



SCORE REPORTING BEST PRACTICES

August 6, 2014

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Blair Harris

Today's Webinar

- ▲ Score report development process
- ▲ What feedback to provide to candidates
- ▲ How to provide feedback to candidates
- ▲ Advantages of using a candidate management system for score reporting
- ▲ Examples of how technology can be leveraged to create meaningful score reports
- ▲ Offering more than just feedback to candidates



SCORE REPORTING: PSYCHOMETRIC CONSIDERATIONS

Jill R. van den Heuvel, Ph.D.
Psychometrician

Background

“Applying Lessons Learned in Educational Score Reporting to Credentialing”

- Presented at American Educational Research Association (AERA) 2014 Annual Conference
- Special Interest Group: Professional Licensure and Certification Paper Session
- Authors
 - van den Heuvel (Alpine Testing Solutions)
 - Zenisky (University of Massachusetts, Amherst)
 - Davis-Becker (Alpine Testing Solutions)

<http://bit.ly/1qydXoS>

Today

- ▲ Why are we here?
 - Score reports matter
 - They are *significant*
- ▲ What are we covering?
 - Score report development
 - It is a process
 - What feedback to provide to candidates
 - How to provide that feedback to candidates

Setting the Stage

- ▲ Broad research base in educational score reporting
- ▲ Limited research base (and application) on score reporting in credentialing

Standards

- ▲ ISO 17024 (ANSI)
- ▲ Guidance on Psychometric Requirements for ANSI
- ▲ Standards for the Accreditation of Certification Programs (NCCA)
- ▲ Standards for Educational and Psychological Testing
- ▲ Code of Professional Responsibilities in Educational Measurement
- ▲ Code of Fair Testing Practices in Education

Impact

- ▲ If tests matter, then scores matter
- ▲ Stakeholders want to understand performance and use information appropriately
 - Candidates, employers, program owners
- ▲ Without context around the scores are they valid?

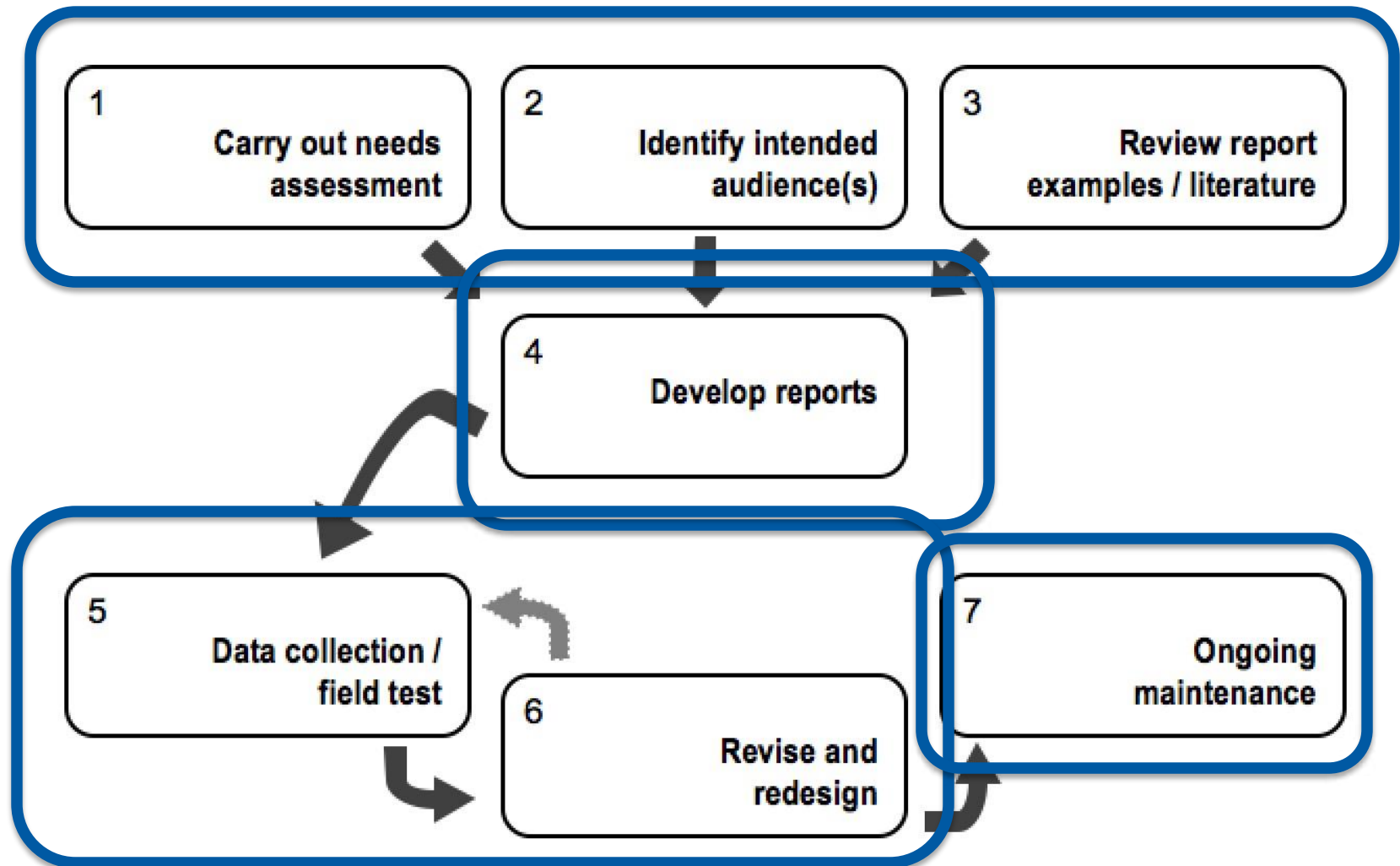
What is Context?

