

**Summative Evaluation Plan  
Understanding Group Wise for New Hanover County  
Personnel**

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## Abstract

The purpose of this Summative Evaluation Plan is to evaluate the effectiveness of the instructional module, “Understanding Group Wise for New Hanover County personnel.” This module will be used to train new employees as well as serve as a refresher course for current employees.

The summative evaluation includes the review of pre and post test data given to each participant as well as observation checklists with comments from the Change Management Team. The summative evaluation is guided by Kirkpatrick’s Four-Level Summative Model which evaluates reaction, learning, behavior and results of an instructional package.

Within this summative evaluation the data collection plan and data analysis plan will be described and analyzed for future use.

## Introduction

### Context

#### *Overview of the instructional package*

A self-instructional module has been developed. It will provide guidance in the use of the GroupWise e-mail program. It has been developed in print format which will allow the learner to follow through the print material as they complete each task on the computer. The module is 52 pages and is divided into 11 sections. After each section, the learner is asked to demonstrate the skills taught in that section. Feedback is provided to the learner after each task through learner demonstration and a check list for further reinforcement.

The instructional module was designed based on the Mayer’s theory for Designing Instruction for Constructivist learning. The model requires the student to use the cognitive processes listed below and is referred to as the SOI model of learning.

1. **Selecting** relevant information to be retained in visual and auditory working memory
2. **Organize** the information into images that “make sense.” This results in the construction of a pictorial and verbal mental model in working memory.
3. **Integrating** the pictorial and verbal mental models and making the connections with existing knowledge in long term memory.

The majority (90%) of the target learners are college graduates. The learners have experience working with computers. They are able to turn a computer on and sign in to Novell. Learners have little to no experience working with Group Wise. Learners have also sent and received emails through other email systems such as “Yahoo” and

“Hotmail.” Learners have received training in terms of defining and using the Internet and World Wide Web.

Learners support a self paced instructional module. They prefer to learn by completing the modules on their own and learn from their mistakes. Also, they prefer less teacher-directed instruction and prefer to work at their own pace.

The goal is for New Hanover County Teachers, or our learners, is to experience a constructivist learning outcome, and experience both retention and transfer of the information presented. The instruction should be designed so they are able to select the relevant information, organize that information into mental representations and integrate those representations with the existing knowledge they have regarding computers and how to use them to enhance and support their job.

#### *Summary of formative evaluation*

The module was delivered using a one to one evaluation and a small group evaluation. During the one to one evaluation, the MIT student met with co-workers on an individual basis. With each person she reviewed the packet of information including the pre assessment, the module, and the post assessment. She reviewed the directions for the completion of the module and also noted that part of the rationale of the one to one evaluation was to obtain feedback. She observed the performance of the participants using the checklist to mark off mastered skills and make comments for later use. Results were compiled and reviewed.

In order to complete the small group evaluation, the MIT student met with eight teachers at New Hanover High School. With each teacher, she explained the purpose of the module, provided instructions as to how to complete the module, and provided an exit survey to obtain feedback. She observed the performance of several participants using the checklist to mark off mastered skills and make comments for later use. Assessment and survey results were compiled and reviewed.

#### *Description of implementation site*

The learners will be using any computer within the New Hanover County School system, but likely one within their daily classroom setting. The Group Wise Program used by the county is the focus of the instruction and the program is on any network computer.

#### *Summative Evaluation Objectives*

The summative evaluation model will be designed using Donald Kirkpatrick’s Four Level Summative Model. The model involves collecting data to gauge learner’s reaction to the training. This data will be analyzed to see if the learners were pleased with the training and if they felt as though they learned the material. The evaluation of the instructional module is the second level of analysis. Within this level, the participants will perform the tasks required to accomplish the instructional objectives of the module.

The evaluation of the transfer of learning is the third level of analysis. Within this level, the participants will demonstrate their ability to perform the tasks in a real world setting. Finally, the summative evaluation will gauge the impact of the instructional module on the organization (New Hanover County Schools).

## **Process**

### Methodology

#### *Model/approach used to guide the design of the summative evaluation plan*

Kirkpatrick's Four Level Summative Model was used in the development of this summative evaluation plan.

- Reaction Evaluation
- Learning Evaluation
- Transfer of Learning Evaluation
- Results Evaluation

It will begin with reaction evaluation. To gauge learners reaction to the self paced instructional module, a paper-pencil survey will be distributed to all faculty of NHHS asking their opinions about the module and suggestions for improvement. Surveys will be returned to the mailbox of Tina Welborn within five days.

