

times within the last 12 months, 11 – 25 times used within the last 12 months, and > 25 times used within the last 12 months.

Process

Each session consisted of a 7-10 minute pre-study, online survey completed before arrival to the meeting, a 15-30 minute performance evaluation, a 7-10 minute online, post-study questionnaire, and a 7-10 minute post-study verbal questionnaire.

Study Details

The following are details pertaining to the participants.

Pre-Study Data

The participants who attended included the following titles:

| | | | | | Other Roles | Total |
|-----------------------|----|---|----|---|-------------|-------|
| Invited | 28 | 8 | 12 | 4 | 19 | 71 |
| Agreed to Participate | 6 | 2 | 2 | 1 | 1 | 12 |
| Participated | 4 | 0 | 1 | 1 | 1 | 7 |

Of those that agreed to participate, the following demographics were collected:

| Roles | | | | |
|----------------|---|---|---|---|
| Primary Role | 9 | 1 | 1 | 1 |
| Secondary Role | 3 | 4 | 2 | 3 |

| Experience in Primary | 0-11 months | 1-3 yrs | 4-10 yrs | >11 yrs |
|-----------------------|-------------|---------|----------|---------|
| | 1 | 2 | 5 | 2 |
| | 0 | 0 | 0 | 1 |
| | 0 | 0 | 1 | 0 |

| Participants | 0-5 | 6-10 | 11-19 | >20 |
|--------------|-----|------|-------|-----|
| # Logins | 6 | 3 | 1 | 2 |

Performance Evaluation

Each participant was asked to complete 5 scenarios and then asked a question about a proposed search feature enhancement. All sessions were completed within 1 hour, so timing was not detailed here.

We looked at several tasks within :

1. Participant can navigate to the correct screen and identify the region.
2. Participant can upload a found on the desktop.
3. Participant can find the cost .
4. Participant can find a specific , approximate name, or one
5. Participant can change in the details listing.

The participants were scored on each task:

0. Did not complete the task
1. Needed prompting or had difficulty
2. Needed prompting or did not find the appropriate response
3. Completed easily

User performance was varied across success of completion of an activity to a user unable to complete activities. Two of the tasks were not completed with the identification of the pre-identified patient costs by any participant. Unfortunately, the number of participants is too small of a sample to be able to generalize that this same failure could be found across most users.

| Scenario | Task 1 | Task 2 | Task 3 | Task 4 | Task 5 | Role |
|-----------------|--------|--------|--------|--------|--------|------|
| Participant 1 | 3 | 1 | 1 | 2 | 2 | |
| Participant 2 | 3 | 3 | 3 | 2 | 2 | |
| Participant 3 | 0 | 2 | 2 | 0 | 0 | |
| Participant 4 | 2 | 3 | 3 | 2 | 2 | |
| Participant 5 | 3 | 1 | 3 | 2 | 2 | |
| Participant 6 | 1 | 3 | 3 | 3 | 3 | |
| Participant 7 | 0 | 0 | 3 | 3 | 2 | |
| Success | 3 | 3 | 5 | 2 | 1 | |
| Completion Rate | 43% | 43% | 71% | 29% | 14% | |

Based on these scores, users do not use the application as expected.

| Usability Items | Task 1 | Task 2 | Task 3 | Task 4 | Task 5 |
|--|--------|--------|--------|--------|--------|
| Used the menu items as expected. | 57% | 57% | 71% | 43% | 14% |
| Chose all appropriate options. | 43% | 43% | 71% | 29% | 14% |
| Completed task. | 43% | 43% | 71% | 29% | 14% |
| Has system error during testing | 0% | 0% | 0% | 0% | 0% |
| Seemed to know where to go | 43% | 43% | 57% | 43% | 57% |
| Had navigational problems during activity. | 57% | 57% | 29% | 71% | 86% |

Scenario Comments

For each task, specific comments were noted. Potential system errors were noted in **highlight**:

1. Check the Region
 - Two participants logged in with their own user ID, and did not change the as per the scenario. Both knew where to look for the region and were given credit for the activity.
 - region, and was displaying error, according to the participant.
2. Upload a

- Two participants logged in with their own user ID, and did not upload the . Both talked through the activity with confidence and knew the steps, therefore given credit for the activity.
- One participant felt upload of an or maintenance should be in Utilities and not Setup.
- Only one participant opened the MS Excel free schedule file to ensure it was in the right format for the application.
- One participant wanted to know if she needed to unload the existing . I assured her this would write over the original. Is this information on the upload screen anywhere? Should it be?
- Two participants had never accessed Setup before.

