

Spilling the Tea on QTI® 3!

1EdTech's Question & Test Interoperability (QTI)® Standard

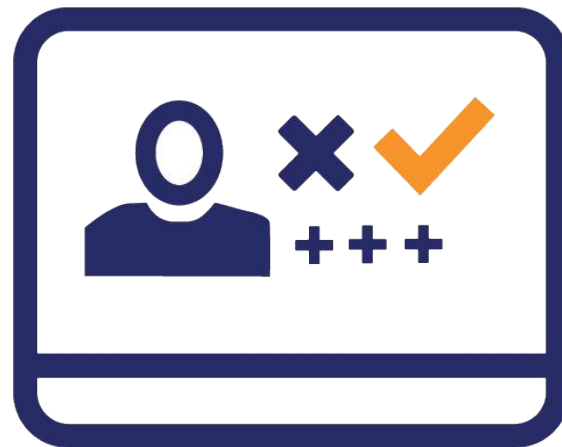
March 21, 2024



Welcome to our Webinar

Agenda

- Meet our Speakers
- What is QTI?
- Presentation: What's in it for you?
 - Institutions
 - Suppliers
- Your turn to ask questions



Welcome to Our Presenters



Miranda McLaren
Executive Director
Office of Accountability &
Assessment
Gwinnett County Public Schools



Scott Hill
Assessment Technology
Specialist, Assessment Innovation
Educational Testing Service

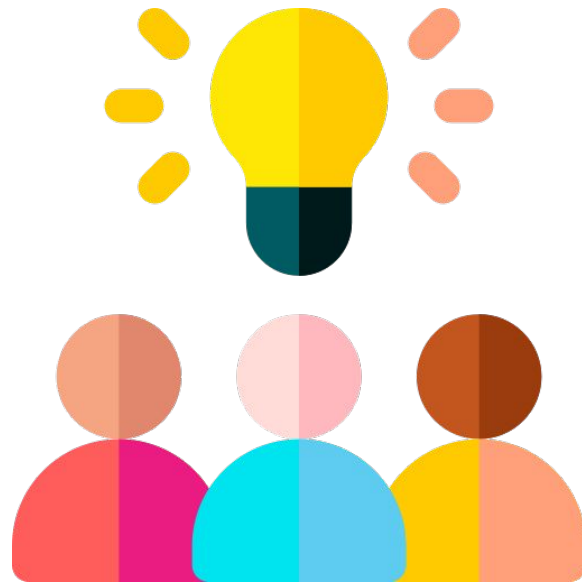


Susan Haught
Technical Program Manager,
Product Management
1EdTech Consortium, Inc.

The Why: An Established Need to Communicate QTI 3's Value

The **Assessment Product Steering Committee** (PSC) determined there was a **need for a tool** to help them explain the **value of QTI 3**:

- Within their own organizations
- With their customers
- With other suppliers



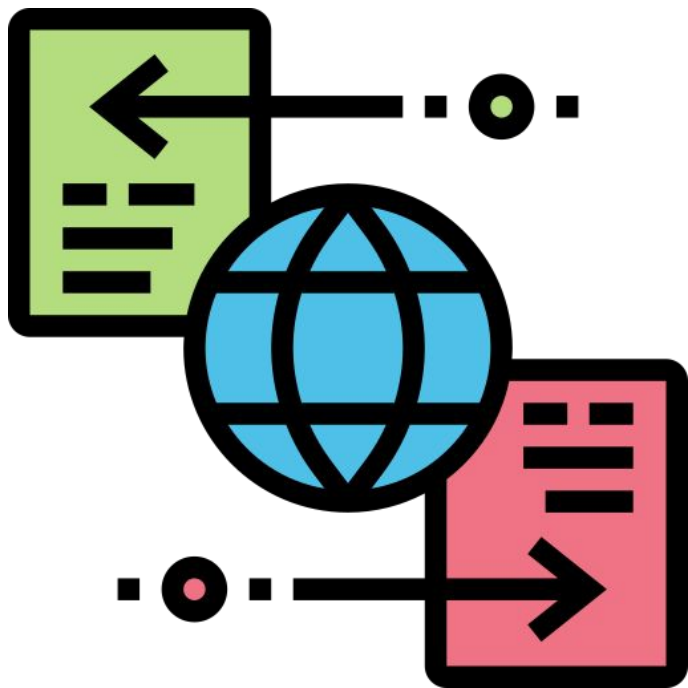
What is the Value of QTI? Questions from the Implementers...

