



VI. Selected Issues Raised by the *Review* and Conclusion

The *Teacher Prep Review* is a groundbreaking effort. On a massive scale never before undertaken for any field in higher education, we seek to identify components of teacher education that should be common to programs without regard to a program's location, size, affiliation or body of candidates, and to ascertain the degree to which each program provides these components.

Even a 1,000-page report would not be sufficient to explore all the potential implications of our findings, but here are a few important questions raised by the results that need to be addressed:

Why is elementary teacher preparation so weak compared to secondary teacher preparation?

Elementary programs continue to be far weaker than their secondary counterparts, with 1.7 times as many elementary programs as secondary programs found to be failing. The graphics below illustrate the differences in the distribution of raw scores of both elementary and secondary programs, with a larger proportion of elementary programs scoring 50 or less (on a 125-point scale) and a smaller proportion of elementary programs scoring 83 or more.

How big is the *Review*?

Number of institutions: **1,127**

Number of programs: **2,400**

Number of reading textbooks reviewed: **962**

Number of elementary mathematics textbooks reviewed: **19**

Number of student teacher evaluation instruments analyzed: **3,500**

Number of syllabi collected: **18,480**

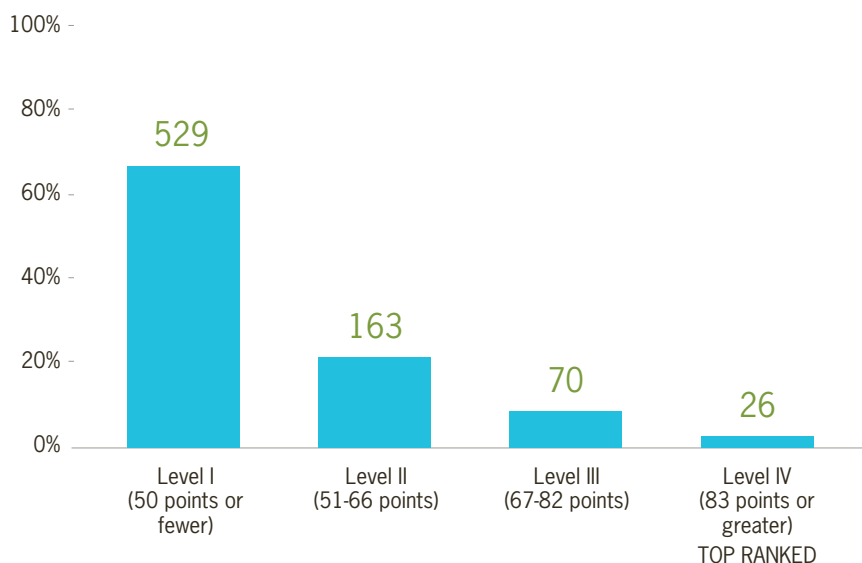
Number of ratings: **19,000**

Number of staff, analysts and expert reviewers: **88**

Average time it takes to rate a program on a single standard: **80 minutes**

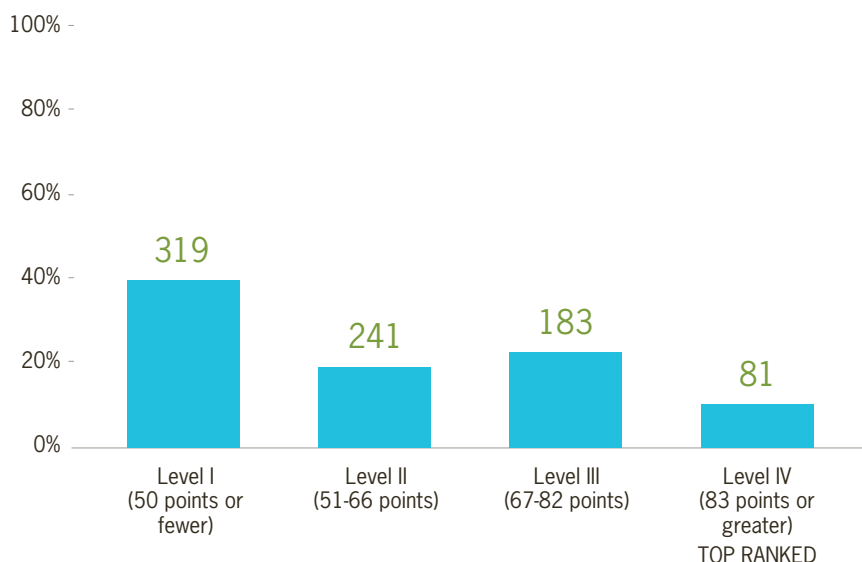
Average time it takes to rate an institution: **15-37 hours**

Fig. 44 Distribution of raw scores of elementary teacher preparation programs (N=788)



This graph displays the raw scores of the 788 ranked elementary programs in the Review. The highest score is 114 on a 125-point scale. The average score is 42. Sixty-seven percent of programs fall within Level I in terms of performance (≤ 50 on a 125-point scale).

