A DEEPER DIVE INTO INTELLIGENT AGENTS

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A Deeper Dive into Intelligent Agents

This document includes step-by-step instructions for designing and deploying intelligent agents.

First Steps
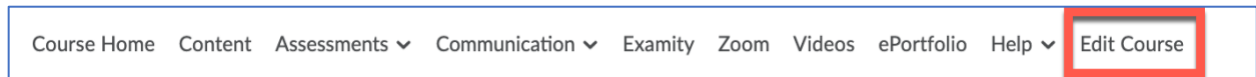
Welcome to Class Agent

Missed Discussion Agent

Encouragement after a Low Quiz Score Agent

First Steps

There are a few settings to address before creating your first intelligent agent.

1. Navigate to the Intelligent Agent Tool –

   - Go to "Edit Course" (your navigation bar may be slightly different than the example below)

   | Course Home | Content | Assessments ⌄ | Communication ⌄ | Examity | Zoom | Videos | ePortfolio | Help ⌄ | Edit Course |

   - Select the Intelligent Agents to link in the "Communication" section

   ## Communication

   | 🗨 Chat | 💬 Discussions | ⚙ Intelligent Agents |
   | 📰 News | | |
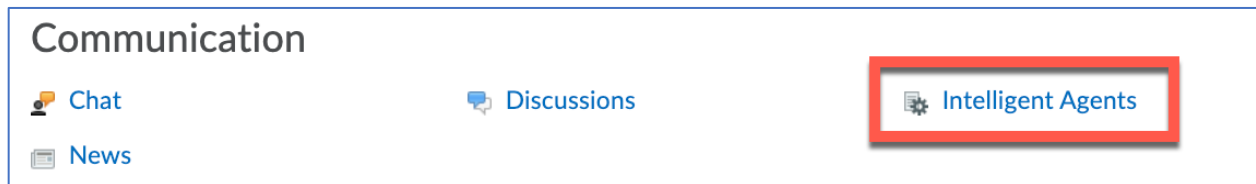
2. Click the Settings link in the upper right corner of the Agent List page

   ## Agent List   ⚙ Settings

   | New | More Actions ⌄ |

   View: | All agents ⌄ | Apply
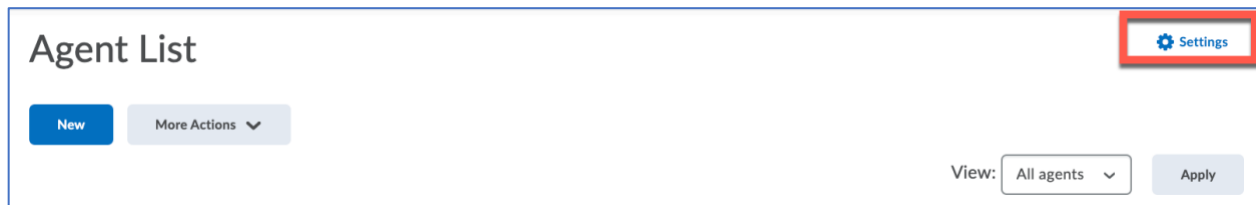
Continued Next Page →

3. Edit the settings for instructor name and email
   - Select the radio button for "Set custom values for this course"
   - Enter the name you would like D2L to display to your students
   - Enter your D2L email address in the "Reply-To" address field (note that the agent cannot use an external email in this field – only D2L addresses will work properly)

   Once you edit these settings, they will apply to all emails sent by an agent in this section of your course.

   # Intelligent Agents Settings

   ○ Use the system defaults

Name that emails come from	Reply-To address for responses
d2lhelp@mtsu.edu	d2lhelp@mtsu.edu

   ● Set custom values for this course

Name that emails come from	Reply-To address for responses
Professor Name	User@elearnmail.mtsu.€

   These settings will affect all future emails sent by an agent.

4. Take note of the Scheduled Agents Run Time given for the current semester.

   Scheduled Agents Run Time

   Scheduled agents will run at approximately 1:00 AM (Unknown Region - GMT) , 8:00 PM (United States - Chicago)

   Save   Cancel

   The run time is important if you decide to use agents for missed deadlines. For example, imagine you set quiz/discussion/dropbox deadlines for 11:59 pm Sunday and want the agent to scan for students who did not submit an assignment on time. If you schedule the agent for Sunday, D2L will look for students without a submission at 8:00 pm on Sunday, according to the schedule in the screenshot above.