To evaluate learning, each participant will be given pre and post tests that assess the learners knowledge of the instructional objectives both before and after completing the instructional module. All materials will be returned to the mailbox of Tina Welborn within five days.

Members of the Change Management Team will observe various staff members using Group Wise, using a checklist for guidance and to make notes. These informal observations of performance will assess the transfer of learning. As a part of the results evaluation, within a school year, a survey will be conducted once more to evaluate the effectiveness of the self paced instructional module.

#### *Description of the implementation plan for the instruction and evaluation*

The instructional package is designed to be delivered in paper pencil format. Within each instructional package will be:

1. Pre Test
2. Instructional Module
3. Post Test
4. Reaction Survey

Each packet will be delivered to all faculty of New Hanover High School via their mailbox. Each participant will be given five days to complete the package and return to

the mailbox of Tina Welborn. Data from both tests and surveys will be analyzed to assess the success or failure of the instructional module.

## Data Collection Plan

### *Description of data collection methods and instruments*

The objectives of the instructional module and the types of learning outcomes are described in Appendix A and Appendix B.

To establish the reaction of the participants, a survey will be administered to each participant upon the conclusion of the self paced instructional module. The survey will include both closed and open-ended questions that will seek opinions about the design of the module, the clarity of instructions, and gauge the level of confidence participants have in using Group Wise.

As part of the instructional module, the participants will take a pre and post test. The data from these tests will compare the performance of participants using Group Wise from before and after the completion of the module. This comparison data will be used to verify the effectiveness of the training.

Members of the Change Management Team will receive a checklist denoting skills that Group Wise users need to fully function while sending and receiving emails. Change Management Team members will informally observe several participants and make notes on their checklists. The Change Management Team member is responsible for collecting and keeping track of all the data collection instruments.

The received data will be reviewed by members of the Change Management Team and personnel of New Hanover County Schools. If needed, changes will be made to the instructional package. Within a school year, a survey will be conducted once more to evaluate the effectiveness of the self paced instructional module.

## Data Analysis Plan

### *Description of data analysis methods*

The reaction surveys will be measured using the five-point Likert scale where 1=Strongly Disagree, 2=Disagree, 3=Neither Agree or Disagree, 4=Agree, and 5=Strongly Agree. Data will be analyzed using SPSS software. Open ended questions will be on the survey as well for narrative comments. Open ended responses will be categorized and analyzed. Pre test data will be analyzed by calculating the score of correct answers. Pre requisite skills will be determined. Post test data will be analyzed by calculating the score of correct answers. Differences between pre and post test scores will be compared to see which skills were learned and which skills may need further review. Transfer of learning evaluations will be conducted through informal observations of participants using the Group Wise system. The evaluators will use a checklist containing the list of skills

learners need to successfully operate within the Group Wise email system. As a participant performs a task, the evaluator will check off the task on the checklist and make comments, if necessary. After the completion of observations, the Change Management Team will meet and review the data. The closed-ended data from each checklist will be tallied quantitatively and observation notes will be reviewed and compared. Finally, participants will receive and complete a survey within one year. This survey will be measured using the 5 point Likert scale and several open ended questions for narrative comments.

## **Conclusion**

After the interpretation of data, the Change Management Team along with representatives from New Hanover County Schools will make changes to the instructional package to ensure effectiveness of the implementation. The results of the summative evaluation will be presented to the client in a written report. Recommendations will be included within this report as well as a plan for further evaluation.





## Appendix A

### Teachers will demonstrate their ability to send an attachment using GroupWise. (Rule)

Terminal Objective #1: Given a personal computer containing the GroupWise Email program, students will successfully send attachments via email to other people. 80% accuracy is required.

	Performance Objective	Types of Learning Outcomes	Types of Assessment	Assessment Strategy
1	Given a personal computer containing the GroupWise email program, students will demonstrate locating and opening the program by clicking on the GroupWise Icon, using the mouse.	Rule		
1.1	Given the screen of a personal computer and the task of finding the desktop icon, students will identify the desktop icon.	Concrete concept	Post assessment: Matching	Learner will be given a post assessment in which he/she will match the Group Wise Icon with the written phrase.
1.2	Given a mouse, the learner will execute click.	Motor skill	Checklist: Informal observation.	Given a mouse, execute click by pushing down once on the left mouse key.