Here are the questions we thought about:

1. What are QTI's features that bring value to the implementers, educators, and students?
2. How does QTI meets our users needs?
3. How can we quantify this value?



Digital Assessment and QTI



1EdTech's members' assessment experts developed an open standard format for the exchange of:

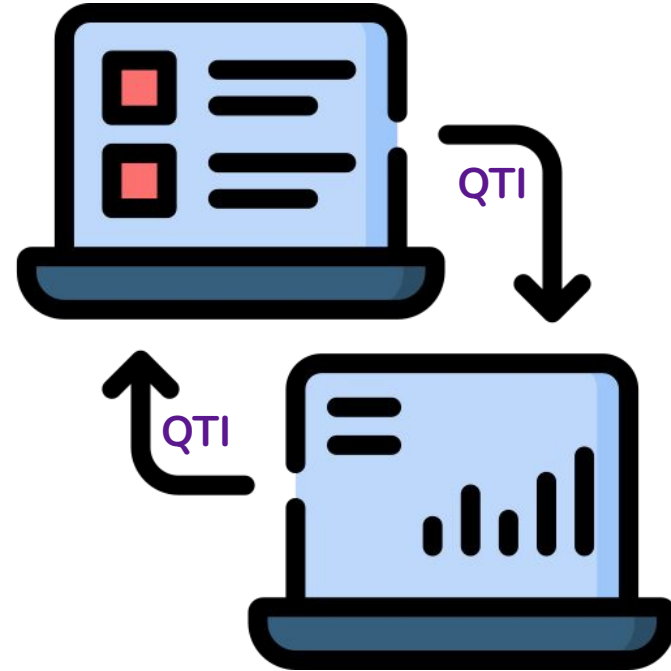
- Items (questions) and tests
- structures
- scoring information
- results
- Including accommodations for every learners' needs



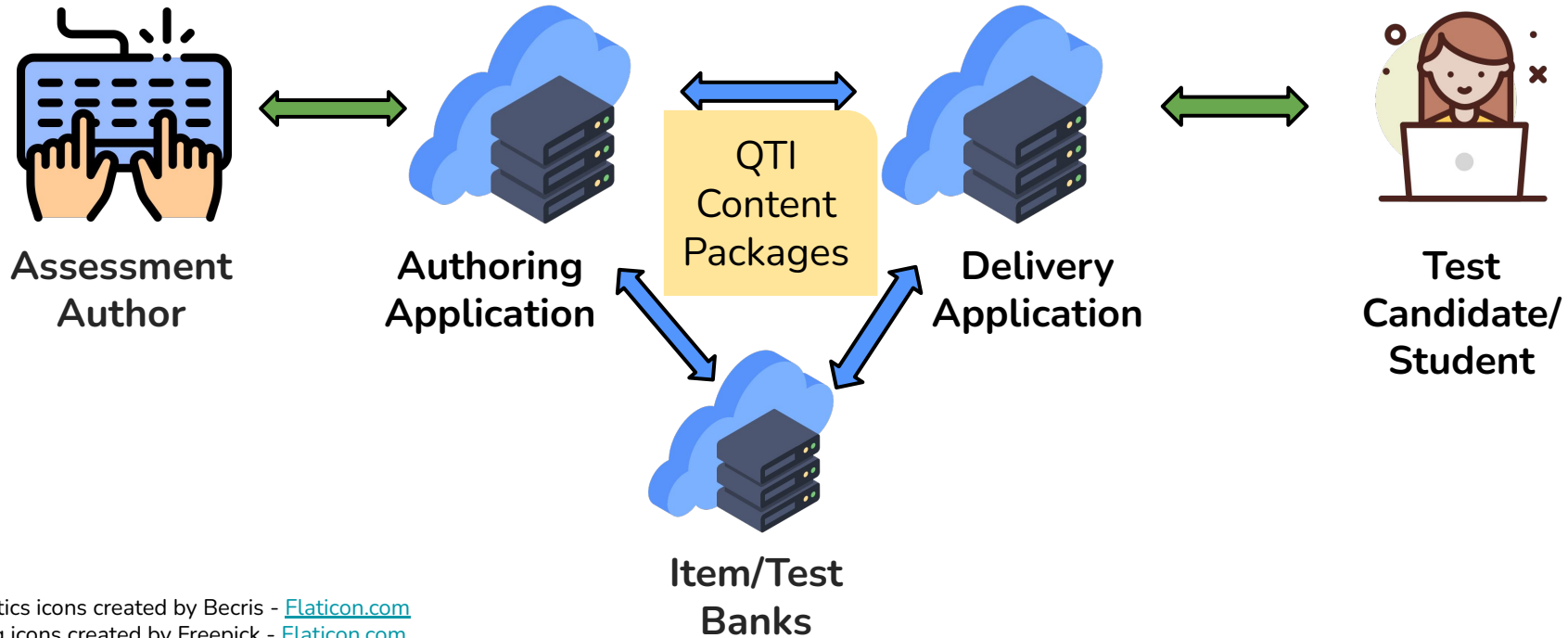
QTI - The Global 1EdTech Open Standard: What is it?

