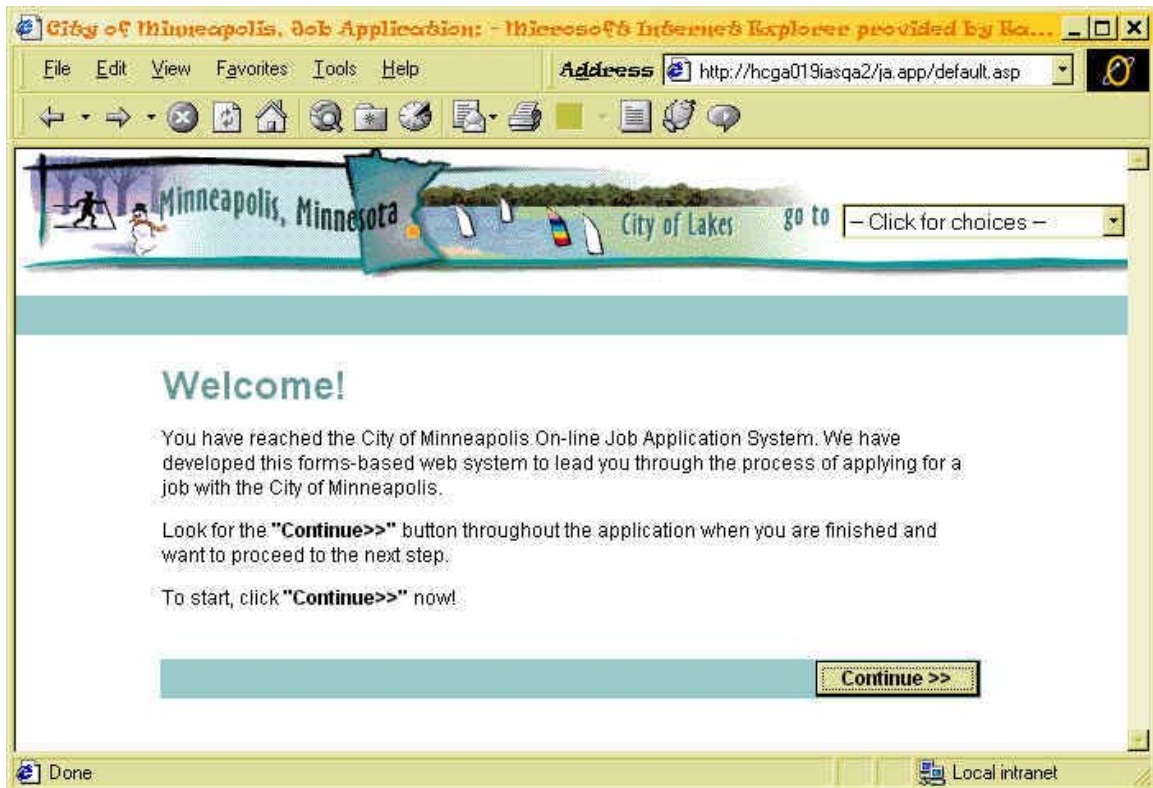


# Usability Report

## Online Job Application



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## Objective

To study the usability of the online job application (rev 3) on sample users, note successes and problems, and suggest improvements.

## Results Overview

- + Users described the app as good, and **generally felt positive** about the City's providing them with an online system for input.
- + The app is **learnable** – after a few screens, users knew when and where to look for the continue button.
- Users struggled with the **beginning and ending** of the application – the placement of the login and instructions screens at the beginning, and the popups and thank you screen (lack of information and navigation) at the end.
- Users did not understand why **logging in** was necessary. Common response: "I'll enter my name here; now, what's my password?"
- +/- Users always found the **continue buttons** on each screen. However, some users clicked the continue button instead of the add button on looping screens.
- +/- Users did not use the **left-hand navigation** initially; those that commented on it (several screens into the app or after prompting) found it helpful.
- **Rules for date entry** validation were not intuitive; all expressed frustration with seemingly valid dates that resulted in errors.
- **Error messages** often do not give enough specifics about how to correct the problem.

