# **GOGAS Cashier Self-Instructional Training Module**

**Summative Evaluation Plan** 

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> Submitted: May 3, 2007

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#### Abstract

This Summative Evaluation Plan will be used to assess the effectiveness and success of the GOGAS Cashier Self-instructional Training Module that was implemented in all 19 GOGAS stations in central and southeastern North Carolina. All current employees of GOGAS were required to participate in this training, as well as any new hires. The necessity of this training program became apparent when the new GASBOY system was implemented in fall 2004. This new system is entirely computer-based as opposed to the old system, which was mechanical. The employees had received no prior training on computers and their ability to learn the new system was not assessed prior to implementation.

The guiding model in this plan is Kirkpatrick's Four-Level Summative Model, which evaluates learner reaction, learning, transfer of knowledge, and results. Instructional objectives, assessment items, data collection techniques and the analysis and interpretation of the derived data are also discussed.

### Introduction

#### Instructional Package

The specific model that was used to design and deliver the lessons in this instructional package is Richard Mayer's SOI model "Designing Instruction for Constructivist Learning." This model incorporates a solid framework with constructivist principles of instructional design that provide the appropriate basis for designing and delivering this GOGAS training module.

Mayer's SOI model is based on the value of creating instructional materials that facilitate knowledge transfer/use and retention, as well as focusing on the process of learning, which are fundamental aspects to a module that will be used as part of a training program. This training module will be a crucial factor in developing the skills that are needed for work within a gas station. The cashiers and managers that participate in this training need to retain the knowledge of computer components, as well as transfer that knowledge as the company continually upgrades the technology within each station.

The GOGAS cashier and station manager training module is primarily based on the methods that are described within the SOI model. The specific methods that were used include: Selecting relevant information by highlighting the most important and concise information for the learner, using instructional objectives and providing summaries; Organizing the selected information into graphical representations with the related descriptive/verbal information; and Integrating the information with captioned illustrations and elaborative questions.

The employees at GOGAS who fulfill the roles of cashier and station manager must use computers and peripheral hardware in order to perform their duties within the stations. This training module does not require any prerequisite knowledge of computer hardware or software, but the learners must be literate and physically capable of performing the duties that are required for work within a gas station, as well as being able to follow instruction. This instructional module provides the cashiers and station managers with the necessary material and tools that are needed to learn and understand the basic components of a computer, which includes the monitor, keyboard, mouse, CPU/tower, printer and Microsoft Windows NT software and does not assume any prior knowledge of any of these components. However, it is important that these employees be able to read the instructional materials, follow the instructions to finish each lesson and be able to physically perform duties such as plugging/unplugging the components, typing, clicking the buttons on the mouse, loading paper into a printer and turning the computer on and off.

#### Learners

The target learners for this instructional module are 59 GOGAS cashiers and station managers who range in age from 18-69 with the majority being between the ages of 40-69. Learners have some prior experience with computers and computer software within the performance/learning setting and also have the ability to read, write and comprehend instruction at or above the 5<sup>th</sup> grade level. The majority of learners (91.2%) believe that a better knowledge of computers would help them with their job

performance. They also have experience with individual, group and print-based training through prior instruction and have a preference toward print-based and group training. The learners have a positive attitude toward receiving computer related training, and they believe that this training is very relevant to their job performance. They are confident that they can learn enough about computers within the work stations to become better equipped to troubleshoot computer related issues. Learners also believe that further training will lead to a more satisfying work experience due to a decrease in frustration with computer related issues. They vary in their education levels with the majority (51.8%) having achieved a high school education and 39.3% completed some college courses.

#### Instructional Objectives

1) All GOGAS station managers and cashiers will <u>identify and describe</u> computer hardware components including monitor, keyboard, mouse, case, modem and printer.

2) All GOGAS station managers and cashiers will <u>identify and describe</u> basic components of the Microsoft Windows NT desktop components which include taskbar, icons, pointer and control box.

#### Formative Evaluation

The one-to-one formative evaluation was conducted at the GOGAS training facility after the employees finished participating in a formal meeting. Six GOGAS employees were chosen for the one-to-one evaluation because two of them were each considered to have a low, moderate and high knowledge base for computer hardware and software. The learners were all female station managers ages 45-75 years old with varying computer abilities and knowledge and were all literate and able to read and comprehend the materials. The evaluation was conducted after lunch was served following the conclusion of their meeting.

