

Purpose and Objectives

Purpose: The purpose of the study is to evaluate the Distributed IM system. The participants will be given a pre-use survey, a list of tasks to complete, and a post-use survey.

Objectives: Objectives for this study are:

- To identify the time required to complete all the tasks on the list
- To identify the user's perceptions of the system after using it

Hypothesis: The design that we have created, while different from the traditional layout of a chat program, will be easy to use and efficient.

Test Procedure

The participants will be assigned a random identification number, divided into pairs and given a computer with the chat program already open. They will complete a pre-use survey to provide demographic data and data about their use of computers and chat programs.

The participants will be given a list of tasks to complete for the experiment, one of which is to have a short conversation with a test administrator and their assigned partner. All keystrokes and button clicks will be logged to a testing logger associated with their identification number for later review.

After the tasks are completed, the participants will fill out a post-use survey to provide subjective data about their use of the software.

Description of Participants

The participants will be Vanderbilt students from different specialties (Arts & Science, Engineering, Peabody, Blair).

They should have the following skills, experience, and characteristics:

- Various levels of experience
- No specific gender or age requirement
- Normal dexterity, adequate for using a mouse and a keyboard
- Willingness to freely give opinions about good and bad features of the system being used and tasks being performed

Experimental Design

Independent Variables: we will categorize the participants according to the following independent variables:

- Computer and chat program experience and knowledge
- Gender
- Age Range
- Area of Study (Arts & Science, Engineering, Peabody, Blair)

Dependent Variables: Quantitative performance measure for testing will include the following:

- Time required to complete all tasks on scenario list
- Time required to complete each item on scenario list

Resources and Preparation

Equipment:

- 2 computers with Distributed IM system installed and running

Materials:

- Confidentiality agreement
- Pre-use survey
- Post-use survey

Data Gathering Methods

- Pre-Use Survey
 - The users will complete a paper survey with demographic questions (age, area of study) and questions about the amount of experience they have with computers and chat programs. The pre-use survey will be linked to the participant's random identification number.
- Scenario List
 - The users will be given a list of scenarios converted into simple instructions, such as "Add the buddy 'network-admin'." The user will then attempt to complete the task while key-presses, clicks, and conversation logs are being collected.
 - This data gathering method will provide us with information on how a user approaches learning the interface and interacting with it.
- Post-Use Survey
 - After the users go through the tasks on the scenario list, they will complete a paper survey with questions about the ease of use of the distributed IM system.
 - This data gathering method will provide us with subjective information about the user's perception of the interface after using it.

Analysis

The objective analysis will involve following the logs to determine any potential stumbling blocks or places where the user may have been held up. If several users exhibit the same behaviour in a certain area, then that problem can be addressed if necessary.

The subjective analysis will involve examining the survey responses to see if there are trends among the answers given. If several users express that a certain task is difficult to do, then the design will be addressed if necessary

Schedule

- Orientation - 10 minutes
- Pre-use survey - 5 minutes
- Testing - 20-30 minutes
- Post-test survey/debriefing - 15 minutes
- Total - 50-60 minutes

Protocol

- Welcome participants
- Give overview
- Sign consent forms
- Questions before beginning?
- Present concept
- Complete pre-use survey
- Work through scenario list
- Complete post-use survey
- Debriefing

Scenario List

- Import Settings
- Add a new Contact 'network-admin'
- Add testing partner to Contact List
- Pin a Contact
- Unpin a Contact
- Chat with Contact(s)
- Block the Contact 'spambot'
- Connecting to a Different Network
 - *This may or may not be tested during the first round, depending on availability of this feature.*
- Mute all Notification Sounds
- Export Settings

General Orientation

“We are conducting a study on the usability of the Distributed IM System. Today, you will use the Distributed IM System to communicate with other users.”

“You will be given a series of tasks to complete. The purpose of this session is not to evaluate your performance but to evaluate the system.”

“We will be recording the key-presses, clicks, and chat logs during this session for data analysis purposes only. Your personal identity will not be associated with any results from this study; a number will identify you. No one will know which comments you made about the system.”

{Sign consent form}

“You will be using a personal computer. There will be a list of tasks to complete in the window beside the Distributed IM system window. If at any time during the session you feel uncomfortable or that you are unable to continue, you may discontinue your participation.”

“We would like for you to think about and remember the features you encounter as you use the system. We will give you a post-use survey for you to give feedback on the system, so please make a mental note of good and bad features as you complete your tasks. If you don’t know what action to take, I can give you some advice, but I won’t offer any help unless you really need it.”

“Do you have any questions before getting started?”

Pre-Use Survey

Demographics

Age category: ☐ < 18 ☐ 18-20 ☐ 21-25 ☐ 26-30 ☐ 30+

Gender: ☐ Female ☐ Male

School: ☐ A&S ☐ Blair ☐ Engineering ☐ Peabody

Major: _____

Year: ☐ First Year ☐ Sophomore ☐ Junior ☐ Senior

Experience

Operating Systems used: _____

Chat Programs used : _____

Platforms:

☐ desktop computer

☐ personal computer

☐ laptop computer

☐ touch screen

☐ keyboard

☐ tablet

☐ mouse

☐ word processor

☐ e-mail

☐ internet

☐ smart phone

Expectations:

Post-Use Survey

Please circle the numbers which most appropriately reflect your impressions about using this computer system.

- Scale Questions (1-9, very difficult to very easy)

How difficult was the program to use? difficult easy

1 2 3 4 5 6 7 8 9

How difficult was it to...

add a new contact? difficult easy

1 2 3 4 5 6 7 8 9

import settings? difficult easy

 1 2 3 4 5 6 7 8 9

export settings? difficult easy

 1 2 3 4 5 6 7 8 9

pin a contact? difficult easy

 1 2 3 4 5 6 7 8 9

unpin a contact? difficult easy

1 2 3 4 5 6 7 8 9

start a new chat? difficult easy

1 2 3 4 5 6 7 8 9

change notification settings? difficult easy

1 2 3 4 5 6 7 8 9

switch between contacts? difficult easy

1 2 3 4 5 6 7 8 9

connect to a different network? difficult easy

1 2 3 4 5 6 7 8 9

Open Answer Questions

Which behaviours were troublesome? _____

Which behaviours were useful? _____

Open comments: _____

Consent Form

The following information is provided to inform you about the research project and your participation in it. Please read this form carefully and feel free to ask any questions you may have about this study and the information given below. You will be given an opportunity to ask questions, and your questions will be answered. Also, you will be given a copy of this consent form.

The purpose of the study is to evaluate the Distributed IM system. This study is being conducted as a part of the coursework for CS 292, Human-Computer Interactions. Your individual privacy will be protected and your identity will not be associated with any feedback you give during the evaluation. Data will be recorded using ID numbers only and any quotes used from the qualitative sections of the evaluation will not be attributed.

Your participation in this study is optional and you may choose to withdraw without consequence at any time. There are no perceived risks to participation in this study. The perceived benefits of participation are increased understanding of interface design and user experience as well as assisting in the development of a new IM system. There will be no compensation for participation in this study.

Your signature below indicates that you have read and understand the above information and are voluntarily agreeing to participate in this study.

Name of Participant (Please Print)

Date

Signature

Name of Researcher/Witness (Please Print)

Date

Signature