3. Find the cost

- For a single , two users chose instead of . One by error and one multiplied the in his head, or with some other calculation method.
- One user thought should be changed to to save screen space, as “everyone” knows a is a . was more important to him than when calculating the cost.
- One user entered 24 for the amount, but did not click , and provided the incorrect cost as a result.
- Two participants chose analysis first, and then went back to cost for this scenario.
- Six participants searched by and one participant searched by .
- Two users accessed application with individual user ID, and therefore found a different total cost, but pulled the cost from the correct location.

4. Find a specific and total

- One searched by multiple and was frustrated that or products did not display. After the study, she stated that these scenarios were similar to math word problems and she couldn't figure out which formula (menu item or search term) she was supposed to use.
- Four searched on . One tried first, then for , then , then , and then with prompting, searched on .
- One searched on .
- One searched on .
- When looking for the details, two participants clicked the checkbox for , and waited a few seconds. When nothing happened, one clicked Details, the other clicked the back arrow in the browser thinking she had done something wrong. The second one never got to the Details screen.
- Four participants never changed the period to .
- One participant wanted to know why defaulted, if the was . She asked why she had to choose ?
- One participant went through entire activity using , before realizing she could not get cost using this menu item. She then changed to cost

on her own. This same user had to be prompted to click Details to get information for the whole cost.

5. Change the for the selected

- Two users logged in with their own user ID, and neither had any loaded.
- Two participants never changed the period to .
- One participant, who never clicked Details in previous task, was prompted to click Details for this task. Never changed the by and never changed to
- One participant realized she needed to change the radio button.
- At least three participants clearly understood the radio buttons changed the cost.

Study Comments and Observations

Overall study comments and observations were noted, and should be considered before next study:

- Several people used the back button, which did not always work as they expected – either didn't go back to search results, or only returned from Details screen to search results.
- One user said he does not use the tool as he built his own home-grown tool 4.5 years ago. He seemed pleased that many of his "features" were built into the application such as the
- One participant indicated that once a quarter, she selected all of "their" top and printed the resulting comparison for discussion with . She wanted to know if there was a way the could with the and provide the report
- One participant agreed that all scenarios are similar to questions she encounters in her office.
- Seven participants stated they would recommend this application to a colleague.
- One participant has found a way to track – they set up the as another , so they track payments made. Would recommend we identify a best practice that can be used and publicize idea to .
- One participant closed study before I could send final survey. Survey loaded alone.
- would like help with specific to her .
- would like help with reports.
- For post-study survey, move disagree to left and agree to right.
- For Logistics before next meeting usability study:
 - we need more signage than the one sign to show the location of the study. We need to ensure that the study area is closer to the , or in the .
 - For Logistics, we need the title of the event for hotel banners, agendas, messaging, signs, etc. to reflect Usability Study and not .
 - Need to add cell phone number to study reg form so we can call and confirm the morning of the session.
 - Print reminder notes for registration packets by Tuesday afternoon before the

- o Week before the , need to get shipping schedule from meeting planner to ensure timely shipment of packed case.

Post-Study Online Survey

This survey was provided at the end of the list of tasks to be completed. The smaller the number, the more in agreement the participants are. No one indicated that a strong disagreement with any of the feature statements of the application. The two participants in Baltimore did not complete the survey.