The QTI specification was created to facilitate the exchange, presentation, and storage of assessment content.

It is a way to send assessment items/questions and tests from one application to another and have those tests and items work and be presented correctly.



QTI is an Exchange and Presentation Standard for Assessment



Analytics icons created by Becris - [Flaticon.com](https://www.flaticon.com/author/becris)
Typing icons created by Freepick - [Flaticon.com](https://www.flaticon.com/author/freepick)
Server icons created by vectorsmarket15 - [Flaticon.com](https://www.flaticon.com/author/vectorsmarket15)
Student icons created by Darius Dan - [Flaticon.com](https://www.flaticon.com/author/darius-dan)
Customer icons created by Uniconlabs- [Flaticon.com](https://www.flaticon.com/author/uniconlabs)



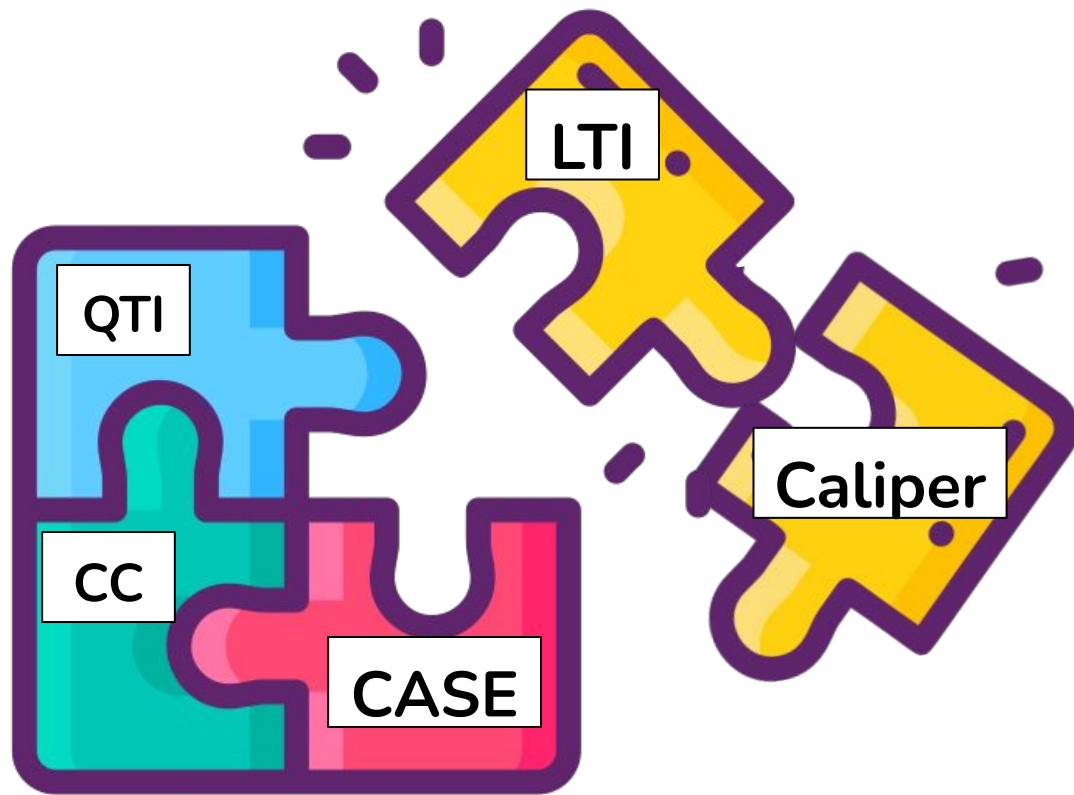
Key Description Points of QTI 3

Industry standard for...

