

Assessment of Learning for Indiana  
Election Personnel  
on Electronic Poll Books:  
Guidelines by VSTOP

**Document Creation/Revision History:**

1. 2016 Version – Created by VSTOP during December 2015; Approved by Connie Lawson, Indiana Secretary of State on January 13, 2016.
2. 2018 Version – Revised and Created by VSTOP during December 2017 - January 2018. Sent to Vendors for Comment from February 14, 2018 – February 28, 2018. Revised March 5, 2018. Approved by Hon. Connie Lawson, Indiana Secretary of State on March 15, 2018.

## **I. Preamble**

The Indiana Code (IC 3-11-8-10.3 (b) (16)) states that the procedures for setting up, using, and shutting down an electronic poll book (ePB) must be reasonably easy for a precinct election officer to learn, understand, and perform. The Indiana General Assembly added a stipulation to this code, shown in bold below:

IC 3-11-8-10.3 (b) (16) The procedures for setting up, using, and shutting down an electronic poll book must be reasonably easy for a precinct election officer to learn, understand, and perform. **After December 31, 2015, a vendor shall provide sufficient training to election officials and poll workers to completely familiarize them with the operations essential for carrying out election activities. A vendor shall provide an assessment of learning goals achieved by the training in consultation with VSTOP (as described in IC 3-11-18.1-12).**

This document sets forth specific recommendations from VSTOP that vendors may consult as they develop and refine their training modules on ePBs. These suggestions are intended to assist vendors in formulating and employing clear training modules that will satisfy the statutory language requirements of “sufficient training;” “completely familiarize;” and “provide an assessment of learning goals achieved by the training.”

## **II. Training and Assessment Purposes**

- A. Ensure that all election personnel operating electronic poll books have demonstrated the ability to perform assigned ePB tasks during the training period. The sample grading rubric included in the attached document provides a means of tracking performance of each individual trained;
- B. Provide vendors with the feedback necessary to consistently improve training to enhance performance by election personnel;
- C. Training should always be a recursive process whereby assessment of learning informs new training needs and objectives;
- D. Training and assessment of learning from training should be focused on continuous improvement and best practices

## **III. Timeline for ePB Training and Assessment**

- A. Before every primary and general election in even numbered years, training and assessment must be completed no later than 7 days before an ePB will be used by the trainees for absentee voting or election day
- B. For odd numbered years, if there is an election or a special election, training and assessment must be completed no later than 7 days before an ePB will be used by the trainees for absentee voting or election day, if one or both of the following conditions are met:

1. The equipment has changed since the last election.
2. There are election officials and poll workers for these elections who have not been trained before on either existing or new equipment.

If a trainee does not sufficiently pass the training as evidenced by the assessment, this individual should not be responsible for ePB operations for a following election.

#### **IV. Refinement of Assessment Procedures:**

A number of recommendations were made to the Indiana Secretary and State regarding ePB Training and Assessment in a report on findings from the first assessment process which took place in early 2017. These recommendations, which were accepted by the Secretary, are as follows:

- 1. Rubrics:** VSTOP recommends continued refinement of the assessment rubrics. While certain sections of the rubrics may need to be vendor specific, VSTOP recommends a general section that applies to all rubrics. This should facilitate a uniform across the board evaluation of the learning goals achievement by vendors.
- 2. Acceptance Testing:** VSTOP recommends that the assessment include a section that applies to training and tasks related to Acceptance Testing. VSTOP recommends that QUEST/GCR review this section and provide feedback and suggestions on an ongoing basis.
- 3. Consistent Rating Measures and Remediation:** Learning outcomes rubric data varied among vendors and counties. While some counties indicated proficiency levels of those assessed, others did not provide this information evaluation measurement – a box without a value was initialed or checked. VSTOP recommends a further refinement of the measures/ratings for the assessments, and of remediation procedures.
- 4. Objectivity:** VSTOP noted variation in the manner the assessments were administered. While some assessment data appeared to be the result of independent, objective measurement, others seemed to be completed by the trainee election officials/poll workers themselves. Going forward, VSTOP recommends refinement of guidelines that address the procedures for administering the assessments.
- 5. Online Assessment:** As suggested by a vendor (VoteC), VSTOP also recommends exploration of using automated/online methods for completing the assessments, including online form based assessments. This would address some issues in gathering consistent data as mentioned above.