Fig. 45 Distribution of raw scores of secondary teacher preparation programs (N=824)



This graph displays the raw scores of the 824 ranked secondary programs in the Review. The highest score is 121 on a 125-point scale. Secondary program performance is better than its elementary counterpart, but the largest group of programs is still only at Level I in terms of performance (≤ 50 on a 125-point scale).

The poorer performance of elementary programs speaks to both the specialized training elementary teachers need and its continuing neglect.

As we discuss in the findings for Standard 2: Early Reading (see page 36), the teacher education field continues to disregard scientifically based methods of reading instruction, the most critical component of elementary teacher preparation: coursework in just 17 percent of elementary and special education programs equips candidates to use all

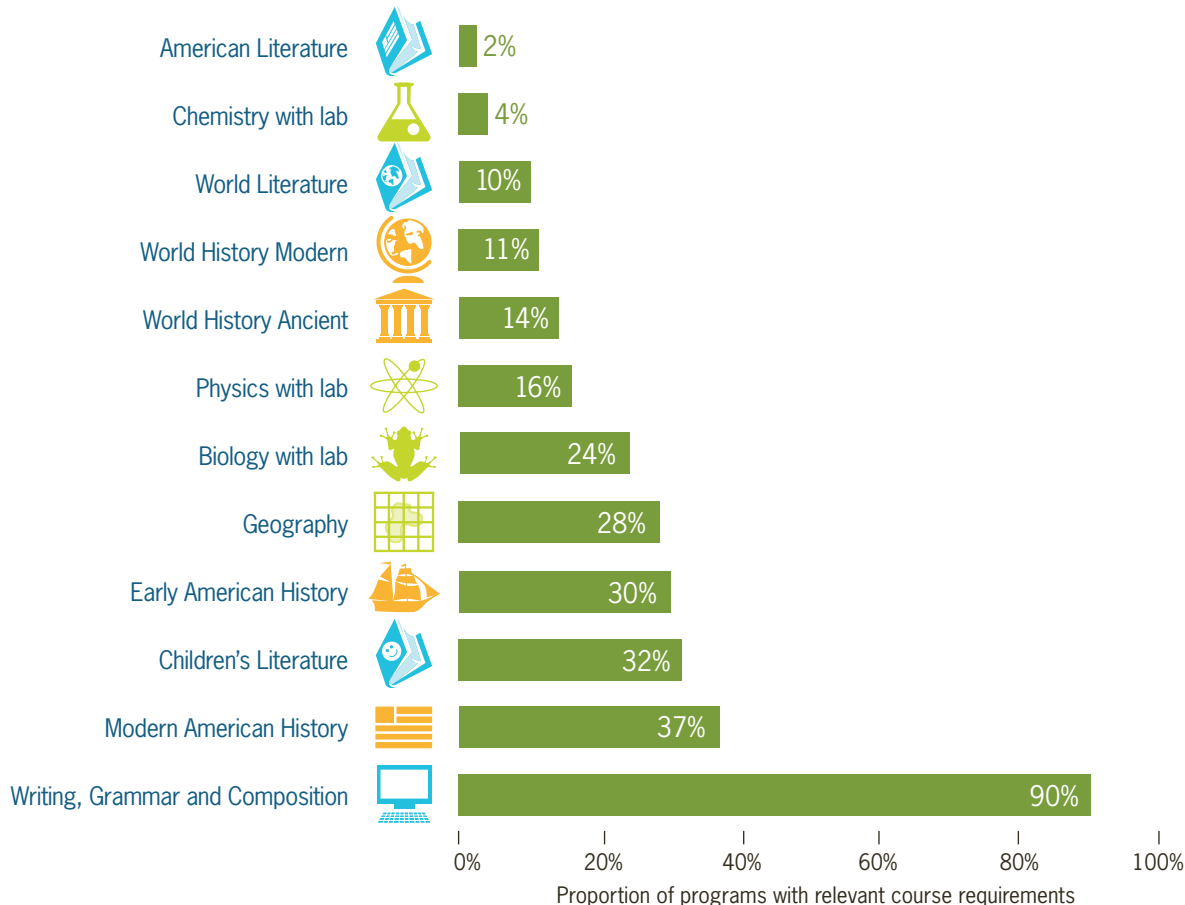


five fundamental components of reading instruction, helping to explain why such a large proportion of American school children (30 percent) never learn to read beyond a basic level.

