## Intelligent Tutor and Study Scores

## Introduction

The Intelligent Tutor now has "study scores" and Tutor messages that students can see in their Study Records provided that the Tutor option is enabled for that class in the Records Manager.

The purpose of this document is to give a brief introduction of the scoring system and to answer important questions regarding the introduction and use of this new system.

We recommend that the Tutor option be enabled for students at an appropriate age and maturity level to benefit from this scoring system. With the Tutor option enabled at the beginning of study, students can immediately build a positive score and thereby improve the quality of their practice sessions.

## What is the Intelligent Tutor?

The Intelligent Tutor combs through and analyzes student study records. It makes judgments about how well and how often students are using DynEd courses. It looks at study frequency, study activities, test scores, and comprehension. It also looks for negative study patterns, such as inappropriate use of text support when developing listening comprehension.

## What do the Study Scores mean?

The range of scores varies somewhat from course to course. However, for most courses, the following chart is a guide:

| Excellent | +5 | +12 | A |
| :--- | :---: | :---: | :--- |
| Good study | +2 | +4 | B |
| Fair study | -1 | +1 | C |
| Poor study | -4 | -2 | D |
| Very poor | -12 | -5 | F |

A student with a positive score of +5 in New Dynamic English, for example, is studying efficiently. There is still room for improvement, but such a score means that the student is doing very well and should show good proficiency gains. The Tutor comments that accompany the score will indicate what the student is doing well and what, if anything, they need to improve.

A student with a negative score of -5 in Dynamic Business English, for example, is not studying efficiently. This student needs coaching. Again, the Tutor comments will indicate what the student needs to do to improve their study score for that course.

## Tutor Messages

Tutor messages viewable by the student if the Tutor option is enabled are indicated by HEAD_S and MSG_S. Tutor messages viewable by the teacher in the Records Manager are indicated by HEAD_T and MSG_T.
HEAD refers to the abbreviated heading first seen when clicking on the Tutor button. MSG refers to the more detailed message when the Details button is clicked.

HEAD_T too much text button compared to repeat button (-1) or (-2)
HEAD_S Too much text button. It seems you are using the text button too much.
MSG_S Looking at the text too soon interferes with listening comprehension development. Try to listen and repeat the sentence several times before you check the text.
MSG_T To improve listening comprehension, listen to each sentence several times before looking at the text.

HEAD_T not using voice record enough compared to the number of sentences heard (-2)
HEAD_S It seems you are not recording your voice enough.
MSG_S Recording your voice is an important learning strategy. Try recording several sentences during each study session. Listen to yourself and compare your recording with the native speaker.
MSG_T Recording each sentence and comparing it to the native speaker helps develop fluency, pronunciation, and long-term memory.

HEAD_T not repeating sentences enough compared to the number of sentences heard (-2)
HEAD_S Please use the repeat button more.
MSG_S To improve your listening comprehension, listen and repeat the sentences often. MSG_T Listen to each sentence several times. Listen to the phrases and key words in each sentence.

HEAD_T not monitoring student's recorded voice enough in Speech Recognition lessons (-1)
HEAD_S In Speech Recognition exercises, listen and compare your own voice to the native speaker.
MSG_S To improve your pronunciation, listen to your speed, stress and intonation and key phonemes.
MSG_T Students should use the Headphone button to compare their speech to the native speaker.

HEAD_T too little time on presentation lessons (-2)
HEAD_S Please study the Presentation lessons more. Focus on the key sentences and master them.
MSG_S After you understand all of the sentences in the presentation lessons, practice saying them and recording them until you feel confident. You should also be able to confidently summarize all of the information in the presentation lessons.
MSG_T These lessons should be studied many times, first for comprehension, and then practiced for fluency.

HEAD_T too much use of translation (-2) (-3)
HEAD_S Try not using the translation button so often.
MSG_S Use the Repeat button to listen to each sentence and think about the meaning. Use the pictures and other clues to help you.
MSG_T Use the pictures and context to guess the meaning before using the Translation button.