6. **Timelines:** There was an instance of ePB training occurring after the general election and not before. VSTOP recommends a schedule of training and learning assessments that fits in with the election calendar and the Acceptance Testing timeline.
7. **EPB issues related to training:** Section IC 3-11-18.1-14(b) requires vendors to file *“not later than forty-eight (48) hours after the discovery of an anomaly or problem with the poll book a written report describing the anomaly or problem with the secretary of state.* VSTOP recommends that, after each election cycle, an analysis of those problems that are related to training be carried out to identify any gaps in training that may have caused these issues, and to ascertain what aspects of training and learning assessment goals should be revised/strengthened.

## V. Reporting Requirements

### **By last business day of February of each year:**

- Vendors must provide VSTOP with copies of the materials used to train election personnel, as well as with any materials they create for remediation.
- Vendors must supply copies of the rubrics they plan to use in assessment of training.

### **By last business day of December of each year:**

- Vendors must submit a report to VSTOP documenting the pass rate (number of trainees achieving a rating of proficient) after the initial round of training as well as the number of individuals requiring remediation in each Indiana county serviced.
- A description of whether the forty-eight hours anomaly or problem reporting requirement of IC 3-11-18.1-14(b) was met by the vendor and an analysis of whether the anomaly or problem was related to lack of proper training.
- A list of those procedures most often requiring remediation.
- A plan for improving training based on the results presented in this report.
- An attestation must accompany the report that verifies that all election personnel involved in the operation of ePBs have achieved proficiency.

## VI. Training Activities

The following includes a list of activities that should be addressed in all training of election personnel who operate and supervise the operation of ePBs. The list is not exhaustive. Vendors are encouraged to go beyond the standard steps and provide training on aspects that are unique to their certified ePB equipment. It is expected that election personnel will be able to demonstrate his/her proficiency on each of these activities. The

levels of learning objectives A through E below are meant to be sequential. A learner should not continue to the next level of training until he/she has reached a level of proficiency at the previous level of training. It is expected that County election officials will be required to complete levels A through F, while poll workers will be required to complete levels B through F.

### **A. Preparing for use of ePBs**

County election officials should be trained to oversee the receipt, acceptance testing, and set-up of all ePB equipment and software. In addition to training listed below in steps B through E, County election officials must be trained to (or have staff members, vendors, or county approved contractors available during an election that have been trained to):

1. Demonstrate familiarity with all hardware, firmware, and software components which constitute the ePB solution and the transmission of data between the county connection and SVRS. Such components include, but are not limited to, setting up and maintaining network connectivity, network routers and familiarity with SVRS Web Services Framework;
2. Demonstrate the ability to test Internet connections at all remote voting sites to assure conformance with minimum broadband requirements specified by the ePB vendor for use with their equipment;
3. Demonstrate ability to operate and troubleshoot connectivity issues involving units at remote voting sites and the county connection used as part of the ePB solution;
4. Demonstrate facility with redundant sources of Internet connectivity and procedures necessary to switch from one mode to another in case connectivity is lost;
5. Demonstrate familiarity with and ability to execute all steps required for county Acceptance Testing as detailed in the Acceptance Test in Appendix D of the Indiana Electronic Poll Book Certification Protocol approved by the Indiana Secretary of State. This includes completion of all testing activities for which the county is responsible, conducting all required electronic communication procedures for uploading and downloading data from SVRS through Web Services Framework, and attesting to the completion of all testing steps performed by the vendor and county personnel in conjunction with QUEST/GCR;
6. Demonstrate the ability to troubleshoot problems that may occur with regard to ePB operation during the conduct of the election; and
7. Demonstrate knowledge of how to contact vendor support in case of problems with ePB operation or Internet connectivity that cannot be resolved during the course of the election.

