WARNING CONCERNING COPYRIGHT RESTRICTIONS

The information stored in the Electronic Reserve system is protected under the Copyright Laws of the United States (Title 17 U.S. Code) governing the making of photocopies of copyrighted material. While the provisions of “fair-use” apply, the person using the system is liable for any infringement of copyright.

Opening this Electronic Reserve document indicates that you accept these copyright restrictions.
K-12 QUALIFYING EXAMINATION

ELMP K—12 DOCTORAL PROGRAM

FALL 2008

EXAM DATE: OCTOBER 31, 2008

Directions

Attached please find the Qualifying Exam. There are five (5) sections as outlined below.

• Before you begin, create a header for each page with your student ID number (found on the label of this envelope), the name of the exam you are taking [Qual K12] and today's date.

• You will answer one question in each of the Sections I - IV and all questions in Section V. Based upon your degree, please choose a K-12 or Higher Education question in Sections II (Policy) and IV (Research).

• When you complete a section, insert a page break before starting the next section.

• Please indicate on each question answered, the number and title of that question. (i.e. Question 2 – Policy, etc.)

In developing your responses, be sure to organize them in a logically coherent way and to make optimal use of relevant current research and literature applicable to each question.

I. CURRICULUM

II. PUBLIC POLICY PERSPECTIVES
   (Based upon your degree, choose a K-12 or Higher Education question)

III. ORGANIZATION

IV. RESEARCH
   (Based upon your degree, choose a K-12 or Higher Education question)

V. STATISTICS (Answer ALL questions)
K-12 QUALIFYING EXAM

I. CURRICULUM

CURRICULUM QUESTION

You are asked to prepare a critique of the following Curriculum Update professional journal article, “Differentiating Instruction – Finding Manageable Ways to Meet Individual Needs”. In so doing, be certain to include in your discussion the relationship of this article to current literature and related research on this topic. It is also important to employ the higher order thinking skills of analysis, synthesis and evaluation in writing your critique.
Curriculum Update

Winter 2000

Differentiating Instruction

Finding Manageable Ways to Meet Individual Needs

Scott Willis and Larry Mann

Every child is unique. Although we may rejoice in this fact, it poses a dilemma for educators. When students are diverse, teachers can either “teach to the middle” and hope for the best, or they can face the challenge of diversifying their instruction.

Today, more and more teachers are choosing the second option. Determined to reach all students, teachers are struggling to tailor their instruction to individual student needs. They are striving to provide the right level of challenge for gifted students, for students who lag far behind grade level, and for everyone in between. They are working to deliver instruction in ways that meet the needs of auditory, visual, and kinesthetic learners. And they are trying to tap into students’ personal interests. In short, these teachers are differentiating instruction.

One Size Doesn’t Fit All

Differentiated instruction is a teaching philosophy based on the premise that teachers should adapt instruction to student differences. Rather than marching students through the curriculum in lockstep, teachers should modify their instruction to meet students’ varying readiness levels, learning preferences, and interests.

Differentiated instruction is not a new concept, experts say. Back in the days of the one-room schoolhouse, when students ages 6-16 learned together, differentiated instruction “was how they did school,” notes Carol Ann Tomlinson, an associate professor at the University of Virginia and author of the 1999 ASCD book The Differentiated Classroom: Responding to the Needs of All Learners.

The need to differentiate instruction is obvious, proponents say. “We want to accommodate the full diversity of academic needs” that students bring to the classroom, says Susan Demirsky Allan, assistant superintendent for curriculum and instruction for the Grosse Pointe, Mich., public schools. “We know those differences are out there, and we have to recognize that reality,” Allan says. “Teachers can’t assume they have 25 clones sitting in front of them.” Without differentiated instruction, any child who varies from the norm will suffer, she contends.

Traditional schools are “designed for organized, left-brain learners who are book lovers,” says Donna Strigari, principal of Frank J. Smith School in East Hanover, N.J., and cofacilitator of ASCD’s network on differentiated instruction. This type of learner, however, represents only one-quarter of the population, Strigari says. To meet the needs of all students, educators need to “break the old patterns” of teaching and change perceptions of what school should be like, she asserts.

Living Our Beliefs

Nearly all teachers believe that it’s better to differentiate instruction, experts agree—but the challenge lies in translating that belief into action. According to Tomlinson, teachers can
differentiate three aspects of the curriculum: content, process, and products.

- **Content** refers to the concepts, principles, and skills that teachers want students to learn. All students should be given access to the same core content, Tomlinson believes. Struggling learners should be taught the same big ideas as their classmates, not given watered-down content.

  "Teachers should address the same concepts with all students but adjust the degree of complexity," Tomlinson emphasizes. "The same concept can be explained in a way that's comprehensible to a very young child or in a way that challenges a Ph.D. candidate." To illustrate this point, she cites the example of a professor whom she observed teaching Shakespearean sonnets—with great success—to 1st graders.

  Content also refers to the means teachers use to give students access to skills and knowledge, such as texts, lectures, demonstrations, and field trips. Teachers can vary these vehicles as well, Tomlinson says. For example, a teacher might direct an advanced learner to complex texts, Web sites, and experts to interview, while providing a student of more modest capacity with reading buddies, videos, demonstrations, and "organizers that distill information and make it more accessible."

- **Process** refers to the activities that help students make sense of, and come to own, the ideas and skills being taught. Teachers can modify these activities, Tomlinson advises, to provide some students with more complexity and others with more scaffolding, depending on their readiness levels. (Examples of scaffolding include step-by-step directions, reteaching, and additional models.) Like content, process can be varied by student interest and learning preferences as well.

- **Products** refers to culminating projects that allow students to demonstrate and extend what they have learned. Products reveal whether students can apply learning beyond the classroom to solve problems and take action. Different students can create different products, Tomlinson suggests, based on their readiness levels, interests, and learning preferences. For example, some students might work alone on a product, while others might work in groups.

This approach—differentiating content, process, and products—requires teachers to be "crystal clear" about what they are trying to teach, Tomlinson says. "Often, that's where we miss the boat."

Moreover, the curriculum needs to be based on broad concepts, Allan says. If it's based on "factoids," then differentiation will be very difficult, she cautions.

**What Are the Strategies?**

Teachers who differentiate instruction rely on a number of strategies to make it feasible, experts say. "There's not one miracle thing that works for every child," says Patricia Woodin-Weaver, an education consultant and counseling psychologist from East Hanover, N.J., who cofacilitates ASCD's network on differentiated instruction. "You need a range of strategies." Network members have used strategies such as cooperative learning, multi-age grouping, and addressing multiple intelligences, Woodin-Weaver says.

Flexible grouping is essentially a must, experts agree. "If you don't use flexible grouping, it's almost impossible to differentiate instruction," Allan says. Trying to vary instruction without grouping students is simply too "unwieldy."

