Can Teacher Qualifying Exams Improve Education?

By Joseph Watras

Throughout the twentieth century, educators in the United States borrowed ideas and practices from business people. During the first third of the twentieth century, college professors tried to reform public schools by asking their students who were prospective administrators and teachers to apply to the schools the ways of thinking found within business organizations. Of course, the professors used political influence as well as moral suasion. When their former students occupied positions of authority, these professors served as their consultants to encourage school districts and state departments of education to change their policies and to adopt business practices (Tyack 1974, 126-146).

During the 1970s and 1980s, the direction of reform changed. Instead of college professors seeking to change schools, private businesses tried to improve the public schools and the teacher training institutions. Borrowing from the military and industry a

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method called job analysis, these firms constructed tests that the developers claimed would enable state departments of education to determine whether candidates for teaching had the necessary skills to help children master academic materials. Crafting the tests to fit legal requirements, the private consultants sought to have courts sanction their devices. Although the private consultants may have held university positions during their careers, they used their positions outside academia to force teacher training programs to teach the knowledge and skills found on the tests.

Despite the change in the stated aims of the innovations, advocates of business models in both eras justified their reforms by claiming they wanted to prevent the harm that might occur if inefficient or ineffective ways of teaching prevailed. They used the same methods of job analysis to define what should be taught and how instruction should proceed. Further, advocates in both eras narrowly defined education to the extent that they concerned themselves with minimum competencies and overlooked the need for students and teachers to develop wider social insights.

Job Analysis in the 1920s

In 1962, Raymond Callahan reviewed materials published between 1900 and 1930 to discover the social forces that shaped the administration of the public schools. In those works, Callahan found school administrators thinking of themselves as business managers or school executives rather than as scholars or educational philosophers. Callahan claimed that the school leaders adopted the values and practices of the newly rising corporations for two reasons. The ideology favoring efficiency among the workers was popular. School people could not resist public opinion because the pattern of local control denied them a basis from which they resist. To Callahan, the result was that educational questions were subordinated to business considerations as administrators ignored the need for scholarship and focused more on student rates of success and on the smooth operation of the organization (Callahan 1962, 1-2, 246-247).

Despite Callahan's argument, it is not clear that educators surrendered to the business model. The spokespeople for this movement claimed this way of thinking would improve schools. For example, in 1923, W.W. Charters explained why curriculum planners should use a method he called job analysis. According to Charters, people did job analysis whenever they listed the steps for some activity such as were found in a recipe for a type of salad dressing. He noted that industries and business organizations had to perform job analyses to select and train people for various positions. Charters claimed there were four general ways to perform these job analyses: a person who was familiar with a task could describe the necessary steps, an interviewer could ask people who did the jobs to list their duties, the analyst might perform the job and list the steps he or she takes, and analysts might distribute questionnaires to people performing the tasks (Charters 1923, 34-39).

To illustrate how a planner could use job analysis to construct a curriculum,

Charters explained how he used the system to develop the curriculum for a women's college in Missouri. First, Charters wanted to find out the usual activities of women. He solicited diaries of a normal week from many women and submitted questionnaires to survey the activities and the interests of hundreds of women in various walks of life. Second, finding these activities fell into the categories of vocational, social, and personal, Charters determined which things were best learned on the job and which should be taught in college. In each case, Charters found that the women confronted different problems or responded to distinct duties in the different capacities. In political-social activities, for example, the women had to decide what position or action to take on issues of the day. Third, surveying the courses the college offered, he constructed a set of ideals or values, such as open-mindedness, that should serve them in their functions as citizens. In vocational areas, for example, he sought the opinions of employers and practicing secretaries to determine what duties a secretary had to perform and what techniques the women should learn to fulfill them (Charters 1923, 328-334).

Although Charters acknowledged that his method of job analysis required considerable effort and expense, he believed the benefits were considerable. Using this model, curriculum theorists selected the skills and ideals students should learn to improve their lives. The model encouraged curriculum planners to break these activities into manageable units and to organize them in the order of their importance. It asked the planners to distinguish which activities adults valued and which activities children prized, to determine which lessons could be taught within the constraints of a school day and which activities teachers could trust the students would learn outside school. Finally, Charters believed his method enabled planners to assemble the best methods of teaching the ideals and activities and to arrange the lessons in accord with the psychological nature of the students and the texture of the material (Charters 1923, 26).