## **B. Starting, Set-up and Initial Data download**

Election Personnel (County officials and poll workers) must demonstrate their ability to:

1. Identify all equipment, hardware and software components that constitute the entire certified ePB, including any cables and/or any other peripheral objects, such as docking stations and consumables that will be used for the election;
2. Identify proper network connection procedures (such as the correct ports on the ePBs that must be connected to the voter registration database and be able to ascertain that the connection(s) are secure);
3. Confirm that all information for logging in on the ePBs, such as date and time are correct, along with any additional data and information that are required for proper functioning of the equipment (e.g., precinct number; poll worker name or number, etc.);
4. Verify that the ePBs are properly loaded with the correct data; and
5. Ascertain that the ePB is configured in such a way as to enable the poll worker to check in voters. In case of anomaly, procedures for contacting appropriate election official(s)/vendor are clearly understood.

## **C. Early Voting and Election Day Voting Activities**

Election Personnel (County officials and poll workers) must demonstrate their ability to:

1. Use the barcode scanner effectively and confirm that appropriate information is captured from the driver's license or the state identification card;
2. In primary elections, demonstrate the ability to select the correct party ballot that the voter has chosen;
3. Demonstrate knowledge of procedures for the "address unchanged" ePB functionality;
4. Demonstrate knowledge of procedures to be taken when a voter's name does not appear in the ePB. In this situation, the training should exhaust all the procedures and steps that must be taken to determine the proper resolution;
5. Demonstrate knowledge of the steps to be taken when a voter's ID is acceptable, but the address does not match the address in the voter file;
6. Demonstrate knowledge of the steps to take to capture the voter's proof of residency;
7. Demonstrate knowledge of the steps to take when voter indicates name change;
8. Demonstrate knowledge of the steps to take when voter DLN information is missing if applicable; and
9. Demonstrate knowledge of the steps to take when voter SSN4 information is missing if applicable; and
10. Demonstrate a full range of knowledge pertaining to when a provisional ballot may be appropriate for the voter and identify the election officials who can explain the provisional voting process to the voter.

## **D. Data Upload and Closing**

Election Personnel (County officials and poll workers) must demonstrate their ability to:

1. Name and execute all the steps involved in uploading data to a server or to SVRS through Web Services Framework and in shutting down the ePB when the polls close;
2. Identify the information that must be recorded in order to provide an accurate count of the number of voters checked-in on each unit.

## **E. Troubleshooting**

Election Personnel (County officials and poll workers) must demonstrate their ability to do the following:

1. Troubleshoot and handle common scenarios and exceptions that may present themselves leading to suspension or stoppage of normal and expected functionality.
2. Follow vendor guidelines in the event that connectivity is lost with the server or the voter registration database.
3. Locate a list of vendor representatives/county personnel and their contact information in the event of an emergency.

## **F. ePB Security**

Election Personnel (County officials and poll workers) must demonstrate their ability to:

1. Understand basic cyber security threats to ePBs;
2. Understand basic physical security threats to ePBs; and
3. Develop a working knowledge of procedures to be followed in the case of detected physical or cyber security threats to ePBs.

## **VII. Assessing the Learning Objectives**

Vendors must develop modules for training related to each of the above learning objectives and rubrics for assessing each learning objective. Using the rubrics developed, each county election official that works with the ePB must be assessed to determine their proficiency in preparing the ePBs for use and each county official and poll worker must be assessed to determine the extent to which he or she has comprehended all the steps and procedures involved with the opening, operating, and shutting down of the ePBs.

