

Brief Introduction to Using Assistments

URL: www.assistments.org

I. Overview

With its emphasis on high stakes testing upheld by the No Child Left Behind Act, the standards based education movement promises to encourage rigor in our nation's public school education. Nevertheless, this movement will ultimately only be successful at meeting the needs of students if the specific knowledge gaps that prevent students from achieving the standard are detected and addressed in a timely manner. Assuring that this is taking place adequately requires accountability at multiple levels and communication between levels, from students to teachers to parents and administrators. Yearly testing and reporting does not afford teachers the depth of insight required to use their instructional time most strategically to meet yearly progress goals to the fullest extent. Parents are not provided with a concrete picture of how they can do their part to support their children's preparation process. Administrators do not have a simple way of keeping a close eye on the academic health of the classrooms within their circle of responsibility.

What is needed is an efficient means of continuous but unobtrusive monitoring of student progress, consolidation of data, effective reporting, and instruction guided by strategic assessment data. However, teachers face a fundamental dilemma in trying to use assessment to guide instruction: assessment takes time away from instruction and teachers cannot be sure the time spent assessing will improve instruction enough to justify the cost of lost instructional time. Furthermore, our previous research demonstrates that instructors are often overly confident about their intuition about specific needs of students and could benefit from more accurate data (Koedinger & Nathan, 2004; Nathan & Koedinger, 2000)¹. One purpose of Assistments is to ameliorate these "expert blind spots," better equipping teachers to address the real needs of their students.

We are addressing this dilemma by building and experimentally evaluating the effectiveness of a web-based "Assistment" system for middle school math in Massachusetts. On-line testing systems that grade students and provide reports reduce the demands on the teacher. However, they do not fundamentally address the assessment dilemma. In contrast to previous approaches, the Assistment system aims to 1) quickly predict student scores on standards-based tests, 2) provide timely feedback to teachers about how they can specifically adapt their instruction to address student knowledge gaps (while similarly providing reports to parents and administrators), and 3) provide an opportunity for students to get intelligent tutoring assistance as assessment data is being collected. Assistments provide more focused instruction than the feedback that is typically given by on-line multiple-choice systems.

You can view some promotional videos of the Assistments system at <http://www.assistment.org/project/about.jsp>.

¹ Koedinger, K. R. & Nathan, M. J. (2004). The real story behind story problems: Effects of representations on quantitative reasoning. *The Journal of the Learning Sciences*, 13(2).

Nathan, M. J. & Koedinger, K. R. (2000). Moving beyond teachers' intuitive beliefs about algebra learning. *Mathematics Teacher*, 93, 218-223.

II. Logging in for Teacher and Student activity

The URL for both the teacher and student logins is <http://www.assistments.org>. See Figure 1 for an image of the login screen.

