# Sample Forms for Election Worker Usability Testing

This document provides sample forms related to testing a voting system for election worker usability as required in the Voluntary Voting System Guidelines (VVSG) 2.0 **Principle 8.4: The voting system is evaluated for usability by election workers**. The forms support the testing described in the companion document “Guidelines for Testing Voting Systems for Election Worker Usability” and can be used in both the user-centered design process as well as the reporting of testing results for demonstrating conformance to requirement 8.4-A.

This document is one of ten companion documents to the [NIST VTS 400-5 Handbook for VVSG 2.0 Usability and Accessibility Test Strategies](https://doi.org/10.6028/NIST.VTS.400-5) and can be downloaded with the Handbook. All documents are also available on the NIST Voting Program website at <https://www.nist.gov/itl/voting/vts-400-5-documents>.

# Appendix A: Participant Screener

Hello, my name is **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, calling for [lab name].

We are recruiting people to participate in a usability test of instructions in voting system manuals. The results of this test will be used to determine whether instructions for voting systems can be certified for use in elections.

We would like to ask you a few questions to see if you are a good candidate for this test, and if you would like to participate. This will only take a few minutes of your time, and no one will attempt to sell you anything. If you meet the selection criteria and are selected, you will be paid to participate. May I ask you a few questions?

If the person says no, ask if you can make an appointment to go through the questions. If so, set up the appointment. Make a note about when you should call this person back. If the person declines to take part, ask if they can suggest others who might be appropriate and interested in the study, and get that contact information.

1. Are you a US citizen?

[ ]  Yes

[ ]  No [Exclude]

1. In what range does your age fall?
[If younger than age 18, exclude]

[ ]  18-21

[ ]  22-25

[ ]  26-30

[ ]  31-40

[ ]  41-50

[ ]  51-60

[ ]  61-70

[ ]  71-80

[ ]  Over 80

[Recruiter: We’re looking for a mix of ages. Try to have half the participants age 41 or older, and half age 40 and younger.]

1. What is your gender?

[ ]  Female

[ ]  Male

[Recruiter: Try for an even mix of men and women in the total participant group.]

1. Have you ever volunteered to be an election worker such as a poll worker, election judge, clerk, or inspector?

[ ]  Yes [ If yes, continue to Question 5 ]

[ ]  No [Exclude]

1. How many elections have you worked in the last 5 years?

[ ]  Signed up recently, has taken training, never served (select 4-5 - inexperienced)

[ ]  1-2 times (select 1-2- inexperienced)

[ ]  3-4 times (select 1-2- experienced)

[ ]  5+ times (select 4-5- experienced)

[ ]  Other, please describe \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (hold for consideration)

[Recruiter: Pair qualified participants with one experienced poll worker and one poll worker who is not as experienced.]

**If excluded**

I’m sorry, but you don’t meet one or more of the qualifications that our client has asked us to screen for in this study. We will keep you in our database and consider using you for some other study in the future. Thanks for your interest and your time today.

# Appendix B: Pre-session checklist

Use this checklist to be sure that all materials the participants need to complete the test are ready for use:

* System documentation that matches the model and version of the voting system being tested
* Forms or checklists typically required in the use of the system, such as audit forms
* Keys, passwords, and codes for voter and poll workers access to the voting station
* For ballot marking systems, at least 4 blank ballots
* For systems that use paper ballots, at least 4 ballots to cast (including one that has one under-voted contest, one that has more than one under-voted contest, and one blank ballot)
* Appropriate security seals
* Instructions for re-setting or re-opening the machines for the next voter

# Appendix C: Introducing the test to participants

The usability test administrator reads this text to the participants to introduce the study to them:

Thank you for agreeing to participate in our usability test today. During the session, I’ll be using this script to ensure that my instructions to everyone who participates are the same.

We’re here today to learn how well the instructions in voting system manuals work for poll workers.