Tutor Messages (continued)

| HEAD_T | study too infrequent (-2) |
| :---: | :---: |
| HEAD_S | Please try to study more often. |
| MSG_S | Frequent practice is the key to language learning. Try to study at least 3-4 times per week. |
| MSG_T | Students should study at least 3-4 times per week. Frequent study sessions are most effective. |
| HEAD_T | not monitoring student's recorded voice enough after recording sentences (-1) |
| HEAD_S | After recording your voice, listen and compare your own voice to the native speaker. |
| MSG_S | To improve your pronunciation, listen to your speed, stress and intonation and important phonemes. |
| MSG_T | Comparing one's speech to the native speaker should be done several times each day. |
| HEAD_T | good use of repeat button (2) |
| HEAD_S | Good use of the repeat button. Please continue to listen carefully. |
| MSG_S | To improve your listening comprehension, listen and repeat the sentences often. |
| MSG_T | Frequent repetition is the key to language learning. |
| HEAD_T | low Mastery Test score(s) (-2) |
| HEAD_S | Your Mastery Test scores are too low. Please practice and review the lessons more. |
| MSG_S | When reviewing the lessons, repeat each sentence and practice saying each sentence. |
| MSG_T | Most students should score 90 or more if they have studied the lessons effectively. |
| HEAD_T | Mastery Tests are taken too soon (-2) |
| HEAD_S | It seems that the students are taking the MT before they have studied enough. |
| MSG_S | The MT average for this class is only V01\% It should be over $90 \%$. |
| MSG_T | Most students should score 90 or more if they have studied the lessons effectively. |
| HEAD_T | not repeating sentences enough after using voice record (-1) |
| HEAD_S | Not listening to your voice enough. Compare your pronunciation to the native speaker. |
| MSG_S | After recording your voice, use the Headphone and Repeat buttons to listen and compare your own voice to the native speaker. |
| MSG_T | Comparing one's speech to the native speaker should be done by using the Headphone and Repeat buttons. |
| HEAD_T | not taking Mastery Tests (-2) |
| HEAD_S | Please ask your teacher about taking the Mastery Tests. |
| MSG_S | Mastery Tests are available for this course. |
| MSG_T | Mastery Tests are available for this course. |
| HEAD_T | not enough study time in the last 2 weeks (-2) |
| HEAD_S | Please try to study at least 2 hours per week. |
| MSG_S | Without more practice, your progress will be very slow. |
| MSG_T | Students should study at least 2 hours per week. |
| HEAD_T | no study in the last 2 weeks (-2) |
| HEAD_S | You haven't studied in the last 2 weeks. |
| MSG_S | Without more practice, your progress will be very slow. |
| MSG_T | Students should study at least 2 hours per week. |

## Tutor Messages (continued)

| HEAD_T | good use of voice record compared to the number of sentences heard |
| :---: | :---: |
| HEAD_S | Good use of voice recording feature. Please continue to record your voice in each study session. |
| MSG_S | To improve your listening and speaking, record several sentences during each study session. Listen to yourself and compare your recording with the native speaker. |
| MSG_T | Recording each sentence and comparing it to the native speaker helps develop fluency, pronunciation, and comprehension. |
| HEAD_T | good Mastery Test score(s) (2) |
| HEAD_S | Your Mastery Test scores are good. |
| MSG_S | Most students should score 90 or more if they have studied the lessons effectively. |
| MSG_T | Most students should score 90 or more if they have studied the lessons effectively. |
| HEAD_T | good study frequency in the last two weeks (3) |
| HEAD_S | Good study frequency. Please continue to study as often as possible. |
| MSG_S | Frequent practice is the key to language learning. Try to study at least 3-4 times per week. |
| MSG_T | Students should study at least 3-4 times per week. Frequent study sessions are most effective. |
| HEAD_T | good success with speech recognition accuracy (2) |
| HEAD_S | You are doing well with Speech Recognition. |
| MSG_S | To improve your speaking, do the Speech Recognition exercises often. |
| MSG_T | Use the Speech Recognition exercises a little each day for the best results. |
| HEAD_T | good success with comprehension questions (1), (2) |
| HEAD_S | You are doing well with comprehension questions. |
| MSG_S | The comprehension questions will help you learn to think in English. |
| MSG_T | Comprehension scores are averaging over 85\%. |
| HEAD_T | poor comprehension scores (-2) |
| HEAD_S | You are not doing well with comprehension questions. |
| MSG_S | Please review the presentation lessons more often to improve your comprehension. |
| MSG_T | Comprehension scores are averaging less than $80 \%$. |
| HEAD_T | not focusing on lessons properly (-2) NOT USED YET |
| HEAD_S | Please study the Presentation lessons more. Focus on the key sentences and master them. |
| MSG_S | After you understand all of the sentences in the presentation lessons, practice saying and recording them until you feel confident. You should also be able to confidently summarize all of the information in the presentation lessons. |
| MSG_T | These lessons should be studied many times, first for comprehension, and then practiced for fluency. |
| HEAD_T | good study time in the last 2 weeks (2) |
| HEAD_S | Please try to study at least 2 hours per week. |
| MSG_S | With enough practice, your progress will be good. |
| MSG_T | Students should study at least 2 hours per week. |