One user did not see the error message the first time it occurred, and since the screen looked similar, she wondered what had happened. (After reading the instructions in detail and working down the page, she eventually found the error message).

**Add Experience:** Please fill in all the fields on this form end of this form..

Employment Period  Start Date\*  
(mm/dd/yyyy)

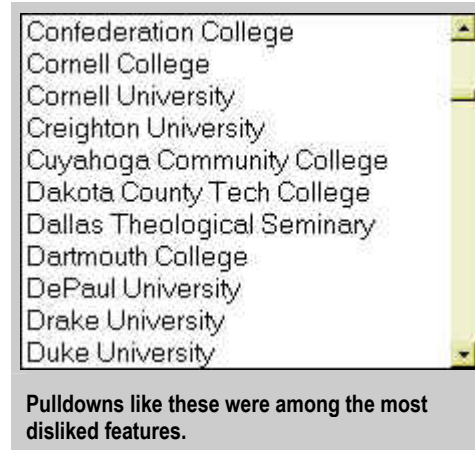
Your Position  Job Title/Description\*

Reason for Leaving

Please provide a brief description

**Users had problems entering dates that the app would allow.**

- Lengthy **pull-down menus** greatly annoyed users (and ordering inconsistencies made it worse). *[Recommend removing all popup fields unless data consistency is essential and only when there are fewer than 12 items.]*
- + Users found the **app review page** easy to read (except for labeling inconsistencies).
- Users did not distinguish between **required and optional fields**. Users attempted to fill in all fields, even if the field didn't apply. ("Should I enter N/A?")
- The **placement of helpful text** below entry fields that had other fields directly beneath was confusing to users (especially register screen); they were not always sure whether the text applied to the field above or below.



Some users were not confident which labels were associated with which buttons or fields (such as the choices for sex).

- Some questions implied a **yes/no answer**, and users were frustrated when those choices were not available to them (e.g. "Are you disabled?")
- When prompted to choose "no" on the **final popup**, users expressed varying concerns – that their personal data might still be stored somewhere, that their browser history might be accessible (on a kiosk or public terminal, for example), that they were thrown back to the same "submit" screen with no additional information or options.
- Those power users who knew that they could tab between fields did, but they expressed frustration when the **tab order** was not what they expected (e.g. tab moved across rather than down). Also, they expressed surprise when tab took them to radio buttons or popup fields. (Generally, they did not check the location of the cursor before entering data, so they had to erase it and retype once they discovered they were in the wrong field.)
- Users wondered about, or were frustrated by, **data formatting**. It was unclear whether the app would reformat phone numbers, SSNs and dates according to its rules, and the inconsistencies threw users. *[Dates get reformatted (sometimes incorrectly), while phone numbers and SSNs do not.]*

- Since they didn't know what was coming up on subsequent screens, users struggled to find ways to enter **nonstandard entries or gaps** for employment and education. *[Consider making this function a loop, activated by a button.]*
- On screens such as employment, education and licenses, most users **did not check the "I have finished" box** before continuing. Partway through, several noticed the box and wondered if it was required on previous screens ("I didn't check the box on the other screens. I hope that's okay.") *[Suggest removing the box and right-justifying that text.]*
- Several users **reflected interface problems** onto the organization. ("I'd worry this was a sign of the bureaucracy – just the start of my frustrations.")
- Users did not **scan the screen** before starting in, nor did they look ahead. This often resulted in their entering data in one field, then (finding the one below it) having to delete it in one place and re-enter it in the other.
- Users **reviewed their entries** in the data fields carefully on each screen before continuing to the next screen; subsequently (including the app review screen), they assumed that the data would appear as entered. Sometimes it didn't (dates), and they didn't notice.
- Users were **unaware that they would be able to review and edit** their entries before final submittal. As a result, several of them used the back and forward browser buttons in an attempt to double-check data entry.
- Faced with confusing fields, several users **looked for help** or requested popups of sample inputs.