- ▲ Comparisons to/between groups
- ▲ Diagnostic (educational context) or descriptive (credentialing context) performance data at the section/objective/item level(s)
- ▲ Narrative descriptions of strengths/weaknesses
- ▲ Performance level descriptions of knowledge

Report Design Process

- ▲ Clear and purposeful report development processes are necessitated by professional standards
- ▲ Multiple models exist:
 - Jaeger (2003, p. 37): “what to report, how to report it, and how to disseminate what is reported”
 - **Hambleton & Zenisky (2012): collaborative development process**

Hambleton & Zenisky 2012



Report Layout and Contents

Goodman and Hambleton (2004) identified five areas of weakness:

- Information provided (both excessive and lacking)
- Lack of information about score precision (measurement error)
- Presence of unnecessary jargon
- Lack of definition or interpretation of key terms
- Cluttered documents (lack of space—lots of info)

Delivery

- ▲ Mechanism for reporting scores/performance
- ▲ Unique considerations
 - Online/computer
 - Static versus dynamic
 - Access rights
 - Paper/hardcopy
 - Timing
 - Immediate
 - Delayed

What to Include

- ▲ Pass/Fail—common
- ▲ Raw scores
- ▲ Scale scores
- ▲ Percent correct scores
- ▲ Subscores—newer interest
 - Requirements (NCCA standards)?
 - Value?
 - Appropriateness?

Current State

▲ Minimalists

- Basic information
- Little context or interpretative information

▲ More information

- Context
- Interpretative information

Takeaways

- ▲ Reporting practices in credentialing vary widely
- ▲ Professional standards in credentialing and education have relevance
- ▲ Guidance for:
 - Process
 - Layout/Contents
 - Dissemination/Delivery

Takeaways

- ▲ Agencies have a responsibility to stakeholders, including candidates, to produce reports that are informative and actionable
- ▲ Investment in reporting is an equal and regular part of the broader test development process



SCORE REPORTING OPERATIONS:

Blair Harris
Director of Technology
Solutions

Score Reporting Solution

- ▲ Does your score reporting technology enable or limit your program?