2	Given a personal computer containing the GroupWise email program, students will demonstrate locating the New Mail Message Icon by clicking on it within the program.	Rule		
2.1	Given the screen of a personal computer and the task of finding the New Mail Message icon, students will identify the New Mail Message icon.	Concrete concept	Post assessment: Matching	Learner will be given a post assessment in which he/she will match the New Mail Message icon with the written phrase.
2.2	Given a mouse, the learner will click on the New Mail Message icon.	Motor skill	Checklist: Informal observation	Given a mouse, execute click by pushing down once on the left mouse key.
3	Given an open Group Wise program, the learner will demonstrate locating the textbox for typing an email address.	Rule		
3.1	Given the screen of a personal computer and the task of finding the email address textbox, students will identify the email address textbox.	Concrete Concept	Post assessment: Matching	Learner will be given a post assessment in which he/she will match the email address textbox with the written phrase.
3.2	Given a mouse, the learner will execute click.	Motor skill	Checklist: Informal observation	Given an open GroupWise program, find the word, "Address" located near

				the top left of the email screen that next to a white space. Single left click on that space.
3.3	Given a computer displaying a “create new email” screen within the GroupWise system, the student demonstrates locating the Address Book Icon and clicking on it.	Rule		
3.3.1	Given the screen of a personal computer and the task of finding the address book icon, students will identify the address book icon.	Concrete concept	Post assessment: Matching	Learner will be given a post assessment in which he/she will match the address book icon with the written phrase
3.3.2	Given a mouse, the learner will execute click.	Motor skill	Checklist: Informal observation	Given a computer displaying a “create new email” screen the student will locate the Address Book Icon by single left-clicking on the picture of an address book near the top left of the email screen.
3.4	Given a computer screen displaying an open address book search screen, the student will demonstrate typing the name by typing in the first and last names in the appropriate boxes.	Rule		

3.4.1	Given a personal computer and the task of finding the Search List Box, students will identify the Search List Box.	Concrete concept	Post assessment: Matching	Learner will be given a post assessment in which he/she will match the Search List Box with the written phrase.
3.5	Given a mouse, the learner will execute click.	Motor skill	Checklist: Informal observation.	Given a mouse, execute double click by pushing down twice on the mouse button on the left.
4	Given a computer displaying “create new email” screen within the GroupWise system, the student will demonstrate typing the email address by typing the receiver’s address in the address text box.	Rule		
4.1	Given a computer displaying the “create new email” screen, the learner will type in email address in appropriate textbox.	Motor skill	Checklist: Informal observation	Learner will click in address text box and type in email address.
5	Given a computer displaying the “create new email” screen within the GroupWise system, the student will demonstrate locating the attachment icon by clicking on it.	Rule		

5.1	Given the screen of a personal computer and the task of finding the attachment icon, students will identify the attachment icon.	Concrete concept	Post assessment: Matching	Learner will be given a post assessment in which he/she will match the attachment icon with the written phrase.
5.2	Given a mouse, the learner will click on the attachment icon.	Motor skill	Checklist: Informal observation	Given a mouse, execute click by pushing down once on the left mouse key.
6	Given a computer containing the GroupWise email program opened to the “attach” screen and a mouse, the student will demonstrate inserting an attachment.	Rule		

6.1	Given a computer containing the Group Wise email program opened to the “attach” screen, the learner will locate the file to attach.	Concrete concept.	Checklist: Informal observation	Given a computer containing the GroupWise email program opened to the “attach” screen and a mouse, the student will demonstrate locating the file to attach by (a) clicking on the browse button (b) clicking on the file to be attached.
6.1.1	Given the screen of a personal computer and the task of finding the file drive, the learner will identify the pull down arrow.	Concrete concept	Post assessment: matching	The learner will be given a post assessment in which he/she will match the pull down arrow with the written phrase.
6.1.2	Students will identify the file drive by finding it and clicking on it.	Motor skill	Checklist: Informal observation	Given a mouse, execute click by pushing down once on the left mouse key while hovering over the file.

