MEMORANDUM

TO: Project Managers
   “Teachers for a New Era” institutions

FROM: Daniel Fallon

DATE: November 13, 2003

SUBJECT: The urgent importance of evidence of pupil learning

At this early stage of implementation of design strategies for an improved way of delivering teacher education it is vital that we focus on evidence. Because it is critical to the success of the initiative we are jointly undertaking, I am writing now to clarify expectations about the actions expected of your institution with respect to the importance of evidence. This letter summarizes the position of Teachers for a New Era about evidence and then presents ideas for addressing our central challenge in two areas: (1) evidence of pupil learning for evaluating the quality of your program of teacher education; and (2) evidence of pupil learning for informing the design of your program of teacher education. Although many of the TNE teams are making progress in addressing these questions, all should be assigning them an immediate high priority. Some strategies for getting started are suggested in the discussion, and specific timelines are provided in conclusion.

General Considerations of Evidence in Teacher Education

Of the three general design principles described in the prospectus for Teachers for a New Era, “Decisions Driven by Evidence” provides the foundation on which the rest of the challenge is built. Two ideas are specifically discussed there. “Drawing upon research” suggests ways in which credible evidence can become a touchstone for consideration of all elements of a teacher education program. “The role of pupil learning” asserts a bedrock principle for teacher education: that high quality teaching can best be made visible by demonstrable growth in pupil learning. The prospectus asserts that an essential criterion for measuring success as a teacher “must be evidence for learning accomplished by pupils entrusted to the care of the teacher.”

Effective teaching implies that a pupil acquires knowledge over time from a teacher. To estimate what has been acquired we need a first or baseline assessment of what the pupil knows upon initially encountering the teacher, and a second assessment following a period of teaching. The difference between the two assessments is a measure of student learning growth, the knowledge acquired during the period of teaching. The research community is
increasingly moving towards this kind of longitudinal assessment of knowledge growth within individual pupils as a means of evaluating teaching effectiveness. Called “value-added” assessment, *Teachers for a New Era* stresses its persuasiveness, as contrasted with one-time cross-sectional measures. In a value-added paradigm you seek the kind of measure of pupil performance that can be reliably obtained when the teacher first receives the pupil (e.g., in September), and that can be readily compared with the same measure of pupil performance at the end of an instructional period (e.g., in December or May). The difference between these two measures is taken as pupil learning, and a significant portion of that growth is assumed to be the “value” added to pupil performance by the teacher during the instructional period.

If some teachers are identified who consistently in various circumstances and through multiple instructional periods present high pupil learning growth in all or most of their pupils, it would be reasonable for an observer to say that the evidence demonstrates that these are high-quality teachers. The next step is to seek the specific practices in the classrooms of these teachers that are most responsible for generating the pupil learning growth. Such systematic investigation with practicing teachers can generate a body of evidence that leads functionally to improvements in a teacher education program.

Evidence of Pupil Learning for Evaluating a Program of Teacher Education

The prospectus for *Teachers for a New Era* acknowledges the difficulty of structuring a teacher education program such that its effectiveness will be measured by evidence of pupil learning that has occurred with teachers who are graduates of the program. *Teachers for a New Era* does not specify measures to be used, nor research designs, nor theoretical models. Instead, the emphasis is on evidence, and demonstrable pupil learning growth is cited as the kind of evidence that most observers would find especially compelling as an indicator of quality of teaching. Everything else is open. In the current atmosphere of external accountability, standardized tests are likely to be a fact of life in most schools, and they may be efficient indicators. Other measures are possible, however, including dossiers presenting the quality of the work of individual students. Whatever method is used must be consistent, meet basic canons of scientific practice, especially reliability and validity, and be useful in your local culture. In most cases, therefore, the measures will be particularly convincing if they are expressed in ways that relate clearly to the standards imposed by the local school district, or the state or federal government. This suggests that measures coordinated with local testing will play some part in the value-added assessment strategy you devise.