Score Reporting Solution

- ▲ Supports score reporting for all types of testing activities?
 - Computer delivery and/or manual uploads
- ▲ Leverages technology to automate the processes?
 - Improves efficiency
 - Promotes accuracy
 - Provides a historical repository
 - Encourages timely turn-around
 - Frees up resources

Operations

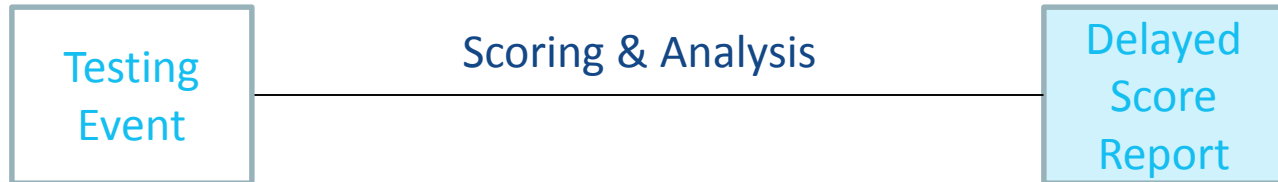
- ▲ Delivery options
- ▲ Format & layout
- ▲ Accessibility
- ▲ Confidentiality & security
- ▲ Opportunities for synergy

