



National Reporting System

A Project of the U.S. Department of Education

NRS Issues Related to Distance Learning: Summary and Recommendations

Distance education is a formal learning activity where instructors and students are separated by space, time or both. Learning materials for distance learners can be packaged in a variety of media including print, audio- and videotape, computer software, web-based programs and other online technology. Teachers support distance learners through communication by e-mail, telephone, online communication media or the mail. With recent advances in the Internet and other technology, distance education has grown in popularity, including in adult basic education (ABE). The Office of Vocational and Adult Education (OVAE) supports distance education in many ways, including through Project IDEAL, a consortium of states working to develop and implement distance education programs for ABE and ESL.

Distance education raises three policy issues related to the accountability requirements of the National Reporting System (NRS):

- 1. Attendance and contact hours of students enrolled in distance education classes.** When students and teacher are not together and there is no classroom, student attendance and time working on instructional activities cannot be measured directly. Students work at their own pace and take different amounts of time to complete activities. In traditional classes, students' seat time and contact with teachers and staff is directly measured. From the NRS perspective, the difficulty in measuring attendance and contact hours raises issues for assessment and reporting, including how to count the first 12 hours of attendance to meet the 12-hour rule, how to determine when to posttest students and how to report total contact hours.
- 2. Assessment.** NRS requires programs to posttest students after a state determined number of contact hours or calendar time. The time for posttesting must conform to test publishers' guidelines for the assessment used. The difficulty in determining contact hours causes a related difficulty in determining when to posttest. Another issue regarding assessment of distance education students is whether to require administration of pre- and posttests to students in a center or other location requiring face-to-face contact.
- 3. Reporting of attendance and educational functioning levels of distance learners.** Due to the differences in measurement of attendance and assessment for distance education students, data on contact hours and educational gain

reported in NRS Table 4 are qualitatively different than data from students in a traditional classroom setting. Mixing the two types of data may affect the meaning of Table 4 and national data.

This paper presents a review of the issues in each of the three areas. The NRS Technical Working Group (TWG) discussed these topics at its annual meeting in February and this paper also summarizes the TWG discussion and presents OVAE's recommendation for NRS policy. The discussions and recommendations also considered the work done on these topics through Project IDEAL.

1. Attendance and Contact Hours

In the traditional class setting, students accrue contact hours through time in class, time in other instructional settings (e.g., computer lab, tutoring), orientation, assessment and goal setting activities. Program staff can readily record and report this time. In distance education, some activities may occur at a center (e.g., intake, orientation) but distance learners' time working on other instructional activities is not observable and must be reported by the student or estimated because media used in distance education does not allow direct measurement of time on task. States working on this issue under Project IDEAL did not feel self-report of study time was valid or appropriate. Instead, they identified and tested three models for establishing proxy contact hours for distance learners.

- **Clock Time Model** assigns credit hours based on the elapsed time that a learner is connected to, or engaged in, an online or stand alone software program that tracks time.
- **Teacher Judgment Model** assigns a fixed number of hours of credit for each assignment based on teacher determination of the extent to which a learner engaged in, or completed, the assignment.
- **Learner Mastery Model** assigns a fixed number of hours of credit based on the learner passing a test on the content of each lesson. Learners work with the curriculum and materials and when they feel they have mastered the material, take a test. A high percentage of correct answers (typically 70%-80%) earns the credit hours attached to the material.

How and whether a model can be used depends on the curriculum. The clock time model only works for self-contained, computer assisted instructional programs such as PLATO and *SkillsTutor*, which can record the time learners are logged into, or engaged in activities of, the program and disconnect after a short period of inactivity. The Judgment and Mastery models require teachers or other staff with knowledge of the curriculum to estimate the average time it takes to complete lessons and assignments. Because they are dependent on teacher judgment and the type of students served, the estimates may vary across states according to the type of curriculum.

Options Discussed by NRS Technical Work Group (TWG)

The NRS TWG members agreed on the need to standardize the measurement of contact hours with these models. Without standardization there would be too much variability both within and across states, even for the same curriculum. The TWG discussed two ways to achieve standardization, either by setting national standards for credit hours or requiring states to set their own standards.

National standards have the advantage of making data comparable across states and the resulting uniformity would help resolve assessment and reporting issues. However, to determine credit hour standards and to standardize procedures, OVAE would have to conduct a national study to collect data from learners or states for each type of curriculum used. Based on these data OVAE would have to require one of the contact hour models for each type of curriculum used and set the appropriate time estimates. Once determined, OVAE would have to require states to use the national credit hours standards for each type of curriculum. The work required to do a study to set national standards and the uncertainty about the acceptance of these standards by states makes this approach unrealistic.