Despite Charters' optimism, critics complained that his method was narrow. For example, Boyd Bode found job analysis to be narrow because it could not be applied to every thing that students should learn despite Charters' claims. Bode acknowledged that job analysis could help students improve certain performances, but he did not see how job analysis could describe how students could cultivate good judgment. A second way in which Bode found Charters' ideas to be narrow was that job analysis told people what was expected of them without offering any way to determine whether certain tasks should be done or certain ideals should be learned. Charters had left the decision of what to teach up to the choices of the people elected to serve on boards of education. Although Bode acknowledged that people should choose what to learn or teach, he wanted to know how they could make the decision. The problem with Charters' methods was that the subject matter came from seeking to prepare students for activities that adults performed in the world. Bode claimed that teachers who acted in these ways disregarded the need to progressively transform the students' experience in the direction of wider social insights (Bode 1927, 87, 88, 106, 112-113).

In the case of Charter's curriculum for the women's college, Bode's complaint that job analysis was overly conservative seems especially accurate. In the wider society, women may have been performing roles that were secondary to the roles fulfilled by men. In that case, the diaries and the questionnaires that Charters collected through job analysis listed the set of activities and ideals that women followed when they functioned within separate but inferior spheres. Job analysis was narrow because it offered no way to help the students develop the social insights to wonder if the women or anyone else should perform such duties or believe such ideals. Worse, the method seemed to discourage such wider thinking because it implied that traditional areas of study such as philosophy had no place in curriculum construction.

More than half a century later, businesses such as the Educational Testing Service used the same justifications that Charters listed when they created the teacher tests. Although they did not cite Charters' contributions, these advocates of teacher testing used a method of job analysis that was similar to one he had used. As a result, the tests implied that the curriculum of teacher preparation should omit opportunities for students and teachers to transform their experiences in ways that they would help them develop progressively wider social insights. This happened because the test makers defined the information and skills developed in courses in foundations of education as unnecessary for beginning teachers.

Job Analysis in the 1980s

According to W. James Popham, competency tests for prospective teachers grew out of efforts during the late 1970s to make the schools accountable. In seeking to ensure the students had learned basic academic skills before they graduated from high school, advocates of minimum competency borrowed the idea of quality control from industry. They argued that legislatures had to impose an external means to verify that the students had learned what teachers taught. According to Popham, it was a short step from measuring the students' mastery of basic subjects to confirming that prospective teachers knew enough to instruct the students. The teachers had to be competent if the schools were to be effective (Popham 1986, 381-382).

According to Sherry A. Rubinstein and her colleagues, though, teacher testing came from a clash between teacher unions and state officials. Rubinstein worked for National Evaluation Systems (NES) to make teacher tests. She and her colleagues contended that as legislators enforced quality control on schools, unions sought to protect teachers from intrusive oversight. In response, public officials tried to expand the demands on prospective teachers to ensure that the teachers could perform adequately if they worked somewhat independently (Rubinstein, McDonough, & Allen 1986, 22-23).

Although the idea of accountability for schools and the drive for teacher tests are related, the drive for teacher testing may predate the flurry of competency testing

for high school graduation. From 1970 to 1975, virtually every state department of education in the country considered ways to modify teacher certification practices to incorporate some form of competency based education for prospective teachers. During the next four years, from 1977 to 1981, sixteen of the fifty states in the United States enacted legislation or policies requiring candidates for initial teacher certification to take some form of state sponsored test. On the other hand, the National Commission on Excellence in Education (NCEE) encouraged what was called the excellence movement and its associated drive for what is called high stakes testing for students. In 1983, the NCEE warned that educational mediocrity placed the economic prosperity of the nation at risk. Although the NCEE warned against excessive use of standardized tests, the number of states requiring students to pass a standardized test for high school graduation rose from 15 in 1985 to 24 in 1987. By 2000, the federal government encouraged such high stakes testing because Title I of the Elementary and Secondary Education Act (ESEA) required states to develop content standards, performance standards, and assessment standards to measure the progress of schools. Under certain conditions, the ESEA allowed these measures to be used as tests required for high school graduation. Teacher testing grew as well. By 2002, thirty-five states required candidates for initial teacher certification to pass some form of the National Teachers Exam (NTE) that had been developed in 1940 by the Educational Testing Service (ETS) or some form of the tests labeled PRAXIS that ETS created to replace the NTE. Another nine states used customized teacher tests (Medina & Neill 1990, 6; Boydston 2002, frontispiece; Office of Civil Rights 2001, 2; Rubinstein, McDonough, & Allen 1986, 12, 19, 20).