The learners were instructed to read the materials and follow the directions. Each learner was given a black and white copy of the module and sat at a table with several others so that they could all see the color copies. It was not possible to provide everyone with a color copy due to excessive printing costs. The learners were also provided with answer sheets to complete the pre and post tests (see Appendix A) as well as a feedback questionnaire (see Appendix B). It took the learners approximately 1 hour to complete the module. The process was monitored by the SME and the instructional designer (me). When everyone had finished the module and the questionnaire, there was a group discussion about the learners' likes, dislikes and recommendations pertaining to the layout and content of the module. It was not possible to talk to each employee individually because of time constraints, but the information that was obtained in the group discussion was very valuable and informative.

The results of the one-to-one evaluations were a compilation of verbal responses to questions and suggestions, and overall the learners were very pleased with the instruction. The results of the questionnaire indicate that in general they learned something from the module, consider it to be useful, easy to follow, something they can use in their job, they were motivated to complete the module, they would use it in their stations if they had an issue, but they may still call someone for help and that they like this form of training.

The small group evaluation was conducted in the same manner as the one-to-one evaluations. The eight learners were all station managers ages 45-75 years old with varying degrees of computer knowledge. The difference in the group evaluation and the one-to-one was that the group left after completing the module and questionnaire. Two of the group learners did not complete the questionnaire at all.

As stated above, the materials were black and white individual copies for each learner with color copies that they shared. All learners were given the printed manual with pages stapled together in order and a packet that included two answer sheets (one for the pretest and one for the posttest) and the feedback questionnaire. They were provided with pencils or pens to record their answers.

The evaluation took place after a formal meeting at the training facility located at the GOGAS headquarters. All of the learners were assembled in the training room and told to sit somewhere that allowed them access to a color copy. It took most of them around 1 hour to complete the module. Six of the participants stayed to answer questions, which served as the one-to-one evaluation. When everyone was finished they were thanked for their participation and they were on their way. The answer sheets were turned in when the learner had finished. The results of the formative evaluation were analyzed, interpreted and utilized in the redesign of the module.

#### Implementation Site

There are 19 different stations all within central and southeastern North Carolina. All employees will undergo training both at a testing facility located at 3114 Randall Parkway in Wilmington, NC and within one of the 19 stations. The testing facility is equipped with a large room that has everything needed to perform both group and individual training that is self-instructed. The training room contains 20 eight-foot tables and 100 chairs, writing utensils (pencils and pens), and paper. The stations also are equipped with the necessary equipment to complete the module and it is also the actual performance environment. The training facility also has a mock station set up that can perform all of the functions of an actual station without the products. This instructional (training) module was given to all existing and future cashiers and managers at this facility.

#### Summative Evaluation Objectives

These objectives, which are based upon Donald Kirkpatrick's Four-Level Model, will be the primary focus of this summative evaluation.

- Reaction: Assess learners' attitudes, feelings and acceptance of training program.
- Learning: Determine if instructional objectives were accomplished and what level of knowledge and skills were gained as a result of the training.
- Transfer of Learning: Determine if and how well learners are utilizing the new knowledge and skills in their job.

• Results: Determine what impact the training has had on the organization in the long term.

#### Process

Methodology

### Guiding Model

As previously stated, Kirkpatrick's model is the guiding design approach from which this evaluation is based. The objectives of the summative evaluation are to first collect data pertaining to the learner's reaction to the training (i.e. feelings, attitudes, etc.). These data will be derived from a feedback survey (Appendix B) and then subsequently analyzed and interpreted to determine the learners' reactions to the instruction. The next level of evaluation involves collecting data which pertains to the knowledge and skills that the learner gained as a result of participating in the instruction. These data will be collected using pre/post tests (Appendix A) and will be analyzed and interpreted in order to determine if the instructional objectives of the training were met. The third level of this model entails assessing whether or not the learners were able to use the knowledge and skills that they gained from the instruction and how well they are able to use them. This will be accomplished using observations of the cashiers and station managers while they are working and using the new GasBoy system. The last level of evaluation addresses the long-term results and impact of the training. This will be assessed by keeping records of the number of calls made to the technology support personnel at GOGAS, if the client deems it necessary to do so.

