The Impact Of Kentucky State Testing
On Educational Practices In
Kentucky Public School

Feng S. Din

Union College

Abstract

The impact of Kentucky state testing on educational practices in Kentucky public schools was investigated via a survey study. Randomly selected urban and non-urban teachers and principals (four groups, N = 180) throughout the state participated in the survey. Findings indicated that this state testing program has substantial impact upon educational practices in Kentucky public...
schools, specifically on selection of instructional objectives, subject matters, instructional content and strategies, on curriculum planning, focus of learning content, adoption of classroom testing approaches, students’ learning effort, the content of teachers’ inservice training, teachers’ and principals’ work lives, and so forth. The responses of the two teacher groups were correlated to each other, and so were those of the two principal groups. The findings also suggested under the present statewide educational reform movement, a trend for the educational practices in Kentucky public schools in forming.

The most prevalent purposes of state testing programs in America are accountability, instructional improvement, and program evaluation (Barton & Coley, 1994; Bauer, Mathison, Merriam, & Toms, 1990; Brown, 1993; Raivetz, 1992). However, state testing programs in Utah are used to help teachers identify the specific core curriculum concepts that have and have not been mastered by individual students, and the information on strengths and weaknesses of the curriculum and instruction (Nelson & Lawrence, 1994).

State-mandated testing appears to have the power to influence on thoughts and actions of teachers, and on their place in curricular decision making (Zancanella, 1992). Additionally, state-mandated testing programs are found to have substantial influence on school districts’ movements toward performance assessment (Kolls, Matter, Perlman, & Yakimowski, 1994) Teachers also reported altering curriculum to teach state-mandated tests, and time constraints imposed by the pressure associated with the state testing (Brown, 1992).

As for their attitudes toward state testing, teachers surveyed were critical of the standardized statewide testing in particular, and the educational reform in general (Corbett & Wilson, 1989). They took the state testing more seriously for political reasons. The state testing was also found to have greater disruption on teachers’ work lives, decreased reliance on their professional judgment, heightened their concern about liability, and increased their attention to improving test results. Lastly, the state testing was found to be highly politically popular. Similar general negative attitudes of teachers toward state testing were reported by Bauer et al. (1990).

Similarly, Brown (1993) indicated that teachers and principals mistrusted the State Departments of Education and state legislators, were confused about the purposes of state testing, perceived themselves as powerless to influence state testing policy, questioned the effectiveness of the tests in evaluating achievement, and did not view the state testing as an accurate measure of accountability. This suggests a communication gap between state educational policy makers and local educators.

Similar scale testing has been in practice in the United Kingdom (Gipps, 1992), British Columbia of Canada (Anderson, Muir, Bateson, Blackmore, & Rogers, 1990), and Australia (van Kraayenoord, 1992). Anderson et al. (1990) examined the impact of provincial examination on education in British Columbia, and found that students being surveyed acknowledged that the testing program led them to work harder and to study more; teachers, principals, counselors, and superintendents indicated that the program had a major effect on teaching practice in that this examination had become a focus of instructional content. Whereas in Australia, van Kraayenoord (1992) observed the development of the statewide testing would shape future literacy education, and with the state testing, a national curriculum and state curriculum frameworks were in the process of development.

Kentucky has seen many changes in educational practices in its public schools since the Kentucky Educational Reform Act (KERA) was passed in 1990. KERA abolished the state’s standardized testing program and mandated the development and implementation of an annual statewide performance-based testing (assessment) in the public schools. All Kentucky students in grade 4, 8, and 11 (previously grade 12) have been tested yearly in reading, writing, math, science and social studies since the spring (state testing time) of 1992. The testing program uses multiple choice, open-response questions, event or performance tasks, and extended performance tasks kept in portfolios. All three types were used in the 1992 state testing. Thereafter, increased emphasis has been placed on performance and portfolio
assessment. In addition, practice tests are made available to schools for use in grades other than 4, 8, and 11 for the formal school accountability testing.

The performance tasks measure skill areas, core concepts, personal attribute, or thinking process, and require less than 40 minutes to complete. An event (performance) task could be a writing assignment where students apply knowledge, describe personal attributes, or use thinking process. A performance task could also be an activity where students manipulate materials at stations in a school room set up for testing. These tasks might also require students to use technology to record an oral presentation (Kentucky Department of Education, 1992-93, 1995).