A second option discussed was to allow states providing distance education to set their own statewide policy, much as states set their assessment policy. A distance education policy would specify the curricula that will be used within the state for distance education, the model (one of the models identified above) they will apply for each type of curriculum and the number of proxy contact hours that programs can apply to lessons or activities. Every state would make this determination of hours to instructional activities individually, using one of the three models.

Policy Recommendation

OVAE will allow, but not require, states to develop proxy contact hours using the appropriate model. States choosing to develop proxy hours will establish a distance education policy that identifies the curricula local programs will use for distance education, the proxy contact hour model to be used for each type of curriculum and the proxy contact hours for activities within each type of curriculum. States may report these proxy contact hours to the NRS and will be responsible for local program implementation.

OVAE will revise the Data Quality Checklist to collect this information from states.

Counting Students for the "12 Hour Rule"

To count a student for federal reporting, students must have a minimum of 12 contact hours. The TWG discussed how to count the 12 hours for students in distance education. The options considered were whether the 12 hours should be through direct contact with staff, as with other ABE students, or whether local programs could apply proxy hours developed for some or all of the hours, using one of the models discussed above. On this

issue, there was general agreement that direct contact of students should be required. The consensus of the TWG was that students should meet the teacher and appropriate staff in person to verify identity and for essential program services such as orientation, goal setting and assessment, which can count toward the 12 hours. However, there was also recognition that some types of student-teacher interaction mediated through technology could also be counted as direct contact. For example, telephone, e-mail video, teleconferencing and online communication allows teachers to interact with students and verify identity. Student participation in online virtual classes also can be considered contact. OVAE agreed that this type of contact can also be counted as direct contact for distance learners and applied toward the 12 hour minimum.

Policy Recommendation

Students in distance education must have at least 12 hours of contact with the program before they can be counted for federal reporting purposes. Contact hours for distance learners can be a combination of direct contact and contact through telephone, video, teleconference or online communication, where student and program staff can interact and through which learner identity is verifiable.

2. Assessment

The two main issues the NRS TWG discussed related to assessment were when to administer the posttest and how to administer the pre- and posttests for NRS purposes (in-person or via distance methods).

Posttesting Time

NRS Guidelines require states to have an approved assessment policy that specifies when students should be posttested. This time must be set by contact hours or calendar time and conform to publisher's guidelines for the assessment. For posttesting distance education students, states will have to use one of the models for developing proxy credit hours presented above or set the posttest assessment time based on weeks or months of enrollment. The NRS TWG members discussed the importance of basing posttesting time on the learner's amount of study or instruction and did not think the latter option of basing posttest time solely on the length of enrollment was acceptable. The TWG agreed that once the state has established a distance learning policy that identifies curricula and technologies, the proxy contact hour model it will use and proxy hours for activities within the curricula, posttest times can be set based on the proxy estimates.

It was also noted during the discussion that test psychometrics, including the amount of instruction estimated to be needed before posttesting, are based on classroom instruction using direct contact hours. However, the Judgment and Mastery Models produce proxy measures of contact hours. Whether this matters in the measurement of learning gains with assessments is not known.

Administration of Pre- and Posttests

The issue with test administration was whether learners must appear at a testing center to take pre- and posttests or whether they could take these assessments online, on their own or at some other location. While acknowledging the difficulty of arranging testing times and having students travel sometimes long distances to a center, the NRS TWG noted that there are serious test security and validity concerns related to administering tests over the Internet or in unsecured locations. Further there are no electronic versions of the TABE, BEST Plus or CASAS that programs could administer online. Therefore it was deemed necessary for learners to appear in person at sites for both pre- and posttesting. It is also important that programs verify students' identity for assessment. These procedures require the student to appear at a program site in person.

Policy Recommendation

States providing distance education that choose to develop proxy contact hours must identify the curriculum local programs will use in providing distance education and a proxy contact hour model for each type of curriculum that will be used to estimate posttesting time. States electing not to develop proxy contact hours for distance learners must identify how distance education programs will determine the appropriate time to posttest students. The time set for posttesting distance learning students should be the same as posttesting time for other students. Distance education students must take all pre- and posttests in person at a proctored program site within the state that meets NRS assessment policy.

The state must revise its NRS assessment policy to include this information on assessment of students in distance education programs, including how it determined the appropriate time for posttesting students.