Teachers can vary whole-class instruction by teaching small groups or individual students, Tomlinson suggests. Students can be grouped based on readiness, interest, or learning profile. And, she points out, groups don't necessarily have to be homogeneous. A teacher might group students with a similar readiness level (e.g., for reading instruction) or with a dissimilar one (e.g., to discuss a book they all love).

Another helpful strategy is using "tiered activities," where the teacher keeps the concepts and skills the same for all students but provides "routes of access" that vary in terms of complexity, abstractness, and open-endedness, Tomlinson says. Other strategies include using stations, compacting, and agendas (see box, "Strategies for Differentiating Instruction").
Nearly all educators agree with the goal of differentiating instruction, but teachers may lack strategies for making it happen. Here are some of the many strategies—in addition to flexible grouping and tiered activities—that teachers can use to avoid lockstep instruction:

- **Stations.** Using stations involves setting up different spots in the classroom where students work on various tasks simultaneously. These stations invite flexible grouping because not all students need to go to all stations all the time.

- **Compacting.** This strategy encourages teachers to assess students before beginning a unit of study or development of a skill. Students who do well on the preassessment do not continue work on what they already know.

- **Agendas.** These are personalized lists of tasks that a student must complete in a specified time, usually two to three weeks. Student agendas throughout a class will have similar and dissimilar elements.

- **Complex Instruction.** This strategy uses challenging materials, open-ended tasks, and small instructional groups. Teachers move among the groups as they work, asking students questions and probing their thinking.

- **Orbital Studies.** These independent investigations, generally lasting three to six weeks, revolve around some facet of the curriculum. Students select their own topics, and they work with guidance and coaching from the teacher.

- **Entry Points.** This strategy from Howard Gardner proposes student exploration of a given topic through as many as five avenues: narrational (presenting a story), logical-quantitative (using numbers or deduction), foundational (examining philosophy and vocabulary), aesthetic (focusing on sensory features), and experiential (hands-on).

- **Problem-Based Learning.** This strategy places students in the active role of solving problems in much the same way adult professionals perform their jobs.

- **Choice Boards.** With this strategy, work assignments are written on cards that are placed in hanging pockets. By asking a student to select a card from a particular row of pockets, the teacher targets work toward student needs yet allows student choice.

- **4MAT.** Teachers who use 4MAT plan instruction for each of four learning preferences over the course of several days on a given topic. Thus, some lessons focus on mastery, some on understanding, some on personal involvement, and some on synthesis. As a result, each learner has a chance to approach the topic through preferred modes and also to strengthen weaker areas.

Adapted and condensed from the 1999 ASCD book *The Differentiated Classroom: Responding to the Needs of All Learners* by Carol Ann Tomlinson.

**In the Elementary Classroom**

Teachers from kindergarten to 12th grade are making use of these strategies in their classrooms, experts say. At the elementary level, teachers are using differentiated instruction to ensure that all of their students learn foundational skills.

First grade teachers Gail Canova and Lena Conte}
spelling and editing as they create their own books. A writing activity that differentiates on the 
basis of student interest is the monthly class newsletter, for which the children write stories 
individually on topics of their choice. Students love to see their names in print, both teachers 
ote.

Pat Rutz, a 1st and 2nd grade teacher at Abbot Elementary School in Ann Arbor, Mich., 
differentiates for advanced learners by using curriculum compacting. If some of her students 
have mastered the concept of place value, for example, they can pursue higher-level math work 
individually while she works with the rest of the class, she explains.

To be ready for young learners whose abilities outstrip the rest of the class or who need extra 
help, Rutz has prepared "math boxes" that offer activities aimed above and below grade-level 
expectations for each math concept. During any lesson, "everybody's doing the same work," she 
points out, "but at different levels of complexity. Everyone works on something that's going to 
move them ahead."

At Riverheads Elementary School in Staunton, Va., 4th grade teacher Laurie Biser differentiates 
math lessons according to processes. Some students work better with paper and pencils, some 
need manipulatives, and some learn best at the computer. "I have one student who uses a laptop 
computer all the time because of a writing disability," she says.

Because 4th graders must memorize multiplication facts and Biser knows that not everyone has 
the same skill at memorizing, she asks her students, "How do you think you could learn this 
best?" She finds that the activities students prefer are usually a key to how they learn most 
efficiently, so she often lets them choose whether to draw, write, use flash cards with a partner, 
create 3D models, or create 3-dimensional models.

Biser also uses contracts as a means to differentiate instruction. Creating contracts requires a lot 
of advance work, she notes, but once the contracts are ready, students like them because they 
get to make choices according to interest and ability. For learning spelling words, Biser provides 
sheets with contracts that list as many as 45 different activities, each worth between 
10 and 20 points, depending on the level of activity. Students select their own spelling activities 
and have a week to complete their contracts with their work stapled to them. "This puts them in 
control of the grade they want to receive for their work," explains Biser.

Teacher Penny Shockley at Ephesus Elementary School in Chapel Hill, N.C., uses tiered 
assignments to engage her 5th graders at all levels of ability. When she begins the unit on 
perimeter, area, and volume, Shockley first presents a short, hands-on lesson that defines the 
whole-class objective and lays the foundation for individual practice. Together, she and the 
students measure various sizes of cereal boxes so that everyone is clear about definitions and 
processes.

Then, in groups of two, students receive activity packets. The more concrete learners receive 
packets with worksheets that direct them to measure their own desks and classroom furniture. In 
this highly structured activity, students practice calculating the perimeters, areas, and volumes of 
things they can actually see and touch. Shockley is on hand to offer help and to extend the 
activity, for those who are ready, by helping students find a way to arrange the desks so that 
they have the smallest possible perimeter.

Other students with greater abstract reasoning skills receive packets that direct them to design 
their own bedrooms. In this more complex and independent assignment, students use their 
creativity to define the dimensions of an imaginary bedroom and to create scale drawings. They 
also calculate the cost and number of five-yard rolls of wallpaper borders needed to decorate 
their rooms. From catalogs, they select furniture and rugs that will fit into their model rooms. 
These details provide extensive practice, beginning with such tasks as determining how many 
square feet of floor space remain uncovered. This open-ended assignment offers higher-ability 
students an opportunity to extend their learning as far as they want to take it.

"My job is to determine what each child needs, and it isn't the same for everyone," says 
Shockley. She notes that all students have the opportunity to earn As within their own level of 
challenge.

At the Secondary Level

Teachers in middle schools and high schools are also using strategies for differentiating 
instruction, experts say. Wendy Raymond, 6th grade language arts teacher at Tappan Middle 
School in Ann Arbor, Mich., asks her students to select one of 30 thematically related books that 
she introduces. Then she groups students who are interested in the same titles, usually about

http://www.ascd.org/portal/site/ascd/template.MAXIMIZE/menuitem.7aaa3600d26ec4eb... 7/12/2008
four or five students per group, and teaches them how to function as a literature circle—students learn the roles of discussion directors, connectors (students who make connections to things in the real world), illustrators, literary luminaries (students who point out great figurative language), and vocabulary enrichers (those who identify words that most students might not know). With each new book, students regroup and jobs rotate, but each group sets its own schedule for discussions and assignments.

