources: Canvas LMS.

INSTRUCTIONAL STRATEGY

For this unit, the design team decided to use the 5 Component Lesson Model (Dick, Carey, & Carey, 2014). This model is based on Cognitive Psychologist Robert Gagné's model detailing the 9 Events of Instruction. The 5 Component Lesson Model is a teacher-centered model that is designed to "gradually transfer the responsibility for structuring the learning experience from the teacher and materials to the learner." (Dick, Carey, & Carey, 2014, p.187).

Module 5 Instructional Strategy

The first column in Table 1 represents the Instructional Events of the 5 Component Lesson Model: Pre-Instructional Activities, Content Presentation and Learner Guidance, Learner Participation, Assessment, and Follow-Through Activities. The second column includes a description of how the instructional plan addresses and incorporates the principles. Finally, column three contains the media and tool selection to support each component.

TABLE 1: INSTRUCTION STRATEGY FOR MODULE 5.0

Instructional Events	Description	Media & Tool Selection
Pre-instructional Activities	According to the 5 Component Lesson Model, before starting the unit, steps should be taken to motivate the learners and provide objectives. The pre-instructional activities will be addressed in the following ways: **Motivation** The strategy to motivate the learners includes invoking their attention, highlighting the relevance of the instruction, and increasing their confidence and satisfaction as follows: Attention: Start with thought provoking questions to grab the learners' attention: "How often are you unsure if you are getting the best price for what you want to purchase?" "Do you know how to evaluate different discounts to make sure you are getting the best bang for your buck?" Relevance: …Helping learners connect new content, in this instance comparative shopping skills, with existing schema, facilitates accommodation. It is therefore important that students understand and relate to the 'why' of the lesson. This is accomplished	Web Page

by providing examples that the learners can easily relate to.

"Are you ready to purchase that new flat screen television?"

<u>Confidence:</u> Learners are reminded that they are experienced adults and have the necessary skills for success. These additional tools are intended to be a valuable addition to what they already know and not to invalidate the learners' previous experiences.

<u>Satisfaction:</u> The satisfaction that this course offers is both intrinsic and extrinsic. On the intrinsic level, participants will feel confident in using the skills needed to price items quickly in any store for any item. On the extrinsic level, participants will realize their satisfaction from this instruction as they navigate shopping and secure the best price available for items.

Objectives

Terminal and enabling objectives will be present so the learners can understand what they will be learning and what is expected of them in the assessment (refer to Unit Descriptors section above).

| **Content Presentation and Learner Guidance** | As recommended in the 5 Components of Learning Model, the instruction will be structured with attention to sequencing, organization, headings, and a review of the terminal objective. In addition, careful consideration of both examples and non-examples will be made to ensure learners receive a clear illustration of the concepts.

Sequence
The design team will sequence the course content by grouping content into meaningful and related chunks of information. The first chunk or grouping will deal with how the student can express their understanding of percentages, division, decimal placements, units of measurements, comparing and contrasting.
The sequencing will also include a spiraling of information and skills to reinforce content with an intent to move learners closer to automaticity.
Organization, Heading, and Review
As recommended by Dick, Carey, and Carey (2014), an embedded outline will be used to organize the content. This includes headings, sub-headings, and paragraphs. This will aid learners in remembering the content and clearly demonstrate groupings of | |

related concepts. The major headings and sections will include "Introduction and Objectives", "Alternatives for Expression", "Reflection and Feedback Techniques", "Review and Resources", and "Practice and Assessment".

1. <u>Introduction and Objectives:</u> As discussed in the Pre-Instructional Activities, the learners will be first exposed to attention-grabbing questions and then a discussion as to why the content is relevant. In addition, statements of potential intrinsic and extrinsic rewards will be mentioned. Finally, terminal and enabling objectives will be listed under the subheading "Objectives".
2. <u>Alternatives for Expression:</u> This section will contain a multimedia presentation centered around the bulk of the content sharing. Engagement opportunities will be built into the presentation to encourage learner focus.
3. <u>Reflection and Feedback Techniques:</u> The content will include an opportunity to share the strongest points of understanding and points that need further explanation. Learners will reflect on the content's points, share their thoughts and receive peer feedback.
4. <u>Review and Resources:</u> A brief summarization of the previous content will be provided in paragraph form followed by a chart of techniques to use in online assessments to accomplish each skill. Following the review, learners will be provided with relevant online resources for deeper understanding of the principles and for future reference under the subheading "For More Information".
5. <u>Practice and Assessment:</u> This section will contain a link to the practice quiz on Canvas along with a statement encouraging the learner to test their knowledge. Under the subheading "Content Reflection", directions for the assessment will be provided to the learners. Full details on the practice quiz and assessment are in Table 2.

