


Technical Assessments Panel

Sharing the Vision of a
National Item Bank to Support
Career Technical Education Assessment

National Association of State Directors of
Career Technical Education Consortium

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What is the vision?

- Provide a system for state leaders with tools needed to provide assessments for technical skill attainment in programs of study.
 - Drivers:
 - State-owned and driven
 - Shared resources
 - Flexible, practical, useful
 - Grounded in Career Cluster K&S


Two components

1. Clearinghouse of Existing, Available Tests
2. Item Bank to Build State-Delivered Assessments




What is a test clearinghouse?

- Collection of available technical skill-related assessments
 - Industry and manufacturer certifications
 - Commercial tests
 - State and locally developed tests
- Organized and aligned to cluster, pathway and/or specialty
- Description of test purpose, constructs assessed, cost and access information
- Available to state leadership by subscription or participation in initial development




How could clearinghouse be useful to me?

- Quickly locate tests available to provide and/or recommend
- Identify “gaps” – POS with no or few test options
- Compare options
 - Cost
 - Access and accommodation
 - Alignment to POS competencies
 - Perceived reliability and validity
- Know when new or updated tests are available




What is an item bank and how is it different?

- Item bank implies you build a test from available items
- Customize the test to meet your requirements
 - Align to POS competencies
 - Weighting of topics
 - Number and type of items
 - Difficulty
- Generally, items are field tested for reliability
- You are responsible for test reliability and validity
- Initially all items aligned to Cluster K&S
 - Extended: states add own competencies to system



How could an item bank be used in my state?

- Possibilities:
 - Create tests for all POS
 - Create tests where none exist for a POS
 - Provide supplemental tests for topics not covered on test provided
 - Note: same items cannot serve as both summative and formative purposes, “official” items not available to instructors for formative testing purposes
- Benefits:
 - Directly align test items to POS competencies
 - Assist in secondary to postsecondary alignment/placement decisions
 - Collect data on a per item basis to drive program improvement and professional development efforts
 - You own the test design and report information
 - Online system can use multimedia in items




Is there any evidence that an item bank is feasible?

- Yes-
 - Test publishers all have items banks – internally build tests
 - CCSSO piloted three projects in health, science and social studies – large scale assessment;
http://www.ccsso.org/projects/SCASS/Projects/Technical_Issues_in_Large_Scale_Assessment/
- Technology is not the barrier
- Consensus on use of items and system function greater challenge
- Populating the bank with quality items is the second challenge




How would tests be created from the item bank?

- State identifies POS competencies to be assessed
- Uses system to locate aligned items
- Selects items to include on test, considering:
 - Item type and perceived quality (including multimedia)
 - Item difficulty
 - Item internal reliability
 - Overall number of items and length of test
- Generates a test from selected items, one of three ways:
 1. Create a paper-pencil test (except multimedia items)
 2. Export to a state test delivery system
 3. Available online to test takers using the system (state administrators users)



What about reliability and validity?

- Background:
 - Reliability and validity are not absolutes – relative
 - Use of test scores and impact on test taker – drives rigor of validity
 - Requires expert judgment
- What it means for tests from item banks:
 - Security of items is important
 - Internal item data is useful (difficulty and reliability)
 - Test users (states) required to assure reliability and validity is appropriate to use of test scores




How would the item bank be populated?

Options

- Existing items from industry, commercial or state tests
 - Issues: incentive to share, security, quality and type of items, alignment to standards
- Newly developed items just for this item bank
 - Issues: costs


Considerations

- Which areas should be populated first? (or do all need to be populated for usefulness?)
- Alignment is critical – content & depth of knowledge



What about performance-based items?

- Better design of forced choice items increasing options
 - Technology
 - New understanding of item design (math, in particular)
- A bank can host a variety of items – download, use, record score
 - See Rick Stiggins work on authentic assessment for more definitions
- Performance demonstrations scored by expert defined by state (instructor, qualified industry person, state trained evaluator)




Who would manage the system?

Options

1. Selected test publisher
2. Selected third party provider
3. Entity governed and managed by consortium of participating states

Considerations:


- Costs
- Governance
- Capacity and expertise



What about reports and data from the system?

- Online system – numerous possibilities
 - Number accessing and completing
 - Test taker performance
 - Program performance
 - Item performance
 - Longitudinal performance
 - Perkins accountability reports
- Rules would need to be established regarding use of data and reports

NOT designed to provide state-to-state comparisons or a national high-stakes test; would require a much different design




What would this system cost?

Initial project development costs

- Technology platform
- Item development/purchase and field testing
- Project management
- State-incurred costs (time, effort and \$) to design and validate tests
 - Range of 3-year cost: \$100k (vendor, no new items) to \$5-10 mil (highly functional, fully populated)
 - Requires initial investment

Ongoing costs

- Additional system functionality
- Item development/purchase and field testing
- Program management
 - Range of costs: widely variable; generally tied to use
 - Requires pay-per-use fees



What's the timeline?