The Praxis exams and the tests that companies such as NES developed for various state departments of education shared similar characteristics. For example, in 1994, Ernest Rose, a researcher in Montana, compared the strengths of two companies, ETS and National Computer Systems (NCS), to determine which set of tests would provide better teachers to the state's schools. Rose found that both sets of tests were roughly similar. They had been developed in similar ways and depended on the same general information and skills. Rose found that both sets of exams shared the same disadvantage: neither company could demonstrate that the tests would not discriminate against candidates from the unique minority groups found in Montana such as Native Americans. Rose favored NCS, though, because he had difficulty obtaining assistance or information from the larger, less responsive company (Rose 1994, 7, 12).

Although some states may have avoided ETS, most states adopted plans to test teachers. Not only did the public appear to support the idea, leaders of teachers' unions disagreed about the wisdom of competency tests for prospective teachers so they could not provide organized resistance. For example, on one side, Albert Shanker, president of the American Federation of Teachers, called for the imposition of entrance examinations for teacher candidates. Complaining that most states

imposed exams requiring little effort to pass, Shanker called for the national government to impose rigorous national standards with competency exams to match. On the other side, Mary Hatwood Futrell, president of the National Educational Association (NEA), warned that many such tests resulted in dramatically disproportionate failure among African Americans and other minority groups. While Futrell acknowledged that testing could be a step in a program to improve teaching, she called for opportunities for prospective teachers to adequately prepare for the tests and for the tasks of teaching. She pointed out, though, that the NEA had challenged the use of the NTE as a means of evaluating teachers already employed because African Americans scored lower than whites on this test and it did not measure teaching ability (Shanker 1986, 46-47; Futrell 1986, 397, 398, 403).

As Futrell indicated, once states began to use teacher tests, resistance came in the form of congressional legislation and federal court cases that sought to prevent the tests from causing discrimination. On the side of legislation, the U.S. Congress passed in 1972 Public Law 92-261 to amend the U.S. Civil Rights Act of 1964. This law required that the Equal Employment Opportunity Commission (EEOC) extend the guidelines on employee selection to apply to public agencies as well as private industries. Thus, when schools used tests to select applicants for teaching positions, the officials had to have empirical data or some form of evidence to show the tests measured the skills the people needed to perform the jobs (Rubinstein, McDonough, & Allen 1986, 24-25).

In litigation, federal courts attended to the disparate effect that teacher qualifying exams had on minority groups. For example, in 1975, a U.S. District Court in North Carolina ruled that the state could not refuse a teaching license to someone who scored below a certain point on the NTE. North Carolina had required prospective teachers to attain a score of 950 on the NTE to receive a teacher license. According to the justices, the NTE did not measure teaching skills but determined the academic preparation of prospective teachers. While this may have been reasonable, they could not find evidence that prospective teachers who earned a score below the 950 score would be incompetent. Thus, they concluded the tests were arbitrary and worked to exclude minorities from the teaching profession (400 F. Supp. 343; 1975 U.S. Dist. LEXIS 16424).

Although the North Carolina decision was not upheld, other lawyers in other states filed cases that continued for several years. In 1981, lawyers turned a complaint by three African American teachers into a class action suit against the Alabama State Board of Education. Three years before the case was filed, amid what the justices called a groundswell in favor of teacher competency testing, the Alabama State Board of Education had awarded a contract to a private developer to produce a set of standardized tests called the Alabama Initial Teacher Certification Testing Program. This included a core exam on professional knowledge and sets of specialized exams in various subject areas. The problem was that the standardized tests discriminated against black applicants. Although the members

of the state board of education and the lawyers for the applicants agreed to a settlement, the news of their compact caused critics to complain that board members did not want competent teachers in public school classrooms. The result was a series of suits and counter suits that led to the likelihood that federal courts would supervise aspects of the Alabama schools until 2010 (Allen v. Alabama Board of Education 976 F. Supp. 1410).