The field also maintains a scattershot approach to STEM preparation of elementary teacher candidates. Looking across 907 undergraduate and graduate elementary programs, nearly half (47 percent) fail to ensure that teacher candidates are capable STEM instructors: these programs' requirements for candidates include little or no elementary math coursework and the programs also do not require that candidates take a single basic science course (with most giving candidates free rein to choose from a long list of narrowly focused or irrelevant electives).

In secondary preparation, only 10 percent and 20 percent, respectively, of the middle school and high school preparation programs we evaluated fail to ensure that candidates are prepared to teach every subject they could be certified to teach. In contrast, fully 72 percent of elementary preparation programs fail to require the coursework that would prepare teacher candidates for the core subjects of the elementary curriculum, creating what we have termed the “Capacity Gap.”

Fig. 46 Is Teacher Preparation “College and Career Ready”?
(N=885 undergraduate elementary programs)



New college and career ready student learning standards require broad content knowledge of elementary teachers. Yet few programs require teacher candidates to demonstrate upon admission (through either testing or coursework) that they will be able to meet these higher demands, something we term a very real and disturbing “Capacity Gap.”

It's no wonder that school district superintendents tell us that elementary teachers simply don't know the content they will be teaching.

Will teacher shortages be exacerbated by the changes in preparation advocated by NCTQ?

Teacher shortages certainly do exist in rural areas, urban areas, and for particular subjects such as special education, and secondary math and science. These shortages are chronic; they have existed for decades in spite of the fact that an enormous number of teacher preparation programs blanket the country and overall levels of enrollment in institutions are more than sufficient to fill all available teaching positions. If having well over 1,000 institutions generally overproducing teachers has not solved any shortage problem to date, we think that the problems and their solutions are simply divorced from the types of institutional changes we advocate to the extent that those changes may affect teacher production.

The solutions to chronic teacher shortages may come from greater use of distance learning, blended learning — or even boarding schools for the remote regions of states like Alaska. The solutions will not come from continuation of the status quo.

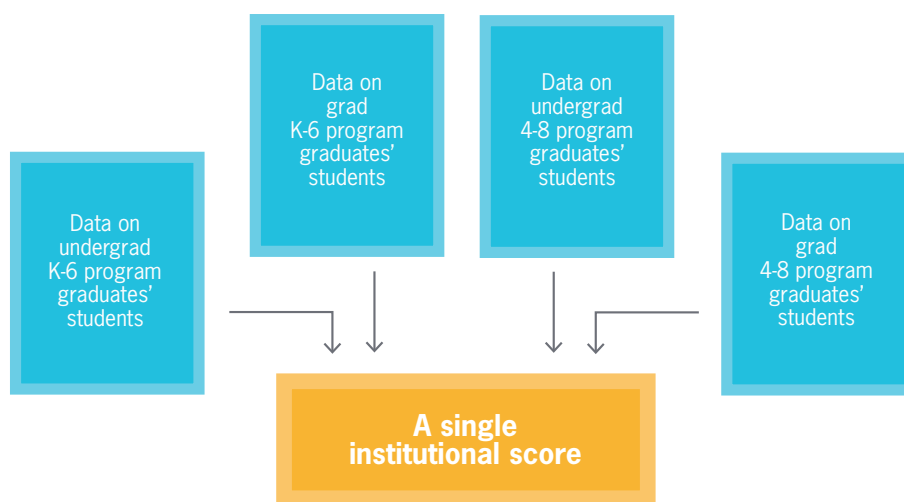
What is the relationship between NCTQ findings and states’ “value-added” models?

A number of states, including Tennessee, Louisiana, North Carolina and Ohio, have produced reports about the effectiveness of an institution’s teacher graduates, using so-called “value added modeling,” or VAM. There seems to be a correlation between NCTQ findings and VAM models for some institutions, such as **Lipscomb University** (TN) and **Louisiana State University**, but what about findings that seem not to correspond?

