

Meru and LanSchool Classroom Management Deployment Guide

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Introduction

The proliferation of 1:1 (one-to-one) laptop programs and mobile devices is changing the classroom. Whether laptops or tablets are provided by a school, or teachers and students use their own mobile devices as part of a "bring your own device" environment, planning for new bandwidth and security needs of the network is essential. Without appropriate planning, the network might not be able to handle the increased client density. Planning for digital classroom management allows teachers and students to focus on learning.

LanSchool and Meru Networks provide a solution for wireless classroom management that easily supports a classroom of laptops, iPad devices, and smartphones. Meru's Virtualized WLAN, which uses a single-channel architecture, when combined with LanSchool Classroom Management software, creates a simple, reliable, and cost-effective solution.

LanSchool facilitates learning and collaboration by allowing the efficient transfer of information between teachers and students. Teachers can show their screens to students, share video and files, administer polls and exams, and help students by using remote control and chat. Using LanSchool, teachers can monitor the classroom in real time.

Meru provides the only wireless network infrastructure with a single-channel, virtualized architecture. Meru networks can intelligently manage each device's connections, pool and allocate the network's resources, and continuously optimize network operations. Meru manages the RF so that IT manages the network, teachers manage the class, and students manage their assignments.

The Meru and LanSchool solution offers the following benefits:

• Reliability

The Meru and LanSchool architectures provide reliable performance. The Meru WLAN provides mobile devices with the performance that is expected from wired networks.

• Ease of use

LanSchool is easy for teachers to use and allows them to see all student computers in a classroom. Because the Meru architecture is reliable, IT staff need not spend much time maintaining the wireless network.

• Scalability

LanSchool can support a single class of up to 30 students and up to 3,000 students at a time. Meru architecture allows IT staff to easily scale a deployment for more coverage or capacity.

This guide is based on LanSchool v7.6 Classroom Management Software. You should have basic knowledge about LanSchool concepts, such as the Teacher console and Class Lists. You should also know how to configure a Meru controller using System Director. For more information, see the LanSchool v7.6 User Guide and Meru System Director Configuration Guide.

How LanSchool Works

Figure 1 illustrates a network diagram for the Meru and LanSchool Classroom Management Solution for a primary or K-12 deployment. The Meru controller and access points provide wireless access for the LanSchool Teacher console and student devices running LanSchool Student. If network environments use Active Directory and a student information system, information from these systems can be used to manage teacher and student information for Class Lists.

Figure 1: Network Diagram for the Meru and LanSchool Classroom Management Solution Deployment



LanSchool allows a teacher to see all student computers in a computer-based classroom. LanSchool uses Teacher "channels" to ensure that all the computers in a classroom are visible, much like a TV channel enables different TVs to see the same program. LanSchool has 16,000 Teacher channels from which to choose, which means that you can have as many as 16,000 different classrooms using LanSchool at any given time. The best way to set up LanSchool in a lab, classroom, or wireless laptop cart is for each classroom to have its own Teacher channel. This setup allows all computers in a classroom to interact with each other, and the teacher can manage the entire room.

If LanSchool is going to be used in a 1:1 environment, where every student has a laptop, there are two options:

• The recommended option is for teachers to create a Class List and then automatically bring those students into class.

Class Lists are text files that contain lists of student computers, login names, or Active Directory names. Class Lists can be created manually by teachers or automatically by creating a real-time link with the school's student information system. When a teacher loads a Class List, the students in that Class List are temporarily switched to the teacher's channel from their home channel. After the teacher dismisses the class, the students are returned to their home channel.

• Another option is to have students join the Teacher's channel. In this mode, the teacher can monitor students as they join or leave the class. The teacher can also compare the current list of students in the class with a previously saved Class List.

Most schools choose the first option because it allows them to start a class more quickly than the second option. For information about creating Class Lists, see <u>Creating Class Lists</u>.

Meru and LanSchool Software Requirements

To complete the configuration procedures in this guide, you need the following Meru and LanSchool software:

- LanSchool v7.6 Classroom Management Software
- System Director Release 4.0 or later

IP Broadcast, Multicast, and IP-Directed Broadcast Modes

The LanSchool application can be configured to run in one of these modes:

- IP broadcast
- IP-directed broadcast
- IP multicast

For the first two modes, all LanSchool traffic is sent via IP (directed) broadcasts, which requires the opening of two UDP ports on the controller for upstream and downstream traffic. For the IP multicast mode, no UDP ports are required to be opened on the controller, as all multicast traffic is forwarded based on multicast enhancements provided by Meru, and IGMP group membership messages determine the target group for packet exchanges. By default, all ports using multicasts are open.