While these legal obstacles frustrated state officials, most test makers thought they could overcome the difficulties. Writing in 1981, Benjamin Shimberg of the Educational Testing Service claimed that licensure tests were tools used by legislative bodies to protect the public from incompetent practitioners. He offered as examples the fact that barbers, airline pilots, and dentists had to demonstrate to members of some agency that they could perform the functions of their profession. Shimberg noted that EEOC had distributed guidelines and several federal courts had ruled on cases regarding the way tests could discriminate against members of minority groups. Although he claimed there were no final answers to these questions, he was confident that test manufactures could overcome the obstacles by ensuring that the tests were related directly to the jobs. Calling this quality, content validity, Shimberg claimed that test makers could define the content domain by conducting job analyses (Shimberg 1981, 1138, 1139, 1143, 1145, 1146).

To some analysts, the legal challenges offered opportunities for the test makers to spread the influence of their products. For example, when Michael A. Rebell surveyed the field of teacher performance assessment, he found that experts disagreed about what constituted good teaching. Although he thought this disagreement made it difficult for assessors to distinguish what qualities they should test, he predicted that the wide scale implementation of teacher tests would take place when test makers developed procedures that met the requirements of the federal courts (Rebell 1991, 230, 234).

To determine how courts had defined the standards for job analysis of teaching, Phyllis A. Kuehn and her colleagues reviewed the litigation about teacher qualifying tests in 1989. Kuehn and her co-authors noted that courts had distinguished between tests to become physicians or lawyers and tests for teachers. The professions controlled the tests in law or medicine while state departments of education, agencies that ultimately hire the teachers, control the teacher qualifying tests. Thus, teacher tests fell under the scope of the EEOC guidelines. This meant that the challenges turned on three requirements. First, people complaining about the tests had to show that the tests had discriminatory effects. Second, the state departments of education could defend the use of the tests by showing how they were job related and necessary. Third, the plaintiffs could rebut by showing that other methods of selection would not have the discriminatory effect. Unfortunately, Kuehn and her colleagues noted that it was not clear how to conduct a job analysis. The EEOC guidelines and the 1985 version of the *Standards for Educational and Licensing Standards* jointly published by the American Educational Research Association,

the American Psychological Association, and the National Council on Measurement in Education called for job analysis to prove the validity of the teacher certification tests. Neither document explained what form the job analysis should follow (Kuehn et al. 1989, 2, 4-5, 8).

To develop job analyses of teachers, the researchers at ETS turned to the procedures used in the military and industry. Among the works on job analysis that ETS researchers quoted was a book written by Sidney Gael, an industrial psychologist with the American Telephone and Telegraph Company. According to Gael, job analysis became popular because the U.S. Air Force demonstrated that this simple method allowed supervisors who did not know how to perform the jobs to obtain detailed information about the work being done in various locations. In this process, the supervisor or the analyst began by constructing list of tasks involved in a job and presenting the list in the form of a questionnaire. The analyst could construct the list by looking through documents describing the job, observing some one at the task, or interviewing people who did the work. The resulting list could cover more than 500 tasks and the analyst would send this questionnaire to respondents who would rank the tasks in relative importance. With computers, the analysts could statistically compare the results to determine what was important and what was trivial (Gael 1983, 3-16, 43).

ETS prepared their job analyses by following steps that accorded with Gael's instructions. According to Catherine Havrilesky, executive director of teacher programs and services for ETS, the company began in the middle of the 1980s to devote extensive resources to the development of what the organization called the Praxis Series: Professional Assessments for Beginning Teachers to replace its original NTE. ETS chose the name Praxis because the term meant putting theory into practice. Introduced in the fall of 1993, the tests took three forms. Praxis I measured academic skills, Praxis II measured accomplishments in subject matter acquisition, and Praxis III evaluated performance during classroom teaching. Havrilesky took pride in the large scale job analysis surveys that ETS conducted for each of the different Praxis tests. She claimed that researchers gathered input from thousands of teachers and teacher educators to support decisions about what beginning teachers should know. She pointed out that the researchers included many representatives of minority groups among the respondents to ensure that the measures did not unfairly discriminate against anyone. In this way, the researchers sought measures that everyone agreed represented reasonable requirements for entry level teachers (White 1992, 5, 8, 9).