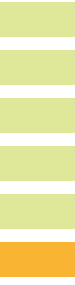
Two factors that may contribute to this lack of correspondence

First, NCTQ looks at individual teacher preparation *programs* (e.g., undergraduate elementary programs certifying teachers in grades K-6), which are usually just *one* of several programs for elementary and middle school teachers offered by an institution. In contrast, every state report except for North Carolina’s describes the effectiveness of all the graduates from an *institution* who teach in grades 4-8 (graduates from elementary and middle school programs, often including both undergraduate and graduate programs). The graphic below illustrates the approach taken by most states.

Fig. 47 States combine the outcomes of multiple programs to produce a single score.

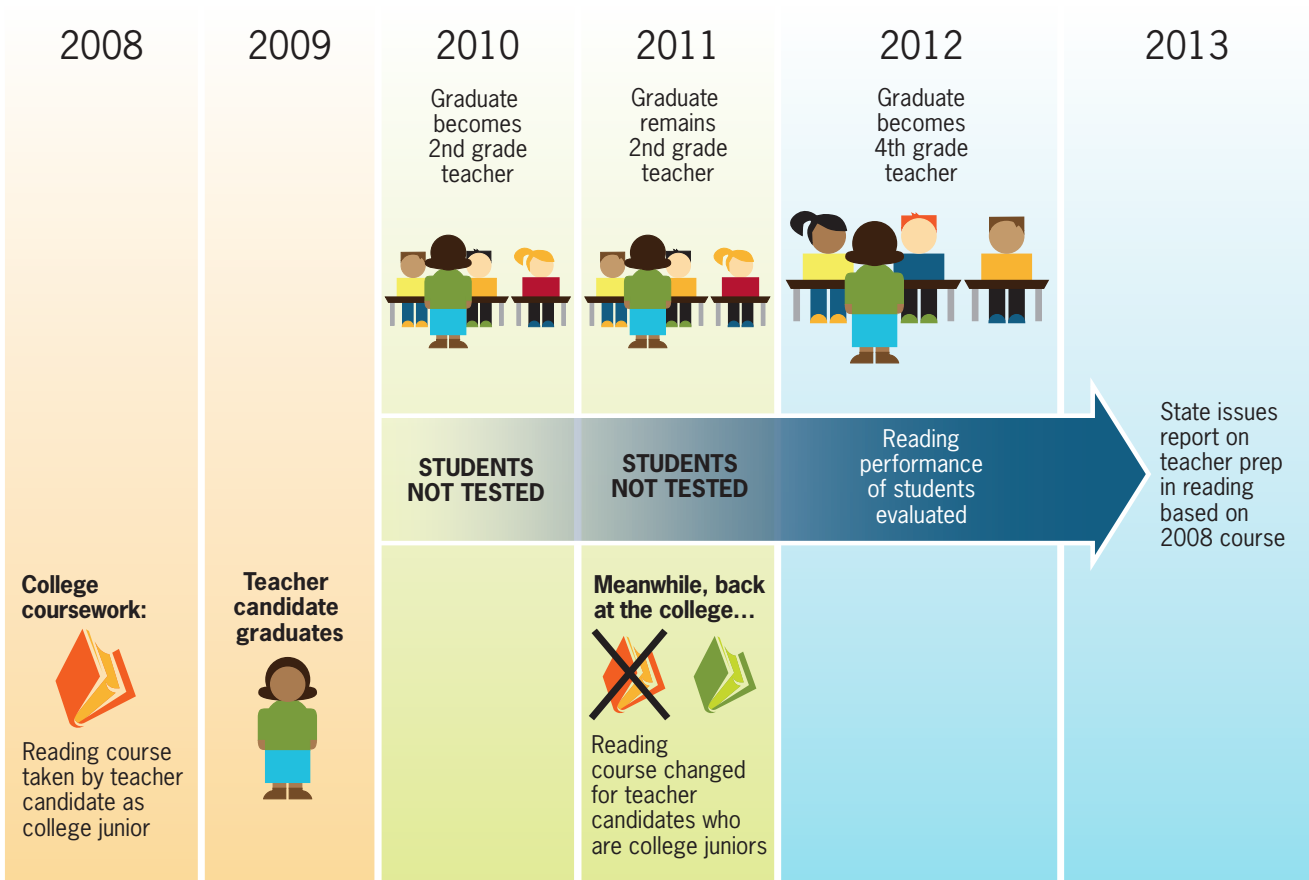


In contrast to state VAMs, NCTQ evaluates each program individually, as programs’ fundamental approaches to preparation even on the same campus can vary dramatically.