   As a result, students who had not submitted by 8:00 pm would receive a message notifying them that their assignment is overdue when they still have four hours to submit their work before the deadline. The solution is to schedule the agent to run on Monday, which ensures only students who did not submit by 11:59 pm Sunday will receive the agent email.

Workshop Agent Steps

Welcome to Class Agent

This agent sends an email to students after they have accessed the course the first time.

11. Agent Name: Enter a title for the agent

Agent Name: *

Welcome to Class Email

12. Edit Description: Enter a description for the agent that signals its purpose

▼ Edit Description

Description:

This Agent sends an email to students after they have accessed the course the first time.

13. Status: Select the checkbox when you are ready for the agent to run in the course. Uncheck the box if you do not want the agent to be active.

Status:

☑ Agent is enabled

14. Criteria 1 - Role in Classlist:
- Select the type of user you would like the agent to monitor.
- Choose the Student-Banner option if you would like the agent to follow students enrolled in the course.

1. Criteria

Role in Classlist

○ All users **visible** in the Classlist
◉ Users with specific roles:

☐ Instructor-Banner

☐ Online Faculty Mentor

☐ co-Instructor

☑ Student-Banner

15. Criteria 2 - Login Activity: This section is not needed for the Welcome to Class Agent; therefore, the box beside "Take action..." should be unchecked.

Login Activity

☐ Take action when the following login activity is satisfied:

    ⦿ User has not logged in during the last [   ] day(s)

    ○ User has logged in during the last [   ] day(s)

16. Criteria 3 - Course Activity
    - Select the box beside "Take action when the following course activity is satisfied:"
    - Select the radio button beside the option for "User has accessed the course during the last __ day(s)."
    - Enter the number "1" in the box for this option to set the agent to look for new students who access the course each day.

Course Activity

☑ Take action when the following course activity is satisfied:

    ○ User has not accessed the course in the last [   ] day(s)

    ⦿ User has accessed the course during the last [1] day(s)

17. Criteria 4 - Release Conditions: This section is not needed for the Welcome to Class Agent; therefore, it is unnecessary to create or attach release conditions.

Release Conditions

[Attach Existing]   [Create and Attach]   🗑 **Remove All Conditions**

There are no conditions attached to this item.

18. Actions 1 - Repetition: Select the radio button next to the first option, "Take action only the first time the agent's criteria are satisfied for a user."

2. Actions

Repetition

⦿ Take action only the first time the agent's criteria are satisfied for a user
○ Take action every time the agent is evaluated and the agent's criteria are satisfied for a user

19. Actions 2: Send an Email
   - Select the checkbox beside the option for "Send an email when the criteria are satisfied" if you want the agent to email the student, you, or both.
   - Verify that the "Name that the emails come from" and "Reply-To address for responses" settings show your name and D2L email address rather than the D2L default settings. If these settings are not correct, go back to the Intelligent Agent settings on page 2 of this aid to see the steps for editing this section.

Send an Email

☑ Send an email when the criteria are satisfied

Name that the emails come from: Professor Name

Reply-To address for responses: user@elearnmail.mtsu.edu

How can I change the default From and Reply settings?

   - Enter the replacement string {InitiatingUser} in the "To:" field of the email
   - If desired, enter your D2L email address in the Cc: or Bcc: fields if you would like to receive a copy of each welcome email the agent sends to a student.
   - Enter text in the "Subject "field of the email

To: *   {InitiatingUser}

Cc:

Bcc: user@elearnmail.mtsu.edu

What special email addresses can I use?

Subject: *   Welcome to Class!

What replace strings can I use in the subject and message?

Continued Next Page →

- Create the text of your message.
- If you would like the email to greet each student by their first name, use the Intelligent Agent replacement string {InitiatingUserFirstName}. Note that D2L will always use the student's official name as shown in the Classlist. If the student goes by a different name, such as a nickname or middle name, the email will still address them by their first name as listed in Banner.

The screenshot below shows a few generic ideas for information you might include in a Welcome to Class email. Think of this agent as a strategy for setting expectations for your course and helping students get started the first week.

- Optional: upload an attachment to be included with the email
- Optional: record a video or audio message to be included with the email

- Select the radio button for "HTML" or "Plain Text," depending on how you would like the message to be delivered to students.

