Testing Online Learning

Chapter 11 discussed various free online resources to not only maximize your teaching experience but also boost student engagement. Some educators might view free online resources as inferior compared to paid options, but that is not always the case. With rising prices along with shrinking budgets and paychecks, some fee-based learning resources are too expensive. As a result, you must either research creative workaround solutions or find free alternatives.

Once you have found your resources, familiarized yourself with them, and incorporated them into your course materials within your LMS, you might feel that you are finished. Unfortunately, you are not. You have another crucial step: testing. Despite your best efforts, unexpected things happen. As Murphy’s Law warns us, “Anything that can go wrong will go wrong.” Proper testing decreases the likelihood of Murphy’s Law.

Why Testing Is Important

In an ideal world, technology would automatically work as intended. Unfortunately, this is not the case particularly in online learning. As schools transitioned from traditional in-person learning to online learning during the Covid-19 pandemic, many technology issues arose. Due to increased system
demand, students and educators were unable to access their LMSs. Many students lacked Internet service or computers to complete their course work. You probably have personal war stories to share about your experience. Although a pandemic is an extraordinary circumstance, prior testing still needs to be performed to anticipate and prepare for these circumstances.

**Types of Testing**

Testing online learning management systems is critical. Nothing is worse than learners encountering preventable errors at the onset or during a course. These preventable errors can create a bad first impression for learners that can affect their attitude not only toward online learning but also about you and the course. It is a good practice to have more than one person to perform various testing functions on various computers and mobile devices. However, if you do not have others available to assist with testing, you can still perform effective testing. Before we begin discussing testing, you need to be aware of the two types of testing you will perform in your virtual learning environment: usability and performance.

**Usability Testing**

Usability testing evaluates how you, students, and any potential users use and interact with the LMS or virtual learning environment. Your testing will answer questions such as

- Can users log in to the system?
- Can users access the LMS through computers and mobile devices?
- Can users easily navigate the LMS?
- Can users easily find what they need?
- Are users able to submit information successfully and accurately?
- Are certain user roles prohibited from performing certain tasks?
- What file formats are learners able to upload?
- Can screen readers read the course content?
- Is alternate text available for images?
- Is closed captioning available within videos?
To perform usability testing in a virtual learning environment, you or the LMS administrator will need to create a user with a student role within the LMS. This will allow you to see the LMS from the student’s perspective along with performance testing. Many learning management systems have a student view option that will make this easy. Once you are in student view, you will be able to navigate the LMS to perform testing that answers the questions listed previously.

At the end of your course or term, do not forget to survey your learners about their learning experience. These surveys can provide valuable feedback as well as identify improvement areas. Many LMSs provide the ability to offer surveys. If not, you can easily create free surveys and include the link in an announcement or email that can be sent to learners using the following tools:

- SurveyMonkey – [www.surveymonkey.com](http://www.surveymonkey.com)
- Google Forms – [www.google.com/forms/about/](http://www.google.com/forms/about/)

Usability testing is an ongoing process. It must be periodically done to ensure that learners are receiving a positive learning experience. Additional resources that can provide information on LMS testing include:

- QA Source – [https://blog.qasource.com/test-a-learning-management-system](https://blog.qasource.com/test-a-learning-management-system)
- eLearning Industry – [https://elearningindustry.com/ways-measure-learning-management-system-lms-reliability-check-fulfills-business-goals](https://elearningindustry.com/ways-measure-learning-management-system-lms-reliability-check-fulfills-business-goals)

### Performance Testing

Performance testing involves testing a system’s infrastructure to verify that it can handle a certain number of concurrent users without crashing. This infrastructure consists of servers, networks, Internet connection, and more. For instance, prior performance testing of schools’ infrastructures and bandwidths before shifting learning solely online could have detected and corrected many of the issues and frustration encountered by students and parents ahead of time.

Along with performance testing, schools’ or organizations’ invisible infrastructures that store the LMS should periodically be tested for scalability. Scalability refers to a system’s ability to grow or scale beyond its current size or state as needs change without encountering problems. One misconception of online learning is that it only involves having a computer and Internet service. For educators and students, this is true. However, the technology involved behind the scenes to create a seamless online learning experience requires much more technology.
Performance testing also identifies potential issues before they become real issues. It is always a good practice for schools and organizations to proactively test rather than reactively test. Your success as an educator and your student’s success depend on it. Nothing is more discouraging for teachers and students than to encounter technical problems at the beginning of online learning. If these problems are not quickly corrected, they can potentially snowball into even bigger problems. As a result, both educators and students can become frustrated and unmotivated. Likewise, ongoing problems can also affect not only your reputation as an educator but also your school’s or organization’s reputation. Whether it was your fault or not, students typically blame the educators first and the school or organization second.

Security Testing

Security concerns have become commonplace, especially in the online classroom. We all have heard or experienced security breaches that have occurred in the online classroom. For instance, educators must apply the strictest of security settings for their Zoom sessions to prevent Zoombombing. Zoombombing occurs on the Zoom web conferencing application once an unauthorized user gains access to a Zoom session and does or says something offensive. The main objective is to disrupt the session. Think of how this could affect impressionable young learners. The effects could be devastating. Oftentimes, the threats originate from outside of the online classroom while others are from within. In any case, both of these unwarranted threats must be anticipated and swiftly handled. Within the LMS, it is a good practice to grant roles the least level of security to prevent any potential security concerns. Oftentimes, this is handled by your LMS administrator.

Content Testing

Since most educators are not LMS administrators, they can only control those things that are within their role’s permissions. Content is one of those areas. Educators provide most, if not all, of the content in the LMS for the online learning experience. As a result, you want to make sure that you have verified the accuracy of your information. Other tasks to perform to test your content include:

- Spell-check all your content
- Verify all hyperlinks work
- Verify all images display correctly
- Provide downloadable material as PDFs
- Format references according to the American Psychological Association (APA) format
Summary

Testing in the online learning environment should not be considered as an afterthought. It is just as vital as all the other online learning components. Testing is not a one-time task. It must be periodically done to save not only time but also headaches for administrators, educators, and students. Inadequate testing can have devastating effects on the overall online learning experience.