When Raymond’s students come together for whole-class activities, they explore themes common to all of the books, followed by assignments that might require students to create their own short literary work that typifies the genre they have just studied. "The idea is to get kids to stretch themselves," says Raymond. "They can go as far with this as they want, and there are lots of different opportunities for achievement according to interest."

At Phillips Middle School in Chapel Hill, N.C., some of Rob Frescoln’s 7th grade science students read at a 2nd grade level and others can handle college texts. To help all his students succeed with research papers, Frescoln provides science texts at several reading levels and uses mixed-ability groupings.

Each of five students in a mixed-ability group might research a different cell part by gathering information from books at her own reading level. Then groups split up so that all students with the same cell assignment compare notes and teach one another. Finally, students return to their original groups so that every member of each group can report to the others and learn about the other cell parts. "It’s the coolest thing in the world to see a lower-ability kid teaching a higher-ability kid what he’s learned," says Frescoln. This approach to differentiation helps motivate all students to push themselves just a little further, he says.

At Brownell Middle School in Grosse Pointe Farms, Mich., science teacher Marie DeLuca offers tiered assignments to help her 8th graders understand the concept of density. To start everyone off on the same foot, DeLuca uses an introductory lab activity that allows the whole class to compare the differing weights of identical volumes of sand and oil. The object is to determine whether a ship could carry the same amount of sand as it could oil, and how this manifests the property of density.

From this starting point, DeLuca assigns students an Internet activity that explores the causes of the sinking of the Edmund Fitzgerald—but at different levels of synthesis and analysis, depending on student ability. Homework assignments ask higher-ability students to design cargo boats, grade-level students to float an egg, and below-level students to determine which is more dense: a can of Classic Coke or a can of Diet Coke. They must perform a water displacement experiment to come up with the correct answer.

All students complete lab reports that DeLuca evaluates using a rubric. Analytical writing is the most important element of the rubric, but students can earn an A grade as long as they support their conclusions with evidence found in their own particular assignments. The tests DeLuca gives are also differentiated according to the tiered homework and lab activities. "It wouldn’t be fair for everyone to do the same assignment and the same test," says DeLuca, "because everyone has different talents. The important thing is for everyone to have a certain degree of challenge."

At Quince Orchard High School in Gaithersburg, Md., social studies teacher Leon Bushe uses mock trials to differentiate instruction for 10th graders in his national, state, and local government class. Even though this is an honors class, Bushe finds that there is a wide variance in abilities, so he tries to differentiate instruction according to interest, task, and readiness. He finds that mock trials offer opportunities for all three modes of differentiation.

Dividing his class of 30 into three groups of 10, Bushe gives each group a court case involving a legal concept such as beyond a reasonable doubt. Students choose whether to be lawyers, witnesses, or defendants—whichever they feel most comfortable with. Every student has at least two roles, because each trial group also serves as the jury for another trial group. To prepare for their roles, students must complete individualized reading and writing assignments, but they all learn the basics of trial by jury.

One factor of Bushe’s mock trials that heightens interest is that each jury deliberates in a fishbowl environment—that is, the rest of the class gets to observe the deliberations but may not speak or interfere. "When the jury goes off on a tangent or misinterprets something," says Bushe, "you see the lawyers on the edges of their chairs, almost ready to burst. But of course, they can’t say anything."

The mock trials require a good deal of extra preparation because so many students have unique assignments and roles. But Bushe insists that by differentiating, "you’re guaranteeing that more
kids will understand what you're doing."

Making It Happen

Asking teachers to differentiate instruction raises a host of issues, experts freely admit—time, classroom management, and grading, among others. In the face of these challenges, how can an administrator encourage teachers to move in this direction?

"An administrator has to become knowledgeable about differentiation, both the philosophy and the classroom implications," says Allan. Administrators also need to provide "flexibility of funds" so teachers can use a variety of resources and are not stuck with one textbook. But "the critical factor is [sustained] staff development," Allan emphasizes. "You don't learn to differentiate instruction in a one-afternoon workshop."

At the school or district level, "you really need a person who guides the effort," Allan adds—someone who aligns staff development, curriculum, materials selection, and methodology, "It's a Herculean task administratively, but it's worth it," she says. "It's what we should be doing for kids."

In her role as staff development coordinator for the Rockwood, Mo., school district, Sue McAdamis has seen many teachers warm up to differentiated instruction. Three years ago, when she started pitching the idea to elementary teachers, McAdamis met with "terrible resistance." But when a cadre of interested teachers were trained and began doing peer coaching, "that really put it in place," she says. "Those people became our critical mass." Today, differentiated instruction is "business as usual" in the district's elementary schools, she says.

When McAdamis broached the idea to middle school teachers, "they almost threw me out," she recalls. The teachers objected, saying that they lacked time, that they were dealing with large class sizes, and that differentiation ran counter to the middle school philosophy. "They were worried about tracking," McAdamis explains.

Differentiated instruction is not a form of tracking, Tomlinson states; it is "intended to be the exact opposite." Teachers must give every child access to the curriculum and ensure that every child makes progress, she says.

McAdamis notes that some of the middle school teachers who were initially the biggest resisters have become the biggest supporters. One science teacher was dragged into differentiated instruction "kicking and screaming," she says. Then the teacher tried a tiered activity and was stunned by the outcome. "For the first time ever," the teacher said afterward, "all of my kids understood the concept."

Principals are the key to making implementation work, McAdamis says. Principals' attitudes and the amount of support they provide are critical. In her district, principals have found money to hire substitutes, allowing teachers to make school visits and do peer coaching. "It's very helpful if principals attend staff development training," she adds.

Bob Bateman, principal of Riverheads Elementary School in Staunton, Va., took a three-credit university course on differentiating instruction as part of his district's effort to ensure that all students would receive appropriate instruction. Two staff members from each school took the course, then led staff development activities at their respective schools, he says.

At Riverheads, each teacher was asked to create or modify a unit of instruction in keeping with the principles of differentiated instruction. Bateman gave the teachers feedback on their units, then met with them again after they had taught the units. "I tried to stay really involved with it," he says.

Bateman also helped develop two sample units—one on oceans, one on regions of the United States—that were given to teachers as a guide. Through creating these sample units, "we learned a tremendous amount," he says. Similarly, McAdamis has compiled a book of teacher-developed activities and lessons that represent "best practices" in differentiated instruction.

A Challenge Worth Meeting

No one claims that differentiating instruction is easy. "There's no question that it's a big challenge," Woodin-Weaver says, "but there's no bigger challenge than trying to insert kids in a one-size-fits-all classroom and then having to deal with the spillover of emotional and behavioral reactions. If kids are not in a place where they can learn, they let us know loud and clear," she says.