Spring and Summer of 2008

- Determine feasibility
- Define design and functionality requirements
- Gauge interest
- Pursue funding and management possibilities

Fall 2008

- Determine go-forward strategy
- Seek needed management and development partner(s)
- Begin initial development of system functionality (assuming designed system and developing new items)

Spring 2009

- Begin item development
- Test system functionality
- Collect test information for clearinghouse

Summer 2009


- Continue item development
- Begin item field testing
- Provide clearinghouse

Fall 2009-Summer 2009

- State training on system use
- Continue item development and field testing

2010-2011 School Year


- System available for test development and delivery



State Respondents


Summary Statistics:

- 37 states out of 54 total (69%)
- 27 states both secondary and postsecondary
- 5 states secondary only
- 5 state postsecondary only
- Responses Collected: February-March, 2008



Who Responded?


	Number of Individual Respondents	Percent of State Respondents (n=45)
Total	45	100 %
State Director	18	40 %
State Administrator*	14	31 %
Other	13	29 %



State CTE Assessment Systems


Among 37 Responding States:

- 4 States have CTE Assessment System
 - 2 Secondary and 2 postsecondary
- Assessments Features include:
 - National credentialing or certification
 - State credentialing or licensing exams
 - Industry-developed exam
 - State-developed exam tied to industry standards
 - Foundation-level exam not tied to industry standards
 - Locally-developed, state approved exams



Interest in Assessment System


Degree of Interest	Number of States Interested in Pursuing a National Item Bank	Number of States Interested in Pursuing a National Assessment Clearinghouse
Strongly Agree	15	21
Somewhat Agree	15	10
Somewhat Disagree	1	0
Strongly Disagree	0	0
Not Interested in Participating	6	6



Reasons for No Interest in Project


(6 of 37 states):

- Still uncertain as to how this will address state competencies; testing is expensive
- Need to know more about what levels of participation are offered, and to talk to college faculty about their interest
- Little benefit unless assessments are valued by industry
- Cost and relevance to local community colleges
- Item bank will not solve issue of technical skill attainment
- Plan to develop assessments only for degree programs without national/state licensure exam




Interest in Skill Levels

Level of Skills (multiple answers permitted)	Number of States: Secondary	Number of States: Postsecondary
General Work Readiness across all clusters	12	10
Foundation level skills within a cluster	15	7
Pathway level skills within a cluster	19	15
Specific occupational skills in a pathway	19	28
Other	5	2
Not Sure	6	6




Interest in Standards Types

Standards Interested in Using as the Basis for Assessments (multiple answers permitted)	Number of States: Secondary	Number of States: Postsecondary
Cluster and/or pathway based on SCCI K&S	12	7
Cluster and/or pathway, state established	11	5
General work readiness, industry identified	13	10
Occupationally specific, state established	6	10
Occupationally specific, industry identified	19	22
Other	2	3
Not Sure	5	5



Likelihood of Using System to...


Activity	Extremely or Very Likely	Somewhat Likely	Not Very or Not At all Likely	Don't Know or Not Applicable
Create <u>SEC</u> tests based on SCCI K&S	12	8	4	7
Create custom statewide <u>SEC</u> tests	15	6	5	5
Access Clearinghouse to identify <u>SEC</u> tests	20	6	0	4
Create <u>PS</u> tests based on SCCI K&S	5	11	9	6
Create custom statewide <u>PS</u> tests	5	10	11	4
Access Clearinghouse to identify <u>PS</u> tests	13	13	2	3



Item Bank Uses


Number of States Rating Item Bank Features as Extremely or Very Important:

Collect / aggregate data for Perkins reporting	23
Provide on-line delivery / administration	22
Create customized statewide assessments for Secondary	22
Allow access to states to choose items, create own assessments	19
Create customized statewide assessments for Postsecondary	15
Allow access to school districts to create own assessments	7
Allow access to faculty / teachers to create own assessments	6




Likelihood of Providing Support


	Extremely or Very Likely	Some-what Likely	Not Very or Not At all Likely	Don't Know or Not Applicable
Submit questions to the item bank	8	9	11	3
Provide start-up funding to seed item bank	2	8	14	7
Provide annual funding to use item bank	4	11	10	6



Level of Financial Support

Amount Available	Start-up Development	Annual Ongoing
Unable to Provide Resources	3	2
Less than \$10,000	3	4
\$10,001 to \$30,000	2	3
\$30,001 to \$50,000	1	0
Unable to Specify Dollar Amount	22	22

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- ### Preliminary Findings
- A national system would interest nearly three-fifths of states
 - States are most interested in using the item bank to create assessments at the secondary level
 - The item bank should accommodate a wide array of skill levels and standards (i.e., cluster to occupationally specific)
 - The item bank should support test customization, provide for on-line test delivery, and support Perkins data collection
 - Almost all interested states would welcome the clearinghouse features for both secondary and postsecondary
 - Roughly one-third of interested states would be willing to provide start-up and one-half annual funding to make the system happen



For More Information

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