- Accessibility
- Accommodations
- Standardized presentation and behavior
- Interoperability & Portability
- Robust psychometric data format
- Standardized results and usage data
- Flexible extension points
- Connecting with other 1EdTech Standards



QTI Works with other Standards in the 1EdTech Ecosystem



Key:

*LTI Advantage - Learning Tools Interoperability Advantage

*CASE - Competencies & Academic Standards Exchange

*CC - Common Cartridge

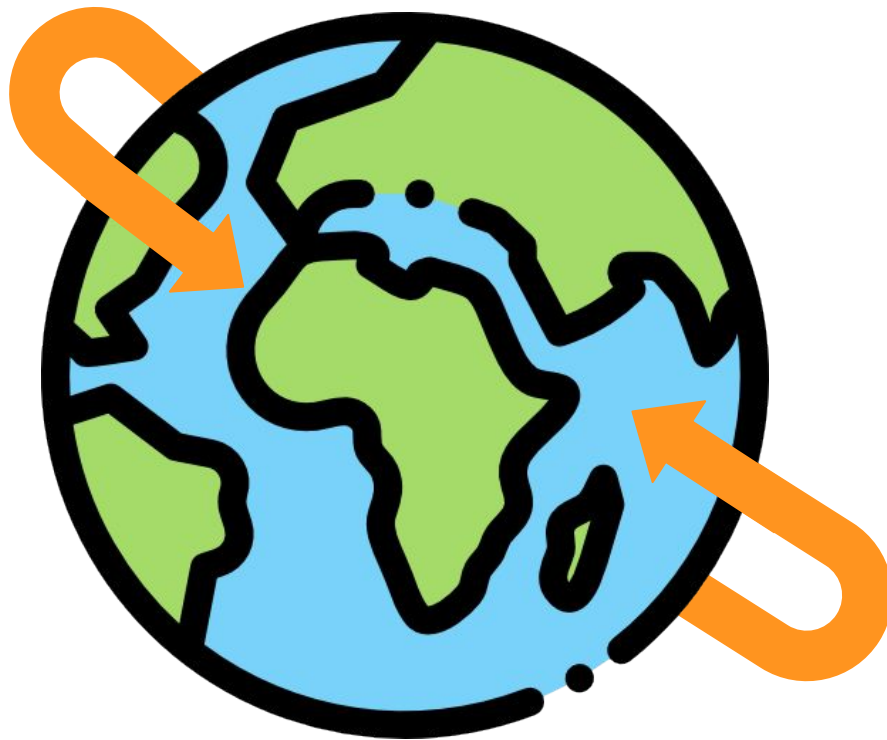
*QTI - Question & Test Interoperability

*Caliper - Caliper Analytics



QTI: Used Around the World

Including North America, Europe, Asia, Middle East, Africa, and beyond



Members Who Use QTI



BPS Bildungsportal Sachsen GmbH

1EdTech Japan Society ETS Smarter Balanced Pearson

University of Kansas Achievement and Advancement Institute OAT HMH DRC Atomic Jolt