## Appendix B

### Chart of Domains

	Domain	Verbal Information	Intellectual Skills				Cognitive Strategy	Motor Skill	Attitude	Total
			Discrimination	Concepts	Rules	Problem Solving				
1	Learners will demonstrate locating and opening the GroupWise program.									
1.1	Learners will identify the desktop icon.			1						
1.2	Learner will execute click on icon.							1		
2	Learner will demonstrate									

	locating the New Mail Message Icon.									
2.1	Learner will identify the New Mail Message.			1						
2.2	Learner will click on New Mail Message icon.							1		
3	Learner will demonstrate locating the email address textbox.									
3.1	Learner will identify the email address									



3.2	textbox add click on it.  Learner will execute click.							1		
3.3	Learner will demonstrate locating the Address Book Icon and click on it.									
3.31	Learner will identify address book icon.			1						
3.32	Learner will execute click							1		
3.4	Learner will demonstrate typing name into textboxes.									
3.41	Learner will			1						

	identify the Search List Box.									
3.5	Learner will execute click.							1		
4	Learner will demonstrate typing email address in the appropriate textbox.									
4.1	Learner will type email address in textbox.							1		
5	Learner will demonstrate locating the attachment icon.									
5.1	Learner will identify the attachment.			1						
5.2	Learner will execute click.							1		

6	Learner will demonstrate inserting an attachment									
6.1	Learner will locate the file to attach.			1						
6.1.1	Learner will find the appropriate file drive.			1						
6.1.2	Learner will identify file drive and click on it.							1		
<b>Totals</b>				<b>8</b>				<b>8</b>		<b>16</b>
<b>% of the test</b>				<b>50%</b>				<b>50%</b>		<b>100%</b>

## Appendix C

### Pre - Assessment

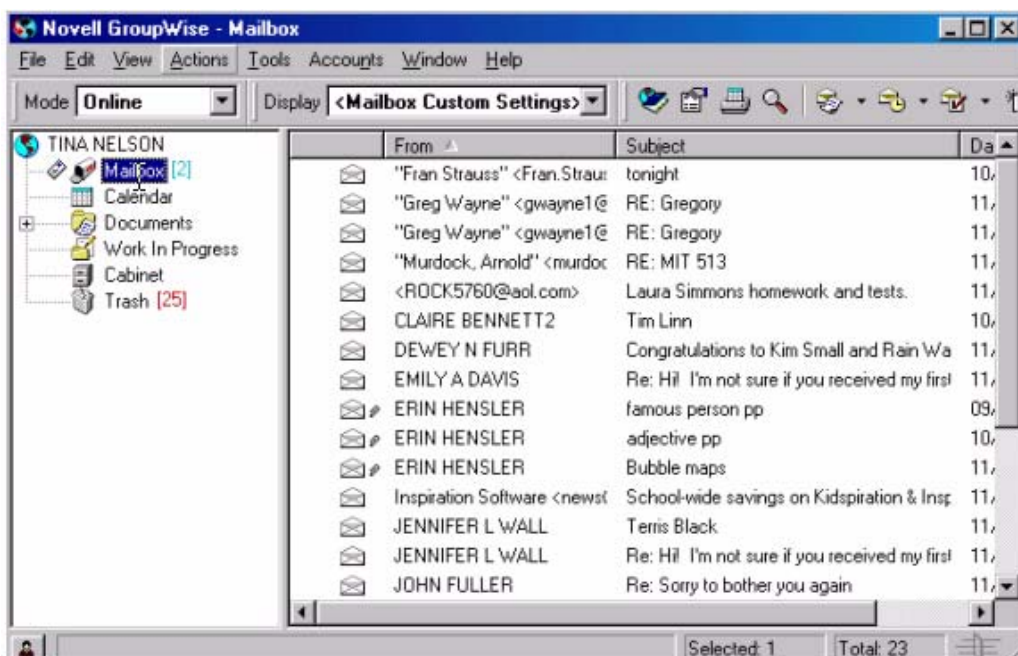
1. On the screen shot shown below, circle the desktop icon.



2. On the screen shot shown below, circle the Groupwise icon.



3. On the screen shot shown below, circle the subject line in an e-mail.



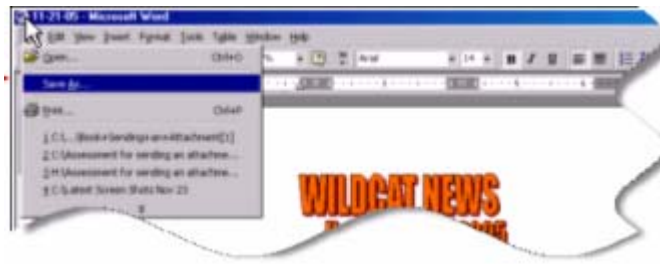
4. On the screen shot shown below, circle the attachment icon