### **Implementation Plan**

Once a month all GOGAS employees are required to attend a mandatory meeting at the headquarters/training facility located in Wilmington, NC. This plan will be implemented at one of these meetings, but the actual date will be determined by the management team. At the designated meeting, the cashiers and managers will be given the pre-test prior to being given the self-instructional module. Once the pre-test is completed, the modules will be distributed along with writing utensils and the employees will be asked to complete the training. Once they are finished with the training module, they will be given the post-test. After completion of the post-test, the group will be given the feedback survey, which will be used to determine their reaction to the training. In order to determine if retention and transfer of the knowledge occurred, the station managers will observe their cashiers while they are actually performing their duties during the week following the training session. A log of all calls made to the station technology support staff will also be kept to determine whether the training had an impact as well.

#### Data Collection Plan

The methods of data collection for this summative evaluation, as previously stated, involve collecting several types of data. The pre/post tests, which will be used to

determine if and how well learning took place, were tested during the formative evaluation and proved to be both valid and reliable. Subject Matter Experts were utilized in the design of these instruments as well, and they were successful in establishing 95% inter-rater reliability. The learners' reaction to the training, including their feelings, attitude and acceptance will be assessed using the feedback form (Appendix B). This form will be distributed after the learners have completed the training. Transfer of knowledge will be assessed using observation and will be handled by the station managers over the course of the week after the training is complete.

To further delineate the purposes of the training module, the task analysis in Appendix C gives a written and visual representation of the primary objectives of the training. An assessment plan is also included in Appendix D, which outlines the performance objectives with the type of learning outcomes, types of assessment and the assessment instrument. Also included in Appendix E of this plan, are the objectives in conjunction with the learning outcomes, and what percentage of the instructional module is comprised of those outcomes.

#### Data Analysis Plan

The Statistical Package for Social Sciences (SPSS) will be used to analyze all data collected for this evaluation. The pre and post tests, which will be analyzed and interpreted to determine whether learning took place and the instructional objectives were met, will be compared using a paired sample t-test. The learners' reactions to the training module will be assessed using the feedback form which uses a five-point likert scale (strongly agree to strongly disagree). Descriptive statistics of these data, including mean and standard deviation, will be generated and interpreted. The form also has a place for open-ended responses such as suggestions or comments, which will also be compiled and analyzed using qualitative techniques. The data collected via observations by the station managers following the training session will also be compiled, analyzed and interpreted using qualitative methods as well. If the client determines that it is necessary to focus on the long term results of the training, the written logs of phone calls to tech support will be analyzed to assess whether there was a significant difference in number and context of calls before and after the training was completed.

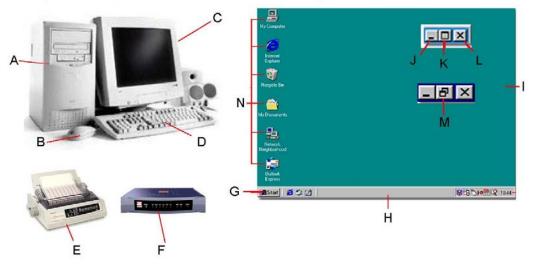
### Conclusions

Once all of the data has been collected, analyzed and interpreted, it may be necessary for the instructional designer to make revisions to the GOGAS cashier selfinstructional module. If it is determined that changes need to be made, then the client has agreed to cover the cost of re-printing the modules after the changes are made, as well as designating more time for the employees to receive the revised training. A report of all findings and recommendations based on this summative evaluation will be written and distributed to all members of the GOGAS management team prior to any changes being implemented. Page 4

# Let's see how much you already know about computers

Please use the paper provided in the back of this manual labeled "Pretest" to answer the following questions...

1) Using the following pictures of a computer system and software features, write the name of each component on the pretest sheet beside the corresponding letter.



#### ANSWERS FOR REVIEW QUESTIONS AND PRE/POST TESTS

2. Match each of the following computer hardware and software components listed below in the left column with their description listed in the right column. Use the pretest page to record your answers.

