

South Dakota Assessment Portal

ITESTER 3 INSTALLATION AND WORKSTATION READINESS MANUAL

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1. INTRODUCTION

This document is intended for information technology personnel responsible for setting up the online testing environment in participating districts and schools. This document contains instructions for installing the iTester 3™ software and conducting workstation readiness testing.

1.1. CONTACT INFORMATION

If you experience any difficulty downloading or installing the iTester software, please contact eMetric support at (877) 829-7769 or via email at support@emetric.net.

2. ITESTER CLIENT INSTALLATION

2.1. ITESTER CLIENT OVERVIEW

iTester 3 Student Workstation application refers to the student interface utilized for testing. The Client is a cross platform, rich internet application that employs the industry's highest standards in security, reliability, and usability for high-stakes assessment. The Client runs seamlessly on Windows, Mac OS and Linux and does not require a web browser.

Note: For the June 29th release, we are only distributing a Windows version of iTester 3 Student Workstation application. Mac and Linux versions will be available soon.

2.2. STUDENT WORKSTATION MINIMUM REQUIREMENTS

The following are the minimum system requirements for student workstations, which will be used to take the test online:

Hardware Requirements

- Pentium IV 1Ghz
- 256 MB RAM
- VGA Display supporting - at least 1024 X 768 resolution
- Mouse/Trackball
- Keyboard

Operating Systems

- Windows XP SP2+, Windows Vista, Windows 7, Mac OSX 10.5.6, Linux Ubuntu 10.04+, Linux Debian 6+, Linux OpenSuSE 11.3+, Fedora Linux 14
- Updated Graphics drivers

Thin-client environments

When using thin-client environments such as Terminal Services, Citrix or LTSP, IT staff should also make sure that there is enough memory, CPU and bandwidth on the server to accommodate multiple student test sessions. The application requires a minimum of 40 MB per client session. Allowing multiple sessions on an improperly sized thin-client environment will lead to poor performance.

Network Connectivity

- All workstations used for student testing should have access to the Internet and should be able to access the servers using HTTP/HTTPS protocols on ports 80 and 443.
- Firewalls at the local workstation and the network level should allow connectivity on ports 80 and 443.
- White list <https://sdap.emetric.net> AND <http://sdap.emetric.net> on ports 80 and 443 on content filtering or other locally used proxy software.
- Sandboxing applications (i.e. DeepFreeze). While installing the client, choose network folder location for storing log files and encrypted response files, OR make sure the iTester folder and its contents in the Application Data folder located in the user profile location are not deleted by these applications.

Note: Log files and encrypted response files will only be saved to the indicated location if network connection or internet connection is lost during test. Students will be able to continue testing without interruption, but their responses will be saved in the indicated folder.

- Proxy Servers: If Internet connectivity is only available through automatic configuration scripts, iTester 3 should be able to use the same configuration.

Bandwidth

For a typical DSL connection: Available Bandwidth: 1500 Kbits/sec (This is variable depending on the type of connection available at each site)

To calculate the number of simultaneous students (x) that can start testing within a timeframe (y) of 60 sec (used as an example), when all students click on 'Begin' at the same exact time on the clock is:

Bandwidth available in 60 (y) sec = 1500 Kbits/sec X 60 sec = 90000 Kbits

Average Test Resource Size= 1216 Kbits (Example, varies by test)

Number of Students (x) = 90000/1216 = 74 (approx)

Over a minute, up to 74 students in a school with a shared T1 connection may simultaneously download and begin a typical test.

2.3. TESTING ENVIRONMENT SET-UP

The iTester Client can be installed on the network or on individual workstation. The advantages and disadvantages for each are indicated below.

- Individual workstation install
 - Advantages
 - No impact on LAN traffic during initial application launch.
 - Delivers a seamless experience
 - Disadvantages
 - Time spent on application installation and configuration (potentially)

- Network install
 - Advantages
 - Time spent on application installation and configuration
 - Centralized location for application updates and configuration.
 - Disadvantages
 - Downloading of the application from network folder to test takers workstation could introduce single point of failure during application launch.
 - Initial application launch could be delayed depending on the LAN traffic and bandwidth.
 - Potential issues related to latency and intermittent network connectivity issues

Note: eMetric recommends an individual workstation installation to ensure the most optimal testing experience.

We are providing a MSI (Microsoft Installer Package) distribution for the Windows version of iTester 3 Student Workstation application. The MSI installer package will allow school IT staff to deploy the software using streamlined processes such as Software Distribution using Group Policy and Scripted Installs. Please refer to section 4 for instructions to deploy the MSI package.