Teachers are inspired to persevere with differentiated instruction when they see the results, Allan
says. Students are more engaged and make more rapid progress. Bright students are no longer bored, and struggling students are finding learning more accessible—and hence their sense of self-efficacy is rising. In response, "I see veteran teachers becoming energized, and new teachers becoming enormously excited," Allan says. As one veteran teacher told her: "This differentiation is exhausting, frustrating, and time-consuming—and I would never go back to the old way."
Part II. PUBLIC POLICY PERSPECTIVES --HRED

Based upon your degree,
Choose a Higher Education or K-12 Policy Question

HIGHER EDUCATION POLICY QUESTION

PUBLIC POLICY PERSPECTIVES

**Directions:** Select one (1) of the three Higher Education Policy questions presented below and respond to it in a coherent essay. Be sure to draw on your knowledge of policy analysis and the literature in higher education to frame your basic position, support the position with the best available evidence and to develop your response in clear and coherent prose.

**Question #1: Spiraling Cost in Higher Education: What's Going On?**

There is perhaps no more urgent issue than the rapidly escalating costs of higher education, especially in the independent sector. As a scholar of American higher education, you are asked to prepare a research-based article for a popular magazine that explains why costs are escalating so rapidly and what steps colleges and universities can take to contain costs. In your response, be sure to include:

a. An analysis of how organizational structure and culture affects expenditure patterns in colleges and universities;

b. An analysis of changes in revenue streams to colleges and universities over the past decade.

c. An analysis of the impact of changing state and federal policy on institutional cost structures; and

d. How in your judgment can higher education address the spiraling cost issue most effectively?

- OR -
HIGHER EDUCATION POLICY QUESTION (Con’t)

Question #2: Quality and Access

A classic debate regards access and financing of American higher education. Prepare an essay that develops your position with respect to these four questions:

1. Who goes to higher education?
2. Who pays for higher education?
3. Who benefits from higher education?
4. Who should pay?

In preparing your response, please consider such trends as current and historical participation rates in higher education, data & perspectives on individual and societal benefits of higher education participation, current and historical methods for financing higher education. Be certain to address all four (4) of the questions.

- OR -

Question #3: New Jersey State Policy with Respect to Student Migration

Suppose you are a prominent business person with heavy investments in new high-tech industries in New Jersey. Because of your interest in higher education and your political activity in the state, you have been appointed to the New Jersey Commission on Higher Education to represent the public.

As part of your orientation by the state officials, you learn that New Jersey has a very high rate of out-migration of high school graduates. A large percentage of the graduating high school seniors leave the state to start their college education as freshmen in other states.

You ask the state agency for more information. What are the state education or other policies—or circumstances, such as geography—that lead to such a high rate of out-migration? State officials argue that out-migration of college students, who—they assert—eventually return to the state to take jobs, saves the state money, thus both helping to keep college tuition low, and helping slow the rate of tax increase.

Drawing on your reading of higher education literature, and sources outside of education, as well as your own perspectives as a business leader in the state:

1. Explore the probable reasons for the out-migration in NJ.
2. Discuss the rationale offered by the state officials to justify their position.
4. What would you, as a business leader, recommend as being best in the public interest, and why?
Part II. PUBLIC POLICY PERSPECTIVES -- K-12

Based upon your degree,
Choose a Higher Education or K-12 Policy Question

K-12 POLICY QUESTION

PUBLIC POLICY PERSPECTIVES

Directions: Select one (1) of the two K-12 Policy questions presented below and respond to it in a coherent essay. Be sure to draw on your knowledge of policy analysis and the relevant literature to frame your basic position, to support your position with the best available evidence and to develop your response in clear and coherent prose.

Question # 1: Demonstrate your understanding of policy analysis

Directions: answer parts A, B and C

A. What is your “working definition” of policy? In preparing your definition please define and distinguish between “Policy Analysis” and “Policy Advocacy”.

B. Education leaders should have a good understanding of policy that affects education in the pre K-12 area, broadly speaking. Briefly defend this assertion in 2 to 3 paragraphs

C. Theorists often refer to various models for understanding the policy process. These models include: Institutionalism, Rationalism, Group Theory, Elite Theory and Incrementalism. Identify the characteristics of three of these models and your assessment of the strengths and weaknesses of those models in understanding policy development and implementation. In preparing your response you may find it useful to prepare a table to structure your response.

<table>
<thead>
<tr>
<th>Policy Analysis Model (prepare response for 3 of these models)</th>
<th>Identify / explain characteristics of model</th>
<th>Identify / explain strengths and weaknesses of model in helping education leaders understand the development and implementation of education policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutionalism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rationalism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group Theory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elite Theory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incrementalism</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- OR -

5
K-12 POLICY QUESTION (Con’t)

Question #2: Charter Schools and Failing Urban Schools

In the attached essay “Wave of the Future: Why charter schools should replace failing urban schools” A. Smarick presents a case for having charter schools replace failing urban schools. Drawing upon your familiarity with the policy analysis process, develop a cogent analysis that:

- Develops, defines and explains in clear terms what you see to be one (1) of the key policy questions contained in the Smarick article.

- Identifies and explain one or two policy alternatives to the policy question you identified as central to the Smarick article.

- Identifies two or three groups or organizations who would be the principal actors in this policy discussion e.g., parents, principals, politicians, unions, school boards etc. and explain why they would be key actors.

- Identifies the evaluative criteria that the key actors you identified in this policy discussion might be inclined to use to assess the effectiveness of any policy changes with respect to the replacement of failing urban schools with charter schools. For example, what criteria might politicians or school boards use to assess the change proposed by Smarick? Because group interests generally influence the means by which they evaluate a policy the criteria will vary by group or organization.

PLEASE SEE THE FOLLOWING SMARICK ARTICLE..........................

“Wave of the Future: Why charter schools should replace failing urban schools”
Wave
In a decade and a half, the charter school movement has gone from a glimmer in the eyes of a few Minnesota reformers to a maturing sector of America's public education system. Now, like all 15-year-olds, chartering must find its own place in the world.

First, advocates must answer a fundamental question: What type of relationship should the nascent charter sector have with the long-dominant district sector? The tension between the two is at the heart of every political, policy, and philosophical tangle faced by the charter movement.

But charter supporters lack a consistent vision. This motley crew includes civil rights activists, free market economists, career public-school educators, and voucher proponents. They have varied aspirations for the movement and feelings toward the traditional system. Such differences are part of the movement’s DNA: a National Alliance for Public Charter Schools (NAPCS) study found that the nation’s charter laws cite at least 18 different goals, including spurring competition, increasing professional opportunities for teachers, and encouraging greater use of technology.

Because of its uniqueness, chartering is unable to look to previous reform efforts for guidance. No K–12 reform has so fundamentally questioned the basic assumptions—school assignments...
based on residence, centralized administrative control, schools lasting in perpetuity—underlying the district model of public education. Even the sweeping standards and assessments movement of the last 20 years, culminating in No Child Left Behind, takes for granted and makes use of the district sector.