So, even though we call this a test, you're not who we're testing. We're actually testing the instructions. Your participation is critical to that.

At any time, we can stop the test and take a break or quit for the day. You're in complete control – all you have to do is say stop. Make sense?

*[Wait for acknowledgment; answer questions as appropriate.]*

During the session, you’ll be working together on your own while I observe you and take notes.

Today, we’re only concerned with the *instructions* *for using voting systems*. We don’t care about anything else to do with elections, and in that way it won’t be like Election Day: you won’t have to be concerned with most security procedures, for example.

Here’s how the session will work:

On the table in front of you, face down, are pieces of paper with some tasks I want you to do together.

Do the tasks one at a time. Please don’t look ahead at the other tasks and don’t skip any tasks.

When directed, one of you should pick up the appropriate task and read the task aloud. When you are ready to start, say “We’re ready to start.”

Start working on the task only after I have said, “Go ahead.”

You must use the system manuals. *[Point to them.]* Do your best to follow the instructions in the manuals to do the tasks.

When you have completed the task, say aloud, “We’re done.”

If you would like a break at any time, just ask. Do you have any questions before we begin?

*[Answer questions as appropriate.]*

Great. Let’s get started.

# Appendix D: Informed Consent

[Voting system manufacturers are not required to use the following Informed Consent form and may use a combination of forms, including informed consent and non-disclosure forms]

**RESEARCH DESCRIPTION**: The [name of company] is conducting a study to determine how easy it is for poll workers to use voting systems.

You will use a voting system and its documentation to set up the system, complete tasks for running an election, and shut the system down.

**CONFIDENTIALITY:** All the data collected will be anonymous. The data will be used by [name of company] to evaluate the usability of the [product]. The data will not be associated with any particular individual, but will only be identified and linked together by a number, and will not be linked back to an individual in any way.

You are free to withdraw from the study at any time. In total, we expect to have approximately 16 participants complete the test.

There are no risks involved in participating in this test, nor are there any immediate benefits. The long term benefits of this study should be improved voting systems.

**CONTACT INFORMATION:** For questions regarding this study, please contact [Contact name, phone number and email address].

"I have read the above description of this test. I have also spoken to the test administrator who answered any questions I had about this project. I acknowledge that I have received a personal copy of this form. I agree to participate in this research and I understand that I may withdraw at any time.”

Participant Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Test administrator: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature of administrator: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Appendix E: Test instructions

Follow the script on these pages to administer the test.

The task scenarios are in Appendix F

Use the checklist in Appendix F as you observe the participants to determine whether the voting system documentation passes or fails the test.

Stay in the testing room with the participants (6 to 10 feet away, preferably behind the participants) so you can unobtrusively observe their interactions, frustrations, and problems, and listen to the questions and comments they may have. You may want to follow along with your own copy of the documentation. Do not take notes. Just observe.

### Task 1: Setting up voting equipment and opening the polls

Start with the voting system packed. The test administrator should hold onto any ballots, cards, or pin numbers to give to the participants when they are needed

|  |  |
| --- | --- |
| Administrator  | Participants |
| Give the participants the first task card“Please read the first task out loud. Tell me when you’re ready to start.” | *Participant reads task text:* Using the manuals available here, find and follow the instructions for doing everything necessary to set up the voting equipment so it is ready for the first voter.  |
| “Go ahead.” | *Participants say they are ready to start.* |
| *Allow one hour for this task.* *If participants complete the task in less than one hour, mark the checklist and go on to the next task if appropriate.* |  *Participants use the instructions in the manual to do the task.* |

*If participants do not complete the task within 60 minutes, stop the task. Mark the checklist provided; fail the documentation and release the participants.*

“Okay, let’s stop here. Thank you for your help in testing these instructions. I’ll now walk you out so you can sign out and receive your honorarium. Do you have any questions at this point?” [Answer questions as appropriate.]