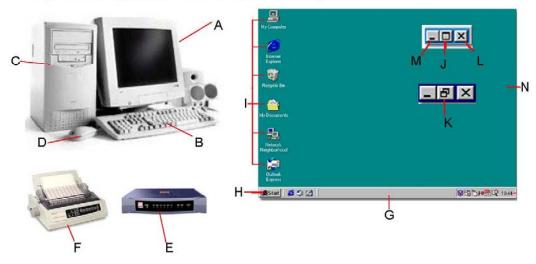
	Name	Description
1)	Case	A. Used to navigate between active and inactive windows, contains the Start menu and is usually found at the bottom of the screen.
2)	Monitor	B. On screen symbol moved to select processing options or information; can be many shapes but is usually in the shape of an arrow.
3)	Keyboard	C. Used to house the delicate internal processing components that work together to make a computer system function properly.
4)	Mouse	D. An input/output device that allows a computer to transmit information over a telephone line.
5)	Printer	E. A small input device with one or more buttons that can be clicked in order to initiate an action, which can seen on a screen.
6)	Modem	F. A video output device that is capable a displaying text and graphics, often in color.
7)	Control Box	G. An output device that is used to transfer text and graphics that are displayed on a screen onto paper or other forms of media.
8)	Icons	H. A device that consists a set of numeric, alphabetic and function keys used create text or to issue commands.
9)	Pointer	<ol> <li>On-screen graphics that serve as shortcuts which allow a user to open a program. These are typi- cally located on the desktop or task bar.</li> </ol>
10)	Taskbar	J. A series of buttons used to minimize, maximize, restore and close active or inactive windows.

To check your answers do to bade 22

# Let's see how much you have learned about computers

Please use the paper provided in the back of this manual labeled "Post-test" to answer the following questions...

1) Using the following pictures of a computer system and software features, write the name of each component on the pretest sheet beside the corresponding letter.



Page 27

POST TEST

Page 28

2. Match each of the following computer hardware and software components listed below in the left column with their description listed in the right column. Use the post-test page to record your answers.

	Name	Description
1)	Control Box	A. Used to navigate between active and inactive windows, contains the Start menu and is usually found at the bottom of the screen.
2)	Modem	B. On screen symbol moved to select processing options or information; can be many shapes but is usually in the shape of an arrow.
3)	Monitor	C. Used to house the delicate internal processing components that work together to make a computer system function properly.
4)	Mouse	D. An input/output device that allows a computer to transmit information over a telephone line.
5)	Printer	E. A small input device with one or more buttons that can be clicked in order to initiate an action, which can seen on a screen.
6)	Case	F. A video output device that is capable a displaying text and graphics, often in color.
7)	Taskbar	G. An output device that is used to transfer text and graphics that are displayed on a screen onto paper or other forms of media.
8)	lcons	H. A device that consists a set of numeric, alphabetic and function keys used create text or to issue commands.
9)	Pointer	<ol> <li>On-screen graphics that serve as shortcuts which allow a user to open a program. These are typi- cally located on the desktop or task bar.</li> </ol>
10)	Keyboard	J. A series of buttons used to minimize, maximize, restore and close active or inactive windows.

Let's see how vou did! To check your answers do to pade 29

### **Appendix B: Feedback Form**

Thank you for taking the time to complete the self-instructional training manual. Your opinions about the effectiveness and usability of this material are important to use. Please take a few moments to complete this questionnaire.

Please use this scale to answer the following questions:

- 1 Strongly Disagree
- 2 Disagree
- 3 Neither Disagree or Agree
- 4 Agree
- 5 Strongly Agree

1) The instructional materials were easy to follow.	1	2	3	4	5
2) I feel like I learned something that I can use in my job.	1	2	3	4	5
3) I was motivated to complete the instructional module.	1	2	3	4	5
5) If I had this manual in my station, I think that I would use it when I am confronted with a computer issue.	1	2	3	4	5
6) Even if I had this manual I would still call someone for assistance.	1	2	3	4	5
7) I did not learn anything from this instructional module.	1	2	3	4	5
8) I found the materials easy to read.	1	2	3	4	5
4) I dislike this form of training.	1	2	3	4	5

Please rate the overall usefulness of the training manual (circle your answer)