Note: IT Staff can choose to deploy the MSI package using other approaches in addition to the approaches mentioned in the MSI installation directions provided in section 4.

2.4. INSTALLATION PROCESS FOR A WINDOWS OS

Please follow the steps listed below to install the iTester Client on all student testing workstations.

STEP 1: Set up your school testing environment

Review Section 2.3 above in detail.

STEP 2: Download the iTester Client

The Client can be downloaded via links on the iTester Admin homepage. The iTester Admin is accessible via <https://sdap.emetric.net/Portal>, as shown in Figure 2.4-1.

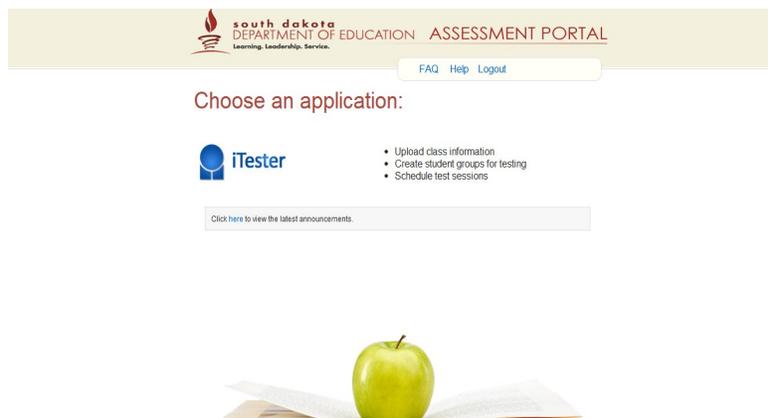


Figure 2.4-1 SDAP homepage

Please download the appropriate iTester Client according to the workstation configurations at your facility.

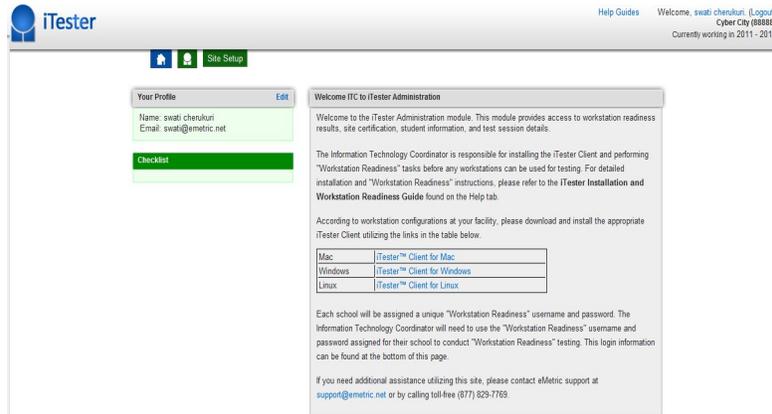


Figure 2.4-2 iTester Admin Homepage and Client Download

STEP 3: Install the downloaded iTester Client

Upon completion of the download process:

1. Navigate to the file location you specified during the file save process.
2. Double-click the iTester 3 for South Dakota file to open the welcome screen.
3. Read the instructions and click Next to continue.



Figure 2.4-3 Windows OS Installation Setup Welcome Screen

4. Read the end user license agreement in full, click 'I accept the terms in the License Agreement,' and then select Next.
5. Type the destination in the space provided. Please note, you can choose to install the Client in a shared network folder or a local folder on the workstation. Click Next to continue. Note: If you choose to install the application on a shared network folder, please ensure that you specify a mapped network drive (Example: S:\iTester). UNC paths (Example: \\Server1\location1) are not supported at this time. It is critically important to ensure that all students scheduled to take the test have access to the mapped network drive to be able to launch the application.