Examples/Non-examples
It is important that the learners read about or view examples of how to use the principles in their performance environment (Canvas) to integrate new knowledge into their existing assessment strategies. Almost of equal importance is the need for

1. A YouTube video of a successful comparison-shopping trip that ends with the shopper securing the lowest price due to limited funds. Discussion board prompt will be assigned asking: "Describe a time where you had to make a choice in product due to limited funds.
2. A narrated PowerPoint will be presented to learners with playback and closed captioning capabilities. H5P (embedded games) will maintain learner engagement.
3. A discussion board on the clearest and muddiest points will be released for learner completion. Learners will then be paired by the instructor to comment on each other's discussion posts. The instructor will pair learners whose learning gaps mesh with

	appropriate non- or incorrect examples to show learners possible misunderstandings in the application principles. Care will be taken so that both examples and non-examples are familiar to the learners with the clearest and most plausible examples listed first to aid in understanding. Differences between online and face-to-face techniques may be used to illustrate non-examples in the content and in the practice test.	another learner's clearest point. 4. A Canvas page will be presented at the end of the module to learners reviewing content. The headings will be hyperlinked back to the module's content for quick access. Additionally, supplemental resources for success will be linked to the bottom of the Canvas page. 5. A 5-question practice quiz through Canvas will be offered as a knowledge check. This quick will offer multiple choice and true/false questions.
Learner Participation	The design team will ensure learner participation through the following means: **Practice Test/Feedback** The practice test will serve as a method for learners to answer questions to check their understanding of the content. During the practice test, there will be a progression of problems that increase the level of rigor. Learners will receive feedback immediately following the practice test. The feedback will include annotations with reasons for both correct and incorrect answers.	Canvas Assessment Tool
Assessment	Assessments take place at various stages of instruction and may include entry skills tests, pretests, practice tests and post tests administered at appropriate times. We know from our learner analysis that all course participants are skill deficient students. Entry skills and pretests will be omitted.	

	Canvas serves as the performance setting, making online assessment ideal for this cohort group of learners. To appropriately assess and accommodate the hierarchical nature of the skills learned, the enabling objectives (intellectual skills) will be assessed using a practice objectives test (see Table 2: Learner Assessment Alignment Table for details). To assess learning for the terminal objective and apply multiple means of action and expression in online assessment, learners will be given a final scenario to complete.	Canvas Assessment Tool Canvas Feedback Tool
Follow-Trough Activities	To promote the transfer of CSC concepts regarding "means of action and expression in online assessment," the team will provide different tools for the learners to utilize outside of the course. A job aid, in the form of a printable PDF handout, will be supplied to the learners that will incorporate a checklist. The checklist will serve as a tool for learners to help facilitate the application of CSC concepts when utilizing application in the real world.	Printable Interactive PDF

Web Pages (links, chart, images, multimedia): Web pages including text, links, charts, images, and multimedia were chosen because the learning context and performance context are both within the online learning management system, Canvas. The Canvas platform is specifically designed to readily support such content; the licensure is purchased by the organization to support the full range of courses developed, and therefore does not incur additional costs for this project. The SME and Instructional Design team members are fluent in its use and development, will not require outside support to design, develop, and produce the course, and will increase user engagement by using a familiar learning management system.

Additional software applications utilized in the development of the course content include H5P and Power Point. There are associated costs ($804 annually) with H5P that will be funded through research grants supporting adult learners in community education.

Design and Development

The organization has targeted April 29th as the initial completion date for a working prototype of this course. This will require extensive research, long workdays, exhaustive late-night hours, and immense collaboration to complete the project in the designated timeline. A subject matter expert (SME) will further need to evaluate the course content, and then recommend revisions and strategic implementations to ensure the course matches the skills and needs of the learners.

Printable Interactive PDF Handout: One-page job aids serve as easy-to-reference tools that reinforce the learning objectives once the course is completed. The PDF document is "portable" in the sense that it can be stored, accessed, and printed outside the Canvas learning management system making it convenient for later use. This document will also be available as an interactive online checklist.

Canvas Assessment and Feedback Tools: As stated above, Canvas is uniquely designed to support online assessment and feedback. For example, learners are able to immediately view results upon completion of online tests. Additionally, instructors are able to provide feedback in multiple ways to groups and individuals, including email messages, simple scoring, and written feedback within learner submissions.

Learner Considerations

This course will require the use of either a computer, tablet, or cell phone with an internet connection to access the course content on Canvas. Learners will have access

to the Instructional Support and Resource tools in the Course Modules to ensure ease of access, familiarity, and comfort with the learning process.

LEARNER ASSESSMENT ALIGNMENT TABLE

The Terminal Objective will be assessed using a post-test with multiple choice and true/false questions. The enabling objectives are intellectual skills that will be assessed using multiple choice and true/false questions. Intellectual skills are more complex and often require multiple items to properly assess learner knowledge.