Delivery Options

On-demand
Score Reporting



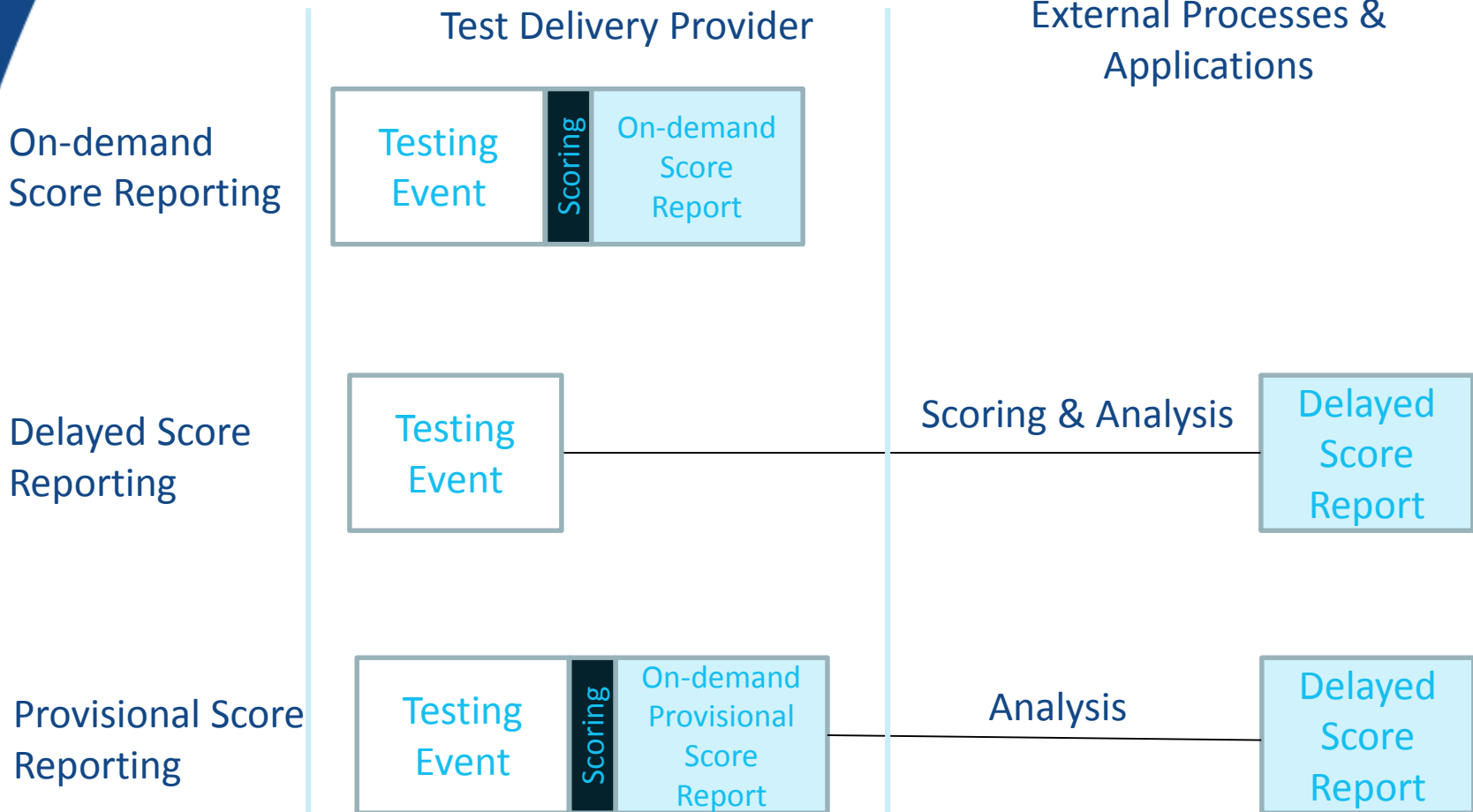
Delayed Score
Reporting



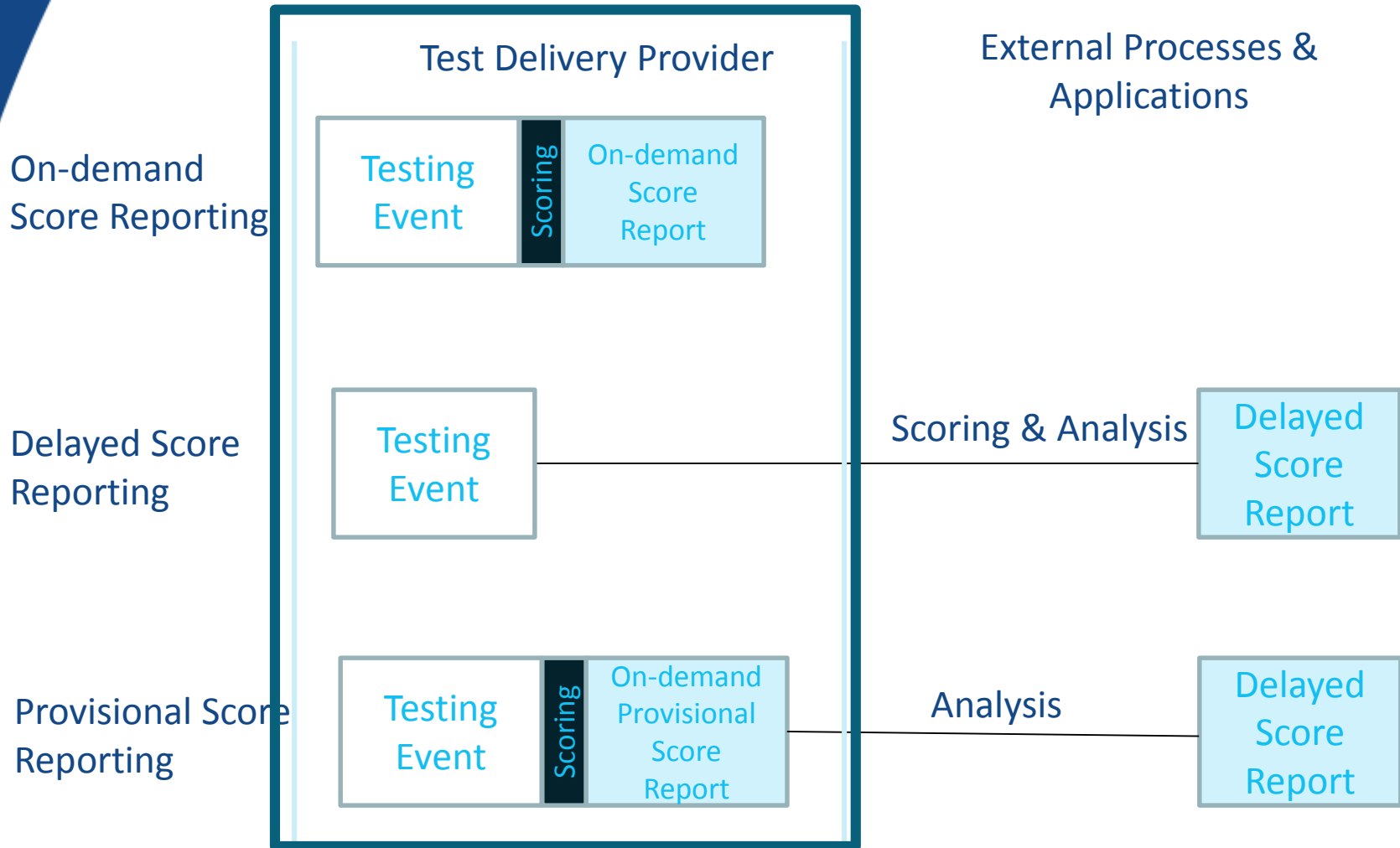
Provisional Score
Reporting



Delivery Options



Delivery Options



Delivery Options

On-demand
Score Reporting



Delayed Score
Reporting



Scoring & Analysis



Provisional Score
Reporting

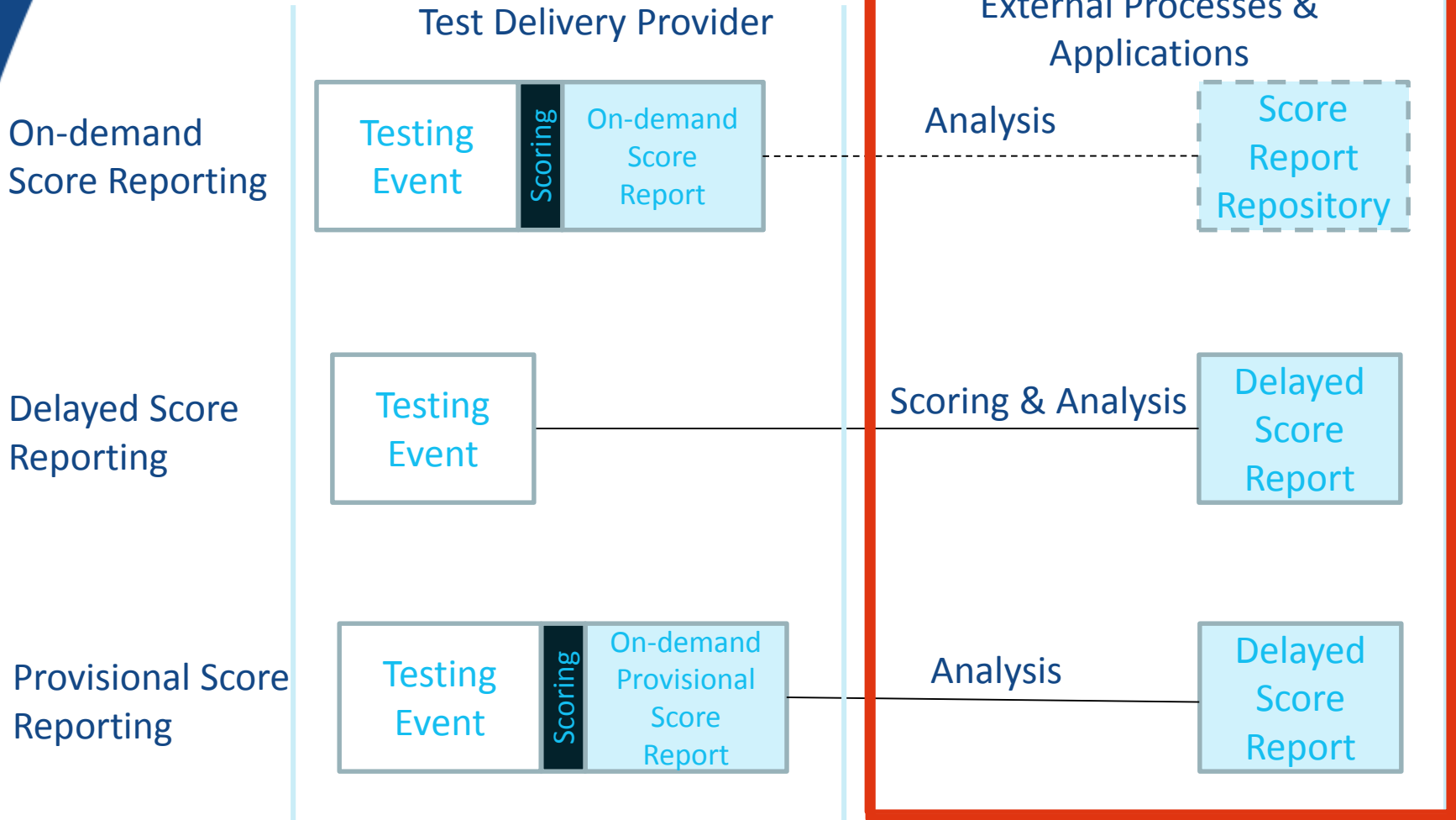


Analysis



External Processes &
Applications

Delivery Options



Format & Layout

- ▲ Support for paper & electronic score reports
- ▲ Incorporates custom layout capabilities
 - Company & program branding
 - Exam specific information
 - Program specific information
 - Separate layouts for pass vs. fail
 - Customizable options for presenting feedback
 - Graphs, charts, tables, etc.

CertMetrics Educational Systems Architect
SCORE REPORT

Scholastic Learning Systems Architecture

Pass

TO VERIFY THIS SCORE GO TO: www.certmetrics.com/verification

Expires: 07/18/2015

CANDIDATE NAME **Wayne D Crane**

ADDRESS 505 Fanleaf Court