20. Scheduling
- Select the checkbox for "Use Schedule" to run the agent during a specific time frame
- Click the "Update Schedule" button to edit the schedule dates

- Repeats: select the "Daily" option in the dropdown menu
- Repeats Every: enter the number "1" in the box beside "day(s)"
- Select the checkbox beside the option for "Has Start Date" and choose the starting date from the calendar
- Select the checkbox beside the option for "Has End Date" and choose the ending date from the calendar
- Click the "Update" button

21. Click the "Save and Close" button to save all changes.

Save and Close   Save   Cancel

22. Conduct a Practice Run
    • On the main Intelligent Agent page, navigate to the agent you just created
    • Click the down arrow to the right of the agent title, then select the "Practice Run" option

This Agent sends an email to students who earn a passing grade on all Module 4 Activities - C Discussion, & Module 4 D	Edit	Module 4 ation.	0 users identified
Successfully Completed a This Agent sends an emai all Module 5 Activities - C Discussion, & Module 5 D	Copy View History Export History	grade on Module 5	0 users identified
Successfully Completed a This Agent sends an emai on all Module 6 Activities Chapter 12 Quiz, Module Research Proposal.	Practice Run Run Now Delete	ng grade Quiz, ox: Draft	0 users identified
Welcome to Class Email ∨ This Agent sends an email to students after they have accessed the course the first time. The email prompts students to review the first Weekly Update discussion item and to sign up for Remind updates if interested.			0 users identified

    • Click the "Run" button to confirm you would like to try a practice run of the agent

Confirmation

Would you like to try a Practice Run of the agent "Welcome to Class Email"?

This option submits a request to have the agent run as soon as possible, without sending any emails. You can see which users meet the agent criteria once it has completed.

Run   Cancel

- You will receive a confirmation page indicating the practice run was initiated successfully

Practice Run Agent Confirmation

Your request for a practice run of agent "Welcome to Class Email" at Monday, March 29, 2021 10:49 PM CDT has been submitted.

An email will be sent to the account lbryant@elearnmail.mtsu.edu when your request has been completed. You can then check the results of the practice run from the Agent List page.

Note: Processing time varies based on server load and the priority of other scheduled agents.

[Done]

- When the practice run is complete, you will receive an email notification

✉ **Email**

✉ d2lhelp@mtsu.edu sent: Agent Completed - Welcome to Class Email

2 minutes ago

- If the agent identifies any students who accessed the course for the first time, it will report the number of users to the right of the agent name and description, along with a date/time stamp showing the last time the agent ran.

Welcome to Class Email ⌄		March 16 at 1:53 PM
This Agent sends an email to students after they have accessed the course the first time. The email prompts students to review the first Weekly Update discussion item and to sign up for Remind updates if interested.	0 users identified	

No Discussion Participation Agent

This agent sends an email to students after they have accessed the course the first time.

1. Agent Name: Enter a title for the agent

> **Agent Name: ***
>
> | No Discussion Participation in first three days: Module 2 Discuss |

2. Edit Description: Enter a description for the agent that signals its purpose

> ▼ **Edit Description**
>
> **Description:**
>
> This agent sends an email to the student if he or she does not post an original response to the discussion question by Wednesday. The email reminds students the discussion is open and provides tips for participation. The agent checks for a post daily from Thursday to Sunday and only sends an email once.

3. Status: Select the checkbox when you are ready for the agent to run in the course. Uncheck the box if you do not want the agent to be active.

> **Status:**
>
> ☑ Agent is enabled

4. Criteria 1 - Role in Classlist:
   - Select the type of user you would like the agent to monitor.
   - Choose the Student-Banner option if you would like the agent to follow students enrolled in the course.

> ## 1. Criteria
>
> **Role in Classlist**
>
> ○ All users **visible** in the Classlist
> ● Users with specific roles:
>
> ☐ Instructor-Banner
>
> ☐ Online Faculty Mentor
>
> ☐ co-Instructor
>
> ☑ Student-Banner

5. Criteria 2 - Login Activity: This section is not needed for the Welcome to Class Agent; therefore, the box beside "Take action…" should be unchecked.

Login Activity

☐ Take action when the following login activity is satisfied:

    ◉ User has not logged in during the last [   ] day(s)

    ○ User has logged in during the last [   ] day(s)

6. Criteria 3 - Course Activity: This section is not needed for the Missed Discussion Agent; therefore, the box beside "Take action…" should be unchecked.

