Creating a Certification Program:  
Response to Request for Information

Prepared for: The Association of Transcribers and Speech-to-text Providers (ATSP)
Prepared by: CETE Assessment Services

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**Background**

The Association of Transcribers and Speech-to-text Providers (ATSP) is seeking to create a certification program. The program will be targeted toward individuals in or aspiring to be speech-to-text providers. In 2016 ATSP partnered with CETE to defined the body of knowledge for this occupation through a job analysis and verification process. Now ATSP seeks to define and plan the remaining scope of work for developing a certification program. This document is in response to ATSP’s request for information and focuses on certifications, not certificates, and on purpose and examinations more than governance.

**Creating the Certification Exam**

CETE assessment services has conducted similar projects over a 16-year period (2000 to present). Our scope-of-work building blocks originate in accreditation standards (NCCA, ISO), industry practices (Knapp, Anderson, & Wild, 2009; Lane, Raymond, & Haladyna, 2015; Wild & Ramaswamy, 2008), and project experiences. CETE can customize and adapt work elements to meet specific client needs, timelines, or budgetary constraints. The scope-of-work elements below are within CETE Assessment Service’s capacity to conduct in collaboration with ATSP:

1. Project Planning/Needs Assessment/Market Study
2. Develop Certification Scheme (NCCA Standard #1; ISO 17024:2012)
3. Conduct Job Analysis to Define Body of Practice, Knowledge
4. Conduct Job Analysis Verification Study
5. Complete Task Analysis Drill-Down (highly recommended, but optional)
6. Create Test Blueprint, Specifications
7. Conduct Item Writing and Review
8. Recommend Performance Standards
9. Conduct Field Test
10. Conduct Item-Test Analysis
11. Create Operational Forms
12. Develop Reporting Format
14. Plan-Conduct Ongoing Test Delivery and Maintenance

**Scope-of-Work Elements**

The table below presents one model for accomplishing this project. Columns 1 and 2 provide the scope-of-work element and a description. Column 3 presents assumptions that further describe inputs and responsibilities. Column 4 summarizes deliverables and outputs. Cost ranges are provided in a separate table for illustration purposes.