Benchmark Education Casio Gwinnett County Schools Cambium Learning

NWEA Amp-up.io Cito Apenutmize WIDA MaivenPoint

Ramsey Solutions

Accelerate Learning Cognia Maryland DOE Escambia Schools

NetLearning New Meridian itslearning Magic EdTech

PowerSchool Chicago Public Schools

Larson Texts



Institutional Perspective

Gwinnett County Public Schools

Miranda McLaren

Executive Director

Office of Accountability & Assessment

Gwinnett County Public Schools

Value of QTI 3 Certification for Institutions



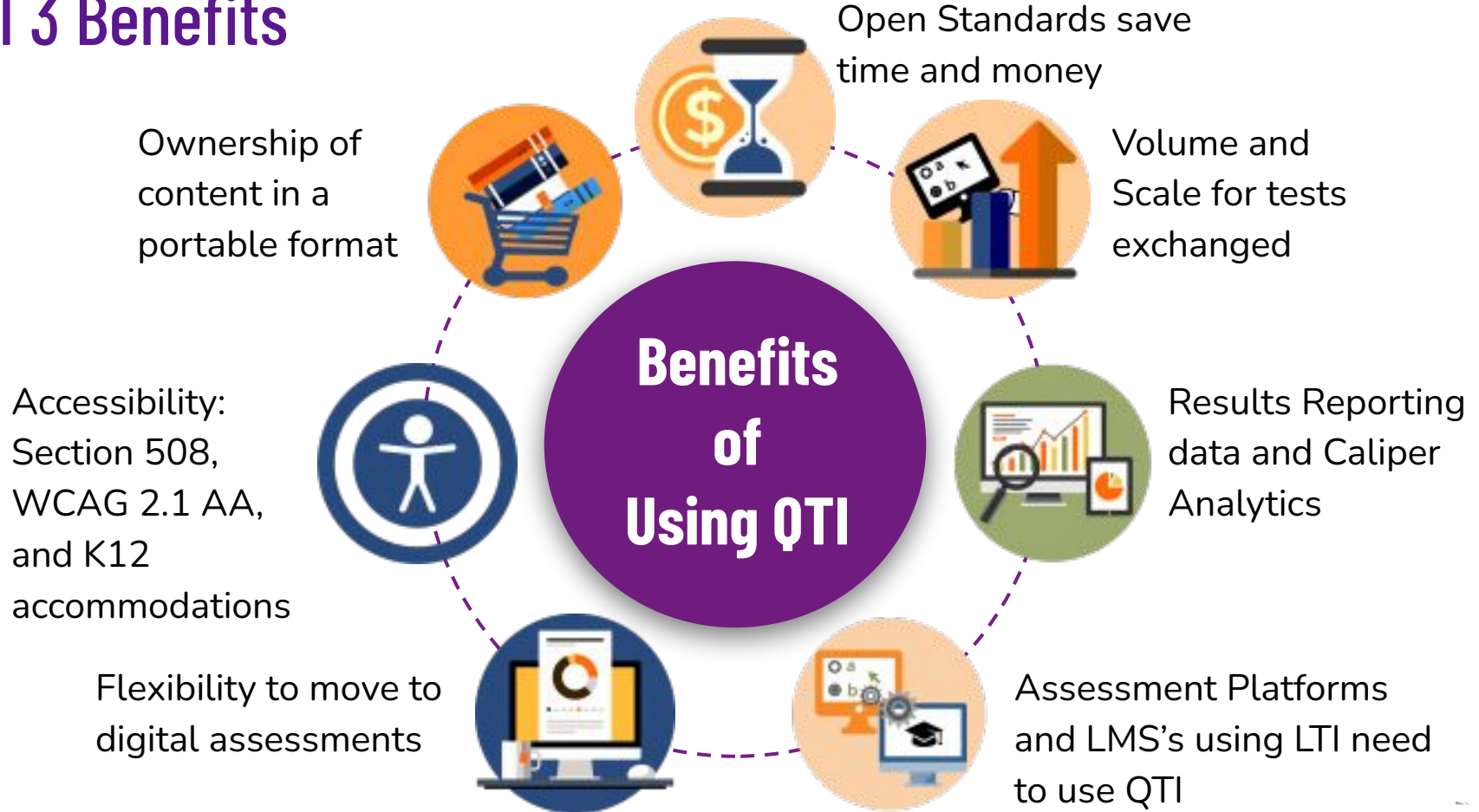
How Can QTI Help Institutions?



- Meet the Assessment/Curriculum expert at an institution
- Her team has worked tirelessly to create assessments with items(questions) that are tagged to the academic standards, grade level, etc. and have been authored per their district benchmarks
- The district is procuring another assessment application, so the application that her team has authored in will be replaced.
- Will she have to manually recreate all of these assessments in the other application?

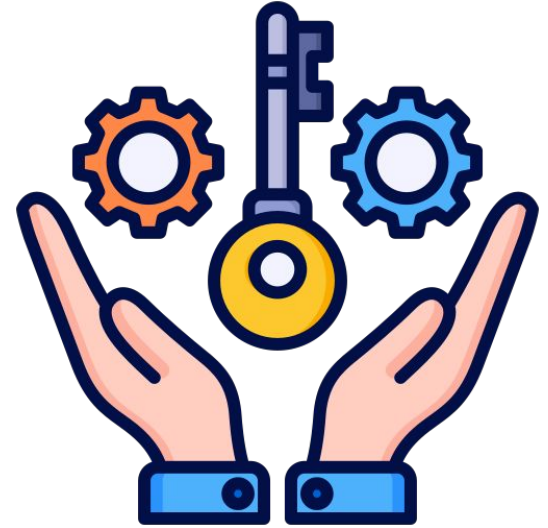
Hint: Not if the suppliers use QTI 3 and are certified!