5. On the screen shot shown below, circle the button to close a program.



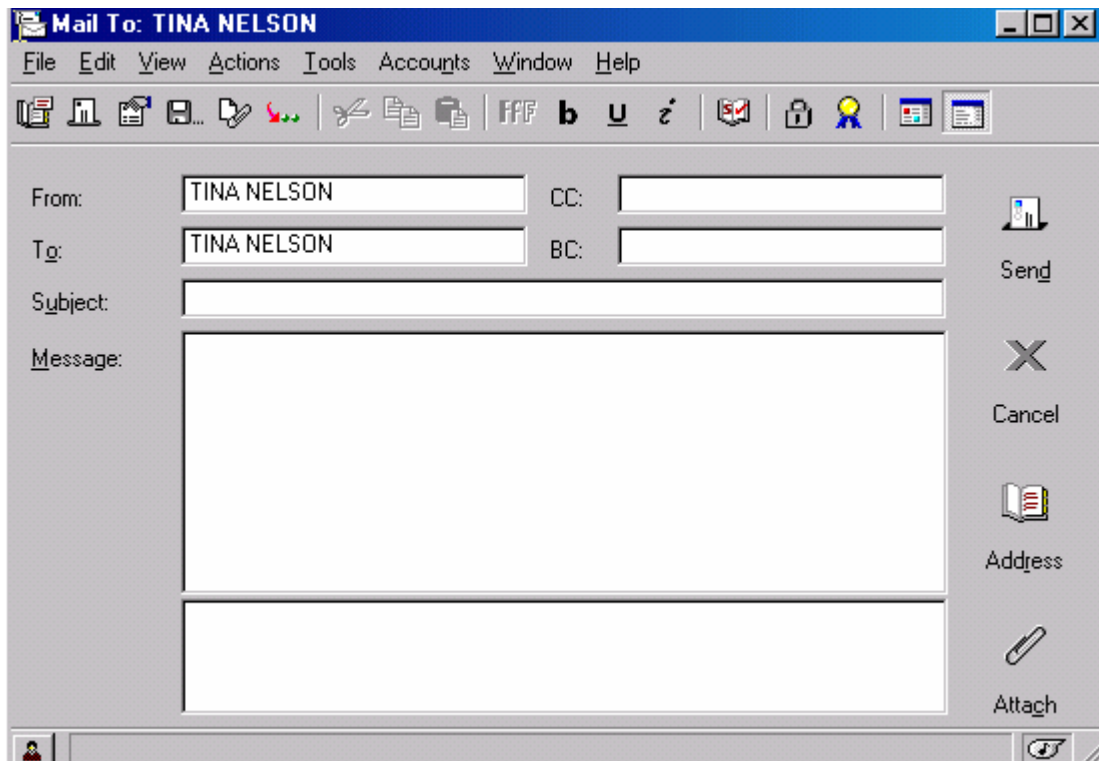
6. On the screen shot shown below, circle the button to save a program.