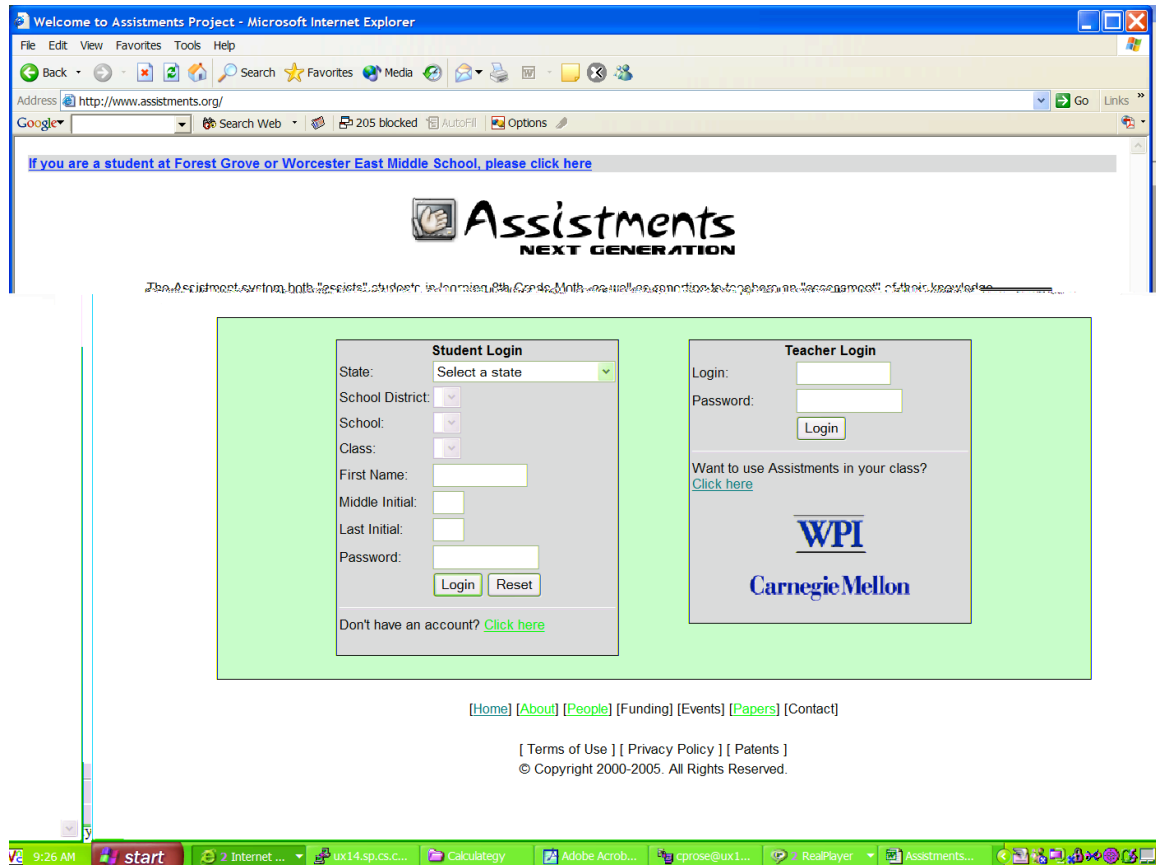


Figure 1 Assistments login screen for teacher and student accounts at www.assistments.org.

II.A Setting up a teacher account

In order to use Assistments in your class, you will need to set up an account for you and for each of your students. Student accounts are organized into clusters based on which class the students are in. The first step is to set up an account for yourself. You will do this by going to the teacher login area on the right-hand side of the login screen. Click on the “Click Here” link under “Want to use Assistments in your class?”

Fill in the teacher account form by following these instructions:

- a. Enter your name in the Teacher Name field.
- b. Enter your email address in the E-mail Address field. This will be your teacher login name.

- c. Enter a password into the **Desired Password** field. Please select something memorable. Repeat this password in the **Repeat Password** field.
- d. Now you need to add an account for each of your classes of students using the **Class Name** field. You will need one **Class Name** field per class of students that you have. If you have more than one class, you need to click on the “**Add another class**” link for the number of classes you have (minus 1), to add extra **Class Name** fields to the Teacher Account Creation screen. You can distinguish them by class period such as “**Period 1**”, “**Period 5**”, etc. Or you can use a different naming convention, such as “**Advanced**” and “**Remedial**”.
- e. You can skip the **Activation Code** field.
- f. Now select the name of your state from the pull-down menu labeled “**State**”.
- g. Now select the name of your city or town from the pull-down menu labeled “**Town**”. If the name of your city or town is not listed

- f. Don't forget to click on the Register Account link to complete the process!
- g. You will automatically be logged in as the student who's account you just created. To get out of the account in order to add the next student account, click on the Logout button on the top, right hand portion of the screen.

II.C Logging in and using your accounts

Once accounts are created, logging in to Assisments either as a teacher or as a student is simple. As before, go to <http://www.assisments.org>.

To log in as a student, use the student login area on the left-hand side of the screen. Select the appropriate option from the pull-down menus provided in the order in which they are presented. Once you log in, click on the "Start Work" link where it says you have an assignment for your class period. You will then be presented with a series of Assisments problems to work through.

To log in as a Teacher, use the teacher login area on the right-hand side of the screen. Your login name is your email address, and the password is the one you entered when you created your teacher account. Once you are logged in, you may view a report for your students by clicking on the GradeBook link under Reports on the upper left-hand corner of the teacher work area screen. You may select an individual class period or All using the Class field. Click on the Get Report button to retrieve the report. Do not be alarmed if it takes a few moments.

Using this report, you can observe how much time your students have spent working with the system, how many problems they completed, how many were correct and how many hints were required on average to complete a problem. You can also get some information about what skills each student is struggling most with. Currently this information is reported in terms of Massachusetts state standards.