In principle it should be possible to determine over time whether the graduates of a given teacher education program are likely to be associated with strong pupil learning gains, and even which elements of the teacher education program might be most responsible for contributing to teacher effectiveness. There are many hazards we can anticipate in trying to arrive at this goal. For example, there have been multiple reports in the literature suggesting that effective teaching requires several years of continuous teaching before it manifests itself clearly and reliably. Furthermore, the techniques we devise may be different for the teaching
of students in elementary grades as contrasted with, say, high school students. Different subject matter domains may require different assessment strategies. Given the challenges of such a project, it is essential to begin working on it immediately, but reasonable to think of ultimate success, in the sense of measuring effectiveness of program by pupil learning, as a longer-term goal.

Evidence of Pupil Learning for Informing the Design of a Program of Teacher Education

Another way of conceptualizing the role of pupil learning is to place it more generally in the context of evidence. To use a technical vocabulary, one would say that pupil learning is the key dependent variable for measuring the effectiveness of teaching. A scientist viewing this framework in an experimental setting might then characterize as independent variables any specific behaviors or techniques that could influence pupil learning. To begin to apply this way of thinking to a currently functioning teacher education program, a straightforward step would be to identify several teachers who would be willing to share with the program the achievement gains of their pupils along with their own lesson plans and techniques.

If you could develop a working relationship with a broadly representative group of teachers, you could begin to collect data that you could use to inform the design of your teacher education program. Since the emphasis in this approach is in using experienced clinicians as informants (as contrasted with evaluating the success of your own graduates), you can actually begin to develop such a system immediately, i.e., it becomes not a longer-term goal, but a short-term one. By beginning in this manner to gather empirical evidence, a teacher education program can get a head start on developing the kinds of value-added measures that researchers, teachers in classrooms, and teacher educators find authentic, reliable, and valid. Since the process of identifying, gathering, and evaluating evidence will probably require some trial and error initially, you gain advantage by starting immediately with a relatively small group of volunteers. Thus, you build and refine a system of evidence built from value-added measures of pupil learning even as you move forward with the other activities developed in your work plans for Teachers for a New Era.

Summary and Conclusion

In summary, there are two kinds of activities using measures of pupil learning that TNE institutions should be developing immediately within the design principle labeled “Decisions Driven by Evidence.” One is designing and implementing a framework that will lead ultimately to evaluating the performance of teachers who are graduates of the program by assessing the degree of pupil learning growth that is accomplished by the pupils they teach. The other is developing a group of practicing teachers (who may or may not be graduates of the program) who agree to serve as informants to the program by sharing pupil learning growth data of their pupils along with information about the practices employed in their classrooms.
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September 22, 2004
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The first set of activities has intermediate and long-term goals whose realization requires that you begin developing this framework early in the life of your TNE project. As you work out all of the logistics, theoretical and methodological issues related to this longer-term objective, the second set of activities can be helpful by permitting early experimentation and pilot work with selected measures. In either case, the cohort of teachers who will be cooperating researchers can be reasonably small. It is not necessary, for example, to measure the performance of every graduate of the program, since your purpose in this case is evaluation of the program rather than the specific teachers. Thus, a stratified random sample of graduates should suffice. Similarly, a reasonable sample of experienced teachers can serve the function of providing information to the program identifying teacher quality and its specific components.

There is a public policy dimension to Teachers for a New Era in so far as evidence collected for your program demonstrates that teacher quality is reliably increased by the interventions you’ve designed. If this initiative fails to produce evidence for higher teacher quality, we and the nation will have missed an historic opportunity to increase public confidence in teacher education and in colleges and universities. The stakes are high. To meet this worthy challenge, difficult issues must be addressed forthrightly and from the outset.

The four institutions first receiving funds in 2002-2003 will be expected to administer their first round of pupil assessments no later than Fall 2004, and to report preliminary empirical findings in the request for renewal funding due in Spring 2005. The seven institutions first receiving funds in 2003-2004 will be expected to administer their first round of pupil assessments no later than Fall 2005 and similarly report preliminary empirical findings the following spring. The technical assistance team from the Academy for Educational Development is prepared to provide you with advice and counsel as you develop your strategies and to work with you to plan a schedule for implementation.

Cc: Provost or Chief Academic Officer