Though few charter advocates have openly wrestled with this issue, two camps have organically emerged. The first sees chartering as an education system operating alongside traditional districts. This camp contends that the movement can provide more options and improved opportunities, particularly to disadvantaged students, by simply continuing to grow and serve more families.

The second group sees chartering as a tool to help the traditional sector improve. Chartering, the argument goes, can spur district improvement through a blend of gentle competitive nudging and neighborly information sharing.

Both camps are deeply mistaken. For numerous policy and political reasons, without a radical change in tactics the movement won’t be able to sustain even its current growth rate. And neither decades of sharing best practices nor the introduction of charter competition has caused districts to markedly improve their performance.

Both camps have accepted an exceptionally limited view of what this sector might accomplish. Chartering’s potential extends far beyond the role of stepchild or assistant to districts. The only course that is sustainable, for both chartering and urban education, embraces a third, more expansive view of the movement’s future: replace the district-based system in America’s large cities with fluid, self-improving systems of charter schools.

A Parallel System
Charter advocates are rightfully proud of their achievements.
As of spring 2007, 4,046 charter schools were serving more than 1.1 million children across 40 states and the District of Columbia. In a number of cities, charters educate a significant proportion of public school students (see Figure 1). But when compared to the expanse of the traditional district-based system and the educational needs of low-income families, the movement’s accomplishments are modest.

Nationwide, only 2 percent of public school students attend charters. Over the last five years, an average of 335 new charters started annually. At this rate, it would take until 2020 for chartering to corner just 5 percent of the national market. Even these humble figures inflate the movement’s true national standing. In 2007 nearly two-thirds of charter schools were in only seven states. Today, 24 states have less than 1 percent of their students in charter schools. Though strong expansion continues in places like California and Florida, the 2006-07 school year saw 26 states open five or fewer new schools, while 5 states—because of closures—began the school year with fewer charters than they had the year before.

None of this, however, should be taken as an assault on charters’ popularity or effectiveness. In New York, 12,000 students are on charter wait lists; in Massachusetts 19,000; in Pennsylvania 27,000. Students on all of the nation’s charter wait lists would fill an estimated 1,121 new charter schools.

Research on student achievement in charters is encouraging. A recent analysis of the charter school studies since 2001 that measured student or school performance over time—the ideal way to measure a school’s “value added”—reported that 29 of 33 studies found charters performing as well as or better than traditional public schools. The New York Times Magazine spotlighted charter networks KIPP, Uncommon Schools, and
Achievement First in a major feature on how to close the achievement gap. Yet despite these successes, chartering’s current status and growth trajectory won’t enable it to become a parallel system large enough to serve the millions of needy students across the country within the foreseeable future.

Some might respond, “Then just accelerate growth.” But the forces that have held chartering back over the last 15 years aren’t going away. Worse, even today’s growth levels may be in danger.

Twenty-five states have imposed some type of cap on charter expansion, and in eight states those limits currently constrain growth. The battle against caps must be fought state by state by under-resourced, overextended charter advocates against entrenched opponents. In New York, an expensive and sophisticated multiyear effort by charter advocates that was supported by the governor and New York City’s mayor and schools chancellor finally resulted in legislation that raised the cap, but only by 100 schools. The new limit will be reached in just a few years.

Unequal financing is another obstacle. A Fordham Institute study found that on average charters receive $1,800 less per student than traditional public schools, despite serving more disadvantaged students. This discourages educators from starting new charters and traditional schools from converting. It also inhibits existing charters from growing enrollment or expanding to new campuses. Facilities are a major piece of this puzzle. While traditional public schools are provided a building, charters still must find, secure, and pay for a roof and walls. Only 13 states and Washington, D.C., provide some sort of facilities assistance.

The greatest impediment to growth is the wide array of political, legal, and administrative attacks. Institutional players—teachers unions, school boards, and state and district administrators—frequently petition state leaders for charter caps and reduced charter funding and vigorously oppose alternative authorizers and facilities aid. The nationwide Democratic landslide in the 2006 elections left many state governments less charter-friendly. For example, Ted Strickland, Ohio’s new Democratic governor, made a moratorium on new charters one of his top priorities.

In a number of states, most recently Ohio and Michigan, coalitions have attacked chartering through the courts. Though these challenges have been beaten back so far, even one loss could force the closure of hundreds of schools. A 2006 Florida Supreme Court decision was foreboding. Striking down the state’s voucher plan for contrasting the state constitution’s requirement of a “uniform” public education system, the court opened the door to challenges to the state’s 350 charters, which, by definition, are not uniform.

Finally, chartering is held back by its administrative arrangements. Ninety percent of authorizers are local school districts, many of which view charters as an administrative inconvenience, competitive nuisance, or worse. In a NAPCS survey of charter school leaders, nearly two-thirds said working with the district was a problem. This summer, a high-performing KIPP charter school in Annapolis, Maryland, was forced to close because it couldn’t find a permanent facility, even though the school district, according to its own study, had 900 empty seats in a nearby, underutilized school. Responding to the school’s pleas for help, the district’s superintendent told the local newspaper, “It’s not my responsibility. It’s not my school.”

The “parallel system” approach to chartering’s future rests on two mistaken assumptions: first, that by simply creating new schools and not purposely antagonizing the traditional system, chartering wouldn’t attract the ire of defenders of the status quo; and second, that if chartering proved successful and popular, the sky was the limit on growth. As it turned out, district stakeholders have fought charters tooth and nail from the beginning, and they have erected policy obstacles that have severed the link between charter demand and supply.

The District Partner

The second camp envisions a vastly improved traditional school system, achieved through charter cooperation. This group believes that consistent collaboration between the two sectors would enable charters to experiment and then share lessons learned so all students, the vast majority of whom still attend traditional public schools, could benefit.

“I believe that districts and charters will benefit by building more collaborative relationships,” says Tom Hutton, a staff attorney for the National School Boards Association and a former board member of the Thurgood Marshall Charter School in Washington, D.C.

Like Hutton, many in this camp are veterans of the traditional system who recognize the value of chartering. But they assume district immortality—districts have been the sole delivery system of public education for generations—and believe a collaborative relationship to be wise, pragmatic, and ultimately necessary. The late Appleton, Wisconsin, superintendent Tom Scullen supported charters within his district but cautioned, “Charter schooling will fail if it tries to become a second track of public education. There isn’t enough money to support two systems.” Deborah McGriff, executive vice president of Edison Schools and former Detroit superintendent, agrees: “Charters need to start thinking about how we move from suspicion and competition with districts to collaboration and cooperation.”

This collaborative relationship is becoming institutionalized. The federal Charter School Program, which provides charter start-up funds, requires that states disseminate charters’ best practices to districts. KIPP has an open-door policy for local teachers and principals; they are welcome to
visit and take away whatever lessons they can. Funders in particular are buying into this strategy. NewSchools Venture Fund, whose goal is to improve school districts, invests in charter entrepreneurs in the hope that they can "spark broader transformation in the public school system." One of the Boston Foundation’s high priorities in its education giving is supporting the sharing of effective practices between chartered and traditional schools.