The modules developed by the vendor can be a combination of teaching/learning/experimentation approaches. For example, pictures and PowerPoint presentations of the exact equipment are appropriate to introduce the poll workers to the ePBs and the various procedures that must be followed to ensure their proper operation. Training videos may be used. Hands-on demonstrations and experimentation are preferred. Individual learning as well as team-learning may be used. Poll workers must have hardcopy or online availability of training materials. Checklists must also be developed and used to ensure that specific steps are taken with respect to opening, operating and closing the ePBs on election day.

The approach to assessing the effectiveness of the training can be an objective examination, or demonstration of the performance of the prescribed procedures before a trained examiner. Rubrics must provide sufficient information to allow examiners to pinpoint specific areas of learner deficiency that will require additional instruction. Particularly important is how a learner responds to an anomaly or a scenario that requires troubleshooting.

A rubric must be used to assess each learner. (See sample table in Appendix A.) Scoring procedures for each learning objective will be developed by the vendor but composite scores must result in one of two outcomes:

1) **Failure:** The learner has not demonstrated the ability to complete all steps in any particular level or training and requires remediation before moving to the next level of training; or

2) **Proficiency:** The learner has demonstrated a satisfactory level of competency in completing all steps in any particular level with the assistance of coaching and written materials and may move onto the next level of training;

The standard rule is that “proficiency” is the minimum score necessary for a learner to achieve in order to continue to the next level of training and an overall score of “proficiency” is necessary before the vendor will certify that the learner is able to handle election duties.

### **Reporting Assessment Data to VSTOP**

The data collection for ePB training assessment will be collected using a Qualtrics survey that vendors will complete. This summary assessment survey is designed to capture the following:

- a. Number of trainees who achieved proficiency.
- b. Number of trainees who did not achieve proficiency.
- c. Specific sections of the assessment instruments that created issues with proficiency.
- d. The number of trainees who did not achieve proficiency, did not move forward with remediation, and did not work with ePBs during the election.
- e. Remediation steps taken for those who did not achieve proficiency.
- f. Outcome of remediation steps for those who did not achieve proficiency within a reasonable timeframe before the election.
- g. Plans for changes and improvement in training for next training cycle.
- h. An attestation from the vendor indicating verification of those achieving proficiency in ePB operations.

The Qualtrics instrument, specific to each vendor based on the master assessment rubric (see Appendix A), will collect information universal to all counties as well as specific assessment criteria per vendor. Therefore, each vendor will be required to submit their final training assessment rubric to VSTOP so it can be loaded into the Qualtrics application. There will be separate Qualtrics instruments for election officials and poll workers based on areas germane to each group. A rubric will be completed for each trainee.

### **VIII. Approval and Changes to this Document**

This document has been approved by SOS effective March 15, 2018. This document may be revised as necessary. Vendor input and comments will be considered in making changes. Revisions will be effective upon approval by the Indiana Secretary of State.

## Appendix A

### Sample Training Rubric for Election Personnel\*

**\*Every official at the County Level may not be responsible for all of the technical tasks listed below, but if not then must confirm that there are employees, vendors, or county approved contractors available who are responsible for these tasks.**

	FAIL	PROFICIENT
<b>A. Preparing for use of ePBs:</b>		
Demonstrate familiarity with all hardware, firmware, and software components which constitute the ePB solution and the transmission of data between the county server and SVRS; Such components include, but are not limited to, setting up and maintaining network connectivity, network routers and familiarity with SVRS Web Services Framework.		
Demonstrate the ability to test Internet connections at all remote voting sites to assure conformance with minimum broadband requirements specified by the ePB vendor for use with their equipment.		
Demonstrate ability to operate and troubleshoot connectivity issues involving units at remote voting sites and the county server used as part of the ePB solution.		
Demonstrate facility with redundant sources of Internet connectivity and procedures necessary to switch from one mode to another in case connectivity is lost.		
Demonstrate familiarity and ability to execute all steps required for county Acceptance Testing as detailed in the Acceptance Test in Appendix D of the Indiana Electronic Poll Book Certification Protocol approved by the Indiana Secretary of State; This includes completion of all testing responsibilities for which the county is responsible, conducting all required electronic communication procedures for uploading and downloading data from SVRS through Web Services Framework, and attesting to the completion of all testing steps performed by the vendor and county personnel in conjunction with QUEST/GCR.		
Demonstrate the ability to troubleshoot problems that may occur with regard to ePB operation during the conduct of the election		
Demonstrate knowledge of how to contact vendor support in case of problems with ePB operation or Internet connectivity that cannot be resolved during the course of the election.		
<b>COMPOSITE SCORE FOR A.</b>		