Course Activity

☐ Take action when the following course activity is satisfied:

    ◉ User has not accessed the course in the last [   ] day(s)

    ○ User has accessed the course during the last [   ] day(s)

7. Criteria 4 - Release Conditions
   - Click the "Create and Attach" button

Release Conditions

[Attach Existing]   [Create and Attach]   🗑 **Remove All Conditions**

   - In the "Condition Type" dropdown menu, select "No posts authored in topic"

Create a New Release Condition   ✕

Release this item when the following condition is met:

Condition Type

[No posts authored in topic   ⌄]

- Select the discussion you want the agent to monitor in the Discussions dropdown menu. In the screenshot below, I have selected the Module 2 Discussion from available options.
- Select "No threads" or "No threads or replies" from the Type dropdown menu. I have selected "No threads or replies" in the screenshot below because I only want to contact students who have not posted at all. If your course requires students to submit their original post before they can respond to other students, the "No threads" option will work as well.

Condition Details

Discussions

Module 2 Discussion ⌄

Type:

No threads or replies ⌄

- Click the Create button to save the release conditions

Create   Cancel

8. Actions 1 - Repetition: Select the radio button next to the first option, "Take action only the first time the agent's criteria are satisfied for a user," if you want the agent to contact the student (or you) only once. Select the radio button next to the second option, "Take action every time the agent is evaluated, and the agent's criteria are satisfied for a user" if you want the agent to contact the student (or you) each day during the scheduled run.

2. Actions

Repetition

⦿ Take action only the first time the agent's criteria are satisfied for a user
◯ Take action every time the agent is evaluated and the agent's criteria are satisfied for a user

9. Actions 2: Send an Email
   - Select the checkbox beside the option for "Send an email when the criteria are satisfied" if you want the agent to email the student, you, or both
   - Verify that the "Name that the emails come from" and "Reply-To address for responses" settings show your name and D2L email address rather than the D2L default settings. If these settings are not correct, go back to the Intelligent Agent settings on page 2 of this aid to see the steps for editing this section.

Send an Email

☑ Send an email when the criteria are satisfied

Name that the emails come from: Professor Name

Reply-To address for responses: user@elearnmail.mtsu.edu

How can I change the default From and Reply settings?

   - Enter the replacement string {InitiatingUser} in the "To:" field of the email
   - If desired, enter your D2L email address in the Cc: or Bcc: fields if you would like to receive a copy of each welcome email the agent sends to a student.
   - Enter text in the "Subject "field of the email

To: *	{InitiatingUser}
Cc:	
Bcc:	user@elearnmail.mtsu.edu

What special email addresses can I use?

| Subject: * | Reminder: Module 2 Discussion is underway |

What replace strings can I use in the subject and message?

Continued Next Page →

- Create the text of your message.
- If you would like the email to greet each student by their first name, use the Intelligent Agent replacement string {InitiatingUserFirstName}. Note that D2L will always use the student's official name as shown in the Classlist. If the student goes by a different name, such as a nickname or middle name, the email will still address them by their first name as listed in Banner.

The screenshot below shows a few generic ideas for information you might include in a Missed Discussion Agent email.

- Optional: upload an attachment to be included with the email
- Optional: record a video or audio message to be included with the email

- Select the radio button for "HTML" or "Plain Text," depending on how you would like the message to be delivered to students.

23. Scheduling
- Select the checkbox for "Use Schedule" to run the agent during a specific time frame
- Click the "Update Schedule" button to edit the schedule dates

- Repeats: select the "Daily" option in the dropdown menu
- Repeats Every: enter the number "1" in the box beside "day(s)"
- Select the checkbox beside the option for "Has Start Date" and choose the starting date from the calendar. In the screenshot below, I have set the agent to begin on Wednesday, February 10, because the student's original post was due Tuesday, February 9. Because we know the agent will run at 8:00 pm, I don't want to start the schedule on Tuesday because it will identify users who still have time to post before midnight.
- Select the checkbox beside the option for "Has End Date" and choose the ending date from the calendar. In the screenshot below, I have set the agent to end on Saturday, February 13 because that is the day the discussion closes. Because we know the agent will run at 8:00 pm, students will receive the reminder in time to still have a few hours to participate.
- Click the "Update" button

24. Click the "Save and Close" button to save all changes.

| Save and Close | Save | Cancel |

25. Conduct a Practice Run
   - On the main Intelligent Agent page, navigate to the agent you just created
   - Click the down arrow to the right of the agent title, then select the "Practice Run" option