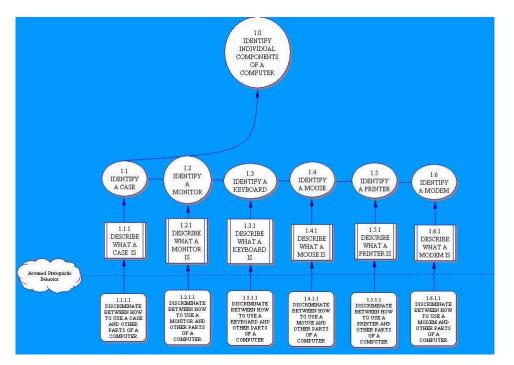
Not at all useful	Somewhat useful	Average	Very useful
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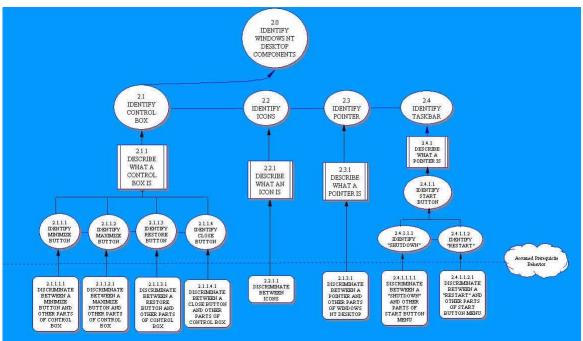
Extremely useful

Please use the following space to make any suggestions pertaining to the manual

## **Appendix C: Task Analysis**

- **1.0** Identify Individual Components of a Computer
- **1.1** Identify a CPU/Tower
- **1.1.1** Describe what a case is
- **1.2** Identify a monitor
- **1.2.1** Describe what a monitor is
- **1.3** Identify a keyboard
- **1.3.1** Describe what a keyboard is
- **1.4** Identify a mouse
- **1.4.1** Describe what a mouse is
- **1.5** Identify a printer
- **1.5.1** Describe what a printer is
- **2.0** Identify Windows NT Desktop Components. (CC)
- 2.1 Identify Windows NT Desktop Components
- **2.1.1** Identify Control Box
- **2.1.1.1** Describe what a Control Box is
- 2.1.1.1 Identify Minimize Button
- 2.1.1.2 Identify Maximize Button
- 2.1.1.3 Identify Restore Button
- 2.1.1.4 Identify Close Button
- 2.1.2 Identify Icons
- **2.1.2.1** Describe what an icon is
- 2.1.3 Identify Pointer
- **2.1.3.1** Describe what a Pointer is
- 2.1.4 Identify Taskbar
- **2.1.4.1** Describe what a Taskbar is
- 2.1.4.1 Identify Start Button
- 2.1.4.1.1 Identify "Shutdown"
- 2.1.4.1.2 Identify "Restart"





# Appendix D: Assessment Plan

<u>Objective</u>	<u>Type of</u> <u>Learning</u> <u>Outcome</u>	<u>Types of</u> <u>Assessment</u>	<u>Assessment Instruments</u>
<b>1.1</b> Given accurate graphical representations of a complete computer system, identify the case. Learner should correctly identify both kinds of cases by marking the letters within the graphic.	Concrete Concept	Formal Supply Items – Fill in the Blank	Using the following pictures of complete computer systems, write the correct name of the component beside the corresponding letter with a line pointing to it for each item.
<b>1.1.1</b> Given an open-ended question that asks for a written description of how to use the components, learner should correctly list 90% of the primary visual characteristics and summarize how to use a case by writing them.	Concrete Concept	Formal Supply Items – Fill in the Blank and Short Answer	<ol> <li>List 5 characteristics of a case.</li> <li>Describe step by step how a monitor, keyboard, mouse and printer integrate with a case and how to turn it on.</li> </ol>
<b>1.2</b> Given accurate graphical representations of a complete computer system, identify the monitors. Learner should correctly identify two kinds of monitors by marking the letters within the graphic.	Concrete Concept	Formal Supply Items – Fill in the Blank	Using the following pictures of complete computer systems, write the correct name and type of the component beside the corresponding letter with a line pointing to it for each item.
<b>1.2.1</b> Given an open-ended question that asks for a written description of how to use the components, learner should correctly list 90% of the primary visual characteristics and summarize how to use a monitor by writing them.	Concrete Concept	Formal Supply Items – Fill in the Blank and Short Answer	<ol> <li>List 5 characteristics of a monitor.</li> <li>Describe step by step how to plug in a monitor and turn it on.</li> </ol>
<b>1.3</b> Given accurate graphical representations of a complete computer system, identify the keyboards. Learner should correctly identify two kinds of keyboards by marking the letters	Concrete Concept	Formal Supply Items – Fill in the Blank	Using the following pictures of complete computer system, write the correct name of the component beside the corresponding letter with a line pointing to it for each item.