Severn, MD 21144

CANDIDATE ID DEMO10007722

TEST RESULT **Pass**

REGISTRATION ID 1234567890123456

TEST DATE 07/18/2012

TEST CENTER 1234567890

Branding and
Layout

CERTIFICATION HISTORY

Status as of 10/11/2012

EXAM	DATE TESTED/ CREDITED	RESULT/ CREDITED RESULT	EXPIRATION DATE	STATUS
IT Education Core Competencies	06/22/2011	PASS	06/22/2013	Valid
Scholastic Learning Systems Architecture	07/18/2012	PASS	07/18/2015	Valid
Robust TCP/IP Network Systems Architecture	02/15/2008	Pass	02/15/2011	Expired
Solutions Design Exam for Technology Architects				
Channel Sales – Core Competencies	04/01/2012	Fail		

You have 0 year(s), 3 month(s) and 20 day(s) to pass SDETA and CSCC or other exams may expire.

EXAM STATEMENT

Apply knowledge and skills of educational systems architecture.

CONTENT AREA 1:

PRINCIPLES

(27-36 percent of scored items)

- A. Consider the impact of basic and fundamental principles on educational systems architecture.

CONTENT AREA 2:

ENVIRONMENTAL ISSUES

(11-17 percent of scored items)

- A. Consider the impact on the environment of various education systems architectures.

CONTENT AREA 3:

CODES & REGULATIONS

(37-40 percent of scored items)

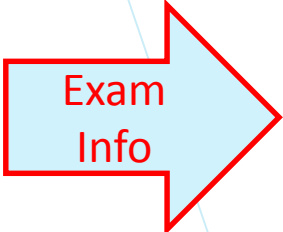
- A. Incorporate codes and regulations in education systems architecture.

CONTENT AREA 4:

PROJECT & PRACTICE MANAGEMENT

(22-28 percent of scored items)

- Ascertain the impact of scheduling, cost, and risk management on the selection of systems and methods in education system architecture.



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The information in the table below details the composition of the SAMP exam and your performance in each of its **8 sections**. The table includes the percentage of the exam that was dedicated to each content area and classifications of your performance at each **section-level**.

Passing: Performance at this level demonstrates that expected of a passing candidate.

Below Passing: Performance at this level falls below that expected of a passing candidate.