While these performance testings are administered at a given time in a controlled testing situation, portfolio tasks are completed throughout the school year. Portfolio tasks are given to students to complete and are placed in the student’s file. Teachers are provided specifications to assure that the kind of work included in portfolios can be scored using the state’s criteria.

The open-response and portfolio portions of the testing program are weighted far more heavily than performance events, which account for less than 20% of the overall score. Student performance on KERA testing is judged in terms of four performance categories: novice, apprentice, proficient, distinguished (Pankratz, 1992). The grading of these tests focuses only on the content, or rather, the level of understanding of core concepts is weighted. Factors such as spelling, grammar in writing, the accuracy in math and science answers are not weighed.

The KERA mandated statewide performance-based testing (assessment) program requires school accountability with significant rewards and sanctions. This 1992 or the first KERA testing was used to establish baseline data against which test results of schools are compared in the following years. According to KERA, all schools will be held accountable for the proportion of students achieving expected levels of performance set by the state (Pankratz, 1992). Schools with acceptable levels of improvement (based on the performance on the state testing program) for three consecutive years will be rewarded with cash to the entire faculty (including the principal), approximately $2,000 per person.

Schools with unsuccessful levels of improvement will have to face consequences: Firstly, the whole school will be declared by the state department "In Decline" and will be given two years to improve and reach the required level of improvement. In the meantime, the state department will assign a distinguished educator to help the school. Secondly, when there is a lack of improvement on KERA testing program for two consecutive years after being declared "In Decline," the school will be declared "In Crisis" and will be allowed two years to improve to an acceptable performance level on the state testing program. Thirdly, if the school cannot improve its poor performance to a certain level on the state testing program for two consecutive years being in a crisis situation, then the state department will take over the school.

This state testing program has been implemented since the spring of 1992. From the educational research perspective, it is important to understand the relationship between the state testing and the educational practices in the public school system.

Research literature on various aspects related to Kentucky’s education reform has been expanding. The first group of studies on the Kentucky educational reform movement included investigations on the responses of different groups to the reform: community attitudes toward KERA in rural Kentucky school districts during the first few months the law was in effect (Coe & Kannapel, 1991), students’ perception of school change (Coe, Leopold, Simon, Stowers, & Williams, 1994), children’s attitudes toward school reform (Pittman & Hinton, 1993), teachers’ responses toward the reform (Appalachia Education Laboratory, 1992), and Kentucky residents’ attitudes toward this reform (Hougland, Berger, & Kifer, 1994). Positive attitudes of various groups toward the reform were reported in these studies.

Researchers have also examined various education reform practices: the methods being used to assess the effectiveness of KERA (Petrosko, 1993), the issue of restructuring the state education agency (Van Meter,
The studies on interim progress of various Kentucky educational reform practices add knowledge to the literature: the first year progress in implementing state mandated educational reforms (Raths, Katz, Fanning, David, & Roeder, 1992), the implementation of school-based decision making in Kentucky rural schools (Kannapel, Moore, Coe, & Aagaad, 1994), the second year progress on implementation of primary school program, school-based decision making and family resource/youth services centers (Raths, Fanning, David, & Roeder, 1993), the progress that schools districts have made in implementing the ungraded primary program and the problems found in the practice (Institute on Education Reform, 1994). The progress studies, although limited in number, provide important information on the development of the reform movement in various areas.

Literature also includes investigations on various reform related issues: the ability of KERA to address both educational equality and financial equity in Kentucky’s public schools (Richardson, Flanigan, & Blackbourn, 1991), the relationship of school climate to the implementation of school reform (Bulach & Malone, 1994), the effective change characteristics for Kentucky’s primary program (Carney, 1994), the role of school to work transition in the reform movement (Kyle, 1995). This group of studies provides a better understanding of the Kentucky education reform related issues.