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HEAD_T studied more than 50 days total (2)
HEAD_S 50 days of good work
MSG_S You have studied hard for at least 50 days.
MSG_T Also requires minimum of 1000 minutes, Mastery Test, comprehension questions, and use of
voice record feature.
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## Variables

// SESD Number of unique days that they studied on<br>// SES Number of study sessions<br>// MINS Number of study minutes<br>// SHUF Shuffler level<br>// QTOT Number of questions attempted<br>// QCOR Number of questions correct<br>// ABC Number of times pressed ABC Button<br>// TRAN Number of times pressed Translation Button<br>// REP Number of times pressed Repeat Button<br>// MIC Number of times pressed MIC Button<br>// HEAD Number of times pressed Headphones Button<br>// SR_A Number of times attempted SR exercise<br>// SR_C Number of times got SR exercise correct the first time<br>// GLOS Number of times viewed a glossary<br>// PC Percent Complete value<br>// DAYS Number of days since the last study<br>// SENT Number of sentences heard<br>// MT Mastery Test Score<br>// PL Most recent Placement Level<br>// P_XXX Product XXX is installed

## Score Samples and Comments (1)

Class Overview: 1st grade Let's Go (Japan, data as of November 2004)

1) too much use of translation
2) studied more than 30 days total

Study Score = 0
XXaJPZZ1 (Time = 56:38)

1) good Mastery Test score(s)
2) good study frequency in the last two weeks
3) good success with comprehension questions
4) good study time in the last 2 weeks
5) studied more than 30 days total

Study Score $=9$
XXbJPZZ2 (Time = 70:49)

1) good Mastery Test score(s)
2) good study frequency in the last two weeks
3) good success with comprehension questions
4) studied more than 30 days total

Study Score $=7$
XXcJPZZ3 (Time = 129:44)

1) good study frequency in the last two weeks
2) good study time in the last 2 weeks
3) studied more than 30 days total

Study Score $=6$

XXdJPZZ4 $($ Time $=62: 25)$

1) not repeating sentences enough compared to the number of sentences heard
2) too much use of translation
3) good Mastery Test score(s)
4) good study frequency in the last two weeks
5) good success with comprehension questions
6) good study time in the last 2 weeks
7) studied more than 30 days total

Study Score $=5$
XXeJPZZ5 (Time = 55:48)

1) too much use of translation (-)
2) good study frequency in the last two weeks
3) good study time in the last 2 weeks
4) studied more than 30 days total Study Score = 3

XXfJPZZ6 (Time = 81:38)

1) not repeating sentences enough compared to the number of sentences heard
2) low Mastery Test score(s)
3) good study frequency in the last two weeks
4) good study time in the last 2 weeks

Study Score $=0$
XXgJPZZ7 (Time $=60: 12$ )

1) not repeating sentences enough compared to the number of sentences heard
2) too much use of translation (-)
3) low Mastery Test score(s)
4) good study frequency in the last two weeks
5) good study time in the last 2 weeks
6) studied more than 30 days total Study Score = -1

XXhJPZZ8 (Time $=24: 04$ )

1) not repeating sentences enough compared to the number of sentences heard
2) too much use of translation
3) low Mastery Test score(s)
4) studied more than 30 days total Study Score = -4

XXiJPZZ9 (Time $=42: 27$ )

1) not repeating sentences enough compared to the number of sentences heard
2) too much use of translation (-)
3) low Mastery Test score(s)
4) good study time in the last 2 weeks Study Score $=-5$

XXjJPZZ10 (Time = 05:44)

1) not repeating sentences enough compared to the number of sentences heard
2) study too infrequent
3) not enough study time in the last 2 weeks

Study Score = -6

## Score Samples and Comments (2)

Mixed Courses ( examples from Korea, China, Bosnia, Japan, Ukraine, Turkey)

1) too much text button compared to repeat button
2) not repeating sentences enough
3) good use of voice record

Study Score = 2
jpn ZZ1 (Time = 06:16) FE

1) too much text button compared to repeat button
2) not repeating sentences enough compared to the number of sentences heard
3) too much use of translation
4) not repeating sentences enough after using voice record
5) good use of voice record compared to the number of sentences heard
6) good success with comprehension questions

Study Score = -4
chn ZZ2 (Time $=59: 11$ ) FE

1) good use of repeat button
2) good Mastery Test score(s)
3) good study frequency in the last two weeks
4) good success with comprehension questions
5) good study time in the last 2 weeks
6) review Unit 1 while studying Unit 2