QTI 3 Benefits



Content Ownership

- By using a standard exchange format, you can connect to a whole ecosystem of suppliers that can work together
- You own your content – you're not locked into proprietary vendor formats
- Switching vendors can be difficult, but the content format shouldn't be one of them
- New presentation classes mean greater consistency for preview, review, and delivery



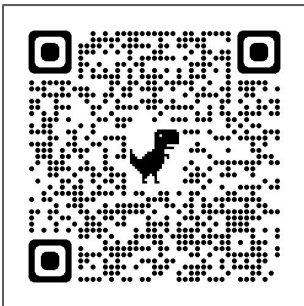
Requiring Certification & Application of the Standards

- Certainty that supplier is compliant – reviewed and validated by 1E
- QTI versions 2.2 and 3.0 have rigorous certification programs
- Ongoing QTI working group for implementation issues
- Certification is listed in 1EdTech Trusted Apps Directory
- Includes details of application capabilities & profile levels





RFP language

1EdTech resource to start you on your drafting process:



1EdTech staff here to support you!

1EDTECH

WORKSTREAMS ▾ STANDARDS ▾ CERTIFIED PRODUCTS ▾ LEARNING IMPACT ▾ LEADERSHIP ▾ 

View Edit Revision operations Clone content Grant

Suggested QTI[®] Requirements for Institutional RFP & Procurement Agreements

This document is intended as a resource for IT organizations and procurement offices within educational institutions. It provides basic background information on the QTI (Question and Test Interoperability[®]) and APIP[®] (Accessible Portable Item Protocol) standards, sample RFP language, and additional considerations when specifying support for 1EdTech-certified QTI as part of the procurement process.

The 1EdTech QTI interoperability standards provide a set of specifications that enable a rich collection of digital assessment content to be accessed from a wide variety of learning platforms, including learning management systems, authoring platforms, item/test repositories, assessment delivery engines, and web applications. Downloadable or web accessible content developed to conform to the specifications will "run" in a wide variety of conformant assessment platforms.

Basics: Content, Platforms, Specification Versions and Profiles

At a basic level, assessment content refers to the questions or types of interactions (such as true/false, multiple choice, fill-in the blank, essay, etc.) that comprise a given assessment. The QTI and APIP standards provide a data model and structure for the interchange of assessment content that contains information and resources required to make that content display to students, and in the case of APIP, includes information to accommodate a variety of specific needs and preferences (such as magnification, color overlay, Braille, sign language, etc.).

There are different specification version numbers to be aware of:

- **QTI 3.0** is the newest version incorporating the accessibility & accommodation supports of APIP as well as a more web-friendly approach to content markup
- **QTI v2.2** is backwards compatible with **QTI v2.1** and contains new supports such as MathML v3, W3C ARIA tags, some HTML5 elements, etc.
- **APIP v1.0** is an extension standard used in **QTI 2.1** and included in **QTI v2.2**. APIP content is transferred in a specific APIP profile of content packaging.
- **QTI 2.1** was the first widely adopted version of QTI 2.x



Why You Should Care about QTI® Certification

If a product is certified for QTI, you can **trust** that it has been:

1



Tested against the
1EdTech
acceptance criteria

2



Tested with
the 1EdTech
validators

3



Audited by the
1EdTech staff
and your
supplier

Audit icons created by Freepik - [Flaticon.com](https://www.flaticon.com)
Accuracy icons created by Eucalyp - [Flaticon.com](https://www.flaticon.com)
Group icons created by Freepik - [Flaticon.com](https://www.flaticon.com)



Supplier's Perspective

Educational Testing Service (ETS)