We recommend that the LanSchool application be run in IP multicast mode.

Although we recommend that LanSchool be run in IP multicast mode, if your network environment requires running LanSchool in IP broadcast or IP-directed broadcast mode, you need to allow LanSchool traffic to pass through the wireless/wired network. To do so, you open two UDP ports on the controller: 796 and 1053.

To open ports using the Web UI:

- 1. Select Configuration > Devices > System Settings.
- 2. Click the UDP Broadcast Down tab.
- 3. Click the Add button to add a port. Repeat this process for multiple ports.

Alternatively, you can select the **Downstream UDP Broadcast All Ports** check box and click **Update**. Note that this opens all UDP ports on the WLAN and is not recommended. We recommend opening only the required ports.

4. Click Save.

To open ports using the CLI:

```
controller# config terminal
controller(config)# ip udp-broadcast downstream 796
controller(config)# ip udp-broadcast downstream 1053
controller(config)# end
controller# show ip udp-broadcast downstream
UDP Port
796
1053
Downstream UDP Broadcast Port(2)
controller#
```

All other parameters can be left at default values, and no other configuration on the controller is required to support LanSchool. However, to make your wireless network more efficient in the presence of ESS profiles using multicasts, we recommend enabling IGMP snooping on the controller and having a switch or router in the network with IGMP enabled and issuing IGMP member reports. For information about multicasts and IGMP snooping, see the *Multicast Configuration Note*.

For more information about configuring and using LanSchool, see the LanSchool v7.6 User Guide.

Configuring the Meru Controller for LanSchool

The LanSchool application uses multicast packets for some of its functionality (for example, sharing a student or teacher's screen with other students). Other features such as Web limiting make use of unicast packets. To allow for a full-featured approach when using LanSchool with a Meru WLAN infrastructure, multicast support must be enabled on the relevant ESS profile being used for System Director Release 5.0 and later.

For System Director releases prior to Release 5.0, you must map any ESS profile that has the "Allow Multicast Flag" option enabled to a unique VLAN on the controller. Multiple ESS profiles with the multicast option enabled cannot be part of the same VLAN. You also cannot have one ESS profile with multicast enabled and another ESS profile with multicast disabled mapped to the same VLAN. Multicast packets would not be propagated. The recommended configuration is to create a VLAN on your wired network and create a corresponding VLAN on the controller. Then map this new VLAN to the ESS profile for which multicast is enabled.

To enable multicast support (System Director Release 5.0 and later):

- 1. In the Web UI, select **Configuration > Wireless > ESS**.
- 2. Do one of the following:
 - To create an ESS profile, click Add.
 - To modify an existing ESS profile, select the check box for the ESS profile, and click Settings.
- 3. In the Allow Multicast Flag list, select **On**.
- 4. Click OK.
- 5. Click the **Save** link to permanently save your configuration.

Monitor			
Maintenance	ESS Profile - Update		
 Configuration 	ESS Profile ESS-AP Table Security Profiles		
System Config Quick Start		SUMMARY Selection SSID Number ESS Profile Name SSID	3 LANSchool LANSchool
Security Profile		Enable/Dicable	Frable
Radius		Security Profile Name	
Captive Portal		Drimony PADILIC Accounting Conver	ME DADATIO
Guest Users		Frinary RADIOS Accounting Server	NO RADIOS
Mac Filtering		Secondary RADIUS Accounting Server	NO RADIUS
Nireless IDS/IPS		Accounting Interim Interval (seconds)	3600 Valid range: [600-36000
Air Shield		Beacon Interval (msec)	100 Valid range: [20-1000]
AP Packet Capture		SSID Broadcast	On 😽
Wired		Bridging	AirFortress IPV6 AppleTalk
VLAN		New AP's Join ESS	On 💌
GRE		Tunnel Interface Type	No Tunnel 🗸
Wireless		VLAN Name	No Data for VI AN Name
Radio		GRE Tunnel Profile Name	No Data for GRE Tunnel Profile Name
ESS	3	Allow Multicast Flag	On 👻
QoS		Silent Client Polling	Off 👽
Devices		Multiple IP per Station	Off ¥
System Settings		Multicast-to-Unicast Conversion	On ¥
Controller		Virbial Call	
APs		Vii uudi Celi	
Antennas		Virtual Port	On 🝸

You can also enable the multicast flag using the CLI:

```
controller# config terminal
controller(config)# essid LANSchool
controller(config-essid)# multicast-enable
controller(config-essid)# end
controller# copy running-config startup-config
Building configuration. Please wait ...
controller#
```

Multicast Prioritization

Starting with System Director Release 5.2, multicast packets can be given higher priority over unicast packets. This is accomplished by creating a QoS rule on the controller. Although this is not a requirement for LanSchool to operate optimally, in some networks that use a number of critical multicast applications simultaneously, the network administrator might choose to use this feature to optimize the WLAN. For more information, see the <u>Meru System Director</u> <u>Release 5.2 Configuration Guide</u>.