within the graphic.			
<b>1.3.1</b> Given an open-ended question that asks for a written description of how to use the components, learner should correctly list 90% of the primary visual characteristics and summarize how to use a keyboard by writing them.	Concrete Concept	Formal Supply Items – Fill in the Blank and Short Answer	<ol> <li>List 5 characteristics of a keyboard.</li> <li>Describe what the keyboard plug looks like and how to plug it in.</li> </ol>
<b>1.4</b> Given accurate graphical representations of a complete computer system, identify the mouse(s). Learner should correctly identify two kinds of mouse(s) by marking the letters within the graphic.	Concrete Concept	Formal Supply Items – Fill in the Blank	Using the following pictures of complete computer systems, write the correct name of the component beside the corresponding letter with a line pointing to it for each item.
<b>1.4.1</b> Given an open-ended question that asks for a written description of how to use the components, learner should correctly list 90% of the primary visual characteristics and summarize how to use a mouse by writing them.	Concrete Concept	Formal Supply Items – Fill in the Blank and Short Answer	<ol> <li>List 5 characteristics of an optical and a standard mouse.</li> <li>Describe what the mouse plug looks like, how to plug it in and how to use the mouse.</li> </ol>
<b>1.5</b> Given accurate graphical representations of a complete computer system, identify the printers. Learner should correctly identify two kinds of printers by marking the letters within the graphic.	Concrete Concept	Formal Supply Items – Fill in the Blank	Using the following pictures of complete computer systems, write the correct name of the component beside the corresponding letter with a line pointing to it for each item.
2.1 Given accurate graphical representations of complete computer software screens, identify the Windows NT desktop components. Learner should correctly identify all kinds of desktop components by marking the letters within the graphic.	Concrete Concept	Formal Supply Items – Fill in the Blank	Using the following pictures of complete software screens, write the correct name of the Windows desktop components beside the corresponding letter with a line pointing to it for each item.
<b>2.1.1</b> Given accurate graphical	Concrete	Formal Supply	Using the following pictures of

P	-		
representations of complete computer software screens, identify the Control Box. Learner should correctly identify all kinds of Control Boxes by marking the letters within the graphic.	Concept	Items – Fill in the Blank	complete software screens, write the correct name of the Control Box beside the corresponding letter with a line pointing to it for each item.
<b>2.1.1.1</b> Given an objective question that asks for a written indication of the function of a component, learner should correctly match 90% of the written descriptions with their correct name by writing them.	Concrete Concept	Formal Supply Items – Fill in the Blank	Using the following list of component descriptions, write the letter of the correct description beside the name of the component.
<b>2.1.1.1</b> Given accurate graphical representations of complete computer software screens, identify the Minimize Button. Learner should correctly identify all kinds of Minimize Button by marking the letters within the graphic.	Concrete Concept	Formal Supply Items – Fill in the Blank	Using the following pictures of complete software screens, write the correct name of the Minimize Button beside the corresponding letter with a line pointing to it for each item.
<b>2.1.1.2</b> Given accurate graphical representations of complete computer software screens, identify the Maximize Button. Learner should correctly identify all kinds of Maximize Button by marking the letters within the graphic.	Concrete Concept	Formal Supply Items – Fill in the Blank	Using the following pictures of complete software screens, write the correct name of the Maximize Button beside the corresponding letter with a line pointing to it for each item.
<b>2.1.1.3</b> Given accurate graphical representations of complete computer software screens, identify the Restore Button. Learner should correctly identify all kinds of Restore Button by marking the letters within the graphic.	Concrete Concept	Formal Supply Items – Fill in the Blank	Using the following pictures of complete software screens, write the correct name of the Restore Button beside the corresponding letter with a line pointing to it for each item.
<b>2.1.1.4</b> Given accurate graphical representations of complete computer software screens, identify the Close Button. Learner should correctly identify	Concrete Concept	Formal Supply Items – Fill in the Blank	Using the following pictures of complete software screens, write the correct name of the Close Button beside the corresponding letter with a line pointing to it for