The researchers that worked for ETS confirmed Havrilesky's statements. For example, Anne Reynolds described how researchers at ETS conducted a job analysis of the tasks performed by all teachers at all grade levels in 1986. They began by conducting a review of the literature describing what teachers did. They interviewed teachers to determine if there were tasks for teachers the authors had not discussed, and they took knowledge statements appropriate for teachers from the

core battery of the NTE. Finally, they sent this survey to almost 4,000 teachers and administrators in Georgia, California, and New Jersey asking them to rank the statements in the importance they had for beginning teachers. For her part, Reynolds took the results from these surveys, combined the information with other studies that considered what actions were appropriate for teachers and what knowledge they needed to have, and tried to show how researchers could assess this knowledge and these abilities (Reynolds 1990, 3-5).

To ensure that the lists of tasks represented teachers' work, ETS researchers conducted job analyses of the tasks of teachers in different levels. For example, in 1992, Michael Rosenfeld and his colleagues reported a job analysis that they performed for ETS to identify the core tasks secondary school teachers had to perform. First, the researchers met with experts to compile an initial inventory of about eighty tasks. Rosenfeld clustered those tasks in six dimensions that were similar to those that Reynolds had described: planning, managing students, instructing, evaluating learning, non-instructional duties, and additional duties. The researchers submitted this inventory to over three thousand secondary school teachers, about two hundred secondary school administrators, and about two hundred and fifty college professors asking them to rank the importance of these tasks. The researchers were careful to include members of minority groups in these samples of teachers, administrators, and professors. They found high levels of agreement in the responses that allowed them to confidently claim that newly hired teachers needed to know how to perform about fifty of the tasks. Rosenfeld and his colleagues concluded that it was reasonable to include these skills in any assessment (Rosenfeld et al. 1992, 6-10).

The type of tasks that appeared in the inventory Rosenfeld and his colleagues culled from the experts were those typically associated with a teacher directed classroom. For example, in planning instruction, sixteen tasks appeared. These included such skills as obtaining the approved curriculum and identifying the instructional objectives, determining the students' readiness to acquire the information, selecting learning materials, and designing alternative lessons based on results of student assessments. No one of the sixteen tasks required teachers to survey student interests or to create lessons based on student desires. Thus, the inventory reflected what Paulo Freire called banking education. It was a form of instruction built on depositing rather than on communicating because information flowed in one direction (Freire 1970, 57-58).

It is possible that the ways the test makers used the information led to the conservative view of teaching that the job analysis reflected. One example might be illustrative. In her description of how ETS could create an assessment scheme for initial certification of teachers, Reynolds quoted an article by Maxine Greene and a book by Samuel Bowles and Herbert Gintis in her review of the literature that described the knowledge beginning teachers should have. In her citation, she attributed to these authors the need for prospective teachers to understand different

theories through which teaching can be viewed and how those views have changed through history. One view was what she called the bureaucratic perspective and the other was the Marxist orientation. To Reynolds, this information fell under the category, knowledge of pedagogy. Unfortunately, when Reynolds described how the knowledge of pedagogy influenced the teacher's ability to plan instruction, she found that initial teachers did not need to understand the different theories of education that Greene and Bowles and Gintis offered. Reynolds claimed that the other, practical aspects of pedagogical knowledge were more important, such as understanding how to use instructional techniques or recognizing different methods of classroom management (Reynolds 1990, 12, 40).

If Reynolds and her colleagues had deemed the works of Greene and of Bowles and Gintis as important to planning instruction, it is possible the Praxis tests would encourage beginning teachers to think about ways to provide experiences that would lead the students to progressively wider social insights. For example, in the essay that Reynolds quoted, Greene complained that efforts to initiate prospective teachers into what she called a technical rationality narrowed their perspectives and prevented them from recognizing the need for what Greene called the pluralization or multiplicity of contemporary thought. While Greene acknowledged that prospective teachers had to know how to manage a classroom, she thought it was more important for them to be able to heed the questioning and critical resistance that signals a capacity to choose. Similarly, in the book that Reynolds quoted, Bowles and Gintis outlined ways that responsible educators could reduce the harm caused by the contradictions inherent in capitalism. Once educators recognized that schooling reproduced the inequities in the society, they could work for free classrooms, encourage open enrollment in all schools, and seek to insert socialist content in the curriculum (Greene 1989, 150-152; Bowles & Gintis 1970, 282-288).

