A Student Developed Minimum Competency Test for Donovan High School Study and Use

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A STUDENT DEVELOPED MINIMUM COMPETENCY TEST
FOR DONOVAN HIGH SCHOOL STUDY AND USE
(TITLE)

BY

Stephen Anthony Shuda

Field Experience

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
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IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY
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Abstract

Statement of Purpose

The purpose of this field study was to research the literature concerning minimum competency testing and using twelfth grade students at Donovan High School, develop a student originated minimum competency test. Further consideration was given to potential use in curriculum study and minimum competency evaluation.

The students were instructed in the basics of minimum competency tests and testing programs. Care was given to not bias their choice or selection processes.

The completed test was evaluated and considered to be a foundation for future studies in minimum competency testing and curriculum applications.

Procedure

Although this project was designed by local students to be used within the Donovan School District, this writer believes that the practice of utilizing students in the development of curricular studies and minimum competency programs, is appropriate and beneficial. A project of this type may be applied to programs in other districts that are interested in approaching the same problem in a similar manner.
The study is divided into five chapters. Chapter one indicates the purpose for the project. It states the procedures and limitations that will be followed.

Chapter two presents a review of the available literature. This sampling includes information gathered on the pro and con aspects of minimum competency testing, and legal, federal, state, and local involvement.

Chapter three identifies procedures used in the actual preparation and participation of the project. It discusses the three phases of student involvement that led to the completion of the student developed test.

Chapter four includes applications and recommendations for the test as it applies to use as a minimum competency examination, and as an indicator for potential curriculum change.

Chapter five contains the summary, conclusion, and recommendations that follow the participation in this project.

The appendix contains an example of the student developed minimum competency test and is followed by a complete bibliography.
A STUDENT DEVELOPED MINIMUM COMPETENCY TEST
FOR DONOVAN HIGH SCHOOL STUDY AND USE

By

Stephen Anthony Shuda

B. A. Western Illinois University, 1972
M. S. Northern Illinois University, 1977

A FIELD STUDY

Submitted in partial fulfillment of the requirements
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CHAPTER I

INTRODUCTION

STATEMENT OF PURPOSE

This project was initiated for basically two reasons. The writer desired to learn more about the minimum competency testing movement; including where and why it all began and the path it took to its present status. Secondly, the project developed from the writer's conviction that many students are capable of developing high level educational tools. What is developed by students for use by other students, may be more readily acceptable. It would seem that peer involvement may instill more trust in a particular system.

In addition to researching the literature and inviting student involvement in the project, there are practical applications to consider. An administrative and teaching staff evaluation of the project could identify possible areas of concern within the local curriculum. Not only could the test be evaluated, it could be administered. Although an initial administering of the student developed test would be experimental, it could lead to a more serious testing program.
Student participation is the key element to this project. "More opportunities should be offered to students to design independent and alternative learning experiences in keeping with their growing need to exercise personal responsibility."\(^1\)

At the high school level, students are on the verge of adulthood, and most have definite ideas about their futures. "Students must have an opportunity to systematically express their views of programs that are congruant with their needs and plans."\(^2\)

These needs may be considered as part of the basic aspects of secondary school curriculum. It is therefore necessary for students to become more involved in the development of the curriculum if they are to fulfill their responsibilities, and place themselves in a position so as to have a voice in the creation of programs intended to solve their basic educational needs.

The author of this project is the principal of a small high school in northern Illinois. The school services one hundred and sixty-six students with a faculty of twenty full-time teachers. Like many small districts, the writer's school is plagued with deficit spending, declining school


\(^2\)Ibid., p. 49.
enrollment, low teacher salaries, and a continually shrinking curriculum. Despite these problems, this district has an intense interest in educating students to the fullest extent of its ability. In a continuing effort to keep the curriculum appropriate to the needs of the students, studies are made which identify interest levels and the "basics" are reestablished within the framework of the academic requirements.

It is the purpose of this study to gain input from graduating seniors as to what they feel to be the most important minimum competencies of knowledge that a student should know prior to graduation from this high school.

While it may be feasible to simply ask those students to list the areas of the curriculum that they feel all students should know, such a question would not result in the quality of interest that a project of this nature would.

The results of the student project may be used in several different manners. It could be incorporated into a non-binding minimum competency test for graduating seniors, or it could be used to identify areas of the curriculum that are considered to be important to the academic needs of the students as they see it.