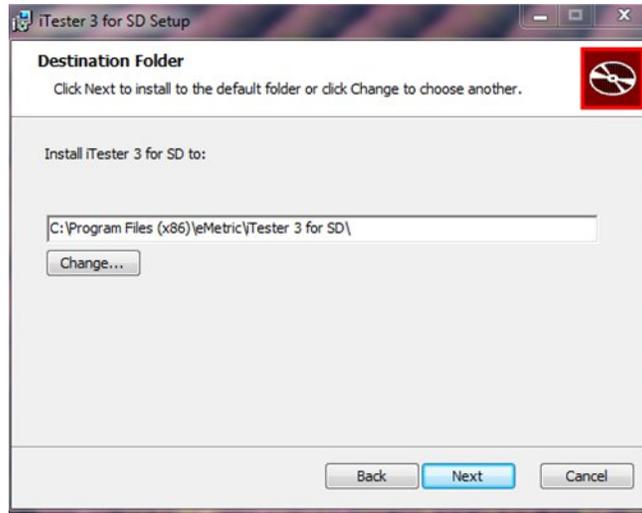


Figure 2.4-4 Windows OS Destination Directory Selection

6. Indicate where you would like to store student responses. Utilize radio button selectors to indicate Use the User Profile directory for stored responses or Use a custom directory for stored responses. If you select Use a custom directory for stored responses you must manually enter the alternate path. Click Next to continue.

Note:

- If you choose 'custom directory for stored responses and chose to install the application on a network location in step 5, please ensure that the 'custom directory or location' you specify in this step is accessible by all students who are scheduled to take the test. We recommend specifying a mapped network drive (Example: S:\StudentResponses) as a custom directory, if you choose to use an alternate location other than the students user profile location for caching.

Stored response files contain student encrypted responses in the event of connectivity issues.



Figure 2.4-2 Windows OS Caching Folder Location

7. Click Install to begin the installation.

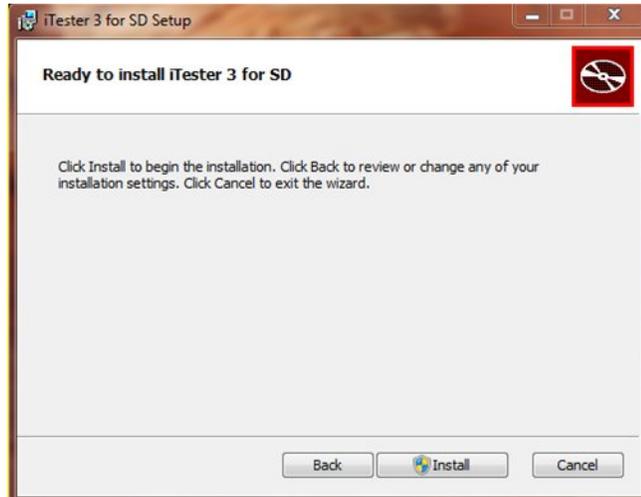


Figure 2.4-6 Windows OS Installation Confirmation

8. Click Finish to exit the set-up wizard. A desktop icon labeled "iTester SD" will automatically be created on the desktop and in the start menu Program List. Note: If you chose to install the application on a mapped network drive (Example: S:\iTester), you need to ensure that you create and publish relevant shortcuts to the desktop profiles of all students scheduled to take the test. In this case, the shortcut needs to point to a file called "NetworkLaunch.bat" located in the iTester installation directory. Such a shortcut will be in the same folder where iTester was installed and can simply be copied to all client computers.

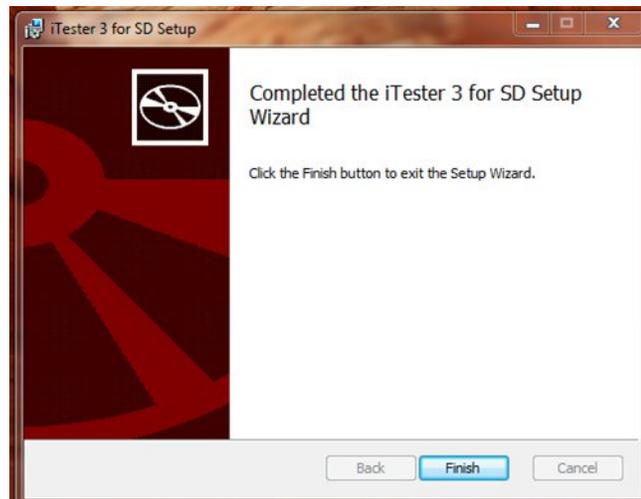


Figure 2.4-7 Windows OS Installation Completion

3. OPTIONS TO INSTALL AN MSI PACKAGE

A. SCRIPTED INSTALLATION

Network administrators can install iTester 3 via an installation script to be executed by an Admin account in the machine. The script can be written to run without any human interaction (quiet switch) and to install in the default directory (C:\Program Files) or any target directory of choice. Un-installation can also be scripted.

Below are generic scripts that can be used for installation and uninstallation.

Script Examples:

<Source> = Complete path to the iTester 3 msi installation file including .msi installation file name.