Configuring LanSchool Based on Network Requirements

As discussed in <u>IP Broadcast, Multicast, and IP-Directed Broadcast Modes</u>, there are three options available to allow for communication between student and teacher devices:

- Broadcast
- Multicast
- IP-directed broadcast

We recommend that the LanSchool application be run in IP multicast mode, which means that you need to configure multicast as the method of communication between teacher and student devices.

To select the option used for communication between teacher and student devices:

- 1. In the LanSchool Teacher console, select **Administer > Preferences**.
- 2. Click the **Network** tab.
- 3. If the LanSchool application is run in IP multicast mode, select the Multicast option for data transmission.

LanSchool Te	eacher Console	ninister View Heln									_D×
			/ - 🗿	LanSchool Teacher C	Console	1			Class Dedites	Cheny Video	SE. »
Status	Login Name	Student Name	Machine	Application Limiting	Drive Limiting	Keystroke Alerts Networ	k Last C	uestion	I dear besidop	SHOW Maeo	Channel
			1,000,00	Para Transmission IP - Broadcast IP - Broadcast IP - Directed Broa IP	adcast adcast . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 10 .	A posoble relation in the second sec					
				UN1.							<u> </u>
Total Students: 0	Selected Students: 0			8							li.

Configuring LanSchool

You perform the LanSchool configuration tasks described in this section and guide using LanSchool v7.6 Classroom Management Software.

Before starting a class, you perform the following tasks:

- Managing LanSchool Profiles
- Creating Class Lists

Managing LanSchool Profiles

You can create LanSchool profiles that contain settings that are saved to start classes more quickly. You can load profiles with or without Class Lists. However, profiles can be attached to a manually generated Class List to speed up the starting of a class. You cannot use profiles with dynamic Class Lists.

To create a LanSchool Profile:

- 1. Start the LanSchool Teacher console.
- 2. Set up the teacher's console the way you want it for a particular class. You can set up the classroom thumbnail layout, limiting settings (for example Web and application limiting), and the settings for the preferences tabs.
- 3. After you have finished setting up the console, select View > Save LanSchool Profile.
- 4. Type a name for the profile, and click **Save**.

To load a LanSchool Settings Profile:

- 1. Open the LanSchool Teacher console.
- 2. Select View > Load LanSchool Profile.
- 3. Select the profile to load, and click **Open**.

This loads the settings that you saved in profile.

When that particular Class List is loaded, the selected settings profile are also loaded, which saves time when starting a class.

Creating Class Lists

There are three ways to create Class Lists:

- Creating a Class List Manually
- Creating a Class List from a Static File
- Creating a Dynamic Class List from Your Student Information System

Determining a Channel Assignment

Before creating a Class List, determine your channel assignment.

1. Set up all student computers with a default "home" channel that is not used by other teachers.

For example, in a middle school, you can assign 7th graders to channel 7, 8th graders to channel 8, and 9th graders to channel 9. Alternately, you could assign a single channel to the entire student body.

- 2. Set up each teacher with a unique channel. For example, using the teacher's class room number works well for many schools.
- 3. Install the student computers with the default option not to change channels.

After determining your channel assignment, you can now create a Class List.

Creating a Class List Manually

You can create a Class List by using LanSchool to manually add students.

To create a Class List manually:

- 1. Open the Teacher console.
- 2. Select Administer > One to One > Manage Class Lists.

- 3. Select the type of student identifier used in the Class List:
 - Student Login Name
 - Student Machine Name
 - Student Name (from Active Directory in Windows environments)
- 4. Click Browse for Students.
- 5. Select the appropriate students for this class, and click **Add**.
- 6. If you want to associate an existing LanSchool profile to the Class List, in the Associate Profile area, click **Browse**.
- 7. Navigate to and select the profile to be associated, and click **Open**.
- 8. To save the Class List, click **Save**.
- 9. Type a file name, and click **Save**. Class Lists are saved with a .lsc extension.
- 10. Click Close.