## Screen-Specific Results

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### Log In Screen

See overview, above

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### General Instructions

- Users who noticed that they'd have to **mail** something in reacted negatively. "Why? What if I don't?"
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### Position Information

- Jobs are not listed in alpha or any other **discernable order**.
  - **Having to scroll** through a box to find a choice that applies was frustrating for some.
  - Users wondered if the **list included just open jobs** or all positions.
- 

### Info About You

- Users entered just the number in the **apartment box**, which results in an odd display at the end ("123 Main, 2b"). Some fixed it, others didn't.

One user felt it was too far separated from the other fields. "I almost didn't see it."

- "But I already gave them my **e-mail address** when I logged in."
- 

### Confidential Info

- See overview, above
- 

### Licenses & Certifications

- If the licensing org included the **state** in its name (e.g. PRSA Minnesota), users entered it twice or entered it, then had to delete and re-enter it.
  - Users found the requirement to include **month and day** on all date fields frustrating, especially on this screen (but also on subsequent screens).
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### Professional Memberships

*[No specific observations.]*

## Work Experience

- Users were unsure whether to enter **experience** last-to-first or first-to-last.
- Some users were surprised that the **order they entered** their experience was rearranged ("See? They sorted it wrong.")
- Users did not see the **format hint** mm/dd/yyyy. Instead, they used trial-and-error until the app accepted a response (often requiring several tries and generally landing on mm/dd/yy – not what was recommended).
- **Employment end date**: users did not know how to enter "present" – most entered the word and got frustrated with the results.
- **More button** is unclear. Users suggested "show detail."
- Some users missed the **"add" button** on looping screens – instead using the continue button. (Worse, they generally assumed their data was entered and accepted and didn't check to see if it was there.)
- **Reason for leaving** field seems too short for careful explanations, and some users were unsure whether they could enter more.

## Employment – Other Info

- Users were unsure what **types of things** to enter here (and were hesitant to leave it blank). Several users wished for a way to answer "no" to the question.

## Past City Employment

- Users wondered what the **purpose** of this screen was. "Why do they want to know that? Preferential treatment?"
- Although the **continue button** on this screen is easy to find, several users first looked to the middle right. *[Possibly since that is where the continue button has been on previous screens.]*

**Instructions:** If you have ever worked for one of the organizations below, please check the box next to that organization, and let us know what your employment period was. When you are done, click "Continue" below to go to the next page.

I have never worked at the City of Minneapolis, or any of the organizations listed below.

<input type="checkbox"/> Board of Education	Starting Date	Ending Date
<input type="checkbox"/> City of Minneapolis	Starting Date	Ending Date
<input type="checkbox"/> Minneapolis Library	Starting Date	Ending Date
<input type="checkbox"/> Minneapolis Park Board	Starting Date	Ending Date

**Continue >>**

Some users expected a Continue button here.

## Education History

- How is one supposed to enter **high school education, military training, or on-the-job training**?
- Users disliked the **school name pulldown** – too many choices, inconsistent ordering, and gaps in the list. ("They led me on. There's a lot of schools on this list, but mine isn't here.") *[Hint: if you know the fight song for the Arizona Wildcats, you're out of luck – but thankfully Cuyahoga Community College is on there.]*
- All users found the **degree pulldown** annoying, but some also wondered about the exact meaning: "If I didn't graduate, then I don't have a bachelor's degree. How do I choose the major without choosing the degree?"

Also, one user commented on the choices: "Bach is an odd abbreviation. Does it differentiate between BA, BS or BFA?"



Users suggested combining the "Highest Degree Obtained" pulldown with a text entry box instead of this difficult list.

## Education – Other

- Users were confused by the placement of the **Highest Level of Education** pulldown. They either didn't notice it, assumed that it only applied to other education entered above it, or observed that it duplicated the previous question "did you graduate?"

## Language Proficiencies

- Several users were unsure whether to enter "**English**" as a proficiency. "Do they assume I'm proficient in English?"