Example: C:\Downloads\iTester3SD.msi

<Target> = Complete path to the location where iTester 3 should be installed other than the default location (C:\Program Files). Example: C:\iTester\Installation_Dir

<APPDATALOCATION> = Complete path to the location for storing the cache and encrypted student responses created due to network interruptions. Example: D:\Cache.

Note: Please ensure that this location is excluded from system restore software like Deep Freeze.

Installation script: `msiexec /I "<Source>" /quiet INSTALLDIR="<Target>"`

`ITESTERAPPDATALOCATION="<APPDATALOCATION>" INSTALLLEVEL=2`

Example: `msiexec /I "C:\Downloads\iTester3SD.msi" /quiet INSTALLDIR="C:\iTester"`

`ITESTERAPPDATALOCATION="D:\Cache" INSTALLLEVEL=2`

Uninstallation script: `msiexec /X "<Source>" /quiet`

Example: `msiexec /X "C:\Downloads\iTester3SD.msi" /quiet`

Note: Not specifying the 'ITESTERAPPDATALOCATION' will use the local 'Application Data' folder located in the User Profile of the actively logged in user will be used by default. Failure to specify

'INSTALLLEVEL=2' will not create the configuration required for setting the <APPDATALOCATION>

B. SOFTWARE DISTRIBUTION USING GROUP POLICY

Network administrators can use Microsoft Active Directory Group Policy to distribute iTester3 MSI package seamlessly to all client computers.

Please follow the step-by-step instructions described in the following Knowledge Base article:

<http://support.microsoft.com/kb/816102>

Note: Default installation locations will be used when using Group Policy to distribute iTester3. This option will also not allow systematically specifying a network location for caching and storing encrypted student responses created due to network interruptions. The local 'Application Data' folder located in the User Profile of the actively logged in user will be used by default.

4. WORKSTATION READINESS (WSR) AND SITE CERTIFICATION OVERVIEW

4.1. WSR PURPOSE

Workstation Readiness (WSR) provides a means to identify potential technical problems prior to student testing. Information Technology Coordinators will launch the iTester Client on each workstation being used for testing and take the Workstation Readiness test. The test is designed to simulate a test scenario and is used to verify that workstations meet the minimum requirements and have been properly configured.

4.2. WSR PROCESS

It is crucial that WSR be performed on every computer that is to be used for testing. iTester will capture and display the results for each workstation on the Site Setup tab within the iTester Admin.

Follow the procedure below on every computer to be used for testing:

1. Launch the iTester Client from the desktop shortcut or the start menu.



Figure 4.2-1 Desktop Shortcut

2. Login to the iTester Client entering the Workstation Readiness username and password provided for your school. Please note, Workstation Readiness login information can be found at the bottom of the homepage on the iTester Admin (as shown in Figure 4.2-3).