	No Course A	Edit		March 6 at 7:01 PM
☐	This agent e 7 days. The discuss cour	Copy	tion is not accessed for ntact the professor to	0 users identified	
	No Discussi Discussion	View History Export History	rs: Module 1	February 6 at 7:03 PM	
☐	This agent s an original r email remin participation Sunday and	Practice Run Run Now Delete	e or she does not post on by Wednesday. The n and provides tips for ily from Thursday to	0 users identified	
	No Discussion Participation in first three days: Module 2		February 13 at 7:02 PM	
☐	Discussion ⌄ This agent sends an email to the student if he or she does not post an original response to the discussion question by Wednesday. The email reminds students the discussion is open and provides tips for participation. The agent checks for a post daily from Thursday to Sunday and only sends an email once.		0 users identified	

   - Click the "Run" button to confirm you would like to try a practice run of the agent

Confirmation

Would you like to try a Practice Run of the agent "No Discussion Participation in first three days: Module 2 Discussion"?

This option submits a request to have the agent run as soon as possible, without sending any emails. You can see which users meet the agent criteria once it has completed.

| Run | Cancel |

- You will receive a confirmation page indicating the practice run was initiated successfully

Practice Run Agent Confirmation

Your request for a practice run of agent "No Discussion Participation in first three days: Module 2 Discussion" at Tuesday, March 30, 2021 9:57 AM CDT has been submitted.

An email will be sent to the account lbryant@elearnmail.mtsu.edu when your request has been completed. You can then check the results of the practice run from the Agent List page.

Note: Processing time varies based on server load and the priority of other scheduled agents.

[Done]

- When the practice run is complete, you will receive an email notification

Layne Bryant

✉ **Email**

✉ d2lhelp@mtsu.edu sent: Agent Completed - No Discussion Participation in first three days: Module 2 Discussion

just now

- If the agent identifies any students who accessed the course for the first time, it will report the number of users to the right of the agent's name and description, along with a date/time stamp showing the last time the agent ran.

No Discussion Participation in first three days: Module 2 Discussion ⌄		February 13 at 7:02 PM
This agent sends an email to the student if he or she does not post an original response to the discussion question by Wednesday. The email reminds students the discussion is open and provides tips for participation. The agent checks for a post daily from Thursday to Sunday and only sends an email once.	0 users identified	

Encouragement after Low Quiz Grade Agent

This agent sends an email to students who earn a low score on a quiz.

1. Agent Name: Enter a title for the agent

> **Agent Name:** *
>
> | Encouragement after low quiz grade |

2. Edit Description: Enter a description for the agent that signals its purpose

> ▼ **Edit Description**
>
> Description:
>
> This agent sends an email to the student after a quiz grade of 69% or lower. The email reminds students that quizzes are open book, open for 120 minutes, and come directly from the chapter readings. Students are prompted to ask questions on the Discussion forum before taking the quiz if needed.

3. Status: Select the checkbox when you are ready for the agent to run in the course. Uncheck the box if you do not want the agent to be active.

> **Status:**
>
> ☑ Agent is enabled

4. Criteria 1 - Role in Classlist:
   - Select the type of user you would like the agent to monitor.
   - Choose the Student-Banner option if you would like the agent to follow students enrolled in the course.

> ## 1. Criteria
>
> **Role in Classlist**
>
> ○ All users **visible** in the Classlist
> ● Users with specific roles:
>
>   ☐ Instructor-Banner
>
>   ☐ Online Faculty Mentor
>
>   ☐ co-Instructor
>
>   ☑ Student-Banner

5. Criteria 2 - Login Activity: This section is not needed for the Welcome to Class Agent, therefore the box beside "Take action…" should be unchecked.

Login Activity

☐ Take action when the following login activity is satisfied:

◉ User has not logged in during the last [＿＿] day(s)

◯ User has logged in during the last [＿＿] day(s)

6. Criteria 3 - Course Activity: This section is not needed for the Missed Discussion Agent, therefore the box beside "Take action…" should be unchecked.