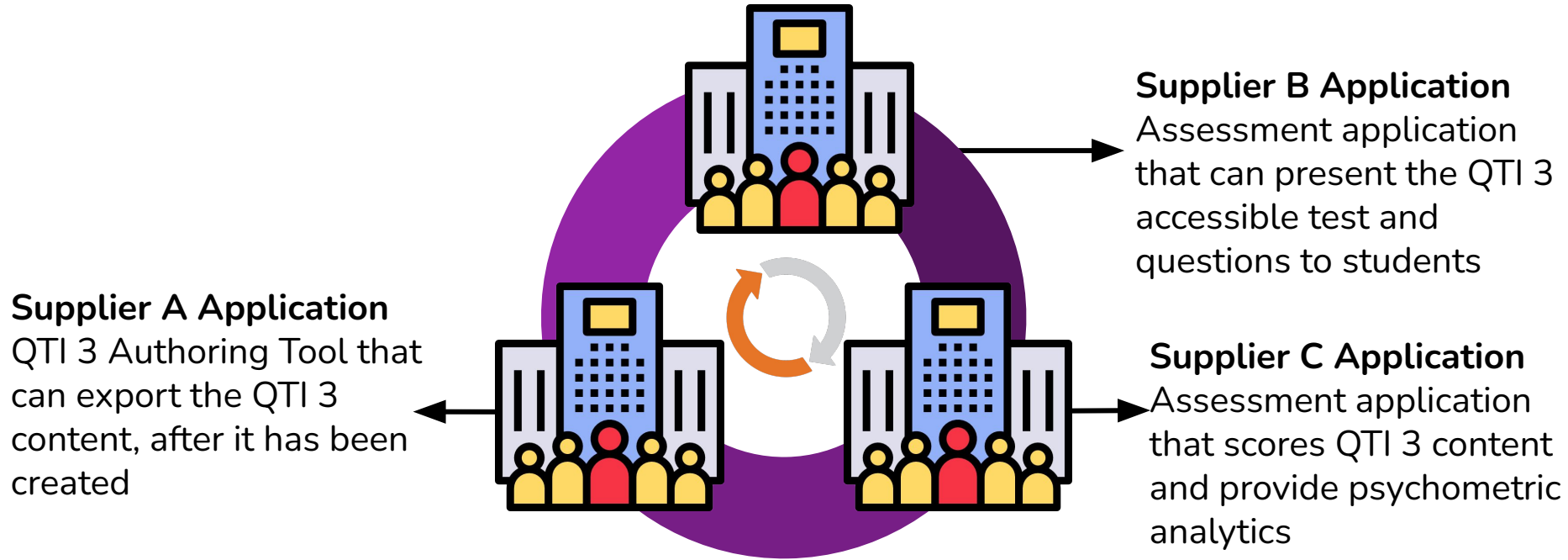
Scott Hill

Assessment Technology Specialist,
Assessment Innovation
Educational Testing Service

Value of QTI 3 Certification for Suppliers

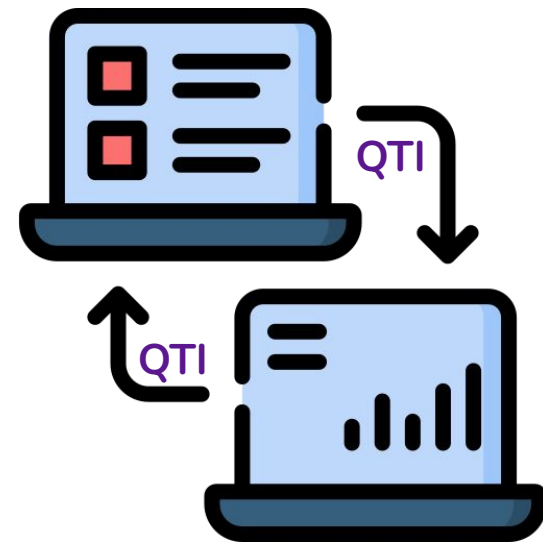


How Can QTI Help Suppliers? Exchange Scenario



The Interoperability of QTI 3

- Adopted by dozen's large-scale companies and countries as THE assessment exchange format
- Accepted by an ever larger number of suppliers as the “universal donor” format
- Supported by open-source assessment platforms
- Many systems take advantage of launching assessment sessions using 1EdTech's LTI and OneRoster standards
- Well-documented and freely available
- Supported by 1EdTech staff and members in the active Working Group and Assessment Product Steering Committee



The Value of a 1EdTech QTI Certification

- Multiple-vendor/supplier contracts go more smoothly
 - import and export of content based on validated, interoperable format
 - Less time doing transformations from proprietary formats
 - Reduces risk for deliverables
- Less rework and cost with customers
- Demonstrates your organization is aligned with assessment industry, and passes outside scrutiny
- Ready for RFPs



Ready for RFPs

Having an existing certification gives you response readiness and a comparative advantage over competitors

- Increasing number of educational institutions requiring standard
- Contracts may require current 1EdTech certifications
- The certification logo is free to use for product promotion when certified
- Certification is proof of your organization's commitment to standards and interoperability