7. On the icons shown below, circle the “reply” button.



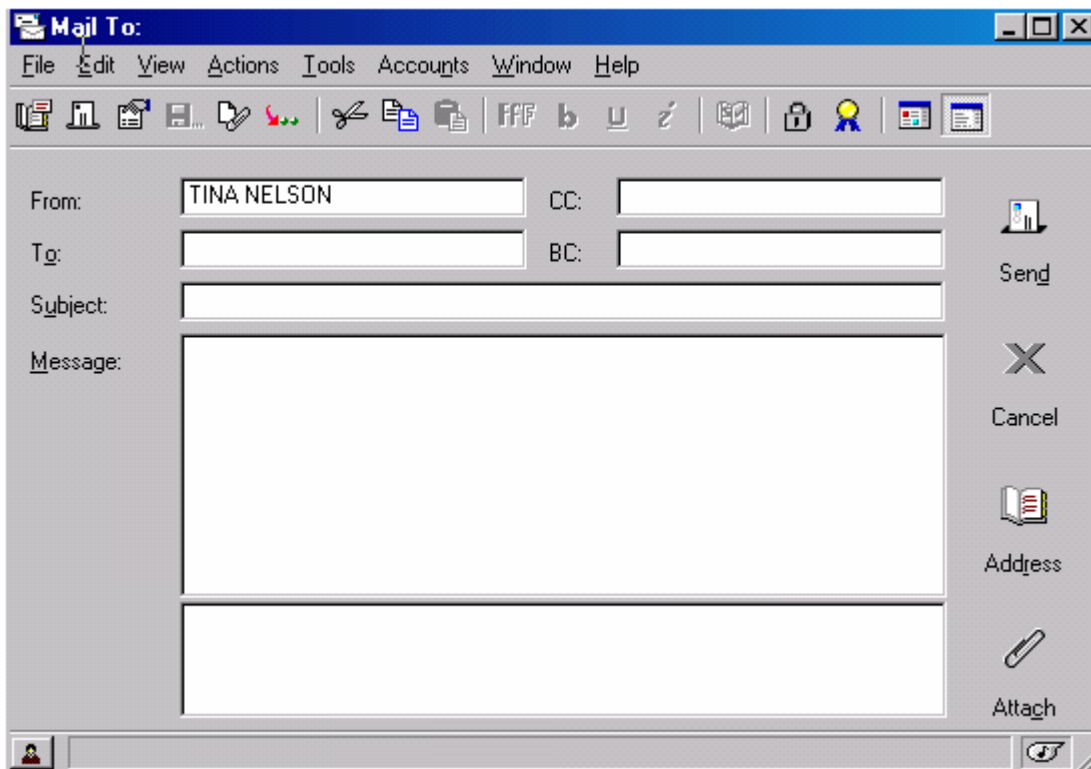
8. On the screen shot shown below, circle the area in which to type an e-mail message.



9. On the screen shot shown below, circle the “Forward” button.



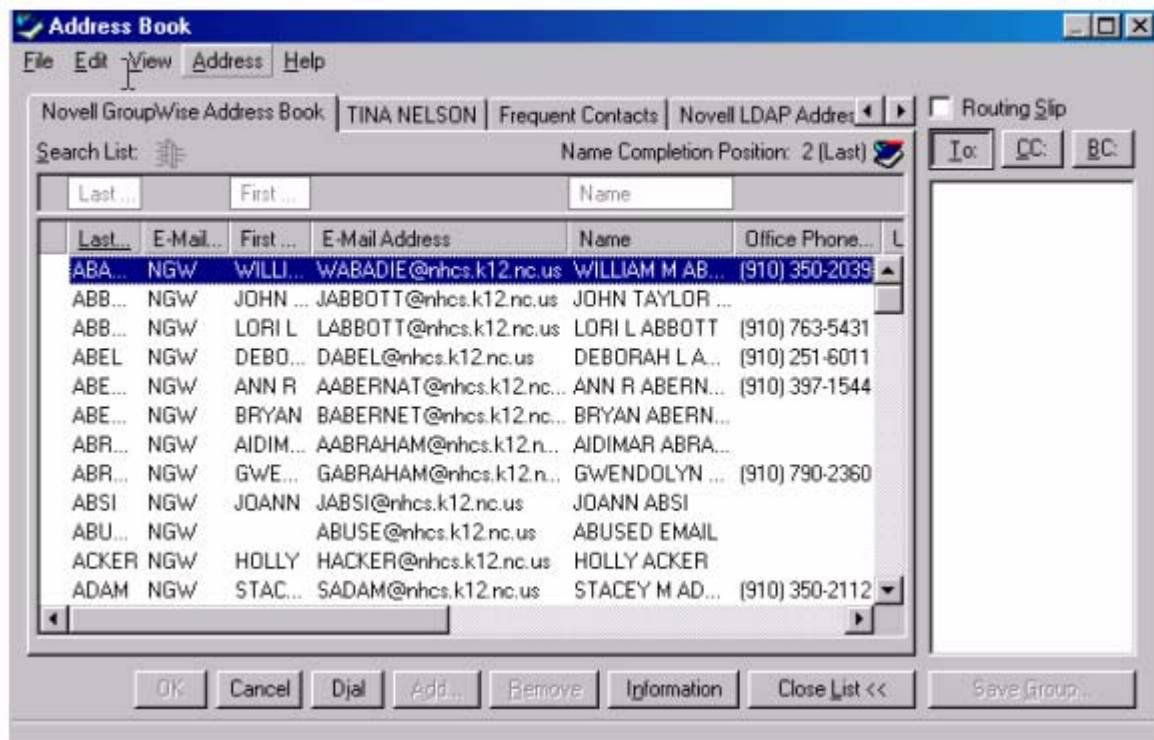
10. On the screen shot shown below, circle the box in which to type an e-mail address.