Study Score = 9
jpn ZZ3 (Time = 18:36) EFS

1) not using voice record enough compared to the number of sentences heard
2) not repeating sentences enough compared to the number of sentences heard
3) study too infrequent
4) not monitoring recorded voice enough after recording sentences
5) low Mastery Test score(s)
6) not repeating sentences enough after using voice record
7) poor comprehension scores

Study Score = -12
jpn ZZ4 (Time = 05:52) EFS

1) not using voice record enough compared to the number of sentences heard
2) good study frequency in the last two weeks
3) good success with comprehension questions
4) good study time in the last 2 weeks Study Score = 3
jpn ZZ5 (Time = 19:30) EFS
5) too much text button compared to repeat button
6) not using voice record enough compared to the number of sentences heard
7) not repeating sentences enough compared to the number of sentences heard
8) too much use of translation
9) not repeating sentences enough after using voice record
10) good Mastery Test score(s)
11) good success with comprehension questions
12) good study time in the last 2 weeks
13) studied more than 30 days total Study Score = -3
kor ZZ6 (Time = 47:44) NDE
14) not listening to student's recorded voice enough in Speech Recognition lessons
15) NDE works well with The Lost Secret
16) good use of voice record compared to the number of sentences heard
17) good Mastery Test score(s)
18) studied more than 50 days total Study Score $=5$
chiZZ7 $($ Time $=37: 41)$ NDE
19) not listening to student's recorded voice enough in Speech Recognition lessons
20) good use of repeat button
21) good use of voice record compared to the number of sentences heard
22) good Mastery Test score(s) Study Score = 5
ukrZZ8 (Time = 177:41) NDE
23) good use of repeat button
24) good use of voice record compared to the number of sentences heard
25) good Mastery Test score(s)
26) good success with speech recognition accuracy
27) studied more than 50 days total Study Score = 10

## Score Samples and Comments (3)

korZZ9 (Time = 33:34) DBE

1) not listening to student's recorded voice enough in Speech Recognition lessons
2) good use of voice record compared to the number of sentences heard
3) good Mastery Test score(s)
4) good success with speech recognition accuracy
5) start to study Manufacturing and Trade while continuing to study Work Experience
6) studied more than 50 days total

Study Score $=7$
korZ10 (Time = 10:54) DBE

1) too much text button compared to repeat button
2) not using voice record enough compared to the number of sentences heard
3) not repeating sentences enough compared to the number of sentences heard
4) not listening to student's recorded voice enough in Speech Recognition lessons
5) too little time on presentation lessons
6) not listening to student's recorded voice enough after recording sentences
7) no study in the last 2 weeks Study Score = -12
ukrZ11 $($ Time $=122: 40)$ NDE
8) not listening to student's recorded voice enough in Speech Recognition lessons
9) good use of repeat button
10) good use of voice record compared to the number of sentences heard
11) good Mastery Test score(s)
12) good success with speech recognition accuracy
13) studied more than 50 days total Study Score $=9$
chiZ12 $($ Time $=21: 52)$ NDE
14) not listening to student's recorded voice enough in Speech Recognition lessons
15) too little time on presentation lessons
16) good use of voice record compared to the number of sentences heard
17) good success with speech recognition accuracy
Study Score = 1
chiZ13 (Time = 99:52) NDE
18) not listening to student's recorded voice enough in Speech Recognition lessons
19) good use of repeat button
20) good use of voice record compared to the number of sentences heard
21) studied more than 50 days total Study Score = 5
turZ14 (Time $=37: 14)$ NDE
22) too much text button compared to repeat button
23) not using voice record enough compared to the number of sentences heard
24) not repeating sentences enough compared to the number of sentences heard
25) not listening to student's recorded voice enough in Speech Recognition lessons
26) too little time on presentation lessons
27) too much use of translation
28) not repeating sentences enough after using voice record
29) poor comprehension scores

Study Score $=-14$
bosZ15 (Time = 31:02) NDE

1) not listening to student's recorded voice enough in Speech Recognition lessons
2) good use of repeat button
3) good use of voice record compared to the number of sentences heard
4) good Mastery Test score(s)
5) good success with speech recognition accuracy Study Score = 7
chi Z16 (Time = 102:20) NDE
6) too much text button compared to repeat button

2 ) not using voice record enough compared to the number of sentences heard
3) not repeating sentences enough compared to the number of sentences heard
4) not listening to student's recorded voice enough in Speech Recognition lessons
5) not listening to student's recorded voice enough after recording sentences
6) good Mastery Test score(s)
7) studied more than 50 days total

Study Score = -4