Getting to Certification



1. **Gap Analysis** for the profiles you are targeting:
Basic, Advanced, Elevated Accessibility, or Community Profile
 - a. Project Manager – 2 hours
 - b. Development Team – 16 hours
2. **Conformance Alignment Development** (if any)
 - a. Team Estimates of Effort
 - b. Development and Verification
 - c. Set up regression testing for future releases – optional



Cost of Certification Process

- Free to any level of 1EdTech membership: Contributing Member, Affiliate Member, or eAssessment Alliance
- No limit on number of certifications
- Free advice and assistance from 1EdTech support staff
- Content Packages (sample) just need to pass the validator for certification
- For applications, the greatest effort is in the initial certification



Projected Minimum Effort for Initial Certification

1EdTech supplies a full Conformance & Certification document and online instructions, including test content with acceptance criteria and checklists

Certification Step	Project Manager	Development Team
Learning the certification process	2 hours	1 hour (Team Leader)
Testing, Checklist completion, submission	2 hours	8 hours
Certification Audit	1 hour	2 hours

5

11

*The above assumes you have completed the conformance gap analysis and development.



Get Certified and Stay Certified



- There is an online validator tool, and
- Local validation is available for connection to regular regression testing for members
- Applications are required to renew their certification every year (QTI 3)
 - Applications are under constant development, and may inadvertently become non-conformant
 - Resubmit test results for import/export with completed checklist
 - No audit required for certification renewal



Strategy

- Assessment Product Steering Committee (PSC)

Leadership

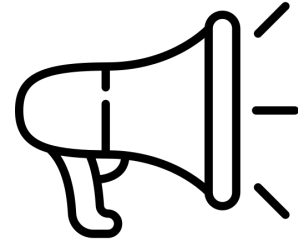
- Assessment Institutional Leadership Network (ILN)

Technical

- QTI Project Group

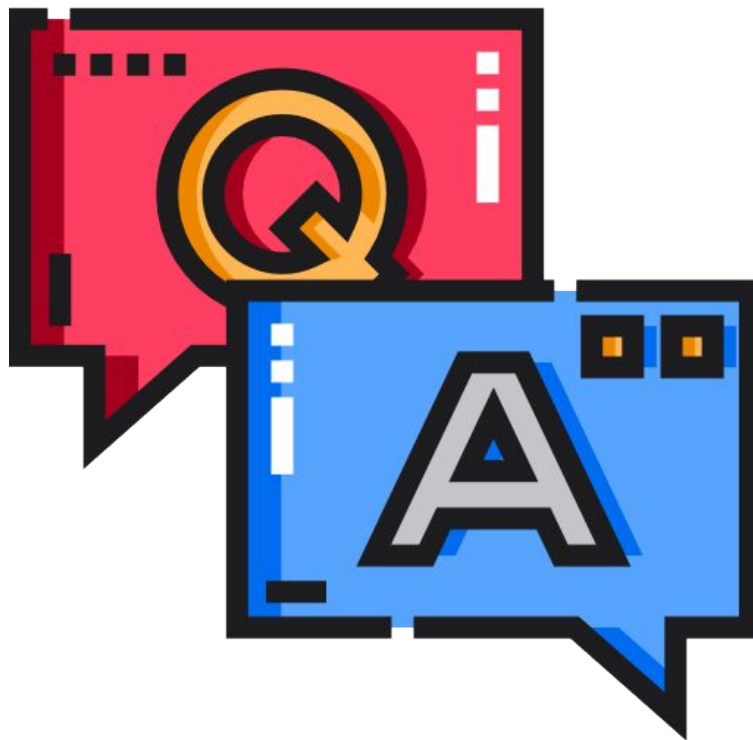
Showcase and Learn

- QTI Adhoc Roundtables
- QTI for Beginners Roundtables (Monthly)
- Learning Impact Conference
- 1EdTech Technical Meetings



Add Your Voice

Questions?



QTI Toolkit

Scan the QR code to access:

- Pitch Decks
- QTI Toolkit





Learning Impact

CONFERENCE 2024

Join us from June 3-6
in Salt Lake City, Utah
for more great QTI content!

Register Now



<https://www.1edtech.org/event/li/2024>

Contact Us:



Susan Haught
Technical Program Manager
1EdTech, Consortium, Inc.
shaught@1EdTech.org



Tom Hoffmann
eAssessment Sector Advocate
1EdTech Consortium, Inc.
thoffmann@1EdTech.org