	<b>FAIL</b>	<b>PROFICIENT</b>
<b>B. Starting, Set-up and Initial Data download</b>		
Identify all equipment, hardware and software components that constitute the entire certified ePB, including any cables and/or any other peripheral objects, such as docking stations and consumables that will be used for the election.		
Identify proper network connection procedures (such as the correct ports on the ePBs) for connection to the voter registration database and to be able to ascertain that the connection(s) are secure.		
Confirm that all information for logging in on the ePBs, such as date and time are correct, along with any additional data and information that are required for proper functioning of the equipment (e.g., precinct number; poll worker name or number, etc.).		
Verify that the ePBs are properly loaded with the correct data.		
Ascertain that the ePB is configured in such a way as to enable the poll worker to check in voters. In case of anomaly, procedures for contacting appropriate election official(s)/vendor are clearly understood.		
<b>COMPOSITE SCORE FOR B.</b>		

	<b>FAIL</b>	<b>PROFICIENT</b>
<b>C. Early Voting and Election Day Voting Activities</b>		
Use the barcode scanner effectively and confirm that appropriate information is captured from the driver’s license or the state identification card.		
In primary elections, demonstrate the ability to select the correct party ballot that the voter has chosen.		
Demonstrate knowledge of procedures for the “address unchanged” ePB functionality.		
Demonstrate knowledge of procedures to be taken when a voter’s name does not appear in the ePB. In this situation, the training should exhaust all the procedures and steps that must be taken to determine the proper resolution.		
Demonstrate knowledge of the steps to be taken when a voter’s ID is acceptable, but the address does not match the address in the voter file.		
Demonstrate knowledge of the steps to take to capture the voter’s proof of residency.		
Demonstrate the knowledge of the steps to take when voter indicates proof of name change.		
Demonstrate knowledge of the steps to take when voter DLN information is missing, if applicable.		
Demonstrate knowledge of the steps to take when voter SSN4 information is missing, if applicable.		
Demonstrate a full range of knowledge pertaining to when a provisional ballot may be appropriate for the voter and identify the election officials who can explain the provisional voting process to the voter.		
<b>COMPOSITE SCORE FOR C.</b>		

	<b>FAIL</b>	<b>PROFICIENT</b>
<b>D. Data upload and closing</b>		
Name and execute all the steps involved in uploading data to a server or to SVRS through Web Services Framework and in shutting down the ePB when the polls close.		
Identify the information that must be recorded in order to provide an accurate count of the number of voters checked-in on each unit.		
<b>COMPOSITE SCORE FOR D.</b>		
<b>E. Troubleshooting</b>		
Troubleshoot and handle common scenarios and exceptions that may present themselves leading to suspension or stoppage of normal and expected functionality.		
Follow vendor guidelines in the event that connectivity is lost with the server or the voter registration database.		
Locate a list of vendor representatives/county personnel and their contact information in the event of an emergency.		
<b>COMPOSITE SCORE FOR E.</b>		
<b>F. ePB Security</b>		
Demonstrate an appreciation for the basic physical security of ePB units and data.		
Demonstrate an appreciation for the basic cyber security of ePB units and data.		
Develop a working knowledge of procedures to be followed in the case of detected physical or cyber security threats to ePBs.		
<b>COMPOSITE SCORE FOR F.</b>		
<b>OVERALL SCORE</b>		