Course Activity

☐ Take action when the following course activity is satisfied:

◉ User has not accessed the course in the last [＿＿] day(s)

◯ User has accessed the course during the last [＿＿] day(s)

7. Criteria 4 - Release Conditions
   • Click the "Create and Attach" button

Release Conditions

[Attach Existing] [Create and Attach] 🗑 **Remove All Conditions**

   • In the "Condition Type" dropdown menu, select "Score on a quiz"

Create a New Release Condition

Release this item when the following condition is met:

Condition Type

[Score on a quiz   ⌄]

- Select the quiz you want the agent to monitor in the Quiz dropdown menu. In the screenshot below, I have selected the Chapter 3 Quiz from available options.
- Select the grade threshold from the Criteria dropdown menu. In the screenshot below, I have selected <= because I want the agent to look for scores less than or equal to 69%.
- Enter the grade value in the Grade box.

- Click the Create button to save the release conditions

8. Actions 1 - Repetition: Select the radio button next to the first option, "Take action only the first time the agent's criteria are satisfied for a user" if you want the agent to contact the student (or you) only once. Select the radio button next to the second option, "Take action every time the agent is evaluated and the agent's criteria are satisfied for a user" if you want the agent to contact the student (or you) each day during the scheduled run.

9. Actions 2: Send an Email
   - Select the checkbox beside the option for "Send an email when the criteria are satisfied" if you want the agent to email the student, you, or both
   - Verify that the "Name that the emails come from" and "Reply-To address for responses" settings show your name and D2L email address rather than the D2L default settings. If these settings are not correct, go back to the Intelligent Agent settings on page 2 of this aid to see the steps for editing this section.

   - Enter the replacement string {InitiatingUser} in the "To:" field of the email
   - If desired, enter your D2L email address in the Cc: or Bcc: fields if you would like to receive a copy of each welcome email the agent sends to a student.
   - Enter text in the "Subject "field of the email

Continued Next Page →

- Create the text of your message.
- If you would like the email to greet each student by their first name, use the Intelligent Agent replacement string {InitiatingUserFirstName}. Note that D2L will always use the students official name as shown in the Classlist. If the student goes by a different name, such as a nickname or middle name, the email will still address them by their first name as listed in Banner.

The screenshot below shows a few generic ideas for information you might include in an Encouragement after a Low Quiz Score Agent email.

- Optional: upload an attachment to be included with the email
- Optional: record a video or audio message to be included with the email

- Select the radio button for "HTML" or "Plain Text" depending on how you would like the message to be delivered to students.

10. Scheduling
- Select the checkbox for "Use Schedule" to run the agent during a specific time frame
- Click the "Update Schedule" button to edit the schedule dates

- Repeats: select the "Daily" option in the dropdown menu
- Repeats Every: enter the number "1" in the box beside "day(s)"
- Select the checkbox beside the option for "Has Start Date" and choose the starting date from the calendar. In the screenshot below, I have set the agent to begin on Sunday, January 31 because that is the first day the quiz opens for students.
- Select the checkbox beside the option for "Has End Date" and choose the ending date from the calendar. In the screenshot below, I have set the agent to end on Sunday, February 7 because the quiz closed on Saturday, February 6. If I set the agent to end on Saturday, I might miss any students who submitted a quiz after 8:00 pm since the agent will run at that time.
- Click the "Update" button

11. Click the "Save and Close" button to save all changes.

12. Conduct a Practice Run
    • On the main Intelligent Agent page, navigate to the agent you just created
    • Click the down arrow to the right of the agent title, then select the "Practice Run" option

    • Click the "Run" button to confirm you would like to try a practice run of the agent

- You will receive a confirmation page indicating the practice run was initiated successfully

Practice Run Agent Confirmation

Your request for a practice run of agent "Encouragement after low quiz grade" at Tuesday, March 30, 2021 11:05 AM CDT has been submitted.

An email will be sent to the account lbryant@elearnmail.mtsu.edu when your request has been completed. You can then check the results of the practice run from the Agent List page.

Note: Processing time varies based on server load and the priority of other scheduled agents.

Done

- When the practice run is complete, you will receive an email notification

Layne Bryant

✉ Email

✉ d2lhelp@mtsu.edu sent: Agent Completed - Encouragement after low quiz grade

just now

- If the agent identifies any students who accessed the course for the first time, it will report the number of users to the right of the agent's name and description, along with a date/time stamp showing the last time the agent ran.

Encouragement after low quiz grade ⌄		February 20 at 7:01 PM
This agent sends an email to the student after a quiz grade of 69% or lower. The email reminds students that quizzes are open book, open for 120 minutes, and come directly from the chapter readings. Students are prompted to ask questions on the Discussion forum before taking the quiz if needed.	0 users identified	