## Convictions

- **Convictions** is vague – does a traffic ticket count? Several users reflected this on the organization: "It's illegal to be asking fishing questions." *[Suggest using "criminal convictions" or "felonies."]*
- Test administrators were highly amused at the phrase "I have no prior convictions." *[I have many convictions: I believe in the golden rule, I believe in God....]*

I have no prior convictions

## Application Review

- No users found the **print button**, and most expected to print the confirmation page *after* they'd submitted, not before.

- Even users who read instructions on other pages did not read **instructions** on this page.
- Users were not sure where to click on the app review page if they wanted to **edit**. Some did not read the instructions, and those that did didn't get much help from the term "area."

All expressed frustration with being sent back into the loop when they edited. ("Don't tell me I have to click through every screen to get back!")

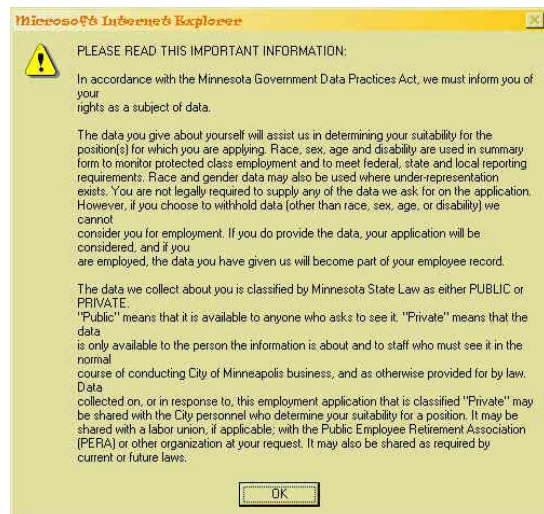
*[Suggest placing "Edit" button graphics after each section header. Also suggest a mechanism to get them easily out of the entire loop when all they want to is edit one screen.]*

## Data Confidentiality

- Users disliked both the content and the presentation of the **popup boxes**, with comments ranging from "I don't read this" to "this worries me" to "it's too much text in too small a box."

"If I want to get that address and phone number, I have to make a screen capture or write it down."

"Is this the only place where I get contact information? What if I have questions?"



## Thank You

- Users were left with **little information or navigation options**. They generally did not know to close the window, nor was the general navigation useful to them. When asked about their expectations ("what do you think happens next?"), they guessed. *[Assuming that the careers page is still in the works, perhaps there can be a link to that point.]*

## General App Comments

### "What do you think about what this system lets you accomplish?"

- + "It's quick. It's an efficient way to apply. It's nice that there's no handwriting."
- + "It's pretty logical – probably tracks the paper form."
- + "It seems like a standard job application."
- "It's okay. I've used Monster before, and Monster is more user-friendly and intuitive."
- "I'm dissatisfied. It isn't intuitive."
- "I've filled out worse applications. I assume the bureaucracy mirrors the form. I'd give it a 'B'."
- "I think the City uses this form to screen out people who don't read instructions."
- "I don't want to work for the City anymore."
- "I think people who don't use computers very often will be reluctant to use this without real friendly assistance – especially in a public area."

## Methodology

Diverse users were individually tested (six in all). They were given job details for two fictional people and asked to apply for specific jobs. Beginning at the City's jobs page and continuing through the universal login and the form screens to the final response page, testers were asked to verbalize their experiences. The test administrator observed user behavior and provided instructions.

Testers were encouraged to interact with the application as they normally would, moving as fast or slow as they chose – even giving up if that would have been a normal response for them. Testers were allowed to ask questions of the administrator, but in many cases were asked to try to discover the answers without help.

Users were provided few instructions relating to the use of the interface, so that their interactions could be observed without interference. They were given specific tasks to perform so that their results could be more closely compared. Testers were asked specific questions at key points throughout the session, and a series of general questions were asked at the end. All sessions were audio recorded.