More studies on the impact of the reform movement on various aspects are now available in the literature: the extent and uses of out-of-school time investment by teachers in KERA reforms (Appalachia Education Laboratory & Kentucky Education Association., 1993), the impact of the reform on writing in Kentucky schools (Harnack, Elias, & Whitaker, 1994), KERA’s impact on special education costs and funding (Chambers & Duenas, 1995), the role change of superintendent in the reform (Murphy, 1993), the impact of the reform on teachers’ wellness (Schnacke, Martray, & Heck, 1994), and factors influencing teacher’s practices in reform (Vitali, 1994). As the literature shows, the impact of the Kentucky state testing upon the educational practices in Kentucky’s public schools remains to be investigated.

The purpose of the study was to investigate whether and to what extent, if any, the Kentucky state testing impacts the educational practices in Kentucky public schools. The study focused on investigating the inter-relationship between the KERA testing and the educational practices in Kentucky public schools.

**Method**

This study was conducted using a survey format. Specific procedures designed to collect the data are as follows.

**Term Definition**

The educational practices in this study referred to selection of instructional objectives, curriculum selection and planning, selection of instructional strategies, instructional focus in subject matters, selection of classroom testing approaches; students’ learning effort, teacher inservice focus and work lives, and so forth. These issues were translated into the respective survey questions.

**Participants**

Due to limitations in resources, 350 public school teachers and 100 public school principals (both elementary and secondary levels) in Kentucky were surveyed. The participants were full-time employees, and they were selected through stratified random sampling. The teacher and the principal participants were from both urban and non-urban schools.

**Procedures**
Principal groups. The principals were sampled from the Kentucky Schools Directory (Kentucky Department of Education, 1994-95). Two groups of principals were selected to participate in the survey, one from an urban area, the other from the non-urban school districts within the telephone area-code 606 area (the eastern Kentucky region). Each group consisted of 50 principals. In this school directory, the principals and schools share the same addresses.

For the urban principal group, 25 elementary school principals, 10 middle school principals, and 15 high school principals were selected, with a total of 50. Each principal was selected from every two schools (of the same grade level), and the first on the list was chosen.

For the non-urban principal group, 30 elementary school principals, 10 middle school principals and 10 high school principals were selected, 50 in total. Likewise, for every two principals (of same grade level) on the list, the first one was selected.

Teacher groups. First, the schools were selected from the 50 schools for the urban principal group, and the 50 schools for the non-urban principal group. Ten teachers from each school were surveyed. The teachers were addressed as faculty, with a school address.

For the non-urban teacher group, 20 schools (10 elementary schools, 5 middle schools and 5 high schools) were picked from the 50 schools for the non-urban principal group. The first of every three elementary schools, the first of every two middle schools, and the first of every two high schools were selected. Thus, 200 teachers were surveyed as the non-urban group.

For the urban teacher group, 15 urban schools (5 elementary schools, 5 middle schools, and 5 high schools) were selected from the 50 schools for the urban principal group. The first of every five elementary schools, the first of every two middle schools, and the first of every three high schools were selected. One hundred fifty urban teachers were sampled this way.

Instrument

A questionnaire was developed for this survey. A list of 12 questions (related to the selected educational practices) constituted the main part of the questionnaire. The survey utilized a Likert-type response rating scale, ranging from "A great deal" (1) to "Don’t know" (6) (see Appendix).

The relationships between state testing and common educational practices were addressed in the literature. The questionnaire was developed based on the following theoretical framework.

1. The selection of instructional objectives related to state testing (Zancanella, 1992).
2. Changes in instructional planning related to state testing (Nelson & Lawrence, 1994).
3. Curriculum selection and design related to state testing (Nelson & Lawrence, 1994).
5. Selection of school subject matters related to state testing (Brown, 1992).
6. Focus of learning content area related to state testing (Anderson et al., 1990).
7. The emphasis and selection of classroom testing approach related to state testing (Kolls et al., 1994).

8. The focus of teachers’ inservice content related to state testing (Corbett & Wilson, 1989).

9. The amount of teachers’ inservice related to state testing (Corbett & Wilson, 1989).


11. Students’ learning effort related to state testing (Anderson et al., 1990).

12. Teachers’ work lives related to state testing (Corbett & Wilson, 1989).

For a sample of 17 school teachers (from the eastern Kentucky region) tested on this survey questionnaire, a stability coefficient of .87 was found for an interval of seven days.