Second, NCTQ evaluates the *most current program* for which we have been able to obtain information. States, however, are evaluating the program that may have been delivered as many as five years earlier. There can be a considerable time lag between when a candidate receives training in a program and when the effect of this training on the quality of instruction is measured. The graphic below illustrates the potential impact of this time lag with a simplified example of reading preparation.

Fig. 48 State VAM results may be outdated



NCTQ's evaluation of the preparation provided by a college's 2011 reading course may differ from a state's VAM report based on the performance of graduates who took the college's 2008 reading course.

Acknowledging these differences does not negate the need for NCTQ to conduct more research linking program practices and teacher effectiveness, providing at least more guidance on how to properly weight scores on each standard when computing programs' overall rankings. To that end, we are making our dataset available for a North Carolina study designed to shed light on the relationship between scores on our standards and teacher effectiveness. Because North Carolina teacher effectiveness data are tagged for specific preparation programs (unlike data used in any other state), and because the study will adjust the collection of data to account for the potential time lags noted above, this study may provide meaningful insights into the relationship between NCTQ evaluations and outcomes data.

For a more extensive discussion of the state data models that generate reports on the effectiveness of institutions' teacher graduates, see our report, [Teacher preparation program student performance data models: Six core design principles](#).

Why do graduate programs perform particularly poorly?

We find a large disparity in program rankings for undergraduate and graduate programs, especially at the elementary level. In fact, except for the area of student teaching, graduate programs are consistently weaker than undergraduate programs, particularly in elementary math.⁵⁹ Graduate preparation is clearly inferior, not because of the quality of instruction, but because it is generally only one to two years in length instead of two to three years like undergraduate programs.

Fig. 49 Average scores of undergraduate and graduate elementary programs on key standards

| Standard | Average score: undergrad elementary programs | Average score: grad elementary programs |
|---|--|---|
| Selection Criteria | 2.2 | 1.2 |
| Early Reading | 1.8 | 1.3 |
| Elementary Math | 1.3 | 0.1 |
| Elementary Content | 1.0 | 0.9 |
| Student Teaching | 0.9 | 1.0 |
| Combined: Total unweighted average | 1.6/4 | 0.9/4 |

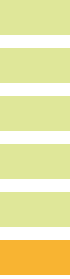
Scores are presented on a 0-4 scale, with 0 being the lowest score and 4 the highest.

Why is there a dearth of highly ranked traditional preparation programs in California?

California’s unique approach to certification — primarily through year-long postbaccalaureate (“postbac”) programs — has had a deleterious impact on training the state’s elementary teachers. With about one-half of the one-year postbac program devoted to student teaching, it is virtually impossible to provide enough time for elementary teachers to get the preparation they need in reading instruction, specialized elementary math coursework and other topics likely to be offered only in a school of education.

California’s 1970 law prohibiting undergraduate education majors encouraged something of a “race to the bottom” in elementary teacher preparation in the state, with institutions feeling that they would lose market share if they did not offer the postbac degrees allowed by the law. Fortunately, California has now passed legislation enabling more programs to expand from one year to two.⁶⁰

Although postbac programs may be viable for secondary preparation, the results of California’s experiment should give pause to those who believe that abolishing the undergraduate education degree is the key to reforming teacher preparation.⁶¹



A future for alternative certification?

We have not analyzed all facets of alternative certification programs and concede that some of the talented individuals they are designed to attract will succeed in the classroom against all odds. Nonetheless, given the inadequacies of most alternative programs and the fact that those inadequacies match or exceed those of traditional programs, the picture of how *typical* alternative candidates fare in the classroom can hardly be better than that of their traditional program counterparts. In fact, when we broaden the scope of our evaluation to include elementary alternative certification programs, the results can only be worse than for secondary programs: No elementary candidates can arrive at the provider's doorstep well-versed in the reading and elementary math knowledge they surely need, and there is no fast track for equipping them with that knowledge before day one in the classroom.

Most of the secondary alternative certification programs we examined have low admissions requirements and often insufficient content preparation requirements that betray the founding principles of the movement that motivated their creation. On the basis of these findings from our evaluation of programs for secondary teachers, we conclude that alternative certification is an experiment that has for the most part not lived up to its potential.⁶²

In our view, the only reason not to pull the plug on the experiment of alternative certification is that traditional teacher preparation continues to have persistent flaws. Were traditional preparation to add the value that it should, teachers produced by alternate routes would never be competitive for jobs anywhere. As long as traditional teacher preparation continues to be so generally substandard, we recognize the need for, indeed the value of, limited, well-regulated alternative certification programs whose outcomes are monitored and made public. Alternative certification should never be given a free pass — and this report does not do so.