## Notes

- Use of a small testing group is a faster and more cost-effective way to uncover major usability issues. The strategy works on the 80-20 principle; however, **additional usability** issues may exist but not have been uncovered by this test group.
- All testers used **version 3** of the online job application for general Internet use. The kiosk version was not tested.
- Testing **cross-platform and cross-browser functionality** was outside the scope of this study. Testing was on PC platforms running Windows 98 with IE versions 5 and 5.5.
- Application functionality and stress testing was outside the scope of this study. However, any discovered bugs or other errors have been separately reported.

## Tester Profiles

Six diverse users were tested.

Name	Occupation	Computer Experience	Age Group	Gender
Aviva Brandt	Writer	Average/Expert	31-45	F
Michael Day	Education	Expert	31-45	M
Ric Espinoza	Self-employed	Novice	31-45	M
Edward King	Marketing	Expert	31-45	M
Patty Wells	Education	Average	31-45	F
Don Wing	Actor	Average	18-30	M

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## Appendix: Welcome and Test Scripts

### Welcome

Hi, I'm [name]. I'll be working with you in today's session. I'm going to read this script to you now, so that I provide the same instructions to everybody.

The City has asked me to test how easy it is to use a new function they're planning to add to their web site. It will let people apply for jobs with the City.

You'll be pretending to be two people applying for jobs. I'd like you to work, as you normally would, with the same speed and attention to detail you usually have. Some of the tasks may not be obvious, so you may have to try different ways of doing things, or even stop trying if that's what you would normally do.

I'd also like you to think aloud as you work, so we can get an idea of where you're looking for options. Provide running commentary as you work. If what you see prompts you to wonder about something, go ahead and say it. We're interested in all your reactions. As you're trying to work normally and think aloud, please be honest. My only role here today is to discover both the flaws and advantages of this job-application system from your perspective.

While you are working, I'll be taking notes. You can ask me questions at any time. I may or may not answer them, since we need to see how it works with someone like you working independently. At the end, I'll ask you some questions.

Also, I'll be asking for some background information and I'll ask your permission to tape record our session. Your name won't be associated with our results.

Do you have any questions?

OK, let's start by getting your background information and consent to tape.

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### INTRO #1 (CHRIS JONES)

"Let's pretend that you've heard about a job opening at the City of Minneapolis, and you've decided to apply for it. You are sitting at your home computer, connected to the net, and using a web browser.

"Let's also pretend that you are Chris Jones. Here is [his / her] resume, and a few added facts. This will give you the data you need to provide on a job application. If you're asked for information that isn't her on the resume (such as age), use your own information -- or make something up.

"Mostly you should be yourself. Chris has different data from you, but--

### CITY'S WEB SITE

"Let's go to the City's Web Site and find the page where you can apply for jobs. Since this isn't part of what we're testing, I'll get you to the page."

*[www.ci.minneapolis.mn.us/jobs]*

"Here's where you would click on a link that isn't there yet, so let me put in the address of the test page..."

*[Get them to the test site, login page.]*

*Reactions to this process: \_\_\_\_\_*

**LOG IN**

*[Wait and see if they need an explanation.]*

*[if necessary]* "You've never logged into the City before. You can make up your own new username and password."

Reactions to this process: \_\_\_\_\_

**POSITION INFORMATION**

"The job you're interested in is listed at the top of your resume."

Reactions to this screen: \_\_\_\_\_

----- Notes on Use of Left Menu -----

**INSTRUCTIONS FOR THE DATA ENTRY SCREENS**

1. If you have no question or instruction, just let him study the screen and enter data.
2. Help him find data on his resume.
3. **ERROR PATH.** If he gets a data-validation error message.

a. "What just happened?"

Answer: \_\_\_\_\_

b. "If you can figure out how, correct it and move on."

Reactions to error path: \_\_\_\_\_

**INFORMATION ABOUT YOU**

"Can you tell which fields are required and which are optional?" Answer: \_\_\_\_\_

Reactions to this screen: \_\_\_\_\_

**CONFIDENTIAL INFORMATION**

"Can you tell which fields are required and which are optional?"