all kinds of Close Buttons by marking the letters within the graphic.			each item.
<b>2.1.2</b> Given accurate graphical representations of complete computer software screens, identify the Icons. Learner should correctly identify all kinds of Icons by marking the letters within the graphic.	Concrete Concept	Formal Supply Items – Fill in the Blank	Using the following pictures of complete software screens, write the correct name of the Icons beside the corresponding letter with a line pointing to it for each item.
<b>2.1.2.1</b> Given an objective question that asks for a written indication of the function of a component, learner should correctly match 90% of the written descriptions with their correct name by writing them.	Concrete Concept	Formal Supply Items – Fill in the Blank	Using the following list of component descriptions, write the letter of the correct description beside the name of the component.
<b>2.1.3</b> Given accurate graphical representations of complete computer software screens, identify the Cursor. Learner should correctly identify the Cursor by marking the letters within the graphic.	Concrete Concept	Formal Supply Items – Fill in the Blank	Using the following pictures of complete software screens, write the correct name of the Cursor beside the corresponding letter with a line pointing to it for each item.
<b>2.1.3.1</b> Given an objective question that asks for a written indication of the function of a component, learner should correctly match 90% of the written descriptions with their correct name by writing them.	Concrete Concept	Formal Supply Items – Fill in the Blank	Using the following list of component descriptions, write the letter of the correct description beside the name of the component.
<b>2.1.4</b> Given accurate graphical representations of complete computer software screens, identify the Taskbar. Learner should correctly identify the Taskbar by marking the letters within the graphic.	Concrete Concept	Formal Supply Items – Fill in the Blank	Using the following pictures of complete software screens, write the correct name of the Taskbar beside the corresponding letter with a line pointing to it for each item.
<b>2.1.4.1</b> Given an objective question that asks for a written indication of the function of a	Concrete Concept	Formal Supply Items – Fill in the Blank	Using the following list of component descriptions, write the letter of the correct

component, learner should correctly match 90% of the written descriptions with their correct name by writing them.			description beside the name of the component.
<b>2.1.4.1</b> Given accurate graphical representations of complete computer software screens, identify the Start Button. Learner should correctly identify the Start Button by marking the letters within the graphic.	Concrete Concept	Formal Supply Items – Fill in the Blank	Using the following pictures of complete software screens, write the correct name of the Start Button beside the corresponding letter with a line pointing to it for each item.
<b>2.1.4.1.1</b> Given accurate graphical representations of complete computer software screens, identify "Shutdown". Learner should correctly identify "Shutdown" by marking the letters within the graphic.	Concrete Concept	Formal Supply Items – Fill in the Blank	Using the following pictures of complete software screens, write the correct name of the "Shutdown" button beside the corresponding letter with a line pointing to it for each item.
<b>2.1.4.1.2</b> Given accurate graphical representations of complete computer software screens, identify "Restart". Learner should correctly identify "Restart" by marking the letters within the graphic.	Concrete Concept	Formal Supply Items – Fill in the Blank	Using the following pictures of complete software screens, write the correct name of the "Restart" button beside the corresponding letter with a line pointing to it for each item.

Domain	Verbal Info	Intellectual Skills			Cognitive Strategy	Motor Skill	Attitu de	Total	
<b>Objective</b> #		Discrim ination	Concepts	Rules	Problem Solving				
1.0									
1.1.		1	2						3
1.1.1			2						2
1.2		1	2						3
1.2.1			2						2
1.3		1	2						3
1.3.1			1						1
1.4		1	2						3
1.4.1			1						1
1.5		1	2						3
1.5.1			1						1
2.0									
2.1			3						3
2.1.1		1	2						3
2.1.1.1		1	2						3
2.1.1.2		1	1						2
2.1.1.3		1	2						3
2.1.1.4		1	1						2
2.1.2		4							4
2.1.2.1			1						1
2.1.3			1						1
2.1.4			1						1
2.1.4.1			1						1
2.1.4.1.1			1						1
2.1.4.1.1.1		2	1						3
2.1.4.1.1.2			1						1
% of test	0%	37.6%	62.4%	0%	0%	0%	0%	0%	51 (100%)

# **Appendix E: Chart of Domains**