Further discussions and decisions would be needed to refine specific design of the project. Systems can be developed that deliberately do not aim for accreditation at the beginning, which leads to cost reductions. Another way to manage costs is to extend the timeline and do phased work. A formal proposal detailing an agreed-upon scope of work is required before work may be performed. Actual costs are contingent upon decisions made for each element and phase.
<table>
<thead>
<tr>
<th>Scope Element</th>
<th>Description</th>
<th>Assumptions/ Comments</th>
<th>Deliverable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Plan-Manage Project</td>
<td>• Finalize agreement on scope of work and budget; formalize service estimate(s) with signature.</td>
<td>• Presumes that certification is on the table as strategic goal.</td>
<td>• Sign the service agreement.</td>
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<td>• Determine project milestones.</td>
<td>• ATSP creates steering committee, champion of project.</td>
<td>• Establish consensus about credential.</td>
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<td>• Discuss partnering requirements.</td>
<td>• CETE responsible for project management with PMP and CAPM on staff.</td>
<td>• Steering committee is created to make/refer project decisions.</td>
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<td>• Assumes that certification is on the table as strategic goal.</td>
<td>• PM is formalized to finish project efficiently.</td>
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<td>2) Develop-Refine “Certification</td>
<td>• This refers to purpose, scope, and population.</td>
<td>• Steps specified in CASCO (2016) document for ISO 17024 accreditation standard and are also provided in commentary for NCCA (2014) Standard 1.</td>
<td>Stakeholder groups are consulted during design-development of the certification.</td>
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<td>Scheme”</td>
<td>• ISO focuses more on process rather than outcomes (which is the focus of NCCA accreditation).</td>
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<td>3) Conduct Job Analysis to</td>
<td>• This step is mandatory and involves a systematic process to develop and document the “body of knowledge” using subject-matter experts (SMEs) for this occupation.</td>
<td>• ATSP recruits SMEs to provide data on work performed.</td>
<td>A professional report of publishable quality.</td>
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<td>Specify Content Domain</td>
<td>• This analysis can include performance differentiators as discussed for special segments of the population.</td>
<td>• CETE will perform the job analysis through a facilitated workshop format; several options are available.</td>
<td>A defensible job analysis describes professional work and serves as the input for verification study.</td>
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<td>• 8 to 12 representative SMEs are used in a panel format to conduct the job analysis.</td>
<td>• Collaboration requirements are to be specified during the project planning process.</td>
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<td>• Work can be conducted on-site at CETE, off-site at a convenient location, at a distance using web technologies, or a combination-hybrid of these.</td>
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| 4) Conduct Verification Study | • This step scrutinizes the results of the job analysis using a larger pool of current SMEs doing the same work; goal is to understand the work and serve as quality assurance.  
• An online survey is the preferred methodology, but alternative data collection strategies can be used (e.g., focus groups).  
• CETE develops, monitors, and analyzes results.  
• CETE strongly recommends a KSA linkage-alignment process to link work-worker domains. | • ATSP provides a list of contacts.  
• CETE develops survey for review/approval, helps plan response rate interventions (incentives), and launches survey.  
• CETE analyzes ratings obtained on task and KSAs and creates criticality composite. | • Recommendations are made to determine the most “critical” tasks and KSA areas (as inputs to test blueprint). |
| 5) Complete Task Analysis Drill-Down | • This activity can be completed before or after the verification survey, but is usually done post-survey (to eliminate less-critical rated tasks).  
• Work consists of applying a standard template to drill-down into each task (e.g., procedural steps, errors, cues, decisions).  
• Trained facilitator works with 2 SMEs and compiles data in template.  
• CETE has developed rationales for conducting Task Analysis to support test-item development (e.g., scenarios, linkage, resources). | • CETE can conduct this activity at a distance, but face-to-face is preferred.  
• ATSP recruits SME panel, which could include members of the original job analysis panel.  
• Typical length of workshop is 2 days. | • A spreadsheet with task-based tabs is the main deliverable and serves as input to item-writing process.  
• Can be included in overall Job Analysis Report. |
| 6) Draft Initial Version of Test Blueprint and Item Specifications | • CETE will create a draft test blueprint and specifications outlining the structure of the test, item type-format, and proportions of test items.  
• In the blueprint, occupational content can be mapped against cognitive challenge using a tiered taxonomy (Bloom, Webb, or Marzano).  
• Committees of SMEs will review and approve the final blueprint, which under certain circumstances can be modified with a documented rationale. | • CETE makes recommendations for the blueprint and distribution of items.  
• CETE will facilitate a meeting with SMEs to gain approval.  
• ATSP is asked to approve specific item types in exam. | • Test blueprint includes sampling domain for items, specifies item-types and quantities required of item writers, and specifications for performance test and scoring tools (rating scale). |
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| 7) Conduct item writing and review | • An item bank is created to cover critical areas outlined in the test blueprint and specifications.  
  • Can be completed in a face-to-face workshop (most secure), completely at a distance (less secure), or in a hybrid approach.  
  • CETE supplies trained, experienced item-writing facilitators to guide SMEs and ensure items adhere to best practices.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | • ATSP recruits SMEs as item writers.  
  • CETE trains on item writing for rigorous tests, item security, various item types, facilitator roles, and online item writing tools.  
  • CETE facilitates item writing.  
  • CETE reviews items for professional item editing, distractor analysis, and scenario and graphic quality control.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | • Complete item bank with items linked to body of knowledge from job analysis.  
  • Tagged meta-data pertaining to each item (ratings, cutoff score weight, graphic, scenario, additional options, etc.).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 8) Recommend Performance Standards | • This step involves SMEs rating the items, which provides evidence supporting score interpretation (validity) and quality control.  
  • CETE averages ratings to make any decisions (i.e., pass/fail points) about the examination.  
  • Face-to-face workshop is preferred due to test security.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | • ATSP recruits SMEs to provide ratings.  
  • CETE provides distance and face-to-face training on item security, validity, and standard setting (minimal competence) to provide context.  