Data Collection

Survey letters (450 in total) with a questionnaire (see Appendix) and a self-addressed, postage-paid reply envelope were sent to each teacher and principal sampled for this study. Their returned responses to the questionnaire were tallied and organized for analysis.

Design and Data Analysis

For the purpose of the study, a double parallel sample design (cross-sectional, per se) was employed. Specifically, the plan was to collect data from the two groups of teachers and the two groups of principals, as well. Responses of all participants to the survey questions were analyzed with the Paired-Samples t-test (to compare all participants’ responses to Levels 1 to 3 with those to Levels 4 to 5 on all 12 issues) in order to determine whether there was impact of the state testing on the educational practices.

Responses to the survey questions from the two teacher groups were also analyzed with the Pearson r, so were the responses from the principal groups. The relationship of all teachers’ responses versus all principals’ responses was also compared with the Pearson r.

Results

With this study, 450 survey letters in total were sent out. One hundred eighty (18 urban principals, 18 non-urban principals, 31 urban teachers, 113 non-urban teachers) participants responded to the questionnaires, with a return rate of 40%.

An analysis of the data collected indicated that the Kentucky state testing had substantial impact on the educational practices in the public schools of Kentucky. The two teacher groups appeared to have responded to the survey questions quite similarly, so did the principal groups. The responses of the teachers (two groups combined) were also similar to those of the principals (two groups combined).

Impact of significance

The responses of all participants to rating scales Levels 1 to 3 were compared with those to Level 4 and 5 via the Paired-Samples t-test. With each issue, the two groups of responses were paired for analysis.
With all 12 questions, the group responding to Levels 1 to 3 reported significantly greater impact than the group responding to Levels 4 & 5 \((t = 31.36, p = .000, \text{ 2-tailed})\).

**Written Responses**

Written responses provided by both principals and teachers were found in some of the returned questionnaires, although limited in number (three principals, four teachers). One teacher observed: The state testing drives their learner expectations through curriculum framework. Two other teachers commented: With the state testing, their students now work harder with extensive writing, open-ended questions, performance events, and compilation of portfolios. Another teacher wrote: Portfolio teachers do more than their share and work late after school hours; the work load is on teachers alone. All these changes related to the state testing in the selection of instructional objectives, instructional planning, curriculum design, teachers’ inservice content, and so forth, are not necessarily for the better, according to a principal and a teacher. One principal reported that with the state testing program the school evaluation standards have changed a great deal, but not entirely in a positive way . . .

**Correlation Indices**

A correlation analysis with the Pearson \(r\) was conducted to measure the relationship between the responses of the groups surveyed. A positive relationship was found between the teacher groups, between the principal groups, and also between the teachers and the principals, which suggested that a response pattern existed among the groups.

Table 1 shows that there is a positive relationship between the responses of the two principal groups on all 12 issues–questions.

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Table 2 indicates that a positive relationship existed between the responses of the two teacher groups on all 12 questions, which suggests that the two groups’ responses are similar.

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The responses of the two teacher groups combined were compared on all 12 variables with those of the combined principals groups. The results indicated a positive relationship, which suggested that the teachers and the principals responded to the survey questions in a similar way (see Table 3).

The above high correlation indices suggested that all groups of participants reported similarly about the impact of the state testing.

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Discussion

The new Kentucky testing program has its focus in content and format in various subject matters. The findings of this study suggested that educators in Kentucky public schools are working hard to align their practices to the challenges related to the state testing, or rather, they are working toward the same goal—for their schools to perform better on the same testing program. A trend may be in the process of formation: The whole curriculum, the learning focus in subject matters, the instructional content and strategies for the students in all Kentucky public schools would become more similar in nature. The educators in this state seem to be moving toward the same goal unknowingly. Creating a statewide curriculum (Raths et al., 1993) might be on the hidden agenda of the Kentucky education reform, with the state testing being the first step.

As the findings suggested, with the state testing in effect, the changes in Kentucky public schools may produce less curricular autonomy among teachers or schools, lead to more standardization in common examinations, to using similar materials, applying similar instructional strategies, and adopting similar instructional objectives. Whether the formation of this trend is good for improving educational quality or improving students achievement in Kentucky public schools remains unanswered.