| Post-Study Online Survey | 1 – Strongly agree | 2 – Agree | 3 – Disagree | 4 – Strongly disagree | Mean Rating | Percent Agree |
|--|--------------------|-----------|--------------|-----------------------|-------------|---------------|
| 1. The overall application is attractive. | 3 | 1 | | | 1.25 | 100% |
| 2. The colors used throughout the application are attractive. | 2 | 2 | | | 1.5 | 100% |
| 3. The main screen content makes me want to explore the application further. | 3 | 1 | | | 1.25 | 100% |
| 4. It is easy to find the information I need. | 1 | 3 | | | 1.75 | 100% |
| 5. I can get to information quickly. | 3 | | 1 | | 1.5 | 75% |
| 6. It is easy to remember where to find things. | 2 | 1 | 1 | | 1.75 | 75% |
| 7. Information is located effectively on different screens. | 2 | 2 | | | 1.5 | 100% |
| 8. Screens have the right amount of information. | 2 | 2 | | | 1.5 | 100% |
| 9. The information is relevant to my business needs. | 3 | 1 | | | 1.25 | 100% |
| 10. The application's content interests me. | 4 | | | | 1.0 | 100% |
| 11. The application's content allows me to be productive in my job. | 2 | 2 | | | 1.5 | 100% |
| 12. The application has a clear purpose. | 4 | | | | 1.0 | 100% |
| 13. It is clear how screen elements (e.g., pop-ups, scrolling lists, menu options, etc.) work. | 2 | 2 | | | 1.5 | 100% |
| 14. Any mistakes were easy to correct. | 3 | | 1 | | 1.5 | 75% |

* Percent Agree (%) = Agree & Strongly Agree Responses combined

Post-Study Interview Questions

These questions are to be asked verbally after the participant has completed the tasks and answered the online survey questions.

| Post-Study Interview Questions | Comments |
|---|--|
| 1. Would you recommend this application to a colleague? | <ul style="list-style-type: none"> • Yes, she use to use , and likes using one. • system initially said not to use, but that person left so they use now. • Yes! (repeated several times by several people) |
| 2. What are three things you like best | <ul style="list-style-type: none"> • is automatically loaded. • Offers different . |

| Post-Study Interview Questions | Comments |
|--|---|
| about the application? | <ul style="list-style-type: none"> You can load own . Even if located on a border of several states, can load different state's . Does reporting specific to a single .[perhaps she means costs] updates by in descending order. Likes by for calculations; and by are too similar. Navigation menu does not use term he would look for, example, look-up , he would look by then ; he wants one look-up for a . |
| 3. What are three things you like least about the application? | <ul style="list-style-type: none"> Want to be able to change the . Wants to see negative numbers in red in addition to parenthesis. He exports to Excel for each one he does so he can see this way. Wants interfaced with so once chosen in , can pull up in and THEN compare alternatives. Needs a single reset button to clear all choices and start over. Wants to be able to choose , or that are consistently . He doesn't care about cost, he only wants . When comparing a with a , the cost for the is usually lower for . If he looks at cost, he could get confused that he thinks he is looking at , and then makes wrong choice. When the list of gets long and I have to scroll, I would like to see heading row at all times. |
| 4. If you could make one significant change to this application, what change would you make? | <ul style="list-style-type: none"> For her analysis takes a while to figure out which menu item to use: , cost per , or analysis. If recommends x , when changes, such as for for another type (versus), could call out that this is a new ? How can I pull a report of a possible for a single with specific . She is hoping that the new search filter will help her do this. Name of drop down is confusing. Perhaps , and ? Could a feature be added to allow us to compare for ? Would like the ability to compare and analyze comparative products, where the system identifies what are comparable. She indicated she was not aware of all comparable and would like the system to provide. |
| 5. Is there a business problem you would like the application to solve? If so, what? | <ul style="list-style-type: none"> Two participants indicated that including within listing would be helpful. Is there a tracking tool available? If request submitted, was it ever ? If doesn't have the , can they have a tickle file that will prompt them to resubmit request next month or next quarter? Can I pre-select ? Perhaps highlight , and then see all additional ones? |
| 6. Do you have other | <ul style="list-style-type: none"> Has not seen notification about new reports . |

| Post-Study Interview Questions | Comments |
|--|---|
| <p>questions or comments about the application or your experiences with it?</p> | <p>Are all users receiving notification?</p> <ul style="list-style-type: none"> • With 30 a day, does not have time to use this per . • sends out list and they update favorites based on his list. • When come in with new , why do they not already have all and perhaps should be prepared with new with newly included and code. |
| <p>7. We are contemplating expanding the search feature of to allow you to select options from a drop-down, rather than having a single, open search field and would like your opinion. Would you find this type of filtering helpful?</p> <ul style="list-style-type: none"> • She likes the filter to narrow the number of results. • If she didn't know the she would search by name. her office mate would search by first. • Would recommend order change: (name or code), , then whatever. • Recommend using decision tree – start with , then . | |