Employee Training Program Assessment Plan

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Section I: Proposal

K.E. Austin Corporation, GOGAS, underwent a reform when the industry-wide standards for the use of gas station technology transitioned from mechanical to computer-based. In order to meet these standards, a new computer-based point of sale system was installed in all nineteen locations within central and southeastern North Carolina in November 2006. Good Practice for Assessing Student Learning Principle 8 (AAHE) states that "assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change." Given that the reason for this change was to meet new industry standards, this assessment is more likely to lead to improvement of the company as a whole.

After implementation of the new system, there was a significant increase in the number of station manager and cashier calls to the technology personnel. The employees who work at each of these stations were consistently unable to troubleshoot and fix basic computer hardware and software problems without assistance. Consequently, this increased the time that the technology support personnel spent either on the phone or driving to the station in order to fix simple problems. Good Practice for Assessing Student Learning Principle 7 (AAHE) states that "assessment makes a difference when it begins with issues of use and illuminates questions that people really care about." In this situation, both station employees and technology support are expressing frustration and are very motivated to participate in training because they care about their jobs and the overall morale of the employees.

A needs assessment was conducted by the management team who determined this to be a training related issue. The solution that was decided upon was to

implement a print-based self-instructional training program, which could be utilized within each of the nineteen stations by all of the station managers and cashiers. Each station received one instructional package with enough supplies for each employee to undergo the self-instructional training program.

During the development of this program formative evaluation techniques including one-to-one and large group evaluations, observations and interviews were employed. The client specified that this program must include instructional materials pertaining to the identification of basic computer software and hardware components, which aid in troubleshooting problems that may arise during everyday work.

The self-instructional module consists of two sections pertaining to computer hardware and Windows desktop components. The goals of this program are for the cashiers and managers to learn how to identify hardware including the case, mouse, keyboard, monitor, printer and modem; and software components including the desktop, icons, control box, taskbar and pointer. These goals are stated explicitly, which will be an asset to this assessment plan according to the Good Practice for Assessing Student Learning Principle 3 (AAHE) which states “assessment works best when the programs it seeks to improve have clear, explicitly stated purposes.”

The purpose of this plan is to assess the overall effectiveness of this training program, which was implemented in all 19 stations in January 2007. It is an assessment of learning by the station cashiers and managers and will utilize criterion-referenced tests. These tests will provide evidence of each learner’s mastery of the stated learning outcomes. This plan will also help to validate that the program is capable of enabling GOGAS employees to better serve the public by accurately and

efficiently performing at their jobs, which also increases revenue for the company. This validation is related to Good Practice for Assessing Student Learning Principle 9 (AAHE) which states that “through assessment, educators meet responsibilities to students and to the public.”

Sections II & III: Learning Outcomes and Assessment Techniques

Performance Objective	Gagne Classification	Learning Outcomes	Instructional Techniques	Assessment Type	Rationale
1.0 Identify Individual Components of a Computer	Intellectual skills-Concrete Concept	Given accurate graphical representations of a complete computer system, the learner will correctly identify all of the individual hardware components specified in the module by supplying the component name, on the provided answer sheet, with the corresponding letter from the graphic.	1) The learning facilitator will give each learner the self-instructional module to complete. 2) When the module has been completed, the learners will be divided into small groups by station. 3) Each group will go to the simulated station in the training facility and identify each computer component that was presented in the module. 4) After each group has demonstrated	Direct, Criterion-Referenced Worksheet that requires the learner to supply the correct answer.	Given the specified learning outcome, using a worksheet with the graphical representation of a computer system to assess whether they can correctly identify the components would be the most appropriate method.

			correct identification of the components, the learners will be given an accurate graphical representation of a computer system and asked to correctly identify all components by marking the letters within the graphic.		
2.0 Identify Windows NT Desktop Components	Intellectual skills- Concrete Concept	Given accurate graphical representations of complete computer software screens, the learners will correctly identify software screen components specified in the module supplying the component name, on the provided answer	1) The learning facilitator will give each learner the self-instructional module to complete. 2) When the module has been completed, the learners will go to the simulated station in the training facility and identify each desktop component that was presented in the module. 3) After each learner has demonstrated	Direct, Criterion-Referenced Worksheet that requires the learner to supply the correct answer.	Given the specified learning outcome, using a worksheet with the graphical representation of a computer software screen to assess whether they can correctly identify the components would be the most appropriate method.

		sheet, with the corresponding letter from the graphic.	correct identification of the components, they will be given an accurate graphical representation of a computer desktop and asked to correctly identify all components by marking the letters within the graphic.		

Section IV: Assessment Instruments

Learning Outcome #1

Given accurate graphical representations of a complete computer system, the learner will correctly identify all of the individual hardware components specified in the module by supplying the component name, on the provided answer sheet, with the corresponding letter from the graphic.

Learning Outcome #2

Given accurate graphical representations of complete computer software screens, the learners will correctly identify software screen components specified in the module supplying the component name, on the provided answer sheet, with the corresponding letter from the graphic.

Assessment Instrument

An objective supply-based direct criterion-referenced test will be used to assess whether learning has taken place according to the specified learning outcomes.