Creating a Class List from a Static File

You can create a Class List by creating a .csv file that lists students and loading the information from the file into LanSchool.

Using a spreadsheet application, create a .csv file that lists students by the following identifiers:

- Student Login Name
- Student Machine Name
- Student Name (from Active Directory)

An example of what this file might look like for Student Login Names:

Student01

Student02

Student03

• • •

After saving the .csv file, do the following to load the file's information to LanSchool:

- 1. Open the Teacher console.
- 2. Select Administer > One to One > Manage Class Lists.
- 3. Click Import Students.
- 4. Navigate to and select the .csv file that you created, and click **Open**.

- 5. If you want to associate an existing LanSchool profile with this class, in the Associated Profile area, click **Browse**.
- 6. Navigate to and select the profile to be associated, and click **Open**.
- 7. To save the Class List, click **Save**.
- 8. Type a file name, and click **Save**. Class Lists are saved with a .lsc extension.
- 9. Click **Close**.

Creating a Dynamic Class List from Your Student Information System

Because of the various student information systems (SIS) that exist, LanSchool uses a more generic approach to integration with these tools. Generally, these systems allow you to export data such as Student Name, and to schedule that data export on an ongoing basis.

To prepare for implementing Dynamic Class Lists, you need to create two files by exporting the required data from your SIS software. The first file is the Teacher file. It should contain only three columns of data, separated by commas. Your tool should have an export option to save as .csv, but a plain text file is also acceptable.

The data needs to be listed in specific order by row: Teacher Name, Class ID, and Class Name with these items separated by commas. The Teacher name can be the Network Login Name, Machine Name, or, in Windows environments with Active Directory, the User Name. The Class ID number can be any numeric identifier, it must be unique for each class.

The second file you need is a Student file. The Student file needs to include two columns of data separated by commas: ClassID and Student Name. The Student Name can be the Login Name, the Machine Name, or, in Windows environments with Active Directory, the Student Name.

Each of the two files must be named as follows (file names are case-sensitive):

"ClassesByTeacherLoginName.csv", "StudentsForClassByLoginName.csv", "ClassesByTeacherMachineName.csv", "StudentsForClassByMachineName.csv", "ClassesByTeacherADName.csv", or "StudentsForClassByADName.csv", depending on the method you chose to export the data for the Teacher or Student name.

After you have exported this data to the files and named them appropriately, copy them to any network location that Teacher machines can access. Most SIS tools allow you to schedule this kind of data export, but a cron job can be created to export and copy this data to the file share at regular intervals.

Deployment Examples

This guide presents three use cases, which illustrate how you can start classes by implementing dynamic Class Lists, implementing Class Lists manually, and having students join their teacher's channel.

- Use Case 1: Implementing Dynamic Class Lists
- Use Case 2: Implementing Manually Created Class Lists
- Use Case 3: Students Selecting Teacher Channels

Use Case 1: Implementing Dynamic Class Lists

Dynamic Class Lists are the recommended method for implementing LanSchool in a 1:1 environment because it is the simplest way for teachers to use the software. In this model, the Class Lists are always up-to-date because they are linked to the school's student information system (SIS), which keeps track of teachers and students in a class. This information is might also be stored in a directory or other database. LanSchool integrates this information by using exported text or .csv files.

The files can be exported at an interval determined by the school and placed in a central location. The Class Lists are automatically created, and teachers load the appropriate dynamic Class List using LanSchool.

Teacher's Perspective

To create a dynamic Class List, see <u>Creating a Dynamic Class List from Your Student</u> Information System.

Dynamic Class Lists are the simplest way for teachers to use LanSchool in a 1:1 environment. Instead of having to create and manage lists of computers/students, teachers can start class.

You can now load these files to use with LanSchool. Loading Class Lists is the same on Windows and Mac systems. To start class:

- 1. Open the Teacher console.
- 2. Select Administer > One to One > Load Dynamic Class Lists.
- 3. Navigate to the location in which you saved the Teacher and Student .csv files.
- 4. Select the class you want to start, and click **Open**.

The console always checks these files for changes, so new students coming in or teachers changing classes are handled automatically. All students that should be in that class are discovered and are visible to the teacher. The teacher can then use all of the features of LanSchool to teach during that period.

To end the class, select Administer > One to One > Dismiss Current Class.

The students are returned to their home channel.

If a teacher forgets to dismiss a class, the next teacher that loads a student from that class can do so, and a message is sent to the first teacher that a student was removed from the class by the second teacher.

