

## TSM Quick Guide

### Overview

ACCESS for ELLs 2.0 testing requires additional bandwidth to download and transmit content files that are larger than the files for other online tests. In addition, the Speaking test contains audio responses in large files that vary in size based on the student's response. As a result, to help ensure a good testing experience with acceptable response time between test items, the Testing Site Manager (TSM) software is required for ACCESS for ELLs 2.0 testing.

### Benefits and Features

The TSM offers many benefits and features for online testing:

- A typical reduction in bandwidth traffic of about 50% when downloading test content
- An easy-to-use installation wizard (requires administrative rights)
- Content caching populates the TSM with test content from the DRC server. After the test content is loaded, any updates to the test content are downloaded automatically.
- Response caching populates the TSM with test responses to help prevent testing interruptions. **Note:** Both content and response caching are required for ACCESS for ELLs 2.0 testing.

### Updated TSM Installation and the Number of Students Testing

The following are updated processor, memory, and network guidelines for the TSM software. DRC is providing these updated guidelines for different processor, memory, and network configurations based on the number of students testing concurrently (at the same time). These guidelines are based on the following assumptions:

- The TSM software is configured for both content and response caching.
- The TSM device and the testing devices are connected on a reliable, 100 Mbps, or faster, Local Area Network (LAN).
- If needed, multiple TSMs can be installed and used for testing.

**Note:** When using multiple TSMs, verify that each student starts and ends a test on the same TSM.

- The TSM software is installed on a dedicated device (a device that only has the TSM installed).

**Note:** The TSM software and the DRC INSIGHT software may be installed on a single testing device to test one student at a time (only one student is testing concurrently). Refer to the quick reference guides for configuring a TSM and INSIGHT on a single Windows PC, or Mac (OS X) device, for ACCESS for ELLs 2.0 testing.

### Recommended TSM Configurations

The following are the recommended TSM configurations by test type:

#### Non-Speaking Tests: Listening, Reading, Writing

##### Up to 25 Concurrent Testers

- 2 GB of RAM
- 2 x 2.4 GHz processors

##### 26 to 150 Concurrent Testers

- 4 GB of RAM
- 2 x 2.4 GHz processors

## Speaking Test

The Speaking test is a data-rich and content-rich test, and the audio recordings for the test items require additional and more reliable network and device bandwidth than the non-speaking tests. To reduce the impact on Internet connectivity, the TSM must perform additional tasks such as compressing the student's audio response before sending the response to DRC.

Because of these factors, a TSM used in the Speaking test requires additional memory and CPU, and supports fewer concurrent testers, as shown below.

### **1 to 5 Concurrent Testers**

- 2 GB of RAM
- 2 x 2.4 GHz processors

### **6 to 25 Concurrent Testers**

- 4 GB of RAM
- 4 x 2.4 GHz processors

## TSM Performance Factors

It is important to note that the previous recommendations are only guidelines. The actual number of TSMs required may differ based on the hardware and software specifications of the overall testing environment and other factors. The following list provides examples of these factors:

- LAN bandwidth
- Poor wireless connection
- Too many students per wireless access point
- Other traffic on the LAN
- The size of the items being delivered
- The size of the responses being sent
- Variations in TSM hardware configuration from the guidelines

## Hints and Tips

The following are hints and tips to help maintain continuous access for students throughout the ACCESS for ELLs 2.0 tests and maximize the testing experience.

- Communicate testing dates and times early enough to allow adequate planning time for anyone that could be impacted.
- Ask other network users at the testing site to refrain from heavy Internet use during testing times (for example, schedule video downloads or other content downloads for different times).
- Request that anyone in the testing rooms turn off any wireless devices that are not associated with testing.