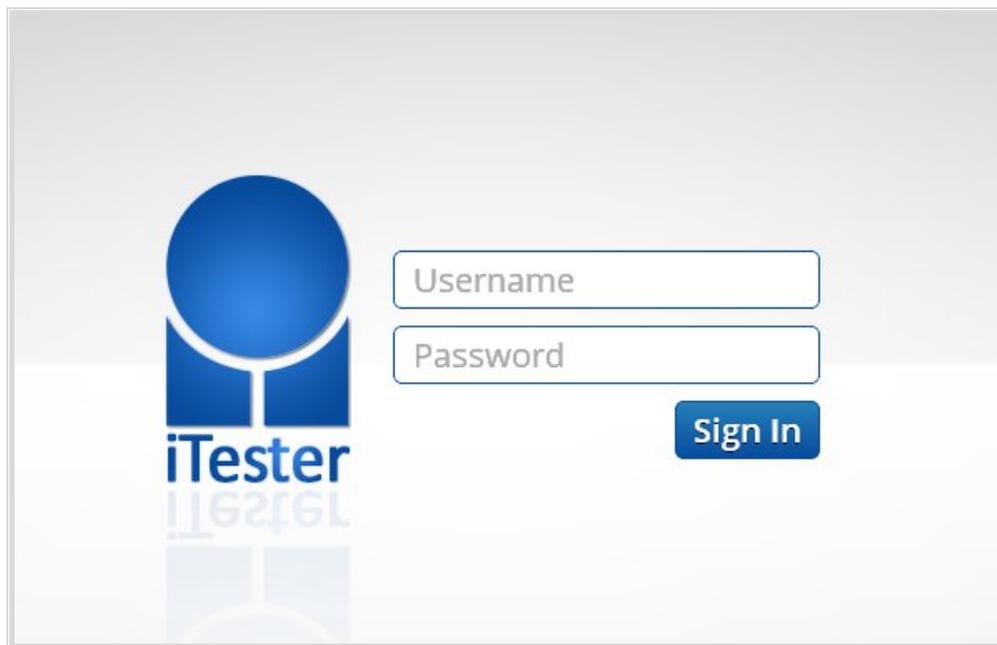


Figure 4.2-2 iTester Client Welcome Screen

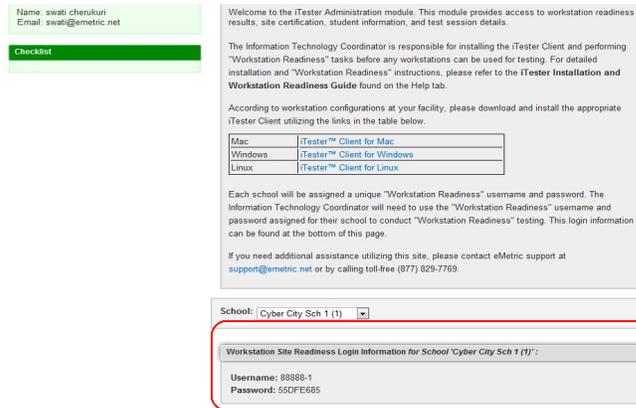


Figure 4.2-3 iTester Admin Homepage

3. Verify the Authentication Screen to confirm it states the correct school and references a Workstation Readiness test. Note: To the right of the test name, the trial number will be incremented by one each time a workstation readiness test is taken using the associated school's credentials.

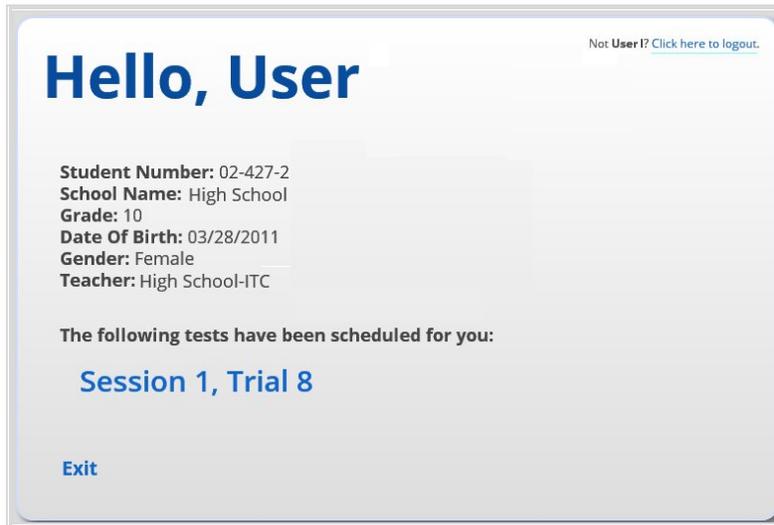


Figure 4.2-4 Authentication Screen

4. Answer each question on the test and click Finish in the lower right corner upon completion of the final item.
5. You will be redirected to the Test Review screen which will indicate the number of questions you Click "Click here to turn in your test" to continue or "Return to test" to review your answers.
6. You will be prompted a second time and must click "Turn In" to continue submitting the test.
7. You will return to the Session Selection page which will read "Form (Completed)" (Figure 4.2-5).

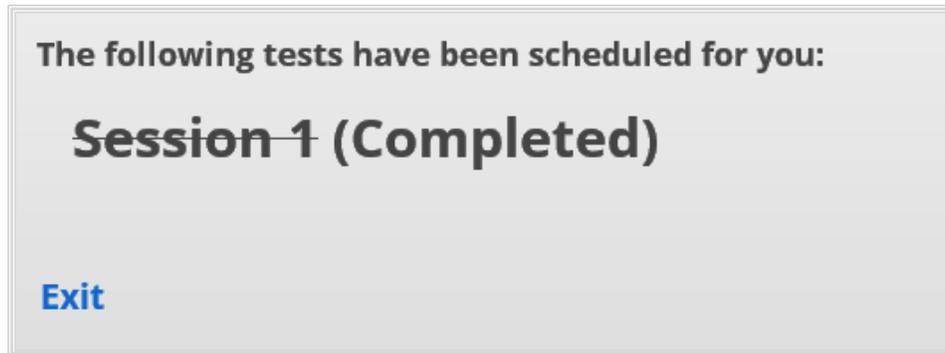


Figure 4.2-5 Session Selection Screen

4.3. SITE CERTIFICATION PURPOSE

The Site Setup tab in the iTester Admin allows users to view the results from workstations tested with the Workstation Readiness test and certify their site for testing. The functionality on this tab is dependent on user type.