Rationale

The instrument that was developed for these learning outcomes is a print-based color worksheet with a graphical representation of a complete computer system and software screens that will provide direct evidence of learning objective mastery (see Appendix A). Each component that the learner is required to identify is labeled with a letter that corresponds to the answer sheet that they are given (see Appendix B). I believe that this is the most appropriate way to assess learning because it directly measures whether the learning outcome has been achieved.

Potential Threats

The learners who will be participating in this assessment are cashiers and station managers for a retail gas company. Obviously they are working with real computers in their stations and assessing them using a paper and pen may be a threat to validity, but by using simulation as an instructional technique I hope to lessen this threat. The graphics in the assessment instrument are also the same as the actual ones they use on the job, so this should help establish face validity. However, in terms of the stated learning outcomes, the test is valid because it is assessing exactly what it is supposed to assess. The test is also reliable because it can consistently and independently measure what it is supposed to measure as well. Also, the test will be given before the learners go through the module and afterward to determine if learning did actually take place.

Section V: Assessment Data

The learning outcomes for this plan are assessed using a single instrument which is a direct objective supply-based criterion-referenced test. This test will be given as a pretest and posttest to each learner and yields quantitative data. The source of the data, or the learners, will be all of the existing and new cashiers and station managers who work for GoGas.

Data Analysis

Once the learners have completed both pre and post-instruction tests, the data will be compiled and analyzed using the Statistical Package for the Social Sciences (SPSS). A paired sample t-test will be used to compare pre and post test scores, which will determine whether the learning objectives of the module were achieved. The power associated with the module will also be determined using the calculated effect size, given that the sample size is adequate for analysis.

Data Display

The data generated from the t-test will be displayed in a table, which makes it easier to understand the results and aids in interpretation.

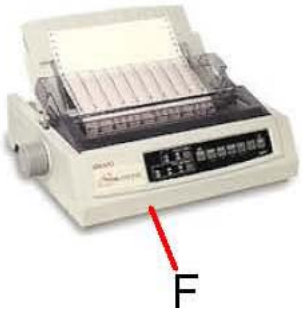
Data Use

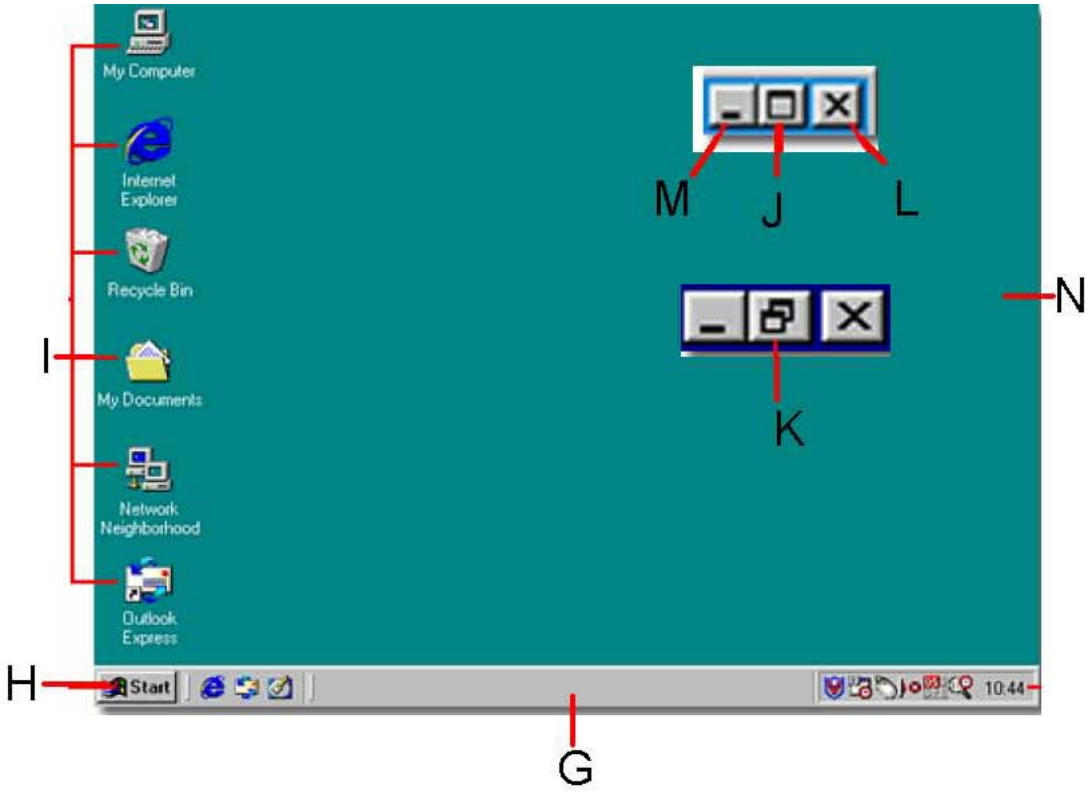
The collected data will be used as a summative evaluation to assess whether learning took place due to the instructional module. Once the data is analyzed and interpreted, the results will be given to the administrative team at GoGas in a written report.

Appendix A

Let's see how much you have learned about computers

Using the following pictures of a computer system and software features; write the name of each component on the provided sheet beside the corresponding letter.





Append

GoGas Self-Instructional Training Manual
Answer Sheet

Using the pictures of a computer system and software features; write the name of each component beside the corresponding letter below.

A	
B	
C	
D	
E	
F	
G	
H	
I	
J	
K	
L	
M	
N	