### Task 2: Conducting polling

Start with assembled system with polls open but no votes cast.

| Administrator  | Participants |
| --- | --- |
| “Thank you. Let’s do the next task. Please read the next task out loud. Tell me when you’re ready to start this task.” *If the system uses activated cards or PINs, give participants the cards or PIN now. For optical scan systems, have marked ballots ready to cast.* | *One participant reads task text:* The first voter has arrived. Using the manuals, find and follow the instructions for using this voting equipment to allow the voter to vote.  |
|  “Go ahead.” | *Participants say they’re ready to start.* |
|  | *Participants indicate that the voting station is ready to accept votes.* |
| “I’m now going to act as a voter. I have checked in and I’m ready to vote.”*Cast a fully voted ballot.* | *Participants must refer to the manual to find the instructions they should give to the voter, and then give the instructions.* |
| *Enter a ballot with one undervoted contest.* *On a DRE at the Review screen, say:* “Why is this highlighted? What do I do?”*On an optical scan machine after the ballot card is scanned and you receive a message from the tabulator, say:* “It’s saying I have done something wrong. What is going on?” | *Participants must refer to the manual and correctly instruct the voter that they could have voted for more candidates in the contest than they did but they can cast their ballot as is if they want to.*  |
| *Enter a ballot with two undervoted contests.* *On a DRE at the Review screen, say:* “Why is this highlighted? What do I do?”*On an optical scan machine after the ballot card is scanned, and you receive a message from the tabulator, say:* “It’s saying I have done something wrong. What is going on?” | *Participants must refer to the manual and correctly instruct the voter that they could have voted for more candidates in the contest than they did but they can cast their ballot as is if they want to.*  |
| *For an optical scan system enter a blank ballot.* *On an optical scan machine after the ballot card is scanned, and you receive a message from the tabulator, say:* “It’s saying I have done something wrong. What is going on?” | *Participants must refer to the manual and correctly instruct the voter that they could have voted for more candidates in the contest than they did but they can cast their ballot as is if they want to.*  |
| *There is no time limit on this task.* *End the task when the ballots have been cast and the participants have answered the voter’s question from the information in the manuals.*  |  |
| *If participants complete the task, mark the checklist and go on to the next task if appropriate.* |  |

*If participants do not complete the task, stop the task. Mark the checklist provided; fail the documentation and release the participants.*

*Say:* “Okay, let’s stop here. Thank you for your help in testing these instructions. I’ll now walk you out so you can sign out and receive your honorarium. Do you have any questions at this point?” [Answer questions as appropriate.]

### Task 3: Closing the polls

Start with system set up, with at least 3 ballots cast.

|  |  |
| --- | --- |
| Administrator  | Participants |
| “Thank you. Let’s do the next task. Please read the next task out loud. Tell me when you’re ready to start this task.”  | *One participant reads task text:* The election judge has declared the polls closed. It is time to end voting. All voters have voted. Using the available manuals, get the system ready to gather and count votes.  |
|  | *Participants say they’re ready to start.* |
| “Go ahead.” | *Participants must use the manual to close the polls.* |
| ***Participants must generate tally reports but stop before accumulating and counting votes.*** *If the system includes a precinct reporting device so that it can handle more than one voting station or scanner, this task includes any actions to consolidate the polling place data into a single report.* *This part of the task must take no longer than 5 minutes for each device to be consolidated.* |  |
| *There is no time limit on this task.* *End the task when the polls are closed and before participants begin removing memory packs or disassembling stations.* |  |
| *If participants complete the task, mark the checklist. Go on to close the session.* |  |

*If participants do not complete the task, stop the task. Mark the checklist provided; fail the documentation and release the participants.*

*Say:* “Okay, let’s stop here. Thank you for your help in testing these instructions. I’ll now walk you out so you can sign out and receive your honorarium. Do you have any questions at this point?” [Answer questions as appropriate.]