On the other hand, Bode's complaint about Charters implies that Reynolds could not have applied her information in any other way than she did. According to Bode, the narrowness of Charters' curriculum did not come from the way Charter used the information he obtained. It arose because the process of job analysis lacked any utopian element. If Bode was correct, any survey of how teachers teach had to lead to a conservative view of teaching. Supposing that Bode was correct, his work might offer another way to construct a curriculum that would lead students to progressively widening their social insights.

Bode's Alternative to the Business Orientation in Education

When Bode wrote his criticism of Charters, he emphasized that a democratic society required a unique form of education if the society was to become truly democratic. Bode added that this meant people had to think about such important aspects as the nature of the human mind and the criteria by which people make evaluations of social organizations. He regretted that people considered such

concerns to be the area of philosophy and unrelated to practical life. Bode asserted the opposite was true. Until people could answer the wider questions, they could not create studies to discover the immediate objectives that would lead to progress (Bode 1927, 346-348).

About eleven years later, Bode offered some cursory suggestions on designing a curriculum that would provide the students with experiences leading them to ever widening social insights. He wanted to construct the entire curriculum so that at all times the students came to recognize the distinctive habits called forth by a democratic social order. For Bode, the main problem was that people had not recognized that democracy was categorically different from what he called absolutism. In medieval societies, people looked to religious authorities for answers to worldly problems. In the modern world, they looked to scientific authorities for the answers. Bode complained that this meant people held to democratic ideals in an absolutistic manner. To rectify this contradiction, Bode urged teachers to use every subject to demonstrate what he called the operational character of standards, theories, and generalizations. In art, for example, the teacher should start with the appreciations the students have and show them how those appreciations can be heightened by the devices used by artists (Bode 1938, 113-122).

It fell to Bode's student, V.T. Thayer, to demonstrate how Bode's ideas about curriculum could be applied to secondary schools. In 1932, as the Progressive Education Association (PEA) began what came to be known as the Eight-Year Study, the association formed the Commission on the Secondary School Curriculum (CSSC). Headed by Thayer, the CSSC began two sets of investigations to help the thirty participating high schools to change their curriculums. First, the CSSC began a study of adolescents to determine what problems they faced, how they learned, and how they grew. Second, the CSSC created a series of committees to determine the ways to select and order the educational experiences of young people (Thayer, Zachary, & Kotinsky 1939, vi-viii).

As the study of adolescents progressed, the researchers shared their findings with the members of the different curriculum committees. At the same time, the members of the curriculum committees participated in summer workshops with the teachers and administrators in the participating high schools. As a result, when the committees published their reports, the recommendations for curriculum change fit the psychological development of adolescents as revealed by the study and they met the practical needs of the school people (Thayer, Zachary, & Kotinsky 1939, vii-ix).

In general, the curriculum committees recommended what might be called an inductive approach to education. For example, in art, the teacher was to begin with the students' efforts at self expression or with such students' needs as the desire understand their developing bodies. Thus, for example, a teacher would not begin with general instructions but might approach a student struggling with a painting and say, "Let me show you how to handle the brush." Realizing that adolescents were obsessed with their changing bodies, the art teacher might allow the students

to paint pictures of other students who posed in bathing suits (Committee on the Function of Art 1940, 61-70).

In English classes, teaching began with children's experiences and moved to academics to clarify, order, and amplify experiences. For example, teachers might begin with any sentence a student uttered, determine the elements of the sentence, and show how the meaning changed when the order of the elements shifted (Committee of the Function of English 1940, 82-84).

In these ways, the committees on the curriculum areas tried to show how teachers could carry out instruction in a democratic style. To do this, the committees depended on the definition of democracy that had been offered in 1918 by the NEA's Commission on the Reorganization of Secondary Education. This was that the view that, in a democracy, education enabled individuals the opportunities to develop their particular interests, skills, abilities, and personalities in ways that shaped them and the society toward ever nobler ends. The curriculum committees did this by starting with the students interests and using the subject matter to expand those interests (NEA 1918, 9).