The educational practices, particularly the selection of instructional content in Kentucky public schools, as the findings suggested, may have been shaped by the state testing program. Logically, a testing program with such power of influence "must be worth ‘teaching to’" (Pankratz, 1992, p. 141). But evidence for such worthiness of the state testing program remains to be seen. If the state testing program is flawed in some major way, the whole student body in all Kentucky public schools might be negatively affected. While the content focus of the state testing program remains a controversial issue, more study on this issue seems to be necessary.

As the findings indicate, with this state testing program, Kentucky has seen a lot of changes in the public schools. These changes in educational practices are merely the new things occurring in Kentucky public schools, not necessarily for the good, as some principals and teachers observed in written responses in their returned questionnaires. An evaluation of either the changes or the state testing program is beyond this manuscript.

The survey letters were sent out to the educators while the state testing was under way throughout Kentucky. Some schools had just finished the state testing, many schools were undertaking it. Small wonder that educators in these schools were very busy dealing with the state testing project, responding to the survey questions would unlikely be a priority on their agenda. This may explain why the return rate of this survey was 40%.

In this study, KERA testing was not considered a sufficient causal factor for the educational changes but only an important contributing one, which plays an important role in influencing the educational practices in Kentucky public schools. The high-stakes KERA accountability may be the real causal factor for all these changes in school practices.

Conclusions

The findings of this study suggested, as the participating Kentucky educators reported, that the Kentucky state testing has substantial impact on educational practices in its public schools, specifically, on selection of instructional objectives and strategies, curriculum selection and planning, selection of subject matters and focus of learning content, adoption of classroom testing approaches, the content of teachers’ inservice training, student learning effort, teachers’ and principals’ work lives, and so forth. In a word, all these basic educational practices may have been shaped by this state testing. It seems that with this state testing in
practice, Kentucky public schools have seen many changes in educational practices as defined in this study, and most of the educators and students in this state are under the pressure to work harder to help their schools perform better on the state test.

Clearly, for a state-testing program with such powerful influence, many questions related to the state testing remain unanswered. Further studies are necessary to help us better understand the changes occurring in Kentucky public schools, or rather, the Kentucky educational reform, and probably better understand the direction of development in educational practices in a state where a statewide educational reform is in process.

References


### Appendix

#### Questionnaire

Teacher __; Principal__; Grade level: Elem.__, Mid.__, Sec.__; Code References:  
1 = a great deal; 2 = a fair amount; 3 = some; 4 = only a little; 5 = not at all; 6 = don’t know

1. How much change do you think has occurred in the selection of course instructional objectives in accordance with the KERA testing? __, __, __, __, __, __.

2. How much do you think the KERA testing has contributed to change in instructional planning? __, __, __, __, __, __.

3. How much change do you know has occurred in curriculum selection and design in accordance with the state testing? __, __, __, __, __, __.

4. How much do you think the KERA testing has contributed to teachers’ selection of instructional strategies? __, __, __, __, __, __.

5. How much change do you think the state testing has contributed to the selection of school subject matters? __, __, __, __, __, __.

6. How much change do you think has occurred in the focus of learning content area in accordance with the state testing? __, __, __, __, __, __.

7. How much change do you know has occurred in the emphasis and selection of classroom testing approach in accordance with the state testing? __, __, __, __, __, __.

8. How much do you think the content focus of teachers’ inservice is related to the state testing? __, __, __, __, __, __.
9. How much do you think the amount of teachers’ inservice (all forms of inservice) is related to the state testing? 1__, 2__, 3__, 4 __, 5 __, 6__.

10. How much do you think the state testing has contributed to the changes in school evaluation standards on instructional effectiveness? 1__, 2__, 3__, 4 __, 5 __, 6__.

11. How much harder do your students now work because of the state testing? 1__, 2__, 3__, 4 __, 5 __, 6__.

12. How much harder do you now work (including working after school) because of the state testing? 1__, 2__, 3__, 4 __, 5 __, 6__.

THANK YOU VERY MUCH!