Administrator's Perspective

Using dynamic Class Lists requires a little work for administrators up front but results in less training and issues in the long run.

Consider the following when implementing dynamic Class Lists:

- Class Lists cannot be loaded by teachers or administrators using channel 0.
- A scheduled text or .csv export from the student information system must be created.
- The refresh feature is not active when using Class Lists because all students in the class are shown, even if they are absent.
- Teachers must be trained to load and dismiss classes.
- Students should be setup with a home channel. Most schools set a home channel for each grade; however; you can setup a home channel for the whole school. Choose a home channel that does not conflict with any of the assigned teacher channels. For example, set all 7th graders to channel 700, all 8th graders to channel 800, and so on.
- Teachers should receive a unique channel that is not one of the student's home channels. Most schools assign the teacher's room number as their channel. Teachers do not need the ability to change channels in this model.

By default, teachers cannot change their channel. If you want teachers to be able to change their channel, run the EnableChannelSelect utility on the teacher computers. If allowed to change channels, teachers can inadvertently affect other classes. Teachers must be trained so that they do not disrupt other classes.

• LanSchool profiles cannot be used with dynamic Class Lists.

Student's Perspective

In this use case, students do not have to do anything to connect to a teacher or class. The student can also be set up in stealth mode.

Use Case 2: Implementing Manually Created Class Lists

You can manually create Class Lists using the Teacher console. A teacher browses for students and can create Class Lists by the student's login name, machine name, or student name (from Active Directory). The teacher is shown a list of all student computers/names and adds or removes them from the list.

Each time a student permanently leaves or adds the class, the teacher must modify the Class List. These lists are text files with names separated by line endings.

Students can be imported into these lists using the import button and selecting a file that contains the student or computer names each on a separate line.

With manually created Class Lists, the administrator does not need to create a connection to the SIS, database, or Active Directory. However, teachers need to manually manage their Class Lists.

Another benefit of manually created Class Lists is that a LanSchool profile can be attached to the Class List, which can help speed up setting the class.

Teacher's Perspective

To create a Class List manually, see <u>Creating a Class List Manually</u> or <u>Creating a Class List</u> <u>from a Static File</u>.

If the student login names, computer names, or Active Directory names are known beforehand, they can be imported into a Class List or added manually using the Add Student Manually button.

After creating a Class List, it can be loaded on demand, which causes the current Student List to be replaced by the students in the Class List.

To load a Class List:

- 1. Open the Teacher console.
- 2. Select Administer > One to One > Load Class List.
- 3. Navigate to the location in which you saved the Class List.
- 4. Select the Class List, and click **Open**.

You can later dismiss the class by selecting **Administer > One to One > Dismiss Current Class**.

Administrator's Perspective

Consider the following when implementing manually generated Class Lists:

- Class lists cannot be loaded by teachers or administrators using channel 0.
- The refresh feature is not active when using Class Lists because all students in the class are shown even if they are absent.
- Teachers must be trained to manually manage their own Class Lists.
- Students should be set up with a home channel. Most schools set a home channel for each grade; however; you can set up a home channel for the whole school. Choose a home channel that does not conflict with any of the assigned teacher channels. For example, set all 7th graders to channel 700, all 8th graders to channel 800, and so on.
- Teachers should receive a unique channel that is not one of the student home channels. Most schools assign the teacher's room number as their channel. Teachers do not need the ability to change channels in this model.

By default, teachers cannot change their channel. If you want teachers to be able to change their channel, run the EnableChannelSelect utility on the teacher computers. If allowed to change channels, teachers can inadvertently affect other classes. Teachers must be trained so that they do not disrupt other classes.

Student's Perspective

In this use case, students do not have to do anything to connect to a teacher or class. The student can be set up in stealth mode.

Use Case 3: Students Selecting Teacher Channels

One of the advanced options for the LanSchool student installation on Macs and PCs is to allow students to change their channel and connect to a teacher. If you are using iOS devices in your classroom, this is the only option for implementing a 1:1 environment. Students must select the appropriate teacher's channel. LanSchool cannot run as a background task in the iOS operating system, so Class Lists cannot be implemented on these devices. Otherwise, we do not recommend using this method unless you have a specific reason. For example, one school in Norway felt that they could not legally force students to join a class.

Teacher's Perspective

In this model, teachers must ask students to join the class. This is usually a verbal request. The teacher's channel is generally the room number. The students join the class by clicking the LanSchool icon and selecting the appropriate teacher channel.