3. Reporting

Proxy contact hours collected on distance learners are qualitatively different from the hours collected on other learners because of the use of the proxy models. For students in traditional classes, contact hours are a direct measure of actual time they spend in class and participating in other program-related services. In states that choose to use proxy contact hours, programs will develop proxy contact hours of distance education students based on judgments of how long it takes students on average to complete activities or master content, not the actual time spent in class. The use of proxy hours creates differences in evaluating educational gains for distance education learners, whose posttesting time is set according to actual contact with teachers and staff.

Distance education students need to be counted and their NRS-related outcomes reported, but these differences suggest the need for separate reporting of these students or for some way to disaggregate their data out of the national totals. OVAE and the NRS TWG considered several options for reporting on these students.

Options Discussed by NRS TWG

NRS Table 4 reports on the total number of learners in adult education, contact hours and level advancements and completions for all learners. When distance education learners are included in Table 4, the meaning of contact hour data is compromised when some contact hour data will be proxy hours and each state will contribute different hours based on different criteria. This unreliability also affects the meaning of level completion for distance learners compared to other types of learners.

However, pulling distance education learners out of Table 4 will have a negative impact on national student totals, contact hours and performance measures. Table 4 will underestimate the number of students receiving adult education instruction and the amount of instruction given. Several TWG members also noted that some states can only collect data that are federally required and would not be able to count distance education students if they were excluded from Table 4. In the opinion of other TWG members, Table 4 is the most important table in the NRS and if data are not in it, they are not considered important and consequently, distance learning would not be valued. Others noted that changing the requirements for reporting to Table 4 would confuse some local staff. This discussion led to consideration of other options for reporting.

- *Develop a new, required table for reporting on distance learners.* This table would be identical to Table 4. States would complete Table 4 for all learners and the separate new table for only distance education learners. This is the same approach as used for reporting only students who are pre- and posttested in Table 4B. The advantage is that the separate data in this table can be subtracted from Table 4 to allow a comparison of distance learner data with other student data. Alternatively, states could report only traditional classroom learners in Table 4 and distance education learners in the new optional table. The two tables could be added to get totals.
- *Report in Table 4 only direct contact hours.* States would report data on students in distance education but only direct contact hours. Proxy hours developed by the models would *not* be reported. This option allows reporting of all students in Table 4 but does not compromise the attendance hour data. The disadvantage is there would be no information on full participation of distance learning students and the number of contact hours would be underreported.

The NRS TWG also briefly discussed other reporting options, including counting distance education learners in Table 6 and using a table format like Table 10, which reports on students in correctional education. There was little support for either of these options. There also was little support for leaving distance learners out of Table 4.

Policy Recommendation

States will continue to report all students (including distance learners and direct and proxy contact hours) in Table 4. States must also separately report the same data on

students enrolled in distance education in another table, identical to Table 4. OVAE will generate through its electronic reporting system a third table identical to Table 4 that will report on all students in traditional (non-distance education) classes.

Summary

OVAE will develop NRS policy for distance education that requires the following.

- To be counted for federal reporting, distance education students must receive at least 12 contact hours of service. Direct contact hours for distance learners can be accrued through a combination of direct contact and contact through telephone, video, teleconference or online communication where student and program staff can interact and through which learner identity is verifiable.
- State reporting to the NRS of proxy contact hours of students participating in distance education services is optional, not required. However, states providing distance education that want to measure and report proxy contact hours for these students to the NRS must develop a policy that describes the following:
 - The curricula that local programs will use in providing distance education;
 - The model that will be used to develop proxy contact hours for each type of curriculum;
 - The proxy contact hours developed for completing activities for each type of curriculum used (teacher judgment model) or the proxy hours developed for completion of units of material comprising the curriculum (learner mastery model). The state may use the clock time model with curricula or media that track time students spend interacting with instructional material and disconnect after a preset period of inactivity; and
 - Describe the procedures the state used to develop the proxy contact hours.

OVAE will revise the data Quality Checklist to collect this information from states.

- Students in distance education should be posttested after the same amount of instructional time as other students, as described in the state's approved NRS assessment policy. Local programs may use proxy contact hours to measure the posttest time for distance education students. States that elect not to collect and report proxy contact hours must describe how the appropriate time for posttesting will be determined. The state will describe the procedures for posttesting distance education students in its state assessment policy.

- Distance education students must take all pre- and posttests in person, at a proctored program site within the state that meets NRS assessment policy.
- States will report on distance education students with all other adult education students in Table 4, as currently required.
- States must also report the same data on students enrolled in distance education separately, in another required table identical to Table 4. OVAE will generate through its electronic reporting system a third table identical to Table 4 that will report on all students in traditional (non-distance education) classes.

Draft policy guidance for distance education, based on these policy recommendations, is under development for consideration and discussion.