A. SCHOOL TEST COORDINATORS (STC) & SCHOOL TECHNOLOGY COORDINATORS (SITC)

Follow the steps outlined below to certify your site for testing:

1. Login to the iTester Admin via <https://sdap.emetric.net/Portal>
2. Click on the Site Setup tab. You will be presented with a detailed list of workstations on which the Workstation Readiness test was completed at your school. Review this list to ensure that all workstations meet the requirement specifications. If any workstation does not meet the requirements, corrective action should be taken prior to using that workstation for testing.
 - a. Screen Resolution: If the screen resolution on a workstation is inadequate, adjust the resolution on that workstation and take the Workstation Readiness test again.

District:
 School:

Workstation Readiness Testing			
District / School	Workstation	Date and Time	Screen Resolution
9999-0010	EmetricLaptop10	12/5/2010 10:34:00 PM	[1366.0x768.0]
9999-0010	EmetricLaptop10	12/5/2010 10:59:42 PM	[1366.0x768.0]
9999-0010	Emetric-5027	12/7/2010 2:29:43 PM	[1680.0x1050.0]
9999-0010	Emetric-5027	12/7/2010 2:33:53 PM	[1680.0x1050.0]
9999-0010	Emetric-5027	12/7/2010 2:40:37 PM	[1680.0x1050.0]
9999-0010	Emetric-5027	12/7/2010 2:41:00 PM	[1680.0x1050.0]
9999-0010	Emetric-5027	12/7/2010 4:45:25 PM	[1680.0x1050.0]
9999-0010	Emetric-5027	12/7/2010 4:46:29 PM	[1680.0x1050.0]
9999-0010	Emetric-5027	12/7/2010 4:47:52 PM	[1680.0x1050.0]
9999-0010	Emetric-5027	12/7/2010 4:48:37 PM	[1680.0x1050.0]
9999-0010	Emetric-5027	12/7/2010 4:50:23 PM	[1680.0x1050.0]
9999-0010	Emetric-5027	12/7/2010 4:51:24 PM	[1680.0x1050.0]
9999-0010	eMetric-5028	12/7/2010 5:58:36 PM	
9999-0010	eMetric-5028	12/8/2010 10:09:49 AM	
9999-0010	eMetric-5028	12/13/2010 1:56:22 PM	[1920.0x1080.0]

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Figure 4.3-1 Workstation Readiness Detailed Results

- Click "Certify Site Readiness" when you are pleased with the displayed results.

Site Certification

Site Certification

I certify that Workstation Readiness tests have been performed on the above machines and any noted issues have been resolved.

Figure 4.3-2 Certify Site Readiness

The following will be displayed once a site has been certified:

Site Certification

Site Certification

I certify that Workstation Readiness tests have been performed on the above machines and any noted issues have been resolved.

Site Certified for Testing on 9/28/2010 9:20:00 AM by
User2

Figure 4.3-3 Site Certification

B. DISTRICT TEST COORDINATORS (DTC) & DISTRICT TECHNOLOGY COORDINATORS (DITC)

District level personnel can view results of Workstation Readiness testing at all schools in their district. District Test Coordinators and District Technology Coordinators can also certify sites for testing if they feel a sufficient number of Workstation Readiness tests have been completed.

Follow the steps outlined below to certify a site in your district for testing:

1. Login to the iTester Admin via <https://sdap.emetric.net/Portal>
2. Click on the "Site Setup" tab. You will be presented with a summary table presenting the progress of Workstation Readiness testing at the schools in your district. You can click on the hyperlink in the Workstations Tested column to drill down to detailed information for a particular school. If any workstation does not meet the requirements, corrective action should be taken prior to using that workstation for testing. (See Figure 4.3-1)
 - a. Screen Resolution: If the screen resolution on a workstation is inadequate, adjust the resolution on that workstation and take the Workstation Readiness test again.
3. Click "Certify Site Readiness" when you are pleased with the displayed results. You can also assign responsibility for certification to school level personnel. (See Figures 4.3-2 and 4.3-3)