  • CETE can integrate performance standard data with field-test data.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | • Provide defensible cut-off scores and item/test level ratings as recommendations.  
  • Support content evidence for test score interpretations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 9) Conduct Field Test              | • Item banks are administered to test takers to try out items.  
  • Using this test-taker data, CETE selects the best performing items to make operational forms.  
  • Items not selected can be repaired in subsequent item-development work.  
  • Delivery of the field test should be done in a proctored setting (in person or remotely).  
  • The number taking the field test should be a multiple of the number of items (e.g., 2 x # items).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | • CETE can set up a secure portal in WebXam for ATSP, with various accounts and hierarchal administrator access created.  
  • ATSP markets the test and helps recruit test takers.  
  • Other vendors may handle delivery, in which case CETE handles the export process.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | • Delivery platform capable of test delivery, providing customer support, collecting examinee information securely.  
  • CETE’s platform or another vendor is the platform for delivery.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| 10) Conduct Item-Test Analysis      | • After field test, compute statistics: item, test levels (e.g., score reliability, decision consistency).  
• Compute inter-rater reliability for scoring of performance examinations.  
• Attach SME rating data and item level statistics to items (tagged meta-data).  
• Examine item- and test-level data to ensure differences by gender, race, etc., in passing rates are not significantly different. | • CETE will conduct the analysis using specialized software.                                                                                           | • Input to operational form selection and inputs to the technical manual.                              |
| 11) Create Operational Forms        | • Select items based on blueprint, SME judgments, and item statistics.  
• Ensure the correct proportion of items per task of job analysis, cognitive rigor, scenarios, and graphics are selected (per test blueprint).  
• Practice tests can be created.                                                                                                             | • CETE can select practice test questions from released items.                                           | • Final test form(s) that are content balanced                                                        |
| 12) Develop Reporting Format        | • Create a general report format.  
• Score interpretations for individuals.  
• Display scores from various subsections.  
• Offer feedback to examinee.  
• Provide digital badges for test takers                                                                                                       | • CETE will incorporate branding from ATSP.  
• CETE submits reports to ATSP to issue “Certification”, digital badge or update certificate-holder roster on website. | • Visually appealing report format that is printable for test taker and captures feedback based on scores. |
| 13) Produce Technical Report        | • Include all project methodology and analysis results.                                                                                                                                                    | • CETE will draft.  
• ATSP reviews and approves.  
• CETE will incorporate one round of feedback.                                                                                                   | • Final document, which can be submitted along with accreditation application.                         |
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| 14) Conduct Ongoing Test Delivery and Maintenance | • WebXam can provide on demand testing for the program, if appropriate.  
• Security features are consistent with stakes of test (specifically, proctors present or remote).  
• Customer Support is available during testing cycles.  
• Perform annual item analysis and test maintenance.  
• Statistical analysis should be employed every year to document changes in performance of items and to suggest changes to live items.  
• Replaced/ flagged items can sometimes be repaired to improve quality and restore them to the item bank. | • CETE provides WebXam delivery services, psychometric services, and item development, assuming they are maintained in CETE applications.  
• Proctoring would need to be conducted by ATSP. | • Test is professionally delivered, managed, and documented.  
• Test is up-to-date, items perform up to professional standards, and continuous improvement is documented. |
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<th>Scope Elements</th>
<th>Based on Extent of Cooperation between ATSP and CETE</th>
<th>Cost Ranges (case-by-case)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Plan-Manage Project</td>
<td>• Includes internal-external meetings</td>
<td>• Embedded in all other steps</td>
</tr>
<tr>
<td>2) Develop “Certification Scheme”</td>
<td>• Mix of high-level and practicing professionals; structured process from scope to prerequisites</td>
<td>• ATSP conducted</td>
</tr>
<tr>
<td>3) Conduct Job Analysis</td>
<td>• Recruiting responsibility of client; 2-3 day workshop with 8-12 experts (or a suitable alternative procedure)</td>
<td>• $8,000 - $16,000</td>
</tr>
<tr>
<td>4) Conduct Verification Survey</td>
<td>• Posting to online survey platform</td>
<td>• $6,000 - $10,000</td>
</tr>
<tr>
<td>5) Conduct Task Analysis Drill-Down</td>
<td>• Recruiting responsibility of client; usually a 2-3 day workshop with 8-12 experts and 3-4 facilitators</td>
<td>• $10,000 - $15,000</td>
</tr>
<tr>
<td>6) Create Test Blueprint and Item Specifications</td>
<td>• Draft version</td>
<td>• $2,000 - $5,000</td>
</tr>
<tr>
<td>7) Conduct Item Writing and Review</td>
<td>• Face-to-face, facilitated, 3-4 days, 10-14 SMEs, 5 facilitators</td>
<td>• $20,000 – $50,000</td>
</tr>
<tr>
<td>8) Recommend Standards (cutoffs)</td>
<td>• Face-to-face, facilitated, 2 days, 10-12 SMEs</td>
<td>• $8,000 - $13,000</td>
</tr>
<tr>
<td>9) Conduct Field Test</td>
<td>• Client obtains/provides sample (large numbers preferred); CETE can provide web-based testing system but NO physical locations</td>
<td>• $0 - $10,000</td>
</tr>
<tr>
<td>10) Analyze Field Test Data</td>
<td>• Item analysis conducted by CETE psychometricians</td>
<td>• $4,000 - $6,000</td>
</tr>
<tr>
<td>11) Create Operational Forms</td>
<td>• Strongly recommend 2 forms for security (requires adequate # of items), which will require equating on difficulty, blueprint, etc.</td>
<td>• $2,000 - $5,000</td>
</tr>
<tr>
<td>12) Develop Reporting Format</td>
<td>• Work with client to create optimal reports (scaled versus #right scores)</td>
<td>• $5,000 - $15,000</td>
</tr>
<tr>
<td>13) Produce Technical Manual</td>
<td>• Based on project, best practice dependent on stakes (high versus low)</td>
<td>• $2,000 - $5,000</td>
</tr>
<tr>
<td>14) Conduct Ongoing Test Delivery and Maintenance</td>
<td>• Based on project, with accreditation goals, meaning higher stakes for certification program</td>
<td>• #test takers, #forms, technical support requirements TBD</td>
</tr>
<tr>
<td>15) Conduct Field Test</td>
<td></td>
<td></td>
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<tr>
<td>16) Wrap-up Project</td>
<td>• Transfer relevant materials and documentation</td>
<td>• N/A</td>
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<tr>
<td></td>
<td>• Assess client satisfaction and lessons learned (internal / external)</td>
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</table>
SELECTED TECHNICAL REFERENCES