Answer: \_\_\_\_\_

Does he enter any of the confidential personal data? \_\_\_\_\_

Reactions to this screen: \_\_\_\_\_

**LICENSES & CERTIFICATES**

"Do you want to review the details you entered?" *[Let him decide.]*

Can he figure out how to review details (if he chooses to)? \_\_\_\_\_

Reactions to this screen: \_\_\_\_\_

**PROFESSIONAL MEMBERSHIPS**

"Let's review the details you entered." *[No choice this time.]*

*Can he figure out how to review details?* \_\_\_\_\_

*Reactions to this screen:* \_\_\_\_\_

**WORK EXPERIENCE**

"Let's enter two of your jobs.... Are you going to start with most recent or oldest? Do you think the city cares?"

*Reactions to adding two jobs:* \_\_\_\_\_

*[Only do this if he hasn't already had a data-validation error message.]*

"On the second job, let's purposely make a typo on a date."

*[Have him enter 13/13/88. Go to error path. Fix it to say 1/13/88.]*

"Let's change the details you entered for the first job."

*Can he figure out how to change details?* \_\_\_\_\_

*Reactions to this screen:* \_\_\_\_\_

**EMPLOYMENT--OTHER INFORMATION**

*Does he realize that his Europe gap goes here?* \_\_\_\_\_

*Reactions to this screen:* \_\_\_\_\_

**PAST CITY EMPLOYMENT**

*Reactions to this screen:* \_\_\_\_\_

**EDUCATION HISTORY**

*Reactions to this screen:* \_\_\_\_\_

**EDUCATION--OTHER INFORMATION**

*Does he notice and fill in Highest Education?* \_\_\_\_\_

*Reactions to this screen:* \_\_\_\_\_

**LANGUAGE PROFICIENCIES.**

*Does he choose to make an entry for English?* \_\_\_\_\_

*Reactions to this screen:* \_\_\_\_\_

**CONVICTIONS**

*What does he do about his traffic ticket?* \_\_\_\_\_

*Reactions to this screen:* \_\_\_\_\_

**APPLICATION REVIEW (PART 1)**

*How much time does he spend reviewing the application, unprompted?*

"Can you edit your application at this point, if you found a typo?"

Answer: \_\_\_\_\_

"Let's try changing a detail on your second job...."

*[Ad-hoc: walk them through the change process, and somehow get back to this Application Review page.]*

Reactions to this editing process: \_\_\_\_\_

**APPLICATION REVIEW (PART 2)**

*[After editing is complete]*

*[Did he print it before hitting Submit? If not, ask him if he wanted to print it, and make him go back -- have him cancel the Confidentiality dialog box.]*

"Can you figure out how to print it before submitting it?" Answer: \_\_\_\_\_

*[If he can't find the Print button, show him and make him use it to get the new window.]*

"Do you know how to get from here to having hardcopy?"

Reactions to printing interface: \_\_\_\_\_

*[Have him finally submit it]*

**DATA CONFIDENTIALITY**

Reactions to these pop-ups: \_\_\_\_\_

*[if necessary]* "You're OK with this and want to put in your job application."

**THANK YOU**

Reactions to this screen: \_\_\_\_\_

"What do you expect to happen next in your interactions with the City?"

"What would you do if you had seen another job in the list at the beginning, and thought it sounded good, too?"

"What are your options for navigating at this point?"

----- **FOLLOW UP / DEBRIEFING FOR FIRST OF TWO PASSES**

"After going through this process, do you still think you'd like to work for the City? Do you feel as though the City welcomes you as an employee?"

["Why or why not?"]

"What do you expect will happen next (in the job application process)?"

"Did you feel comfortable about all the questions asked?"

"Think about questions asking if you had something that you didn't have (such as past city employment or email address) -- how did you feel about that?"

"If you came back to the City's web site in a few months, and you wanted to apply for another job, what would you expect to do?"