TABLE 2: LEARNER ASSESSMENT ALIGNMENT TABLE

Skill	Objective	Domain	Method	Item/Criteria
5.0: Calculate the Difference Between Costs from Each Retailer	In a scenario driven assessment, learners will be able to calculate the difference between costs from various retailers with an accuracy rate of 90% or above.	Intellectual Skills	Post-Test: Multiple Choice Fill-in the blank	Refer to "Appendix A: Practice Test Questions" for the assessment aligned to this section.
5.1: Use basic math to calculate discounts	In a practice test, given a price with an added discount, learners will calculate the final cost of products with a 90% accuracy rate.	Intellectual Skills	Practice Test: Multiple Choice	While shopping at Target you come across the TV you have been shopping for. The original cost is $299.99 but you see a 25% off sticker applied to the item. What is the final cost of the product excluding tax? **A. $224.99** B. $199.99 C. $249.99 D. $374.99
5.1.1: Compute Percentages	In a practice test, given a whole number and a percentage calculate the difference with a	Intellectual Skills	Practice Test: Multiple Choice	What is the difference between 100 and 50? A. 75

	90% accuracy rate.			**B. 50** C. 25 D. 10 Select the correct answer: Subtract 10% from 85. A. 72 **B. 76.5** C. 95 D. 75
5.1.1.A: Divide	In a practice test, given two whole numbers, divide the numbers with a 90% percent accuracy rate.	Intellectual Skills	Practice Test: Fill-in the blank	Divide the following numbers: 6/60= **10** 5/45= **9** 10/300= **30**
5.1.1.B: Move decimal	In a practice test, given a number and instructions create a new number with a 90% accuracy rate.	Intellectual Skills	Practice Test: Multiple Choice	Given the number 9000, identify the decimal space and move it to reflect a loss off 10% A. .9 B. 9 C. 90 **D. 900**
5.2: Calculate the total cost of a product by unit(s)	In a practice test, using basic math skills, calculate the total cost of a product by unit(s) with 90% accuracy.	Intellectual Skills	Practice Test: Fill-in the blank	If Wal-Mart is offering a deal where you can buy two Dell laptops for a total of $700, and Target is offering the same two laptops for $375 each, which retailer is giving you a better price based on the cost per unit? **Wal-Mart** offers the best deal.

5.2.1: Convert to same units of measure	In a practice test, using basic math skills, convert two different units of measure into the same units of measurement with 90% accuracy.	Intellectual Skills	Practice Test: Multiple Choice	If you convert the following discount percentages to decimals, what is the correct decimal equivalent for each discount? 25% off $100 purchase 30% off $50 purchase **A. 0.25 and 0.30** B. 0.50 and 0.75 C. 0.30 and 0.50 D. 0.50 and 0.25
5.2.1.A: Compare units of product choices	In a scenario driven practice test, compare the cost of two or more product choices and determine which is the better deal financially with 90% accuracy.	Intellectual Skills	Practice Test: Fill-in the blank	If Best Buy is offering a pair of AirPods for $99 with a 20% off discount, and Target is offering the same pair of AirPods for $120 with a %30 discount, calculate the cost of the AirPods from each retailer after the discount, and determine which retailer is offering the better price after the discount has been applied. **Answer:** Best Buy cost after discount **$79.20** Target cost after discount: **$84** Retailer with the best deal after

				comparing the cost after applied discount: **<u>Best Buy</u>**

REFERENCES

Dick, W., Carey, L. & J.O. Carey (2014). *Systematic design for instruction* (8th ed.). Pearson.

1. What is the difference between 100 and 50?
   A. 75
   B. 50
   C. 25
   D. 10

Fill in the blank: Divide the following numbers:
2. 6/60= **10**
3. 5/45= **9**
4. 10/300= **30**

5. Given the number 9000, identify the decimal space and move it to reflect a loss of 10%
   A. .9
   B. 9
   C. 90
   D. **900**

6. If you convert the following discount percentages to decimals, what is the correct decimal equivalent for each discount?
       25% off $100 purchase
       30% off $50 purchase
   A. 0.25 and 0.30
   B. 0.50 and 0.75
   C. 0.30 and 0.50
   D. 0.50 and 0.25

7. Select the correct answer: Subtract 10% from 85:
   A. 72
   B. 76.5
   C. 95
   D. 75

8. If Wal-Mart is offering a deal where you can buy two Dell laptops for a total of $700, and Target is offering the same two laptops for $375 each, which retailer is giving you a better price based on the cost per unit?

Fill in the blank: **Wal-Mart** offers the best deal.

9. While shopping at Target you come across the TV you have been shopping for. The original cost is $299.99 but you see a 25% off sticker applied to the item. What is the final cost of the product excluding tax?
   A. **$224.99**
   B. $199.99
   C. $249.99
   D. $374.99

10. If Best Buy is offering a pair of AirPods for $99 with a 20% off discount, and Target is offering the same pair of AirPods for $120 with a %30 discount, calculate the cost of the AirPods from each retailer after the discount, and determine which retailer is offering the better price after the discount has been applied.

Fill in the blank:
   Best Buy cost after discount **$79.20**
   Target cost after discount: **$84**
   Retailer with the best deal after comparing the cost after applied discount:
   Best Buy