As noted above, though, ETS researchers did not devote much attention to the matter of student interest in conducting the job analysis for the Praxis tests. For example, when Rosenfeld and his colleagues surveyed the tasks for secondary school teachers, the category, building on students' interests, appeared as part of a method of implementing instruction, independent study. When Rosenfeld and his colleagues sent their survey to teachers, administrators, and college professors, this item, independent study, did not receive a high enough rating to be considered important. According to the respondents, the three most important tasks of a teacher were establishing classroom rules, monitoring in-class behavior, and praising desired behavior (Rosenfeld et al. 1992, 30-31).

Although the surveys conducted by the ETS researchers showed that effective teachers have to be authoritarian, this does not mean that such attributes make a good teacher. The ETS surveys do show that few experts think that teachers should work in ways similar to those approved by Bode and Thayer. This is unfortunate because the results of the Eight-Year Study indicate it should be an important method although the gains may be temporary.

In 1940, when the Eight-Year Study came to an end, the college follow-up staff found that those students who had participated in the participating schools with the innovative curriculum earned grades in college courses that were as good as or better than their statistical mates from traditional high schools. More important, they found that the students from the participating schools had better work habits and intellectual attitudes (Chamberlin et al. 1940, 24-32, 173-174).

The encouraging results of the Eight-Year study may be important. ETS researchers claim their tests would lead to changes in teacher preparation curriculums. For example, in 1992, Anne Reynolds of ETS published another review of the literature describing the skills that a beginning teacher needed. In making this

review, Reynolds found that many beginning teachers entered the field without an adequate knowledge of their subject matters, lacking a disposition to find out about their students' backgrounds, and with no knowledge of the pedagogy appropriate for their content area. Such a condition, Reynolds added, placed the students in the newly hired teacher's classroom at risk of educational failure. Thus, she claimed teacher education programs had to change to include the knowledge and skills the prospective teachers needed. She claimed that licensure assessments, such as Praxis, could be catalysts for these necessary reforms (Reynolds 1992, 25-27).

Following Reynolds suggestions, researchers at ETS began studies to determine what reforms in teacher preparation programs were necessary to prepare prospective teachers for the Praxis exams. For example, in 2000, Harold Wenglinsky published the results of a study of nearly 40,000 prospective teachers who took the Praxis exams from over 150 teacher preparation institutions. His aim was to determine what program characteristics led to greater success on the exams. One of his conclusions was that students should spend more time studying content areas and less time in professional education courses (Wenglinsky 2000, 6-8, 34)

Even if the rise of teacher testing does not lead to a decline in teacher preparation courses, it seems that it will increase the decline of those foundations courses that would include the ideas expressed by Greene or by Bowles and Gintis. These will be distorted or eliminated from teacher preparation programs. The foundations courses may be distorted when prospective teachers consider the social context of education to be the previous experiences of the students that might affect their ability to learn academic material. The foundations courses may be removed because the information and the ways of thinking appear irrelevant to teaching academic skills.

In sum, it appears that testing teacher quality will not improve education unless people realize how the movement for teacher testing could eliminate from teacher preparation the utopian elements that foundations courses present through material from authors such as Greene and Bowles and Gintis. Fortunately, there is some evidence to suggest that people may realize the practical aims of the Praxis tests are overly narrow. For example, in 1999, Ruth Mitchell and Patte Barth from a group called "Education Trust" reviewed teacher qualifying exams from ETS and NES. Focusing on English, language arts, mathematics, and science tests, these authors found that the questions required low levels of understanding. According to Mitchell and Barth, the test makers kept the content level low because they wanted to avoid lengthy litigation and because they were trying to determine minimal skill levels. To these authors, this mindset prevented the test makers from thinking about the higher possibilities (Mitchell 1999, 17).

Mitchell and Barth considered the content of the academic portions of teacher qualifying exams and ignored the professional education sections where material from foundations courses might be found. Nonetheless, their complaints suggest that other people will recognize the difficulties in the tests. Thus, it is not

unreasonable to hope that a movement, similar to the PEA's Eight-Year Study, could contest the current concern for minimum competency among prospective teachers. If the teacher testing movement inspires such informed resistance, it might improve teacher training and education in general.

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