Conclusion

The education field is bloated, with no fewer than 1,450 colleges and universities (compared to only 189 in China, with four times our population) churning out twice as many elementary teachers as are needed. With professional accreditation shunned by half of institutions, the field operates with remarkably little self-governance. Although regulations and paperwork abound, they do not seem to be effective: In 2013, 50 institutions were threatened with probation by states if they did not make program improvements, a threat that is virtually meaningless both because of its scale and because it rarely comes to fruition. The field's own failings have made it seemingly answerable to everyone (we count ourselves among the guilty), but ultimately accountable to no one.

The irony behind all the fuss and fury over NCTQ's *Review* is that anyone who set about to apply a set of *objective* standards to assess the quality of teacher preparation, no matter from which perspective, might have turned up equally appalling results due to the incoherence of the field. It wouldn't matter if the "Not-NCTQ" assessment involved long, sustained visits to college campuses, surveys of graduates, or any one of a number of other sources of data we don't use. For example, if the Not-NCTQ group decided to assess programs on their adherence to a "whole language" approach to reading instruction, it would probably issue ratings as poor as ours, because there is no adherence to *any* approach to reading in teacher education: Most teacher candidates are taught that they need to develop their own unique approach to reading.

In fact, there is no area of teacher preparation in which a standard applied consistently will yield positive ratings unless it is so general as to be meaningless. In an area of preparation in which we estimate there are no fewer than seven common combinations of coursework,⁶³ any elementary math standard would have to be agnostic to almost every

feature of coursework endorsed by professional associations of math educators to produce rosy results when actually applied. Likewise, analysts using a standard for evaluating the feedback on classroom management that programs provide to student teachers could only produce positive results if it managed to divine the specifics of feedback provided by the blank sheets of paper or generic statements (e.g., “manages classroom well”) that a considerable number of programs use for some or all parts of their observation instruments.

Much of what NCTQ has learned about teacher preparation is captured by the approach taken to early reading instruction by the teacher education field. While reviewing 2,671 courses intended to provide elementary teachers with the foundational knowledge needed to teach reading, we purchased and had experts review nearly 1,000 required textbooks. The median number of courses in which any single textbook is used is two; the mode is one course. The most any of the books is used is in 8 percent of the courses, a far cry from the typical use of core seminal texts in the introductory coursework for other disciplines and professions. Worse still, the most used book, *Literacy in the 21st Century: A Balanced Approach* (Gail Tompkins) is classified as an “inadequate” representation of the scientific findings behind reading, for “failing to capture the genuine implications of systematic, explicit instruction as well as promoting unfounded decoding practices.”⁶⁴ The most frequently used textbook addressing all the material teacher candidates need to know with scientific accuracy is *Creating Literacy Instruction for All Students* by Thomas Gunning, and this book is used in only 4 percent of the courses.

There can be no justification for this lack of basic professional consensus and disregard for research, regardless of the opinion one holds of the *Teacher Prep Review*.

There is one possible exception to the chaos in teacher preparation, although some might view it as the cause of the chaos, not the exception to it. Much of teacher education shares a common vision for teacher preparation: to form the professional identities of teachers. The beauty of the teacher education field’s focus on professional identity formation is that it carries no risk of failure: Because there are no standards by which it can be judged, all manner of preparation can be tolerated. Since the goal is to have teacher candidates embark upon a lifelong journey of learning, as distinct from knowing, widely varying content is hardly relevant, as actual knowledge is perceived by teacher educators as too fluid to be mastered and may even harden into bias. Instead, the aim is for each candidate to develop his or her own unique philosophy of teaching.

Teacher educators’ conception of their mission is not known and certainly not shared by the general public (or even education policy makers). In contrast, NCTQ’s vision, one we believe is closer to that of the general public, policy makers and certainly that of PK-12 leaders, is that teacher education should train teacher candidates to enter a classroom on day one with some degree of competence in specific skills. That is not to say that teachers should be in any way robotic in their instruction. None would dispute that teacher candidates will need to embark on a lifelong journey of learning and be reflective practitioners. What we do dispute is that the field’s current “anything goes” approach to teacher preparation is the best foundation for a great profession. Instead, we argue that teacher candidates must solidly grasp content in the course of training and then learn how to convey that content to their students. To help achieve this goal they must be guided by instructors and practitioners with empathy, skill and wisdom borne of valid research and irreplaceable experience. Well-designed, coherent preparation is what new teachers need and deserve for their own sake and for the sake of the children entrusted to them.