One of the positive aspects of this model is that teachers can use these Class Lists to take roll.

It generally takes three to five minutes at the start of the class to get all the students to join the class. As soon as the students have joined, the teacher can save that Class List for future reference.

To save a Class List:

- 1. Open the Teacher console.
- 2. Ask the students to join the class by selecting the teacher's channel.
- 3. After all the students are in the class, select Administer > One to One > Save Current Class List.

This saves a text file of that class. The next time that class begins, after the teacher asks the students to join the class, the teacher can compare the current class with the Class List that was previously created.

To compare the current Class List with a Class List:

- 1. Open the Teacher console.
- 2. Ask the students to join the class by selecting the teacher's channel.
- 3. After the students are in the class, select **Administer > One to One > Compare Class Lists**.

The teacher is shown a list of students that are in class and that are absent from class. If a student leaves the class the teacher is notified.

The major downside of this model is that it takes three to five minutes at the start of class to get the students to join the appropriate channel. If a student joins the wrong class (intentionally or by mistake), the student cannot be managed by the teacher.

Administrator's Perspective

Consider the following when allowing students to select their teacher's channel:

- Administrator and teachers are not required to create Class Lists.
- Students must be trained to manually select the correct teacher. There is nothing preventing a student from purposefully or accidentally selecting the wrong teacher.
- Students should be set up with a default channel. Most schools set a default channel for each grade; however; you can set up a default channel for the whole school. Choose a default channel that does not conflict with any of the assigned teacher channels.
- Teachers should receive a unique channel that is not one of the student home channels. Most schools assign the teacher's room number as their channel. Teachers do not need the ability to change channels in this model.

By default, teachers cannot change their channel. If you want teachers to be able to change their channel, run the EnableChannelSelect utility on the teacher computers. If allowed to change channels, teachers can inadvertently affect other classes. Teachers must be trained so that they do not disrupt other classes.

Student's Perspective

In this model, students are required to select the appropriate teacher to join a class. There is nothing that forces a student to join the right class or stay in the right class in this model.

Teacher Console Classroom Management Tasks

You can use the Teacher console to manage the classroom.

To see all student screens as thumbnails, select **View > Thumbnails**. Select the size of the thumbnails.



To blank all students' screens, click the **Blank Screen** icon.

D LanSchool Teacher	TAR A MARK IN THE PARTY AND A MARKET	
Demonstrate Monitor Bestrict Administer View Help		
Show - Drove Student Vote Testing - Kin Control	- King -	Mute Prizz - Shutdown -
Student S (Computer 6)	Student 7 (Computer 4) Curley (COMPUTER 3)	
		1.14
Larg (Computer 1)	Administrator (Computer 2) Student 6 (Computer 7)	
Live south a service south o	28 Desired Sciences	20

To send a message to all students, make sure that no student thumbnails are selected, and click the **Message** icon.

Enter message to send to student(s):	
Please get back to work!	Send
Send Anonymously	
Eorce student to read this message	
Message History:	
	•
	Close

To ask students a multiple-choice question, click the **Vote** icon.

ype your question below:					
What is the most populated ci	ty in the w	orld?			Load
A. Mumbai B. Delhi					
C. Moscow D. New York					Save
E. London					New
Ouestion Type:	Stu	dent Votes	% of Students		Send
© True / False	т	0			
(C) (C) (C)	F	0	<u></u>		
Multiple Choice	А	1	16%		
	в	0			
	С	0			
	D	1	16%		
	E	1	16%		
ote Status					
Current Status: Checking f	for votes fr	om the studer	its		
Total # of Students Question	ed.	% of Sh	Idents That Have Vol	tad.	
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					Details

To compare the current class to a previous class list, select **Administer > One to One > Compare Class Lists**. Open the previous class list, and select **Open**.

aved Class List 'Class Period One'	Absent Students
The following list shows all students in your previously saved dass list:	The following list shows all students in your previously saved class list that are not in your gurrent class:
S Administrator	
S Curley	
Student 6	
Student 7	
👗 Student 8	
	Remove From Saved Class
	New Students
	The following list shows all students that are in your class today but are not in your previously saved class list:
	Add To Saved Class
	Contraction of the second s

To limit the Web browsing capability of students, click the Limit Web icon.



Where to Find More Information

Refer to the following documents for additional information:

- LanSchool v7.6 User Guide
- <u>Meru System Director Configuration Guide</u> (On the Software Downloads & Documentation page, click the link for the release of System Director that you are using.)

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