Though the move toward greater cooperation has emotional appeal, to embrace it you have to believe that districts, including major urban districts, are both willing and able to change and significantly improve student achievement at scale. Sadly, there is *prima facie* evidence that they are not. The achievement gap has been well documented for 40 years: in the Coleman Report, NAEP data, SAT scores, and state assessments. Given the threefold increase in per-pupil spending and countless policy changes, blue-ribbon panel recommendations, and foundation initiatives in the intervening years, it is undeniable that districts have already tried, or have been forced to try, to shape up.

Diane Ravitch recently reported in the *Education Gadfly* (June 7, 2007) on the disappointing achievement scores from New York City, whose much-heralded schools leader, Joel Klein, has implemented some of the nation’s most aggressive reforms. Ravitch found that during Klein’s five-year tenure academic gains have been smaller than during the previous five years and that the reading scores of cohorts of students are actually declining as they progress through the system. New York’s inability to improve despite major interventions is far from unique. NAEP’s Trial Urban District Assessment, which measured the performance of 11 large urban systems in 2005, provides compelling evidence of the futility of district-based reforms: even the highest-performing district studied (Charlotte) had only 72 percent of its 8th graders at or above proficient in reading.

It is unreasonable to believe that charter collaboration will significantly alter these stubbornly disappointing district results. High-performing low-income schools, though too rare, have been documented for decades, and yet their lessons have never been translated into comprehensive district improvement. This is despite major efforts to spread best practices widely, including the work of education schools and $15 billion spent annually on teacher professional development. All in all, the uncomfortable but unavoidable question for collaboration advocates becomes, why should chartering invest in a strategy—helping major urban districts solve the achievement gap—that has consistently failed for 40 years when pursued by others?

Many strong believers in school choice, myself included, were convinced that the competitive pressure exerted by charters would lead to a renaissance in the traditional system. The vast district improvements we expected never materialized. The clearest evidence comes from Dayton, Ohio, and Washington, D.C., two cities with significant charter sectors.

In the nation’s capital, 26 percent of students attend one of the city’s 71 charter schools. The city’s charter sector is remarkably innovative and energetic, including such standouts as KIPP KEY Academy, the SEED School, and DC Prep. Nevertheless, the District’s traditional system remains among the very worst in the nation. Of the 11 cities participating in the NAEP Trial Urban District Assessment in 2005, Washington, D.C., had the lowest scores in math and reading in both grades tested. Among its 8th-grade students, only 12 percent reached proficiency in reading and 7 percent in math. A Progressive Policy Institute study of D.C.’s charter experience summarized the situation perfectly: “There is no
clear evidence that charter schools have had a direct impact on student achievement in DCPS schools or otherwise driven systemic reform.”

Charters educate 28 percent of Dayton’s students. Last year, the district reached only one of 25 state indicators and failed to make AYP. Seventy and 56 percent of its 8th graders failed to reach proficiency in math and reading, respectively. Residents are understandably frustrated: a 2005 Fordham Foundation survey found that 69 percent of Dayton residents are in favor of either major change from the district or an entirely new education system.

Some studies, like those by Hoxby (see “Rising Tide,” research, Winter 2001) and by Holmes, Desimone, and Rupp (see “Friendly Competition,” research, Winter 2006) have found a small bump in a district’s achievement when it faces charter competition. Bifulco and Ladd (see “Results from the Tar Heel State,” research, Fall 2005) and Buddin and Zimmer, however, found none. There are legitimate disagreements about the influence of additional factors in these studies, such as the amount of competition, the policy environment, and the type of test data used. But when this research is considered alongside our other experience, the only fair conclusion is that competition hasn’t dramatically altered district performance for the better.

Charter competition has caused one unexpected and fascinating phenomenon. When facing a growing number of charters, districts tend to turn to advertising. In January 2006, the Boston Teachers Union and the district were in negotiations to spend $100,000 to promote the virtues of traditional public schools to families choosing charters. Also in early 2006, the Cincinnati district sent letters and held information sessions designed to have charter families reenroll in traditional public schools. In May 2007, the St. Louis district awarded a no-bid contract to a marketing firm to “drive the message of the negative impact of charter schools.” Seemingly unable to improve results, districts rely on public relations to stem the migration of students to other schools.

Why is it that major urban school districts are unable to improve student learning at scale? A compelling argument, and a roadmap for charter schooling’s future, can be found in Ted Kolderie’s excellent and underappreciated book, Creating the Capacity for Change. Kolderie applies to K–12 education the lessons Harvard economist Clayton Christensen has drawn from the private sector. Christensen, studying how industries evolve and improve over time, found that critical advancements don’t come from old firms changing their ways. They come from new firms (or independent subsidiaries) entering the market, introducing new products and systems, and responding nimbly to the demands of consumers.

When an industry experiences a major change, existing firms find themselves unable to adjust to navigate the new world. Every aspect of its identity—culture, staffing practices, priorities—was geared toward succeeding in the old environment. When the environment changes, it’s impossible for the horse and carriage to transform into a steam locomotive.

The implications for public education are profound. For 150 years, public schooling has been a one-factory town: a board- and superintendent-led district manages, staffs, and oversees an area’s entire portfolio of public schools. But in this time, the world has become a radically different place and the expectations of schools have changed even more. As Kolderie points out, if private firms, which are built to respond to competition, are unable to make this kind of leap, we can’t expect gigantic, Byzantine school systems, which are insulated from competition, shackled by union contracts, and constrained by a sticky web of regulations, to do so.

The system is the issue. The solution isn’t an improved traditional district; it’s an entirely different delivery system for public education: systems of chartered schools.
A Transformed System
Charter advocates should strive to have every urban public school be a charter. That is, each school should have significant control over its curriculum, methods, budget, staff, and calendar. Each school should have a contract that spells out its mission and measurable objectives, including guaranteeing that all students achieve proficiency in basic skills. Each school should be held accountable by an approved public body.

"Charter" will no longer be seen as an adjective, a way to describe a type of school, but as a verb, an orderly and sensible process for developing, replicating, operating, overseeing, and closing schools. The system would be fluid, self-improving, and driven by parents and public authority, ensuring the system uses the best of market and government forces. Schools that couldn’t attract families would close, as would those that ran afoul of authorizers for academic, financial, or management failures. School startups, both the number and their characteristics, would reflect the needs of communities and the interests of students, but would also be tightly regulated to generate a high probability of school success.

So, while the government’s role would still be significant, it would no longer operate the city’s entire portfolio of public schools. Instead, it would take on a role similar to the FAA’s role in monitoring the airline industry or a health department’s monitoring of restaurants. Today, we take airline safety for granted and make our choices based on service, connections, and so on. Similarly, we know all restaurants have fire exits and meet food safety standards, so we choose based on our tastes and schedules. A well-regulated charter school system could guarantee that all public schools were providing a safe, high-quality education and properly managing operations, thereby allowing families to choose a school based on other criteria.