Section	Percent of Scored Items	Score Performance Level	
		Below Passing	Passing
1 Sample Section 1	5.3%	X	
2 Sample Section 2	7.4%		X
3 Sample Section 3	26.3%	X	
4 Sample Section 4	16.8%	X	
5 Sample Section 5	10.5%	X	
6 Sample Section 6	22.1%	X	
7 Sample Section 7	3.2%		X
8 Sample Section 8	8.4%	X	

Disclaimer: The Technical Certification exams were designed to make pass/no pass decisions based on the total exam score. As such, steps were taken during the exam development process to support exam-level performance reporting. Confidence should be placed in the overall pass/no pass designation as that accurately represents the determination of candidates' knowledge, skills, and abilities at the overall **exam-level**.

The classifications of section-level performance are provided as **descriptive feedback only**, as the Technical Certification exams were not originally designed with the intent to provide this section-level scoring feedback. Pass/No Pass decisions were not made based on candidates' section-level scores. Performance classifications at this level of specificity may not be considered reliable. Candidates should exercise caution when interpreting the above section-level score information as it is not intended to guide future test preparation.

Accessibility

▲ Accessibility

- Various distribution method(s)
 - Secure download
 - Batch printing & shipping
 - Fulfillment center printing & shipping
 - Combination of methods
- 24/7 access
 - Online repository
- Near real-time availability or intentional delays
- Email notifications

Secure Download Example

Name	Candidate Login	Email	
Trisha	6174		Return to search

[Candidate Summary](#) | [Demographics](#) | [History](#) | [Certifications](#) | [Fulfillment](#) | [Transcripts](#)
[Create Exam](#) | [Create other requirement](#) | [Vouchers](#) | [Exam Events](#)

Exams

Exams are imported during regular business hours. After completing an exam, allow 21 calendar days for it to appear here.

▲ Exam number	▲ Title	▲ Registration ID	▲ Grade	▲ Date	Exam Results
.14	Basics	z02sy1 (Prometric)	Pass (61)	16-Jul-2014	Download
.14	Basics	y82sy (Prometric)	Fail	10-Mar-2014	Download
.14	Basics ^A	y4asy (Prometric)	Fail	15-Jan-2014	Download

^A Approved

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Batch Download Example

Filters

Exam:

Grade:

Jurisdiction:

Exam score reports to batch

<input type="checkbox"/>	Test Date	Candidate	Division	Registration number
<input type="checkbox"/>	07-07-2014	Andrew		000000007443
<input type="checkbox"/>	07-07-2014	Clayton		000000007441
<input type="checkbox"/>	07-09-2014	Lori		000000007448
<input type="checkbox"/>	07-13-2014	Mary		000000007463

Exam score reports previously in a batch

<input type="checkbox"/>	Test Date	Candidate	Division	Registration number	Batched on	Batched by
<input type="checkbox"/>	04-14-2014	Allison		000000007356	04-24-2014	
<input type="checkbox"/>	04-14-2014	Emily		000000007352	04-24-2014	

Score Report Confidentiality


▲ Confidentiality & Security

- On-demand security analysis
 - Data forensics and policy violation detection
 - Mandatory ‘watch list candidate’ reviews
 - Take action before awarding credentials
- Additional in-depth psychometric analysis
- Score report validation for third parties
- Photos

Score Report Validation

EXAM VERIFICATION

Please enter the exam date and registration number from the exam score certificate. Click submit to verify the exam.

Exam Date	<input type="text" value="04-07-2014"/>	
Registration Number	<input type="text" value="000000007352"/>	<input type="button" value="x"/>
<input type="button" value="Submit"/>		

Verification information is displayed above this text. After viewing the verification information, you may continue to use this form to verify additional exams as needed.

Score Report Validation

EXAM VERIFICATION

Blair Harris.
Alpine Sample Exam

Pass

April 7, 2014

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Opportunities for Synergy

- ▲ **CertMetrics Security Module**
 - Provides automated data forensics and policy violation detection to detect anomalous results and/or violations of the testing program's policies
- ▲ **CertMetrics Scoring Module**
 - Protects intellectual property by minimizing distribution of the exam key
- ▲ **Guide the candidate experience**
 - Leverage CertMetrics features to recommend next steps
 - Automated emails
 - News articles
 - Score report

THANK YOU!