## Closing the session

If participants are unable to complete any task using the instructions in the documentation say:

“Okay, let’s stop here. Thank you for your help in testing these instructions. I’ll now walk you out so you can sign out and receive your honorarium. Do you have any questions at this point?”

Answer questions as appropriate. Escort participants to wherever they need to go to receive payment and sign out. Thank them again.

If participants have competed all the tasks successfully using the instructions in the documentation, say:

“Thank you for your help in testing these instructions. I’ll now walk you out so you can sign out and receive your honorarium.”

Answer questions as appropriate. Escort participants to wherever they need to go to receive payment and sign out. Thank them again.

# Appendix F: Poll worker task scenarios

Print these task scenarios on separate sheets of paper or cards.

Task 1

Using the manuals available here, find and follow the instructions for doing everything necessary to set up the voting equipment so it is ready for the first voter.

Task 2

The first voter has arrived. Using the manuals, find and follow the instructions for using this voting equipment to allow the voter to vote.

Task 3

The election judge has declared the polls closed. All voters have voted. It is time to end voting. Using the available manuals, get the system *ready* to gather and count votes.

# Appendix G: Pass-fail checklist

See evaluation criteria on the following page. Yellow highlighted section, captures the analysis described in Step 4 of the companion document “Guidelines for Testing Voting Systems for Election Worker Usability”

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria** | **Task 1: Open polls** | **Task 2: Conduct polling** | **Task 3: Close polls** |
| Are the instructions easy to act on? | ⬜ Yes ⬜ No | ⬜ Yes ⬜ No | ⬜ Yes ⬜ No |
| Are the procedures in the order of poll worker tasks? | ⬜ Yes ⬜ No | ⬜ Yes ⬜ No | ⬜ Yes ⬜ No |
| Does the documentation clearly explain how to verify that the system is in a correct state for the next step or task? | ⬜ Yes ⬜ No | ⬜ Yes ⬜ No | ⬜ Yes ⬜ No |
| Are poll workers able to respond to messages appropriately? | ⬜ Yes ⬜ No | ⬜ Yes ⬜ No | ⬜ Yes ⬜ No |
| Is the documentation accurate? | ⬜ Yes ⬜ No | ⬜ Yes ⬜ No | ⬜ Yes ⬜ No |
| Is the documentation complete? | ⬜ Yes ⬜ No | ⬜ Yes ⬜ No | ⬜ Yes ⬜ No |
| Are the procedures generally easy to follow, simple to understand, and error tolerant?  | ⬜ Yes ⬜ No | ⬜ Yes ⬜ No | ⬜ Yes ⬜ No |
| If poll workerscomplete the task and recognize they are done, **pass**.complete the task but do not recognize they are done, **fail**. do not complete the task but say they have, **fail**. | Stop the task at 60 minutes? ⬜ Yes ⬜ NoSystem is in a state that shows it is ready for voting, including activating ballot definitions or specifying precincts, if applicable? ⬜ Yes ⬜ No | System shows ballots have been cast? ⬜ Yes ⬜ NoParticipants have answered questions about over votes, undervotes and blank ballots? ⬜ Yes ⬜ No | System messages indicate that polling is closed on this system? ⬜ Yes ⬜ No The machine cannot take any more votes [participants must stop before accumulating votes or other data]? ⬜ Yes ⬜ No |
| **Final determination:** | **⬜ Pass ⬜ Fail** | **⬜ Pass ⬜ Fail** | **⬜ Pass ⬜ Fail** |

|  |
| --- |
| **Comments:**  |

### Evaluation criteria for the pass-fail checklist

When evaluating items on the checklist, consider whether participants can use the documentation to:

* Complete the task without asking questions of an expert or consulting a source other than the documentation
* Find the information they need to complete tasks
* Match messages or other affordances between system and documentation
* Read, understand, and react to system messages
* Perform task without missing steps
* Perform steps to complete tasks