The government’s substantial oversight role in guaranteeing safety and quality would differentiate a charter system from a universal voucher program. To many, a voucher system would undesirably blur the lines between church and state, add the profit motive to schooling, remove the “public” from K-12 education, and leave too much to the vicissitudes of the market. By contrast, in a chartered system, public schools would be nonreligious, managed by nonprofits, overseen by a public authority, and held to clear performance standards.

But a chartered system would capitalize on market forces largely absent from district systems, such as constant innovation, competition, and replication. Replication is arguably the most valuable. Chartering has not only created some of America’s finest schools, it has enabled their leaders to identify the characteristics that made those schools so remarkable and then develop systems for creating additional, equally successful schools. In addition to well-known charter management organizations like KIPP, Achievement First, and Uncommon Schools, new ones continue to emerge: Green Dot, High Tech High, Aspire, Noble Street, IDEA, and more. Major funders like the Charter School Growth Fund and NewSchools Venture Fund are helping other high-performing charters expand as well.

So how do we transform today’s urban district systems into chartered systems? Absent political realities, the shift could be quite simple. Any district could decide tomorrow to relinquish day-to-day control of its schools and develop performance contracts with each. Every school could develop its own governing board and acquire control of its budget, staffing, and curriculum. The district could then charge from a central operator to an authorizer, monitoring schools, closing them when necessary, and allowing new ones to open. The “every school a charter school” idea is not new; others, most prominently Paul Hill of the Center on Reinventing Public Education, have been writing variations on this theme for some time.

Unfortunately, for reasons having more to do with power than student learning, this scenario is highly unlikely. Most districts assiduously avoid the loss of one school, let alone all schools. When one of Washington, D.C.’s highest-performing traditional public schools pursued plans to convert to a charter in 2006, the district agreed to several of its demands in exchange for the school’s agreement to stop firing with charter status. This spring, after faculty at Locke High School in Los Angeles signed petitions to convert into a Green Dot charter, district officials scrambled to put together a counterproposal and convinced some teachers to rescind their signatures.

No government entity likes to lose control of any of its components and the budget and prestige that go with them, especially when the loss suggests a failure by the organization. But shifting from an operator into an authorizer would mean cutting hundreds of central office jobs as well: since charters handle their own transportation, facilities, staffing, and more, district employees filling these responsibilities would become redundant. Such a shift, then, would be vigorously opposed by district staff and those who represent them. Countless powerful organizations, like unions, book publishers, and service providers, would also be adversely affected by a decen- tralized system of schools.

Clearly we can’t expect the political process to swiftly bring about charter districts in all of America’s big cities. However, if charter advocates carefully target specific systems with an exciting strategy, the current policy environment will allow them to create examples of a new, high-performing system of public education in urban America.

Here, in short, is one roadmap for chartering’s way forward: First, commit to drastically increasing the charter market share in a few select communities until it is the
Replicating Charter Success (Figure 2)

A number of organizations are reporting that chartering can be brought to scale by sharing services and practices among networks of independent schools.

<table>
<thead>
<tr>
<th>Major Management Organizations and Networks</th>
<th>Number of Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edison Schools</td>
<td>151</td>
</tr>
<tr>
<td>White Hat Management</td>
<td>50</td>
</tr>
<tr>
<td>KIPP</td>
<td>57</td>
</tr>
<tr>
<td>Imagine Schools</td>
<td>52</td>
</tr>
<tr>
<td>Charter Schools USA</td>
<td>27</td>
</tr>
<tr>
<td>EdVisions</td>
<td>44</td>
</tr>
<tr>
<td>Big Picture Company</td>
<td>21</td>
</tr>
</tbody>
</table>

SOURCES: Organization websites, accessed October 1, 2007

The replication of high-performing schools, and the shuttering of low-performing schools.

As chartering increases its market share in a city, the district will come under growing financial pressure. The district, despite educating fewer and fewer students, will still require a large administrative staff to process payroll and benefits, administer federal programs, and oversee special education. With a lopsided adult-to-student ratio, the district’s per-pupil costs will skyrocket.

At some point along the district’s path from monopoly provider to financially unsustainable marginal player, the city’s investors and stakeholders—taxpayers, foundations, business leaders, elected officials, and editorial boards—are likely to demand fundamental change. That is, eventually the financial crisis will become a political crisis. If the district has progressive leadership, one of two best-case scenarios may result. The district could voluntarily begin the shift to an authorizer, developing a new relationship with its schools and reworking its administrative structure to meet the new conditions. Or, believing the organization is unable to make this change, the district could gradually transfer its schools to an established authorizer.

A more probable district reaction to the mounting pressure would be an aggressive political response. Its leadership team might fight for a charter moratorium or seek protection from the courts. Failing that, they might lobby for additional funding so the district could maintain its administrative structure despite the vast loss of students. Reformers should expect and prepare for this phase of the transition process.

In many ways, replacing the district system seems inconceivable, almost heretical. Districts have existed for generations, and in many minds, the traditional system is synonymous with public education. However, the history of urban districts’ inability to provide a high-quality education to their low-income students is nearly as long. It’s clear that we need a new type of system for urban public education, one that is able to respond nimbly to great school success, chronic school failure, and everything in between. A chartered system could do precisely that.

Andy Smarick is former congressional aide and charter school founder. Until recently, he served as chief operating officer of the National Alliance for Public Charter Schools.
III. ORGANIZATION

ORGANIZATION QUESTION

Bolman & Deal developed a conceptual framework, organizational frames, to facilitate the analysis of organizations. The four frames they advanced were influenced by the research and theories of a myriad of authors. Discuss each frame and identify the important contributors to each frames development, as advanced by Bolman & Deal.
IV. RESEARCH -- HIGHER EDUCATION

Based upon your degree,
Choose a Higher Education or K-12 Question

HIGHER EDUCATION RESEARCH QUESTION

Please choose ONE of the following two scenarios as the basis for your answer. Regardless of your choice, your response should:

Explain (or “frame”) the underlying problem. Be clear and concise, and keep in mind that without properly framing the research problem (i.e., the subject of your empirical inquiry), it will be difficult to address subsequent tasks.

Identify one or two critical research questions that derive from the problem as you have explained it. Each question should be clearly and logically related to the problem.

Using one of those research questions, develop a coherent research study. Be sure to identify what specific data are required to answer the questions, the sources of those data, how the data will be obtained, and how they will be analyzed. Justify the effectiveness of this study in addressing the research questions. This methods discussion should be very precise and detailed, and should also compose the bulk of your response.

SCENARIO 1

University A is a comprehensive, public university. Over the past four years, the university has experienced a significant increase in faculty losses. In a presentation to the university’s Board of Trustees this July, the Chancellor and Provost resolved to do a better job on faculty retention in light of the recent phenomenon. They commissioned a study to be conducted. Your task is to design a research study that investigates this faculty retention issue at University A. Although you are not responsible for drafting an entire proposal (e.g., you are not responsible for a literature review), you should formulate a coherent and logical study.