**INTRO #2 (PAT SMITH)**

" Now let's pretend that you're Pat Smith, a different person applying for a different job. But once again, [he / she] has your knowledge and feelings. I recommend that you print out a hardcopy of your application to help you remember what you told them!"

"Let's go straight to the test page...."

*[Get them to the test site, login page.]*

**LOG IN**

"Don't use your old log-in, because you are a different person now!"

*Reactions to this process:* \_\_\_\_\_

**POSITION INFORMATION**

"The job you're interested in is listed at the top of your resume."

*Reactions to this screen:* \_\_\_\_\_

----- Notes on Use of Left Menu -----

*ERROR PATH. If he gets a data-validation error message.*

a. "What just happened?"

*Answer:* \_\_\_\_\_

b. "If you can figure out how, correct it and move on."

*Reactions to error path:* \_\_\_\_\_

**INFORMATION ABOUT YOU**

*Reactions to this screen:* \_\_\_\_\_

**CONFIDENTIAL INFORMATION**

*Does he enter any of the confidential personal data? \_\_\_\_\_*

*Reactions to this screen: \_\_\_\_\_*

**LICENSES & CERTIFICATES**

*Reactions to this screen: \_\_\_\_\_*

**PROFESSIONAL MEMBERSHIPS**

*Reactions to this screen: \_\_\_\_\_*

**WORK EXPERIENCE**

*"Let's enter two of your jobs. "*

*Reactions to this screen: \_\_\_\_\_*

**EMPLOYMENT--OTHER INFORMATION**

*Reactions to this screen: \_\_\_\_\_*

**PAST CITY EMPLOYMENT**

*Pat does have past city employment.]]*

*Reactions to this screen: \_\_\_\_\_*

**EDUCATION HISTORY**

*Reactions to this screen: \_\_\_\_\_*

**EDUCATION--OTHER INFORMATION**

*Does he notice and fill in Highest Education? \_\_\_\_\_*

*Reactions to this screen: \_\_\_\_\_*

**LANGUAGE PROFICIENCIES.**

*How does he handle his entry for Spanish? \_\_\_\_\_*

*Does he choose to make an entry for English? \_\_\_\_\_*

*Reactions to this screen: \_\_\_\_\_*

**CONVICTIONS**

*Reactions to this screen: \_\_\_\_\_*

**APPLICATION REVIEW (PART 1)**

*How much time do they spend reviewing the application, unprompted?*

*"Let's try changing a detail on your first education entry."*

*[Ad-hoc: walk them through the change process, and somehow get back to this Application Review page.]*

Reactions to this editing process: \_\_\_\_\_

**APPLICATION REVIEW (PART 2)**

*[After editing is complete]*

“Did you realize that this is your last chance to make any changes to your job application form?”

"OK, I think your job application is ready to be sent in to the City."

*[Did he print it before hitting Submit? If not, ask him if he wanted to print it, and make him go back -- have him cancel the Confidentiality dialog box.]*

Reactions to printing interface: \_\_\_\_\_

*[Have him finally submit it]*

**DATA CONFIDENTIALITY**

Reactions to these pop-ups: \_\_\_\_\_

“You decide you don't want your information in public records, so you won't submit the job application.”

*Does he know what to do, navigationaly? \_\_\_\_\_*

“Do you feel confident that your data hasn't gotten into the City's system?”

**THANK YOU**

Reactions to this screen: \_\_\_\_\_

"What do you expect to happen next in your interactions with the City?"

"What would you do if you had seen another job in the list at the beginning, and thought it sounded good, too?"

"What are your options for navigating at this point?"

**----- FOLLOW UP / DEBRIEFING FOR LAST PASS**

*[Ask about specific areas of difficulty this tester had.... explore thinking process a little more.]*

“What do you think about what this system lets you accomplish?”

“Did you find the job application system easy to use?”

“What would have made you more confident in using it?”

“How did you feel about the buttons and choices on screen?”

“How did you feel about how the requests for information were organized?”

“What did you think about the terminology used to describe the requests for information? Were you able to figure out what everything meant?”

“What other comments do you have about the job application system?”