11. On the screen shot shown below, circle the Address Book Icon.



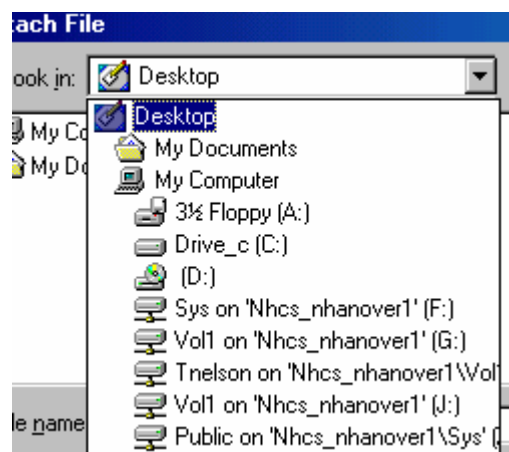
12. On the screen shot shown below, circle the space in which to type a name to search for an e-mail address.



13. On the screen shot below, circle the New Mail Message Icon.






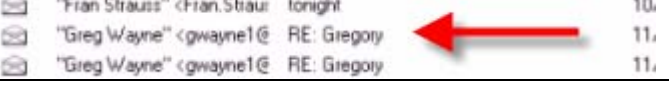
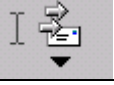


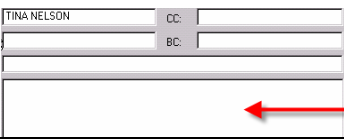




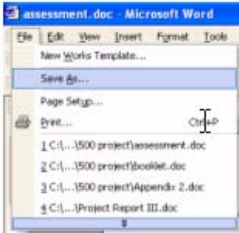
14. On the screen shot below, circle the pull down arrow.



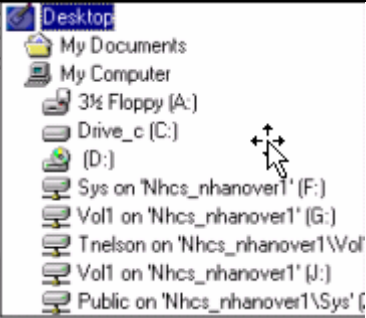
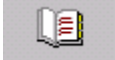
## Appendix D

### Post Assessment of Terminal Objectives

Directions: Match the written description with the icon or screen shot.

___1. Subject line	A. 
___2. Desktop icon	B. 
___3. Group Wise icon	C. 
___4. Attachment	D. 
___5. Close	E. 
___6. Save	F. 
___7. Reply	G. 
___8. Forward	H. 
___9. AddressbBook	I. 
___10. New mail message icon	J. 
___11. Pull down arrow	K. 
___12. Message area	L. 
___13. Search area	M. 



____14. Address area	N.	
____15. File drive	O.	

## Appendix E

### Reaction Survey

Instructions: Please rate the following statements by checking the appropriate box.

No	Item Description	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree
1.	The instructions on the pre test were clear and easy to understand.	1	2	3	4	5
2.	The instructions in the instructional module were clear and easy to understand.	1	2	3	4	5
3.	The instructions on the post test were clear and easy to understand.	1	2	3	4	5
4.	I feel prepared to use Group Wise after completing the self paced instructional module.					
5.	I was given ample time to complete the instructional package and turn in.					
6.	The design of the instructional package was appealing.					

Please answer the following open ended questions.

7. What were some positive aspects of the instructional package?

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8. What were some negative aspects of the instructional package?

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9. What are your suggestions for the improvement of the instructional package or for training New Hanover County School employees to use the Group Wise email system successfully?

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10. What are other topics that you would like to learn about, concerning Group Wise?

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## Appendix F

### Checklist: Attaching a document

Completed?	Tasks	Comments
	Log onto the computer	
	Open GroupWise	
	Log onto GroupWise	
	Single left click on the new mail message icon	
	Enter e-mail address in the “To” box	
	Click on the attachment icon	
	Choose the drive where you document is located that you wish to attach.	
	Attach document by a double left click	
	Type message in the “Message” area	
	Press “Send”	

### Checklist: Opening an attachment

Completed?	Tasks	Comments
	Log onto the computer	
	Open GroupWise	
	Log onto GroupWise	
	Double click on a subject line with an attachment	
	Double click on the attachment	