OR

SCENARIO 2

The Peralta community college district consists of 3 community colleges in the same metropolitan region. Concerned with the relatively low numbers of first-semester students who actually complete their first-semester courses, the district has commissioned you to investigate the issue. District administrators believe that many graduates of the surrounding high schools decide to attend colleges in the district, then change their minds early on in the first semester. However, this is an untested theory, and may not prove to be true. Your task is to design a research study that is both coherent and logical in approach.
IV. RESEARCH -- K-12

Based upon your degree,
Choose a Higher Education or K-12 Research Question

K-12 RESEARCH QUESTION

The Research question is based upon instruction, discussions and assignments from the Directed Research Course. The material in the exam could relate either to research in general, or to a more specific ‘Type’ of research, such as evaluation research, action research, etc. You should draw upon your own experience and knowledge in establishing the Problem and related Questions (avoid yes/no questions).

1. Develop a problem statement based on the need to understand what factors induce beginning principals to leave the principalship after one year in the job.
   - The problem statement should define the scope (magnitude) and the precise nature of the problem, as well as the usefulness of framing the problem in this form.

2. Develop research questions that derive logically from the problem statement.

3. Explain what type of design you might choose to structure your inquiry. Why would this design be appropriate?

4. Describe who would be studied, how subjects would be selected, what questions would be asked, how the data will be collected and what data analysis procedures will be used.
V. STATISTICAL ANALYSIS QUESTION

K-12 QUALIFYING EXAM
Answer ALL Questions

Statistical Analysis Questions
Answer all of the following questions. Fully explain your rationale for interpreting the statistical information. The following background is provided as a context for all questions and analyses that follow. Any similarities to real programs and or data are purely coincidental and are not intended as factual.

Background:
In a recent Wall Street Journal article, author John Hechinger (2008), asserted that "high-school students' performance on SAT college-entrance exams stalled, and the gap widened between low-scoring minority groups and the overall population, raising questions about the quality of teaching in U.S. schools" (WSJ, August 29, 2008, p.D1). Despite the efforts of American schools to respond to the federal No Child Left Behind (NCLB) legislation the controversy associated with standardized and criterion testing continues.

Average scores for the class of 2008 were reported to be 502 for the critical-reading section, 515 for mathematics and 494 for writing. Each of the three numbers was identical to the averages in 2007. The reading scores of the past two years were the lowest since 1994. Math represented the worst showing since 2001. Each section is judged on a 200- to 800-point scale.

The recent emphasis on the use of data to inform and guide instruction has caused many high school districts to implement new programs and to collect and analyze data in an effort to gain a better understanding of student performance at the local level. The later years of high school and the first year of post-secondary education have received considerable attention as students transition from secondary schools to post-secondary institutions.
Question #1

A local New Jersey principal was asked by her superintendent to complete a correlation analysis between the combined math and reading scores her graduating seniors received on their New Jersey High School Proficiency Assessment (HSPA) taken in the spring 2007 and their combined mathematics and critical reading Scholastic Aptitude test results taken six months later in fall 2007.

Complete a thorough review of the SPSS Correlation analysis below. Be certain to report and interpret all essential components of a correlation analysis. What does the following output reveal to you with respect to the correlation between HSPA and SAT scores for this local school district?

<table>
<thead>
<tr>
<th></th>
<th>SAT Math &amp; Critical Reading Combined Scores - Fall 2007</th>
<th>HSPA Combined Math and Reading Scores - Spring 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAT Math &amp; Critical Reading Combined Scores - Fall 2007</td>
<td>Pearson Correlation 1 180</td>
<td>.490 .000 180</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>HSPA Combined Math and Reading Scores - Spring 2007</td>
<td>Pearson Correlation .490 180</td>
<td>1 .000 180</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td></td>
</tr>
</tbody>
</table>
Question #2
After reviewing the correlation analysis, the superintendent was interested to see how his students did on average when compared to the national SAT average which was reported to be 1017. The principal was asked to interpret the following SPSS output .with respect to how her students performed on average as compared to the national mean score for the spring 2008. He knew that his students had historically performed below the national norm but he wasn’t certain if this underperformance was statistically significant. He solicited the assistance of his principal who prepared the following chart. Complete a thorough analysis of this data and comment on what leadership, management and/or policy decisions could be made from this data?

<table>
<thead>
<tr>
<th>One-Sample Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
</tr>
<tr>
<td>SAT Math &amp; Critical Reading Combined Scores - Fall 2007</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Value = 1017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>t</strong></td>
</tr>
<tr>
<td>SAT Math &amp; Critical Reading Combined Scores - Fall 2007</td>
</tr>
</tbody>
</table>
Question #3

The Board of Education listened attentively to the presentation by both the principal and the superintendent with regard to the test results of their students. However, during the presentation one of the BOE members made the claim that the school was sliding and noted that the 2008 mean score was lower than the 2007 mean score. The superintendent and principal were then questioned about these results and asked to comment on this assertion. A copy of the SPAA analysis comparing the mean score of 2008 graduates (N=180) and the 2007 graduates (N=171) is listed below. Complete a thorough analysis of this data and comment on what leadership, management and/or policy decisions could be made from this data? How should the administration respond to the outspoken BOE member?

<table>
<thead>
<tr>
<th>Grouping (1) Graduates 2006 Mean</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAT Math &amp; Critical Reading Combined Scores - Fall 2007</td>
<td>1</td>
<td>180</td>
<td>1003.5444</td>
<td>27.32718</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>171</td>
<td>1007.9474</td>
<td>23.77746</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAT Math &amp; Critical</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading Combined</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scores - Fall 2007</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>-1.607</td>
<td>349</td>
<td>.109</td>
<td>-4.40292</td>
<td>2.74011</td>
</tr>
</tbody>
</table>
Question #4

One of the action plan activities that grew out of an analysis of the 2007 SAT and HSPA test results involved an intense intervention program of remedial instruction in the area of mathematics. Students who participated in the program, took a practice HSPA test in the fall of 2007 and then took the official HSPA in the spring of their senior year. Only 60 students participated in this “after school program” but for those who volunteered, it was hoped that this would improve their scores. An SPSS data summary is listed below. Please complete an analysis of the SPSS printout including comments on policy, practice and future research as it relates to this math remedial program.

<table>
<thead>
<tr>
<th>Pair</th>
<th>HSPA Post-test Scores</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HSPA Post-test Scores</td>
<td>241.77</td>
<td>60</td>
<td>20.743</td>
<td>2.678</td>
</tr>
<tr>
<td></td>
<td>HSPA Pre-test Scores</td>
<td>229.68</td>
<td>60</td>
<td>19.075</td>
<td>2.463</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSPA Post-test Scores - HSPA Pre-test Scores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>