

Assessment Development

Current Reliable Our Process... Valid

Develop Standards and Competencies

1

Standards clearly outline what students should know and be able to do. Subject Matter Expert (SME) involvement ensures NOCTI industry-based credentials measure what matters. SME teams review existing national, industry, and state standards to determine critical content. Specific standards are identified to serve as the foundation for the development process. When standards do not exist, NOCTI facilitates a Job and Task Analysis process to define the content.

Develop Assessment Blueprint

2

The Assessment Blueprint serves as the roadmap for the development process. To create a blueprint, SME teams rate the critical content to determine distribution across the competencies. This important step is necessary to assist in creating a valid and reliable assessment.

Develop Items and/or Performance Jobs

3

NOCTI follows rigorous industry test development guidelines* to ensure valid and reliable assessments. NOCTI's extensive question bank is continuously updated by industry and education. SME teams select and/or modify existing questions and write new questions to ensure the competencies are fully addressed. During performance job development, SMEs are charged with developing student, evaluator, and job set-up instructions, a list of materials, supplies, and equipment as well as a comprehensive scoring rubric for evaluating student work.

Pilot Assessment

4

Pilot testing is a critical phase in the development process and represents an actual test administration with a pilot test group. The group must be representative of the population that will be tested including appropriate geographic, ethnic, and gender demographics. The valuable data gathered from pilot testing is used to ensure the items, jobs, and overall test are performing according to industry guidelines.*

Analyze Pilot Test Results

5

NOCTI thoroughly reviews the pilot test data which includes item-level information such as difficulty, distractor analysis, and discrimination between high and low scorers. Test-level information is also reviewed and includes mean, maximum and minimum scores, several measures of variance (e.g., standard deviation, standard error of measurement, skew, kurtosis) as well as the reliability of the assessment. A report is provided to the SME team for additional review and feedback.

Establish Cut Score (Benchmark)

6

Criterion-referenced cut scores are established by a qualified team of SMEs to set the point on a test at which a student is expected to perform to be considered “minimally competent” or ready for an entry position in a technical field. Cut scores are established for multiple-choice and performance assessments.

Review and Incorporate Edits

7

Assessment edits are based on results of pilot testing, item analysis, and cut score activities. Approved edits are incorporated into a final version of the assessment.

Finalize Assessment

8

Finalization of the assessment includes integrated academic alignment, conversion of the multiple-choice test to Text-to-Speech format, and release for general usage.

* American Psychological Association (APA), American Educational Research Association (AERA), National Council on Measurement and Evaluation (NCME)

Yes! You **CAN** Customize an Assessment...

Not finding an assessment that meets your needs? NOCTI can help develop a customized assessment! Our extensive experience, skilled facilitators, and flexibility with timelines and budgets make NOCTI a great option.

WANTED:
Subject Matter Experts

NOCTI is actively seeking representatives from business/industry and education to participate in assessment revision/development projects!

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The majority of our test projects are conducted entirely online – NO travel required!



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