Imagining the Future of Online Authentication and Proctoring

Analysis and application of Standard 10.6 (a)

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Honoring the Past: Higher Education Act

Introdured to the 89th Congress of the United States in 1965 and signed into law by President Lyndon B. Johnson

○ Higher Education Act of 1965 expired in 2004
○ Reauthorized 2008 Higher Education Opportunity Act
  • Required identify verification of the students who are involved in the online learning environment
  • Required online programs to have stronger procedures to ensure academic integrity and student authentication than just the use of usernames and passwords
The Growth of Online Learning

- Continued growth in online courses
- Students in all post-secondary educational institutions (private/public, for-profit/not-for-profit) enrolled in at least 1 distance learning class


Distance Education Enrollment Report 2017

6,022,105
More than one in four (29.%) now take at least one distance education course

226,375
A year-to-year increase of 18.6% of enrolled distance education students from 2014-2015

SACSCOC Standard 10.6

An institution that offers distance or correspondence education:

- **Authentication**: Ensures that the student who registers in a distance or correspondence education course or program is the same student who participates in and completes the course program or receives the credit.

- **Privacy**: Has a written procedure for protecting the privacy of students enrolled in distance and correspondence education courses or programs.

- **Transparency**: Ensures that students are notified, in writing, at the time of registration or enrollment, of any projected additional student charges associated with verification of student identity.

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Deconstructing Standard 10.6 (a)

**Process**
- Determine intent of standard
- ‘Unpack’ the standard – key words
- Consider contextual elements
- Identify compliance strategies

**Authentication**: Ensures that the student who registers in a distance or correspondence education course or program is the same student who participates in and completes the course program or receives the credit.
Deconstructing Standard 10.6 (a)

Identify the underlying theme and intent

An institution that offers distance or correspondence education:

Authentication
Ensures that the student who registers in a distance or correspondence education course or program is the same student who participates in and completes the course program or receives the credit.

Deconstructing Standard 10.6 (a)

‘Unpack’ – identify key concepts (nouns, verbs)

An institution that offers distance or correspondence education:

Authentication
Ensures that the student who registers in a distance or correspondence education course or program is the same student who participates in and completes the course program or receives the credit.
Deconstructing Standard 10.6 (a)

Consider your context and circumstances

An institution that offers distance or correspondence education:

**Authentication**

Ensures that the student who registers in a distance or correspondence education course or program is the same student who participates in and completes the course program or receives the credit.

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Deconstructing Standard 10.6 (a)

Identify compliance strategies

An institution that offers distance or correspondence education:

**Authentication**

Ensures that the student who registers in a distance or correspondence education course or program is the same student who participates in and completes the course program or receives the credit.
Authentication Best Practices
Results from the Kentucky Council on Postsecondary education authentication workgroup.

One way to ensure authentication

**Phase 1: Initial Verification Process**
- Student logs into a live two way video system (Skype, Adobe Connect, etc.).
- On institution side there is someone that has access to student information.
- Student holds up government issue ID with a picture next to them.
- Institution verifies information

**Phase 2: Bio-signature Set-Up**
- Visible to the institution representative, student completes a bio-signature activity
- Bio-signature activity includes drawing letters or figures with the mouse
- Has a 99.999% success rate of ensuring authentication

**Phase 3: Monitoring**
- Student logs into distance education course with bio-sig identification.
- Institution can require the student input bio-sig identification to access certain materials.
- Bio-signature does not address plagiarism or cheating.
Narrative Response Suggestions

- State the origination of identification (ID) and passwords
- Provide description of encrypted protocol
- Affirm password changed after initial activation and identify password recovery/reset procedures
- Describe LMS and secure login/password integration
- Identify measures used to verify student identity
- Describe exam proctoring expectations and procedures. Identify parties responsible for costs associated with proctoring services.
- Identify campus academic and administrative leaders that oversee policy and operational issues related to distance education.
Academic Dishonesty

Academic dishonesty is a problem online and on campus. In a study of 635 undergraduate and graduate students:

- **33%** admitted to cheating in online classes
- **32%** admitted to cheating in traditional classes
- **2%** of online students were caught cheating
- **5%** of students in a traditional class were caught cheating
Fraud Triangle

- Without the presence of proctoring, the likelihood of cheating increases.
- In terms of an online course, this can be explained by:
  - Incentive
  - Opportunity
  - Rationalization

Online proctoring helps eliminate “Opportunity”

Meeting the Standard

- More to academic integrity than just meeting the accreditation requirements
- Institutions want/need a manageable, integrity-based solution for proctoring online exams and/or servicing their growing population of distance learners.
- Institutions want/need to provide evidence to accreditation agencies that their online programs have integrity
Meeting the Standard
How an Audit Trail facilitates compliance

1. Student completes assignment using proctoring software
2. Live audio, video, and photos are captured
3. Data is stored on secure system
4. Data retrieved by institution official or instructor
Technology Requirements

To take an online proctored test from a student needs:

1. A suitable device (Desktop PC/Laptop/Tablet/Mobile)
2. An Internet connection with at least 1Mbps speed
3. A functional webcam and a mic
4. In PC/Laptop, any of the modern browsers

Product Comparison

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<th>Examity</th>
<th>Proctor U</th>
<th>Tegrity</th>
<th>Xproctor</th>
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<td>Features</td>
<td>Authentication, recording and live proctoring options</td>
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**Xproctor Demonstration**

Verifies student’s identity and personal participation through

- Facial recognition
- Video
- Sound
- Photographic methods

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**Best Practices**

- Use of multiple assessment techniques in place of high stakes exams. (Authentic or alternative methods of assessment, project-based learning)
- Provide faculty training in how to use technology and instructional methods that support academic integrity.
- Monitor innovations in authentication technologies and proctoring and evaluate their fit for the program.
- Other pedagogical strategies include:
  - Greater reliance on written assignments and threaded discussions
  - Use of test banks, and timed test delivery
  - Raising student awareness of academic integrity
Future of online proctoring

1. Enhancing authentication using biometric inputs
2. Smartwatches and fitness to detect changes in pulse and temperature and send such data to proctoring software to serve as malpractice cues.
3. Facial recognition to avoid impersonation.
4. Keyboard behavior analysis.
5. Sound recognition and touchscreen behavior analysis might be utilized as additional checks.
6. Head movement and position and illumination analysis.
7. Tone of voice, facial expressions, etc.

Questions?
Thank You
Dr. Salah Shakir
Dr. Ellen Bloomfield

References