The uniqueness of this study lies in the belief that few published articles exist regarding student originated competency tests. Most minimum competency tests are created
by professional test makers or teachers and administrators. This seems rather absurd when one considers that unless educators are able to identify so closely with the youth of today as to know what they are "truly" thinking and believing, much of what we feel they could know may not be what they are even concerned about, or willing to learn about.

From this project, the school district may learn what students actually feel is the most important minimum knowledge that they should acquire prior to leaving the secondary school system. This information may be used to meet the student's academic needs.

PROCEDURES

For the purpose of this study a minimum competency test is defined as a paper and pencil test which contains a sampling of questions from various curricular areas. The questions represent areas of knowledge which are considered to be the minimum amount of knowledge needed to identify a basic understanding of the topic. The topics are considered to be the basic minimum areas of knowledge needed to be learned by a student at a particular grade level for either promotion to the next grade level or to exit the system.

This study includes a review of the literature which was acquired through the ERIC services and researched from the computerized printout of literature within the ERIC system.
The literature which was selected to represent the topic was subdivided into various categories. The first category is the historical aspects of the minimum competency movement. The second category which has been termed "current views", refers to current literature of both a positive and negative nature. The third category is related to the involvement of minimum competency testing and its application at the federal, state, and local levels. Included, are considerations of various legal implications and several notations from other state projects.

The second major section of the project includes a review of student participation in the project and application of the findings to both minimum competency testing and potential change in local curriculum.

The project concludes with an appendix containing a complete copy of the student developed test, summary with recommendations, and a complete bibliography.

LIMITATIONS

The procedures for the student group involvement will be based on a student developed minimum competency test. This writer does not intend to suggest that this test is either valid or reliable, nor does it stand as an appropriate measure of the student learning that takes place within the writer's district. It is an experimental, information gathering project, the results of which will be
used where applicable.

It will be limited by the number of students participating, by their limited test making knowledge, their individual interests, and the makeup of the student group. It is probable that the results are biased, although possibly no more so than professionally created tests that are based on norms established in areas unlike this writer's school or community.

The instrument that will be developed will only indicate the interests of this particular group and "it should be recognized that any measurement is always based on a limited sample," although it may be made in a different fashion.

Additional limitations were placed on this writer by the limited amount of information which could be presented to the student group. It was felt that too much formal discussion would bias the students. It was desired that the students would create an instrument based on their "own" knowledge and interpretations.

If this writer were asked to respond to the question: "if faced with the choice of getting important data about the learner through deception or getting less important data about the learner through a straightforward manner, which

would be applicable?" The answer would be that during this project, there was never any intention to deceive the students working on the project, either in terms of the purpose of the project or the roles that students were playing.

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CHAPTER II

REVIEW OF THE LITERATURE

HISTORICAL

Over one hundred years ago, the British had instituted a "Revised Code, unofficially called 'payment by results." Schools received money based upon the student attendance as well as passage of competency examinations in reading, writing, and arithmetic.

In 1845, the Boston schools instituted a "common secondary education certifying examination, and in 1877, New York did the same." Although the failure rate was high for these examinations, public opinion was not affected as it is today, because it was felt to be relatively acceptable for the status of education at the turn of the century.

"In 1900, less that ten percent of the students who began school completed high school. After World War I, not having a diploma became an even bigger burden, and by 1950, it became a major catastrophe as fifty-two percent of the students completed school. This attainment figure peaked


nationally in 1965 at seventy-six percent, and has remained stable since."\(^7\)

"Increasingly since 1954, there has been wide spread agreement that something is basically wrong with public education in the United States."\(^8\) The reason for this is that many students cannot read or write, and are deficient in "basic skills", thus contributing to the twenty-five to twenty-seven million\(^9\) functional illiterates in this nation.

The beginning of the minimum competency testing movement in the 1970's, was primarily due to consistent declines in Scholastic Aptitude Test scores. The scores were compared on 1964 and 1973 editions of the Stanford Achievement Test, and the results indicated that a "typical student in the eighth grade in 1973, could read about as well as a typical student in the middle of the sixth grade ten years earlier."\(^10\)

Between the years of 1970 and 1974, the National Assessment of Educational Progress (founded by the Department of Health, Education, Welfare), reported that thirteen

\(^7\) Perrone, p. 3.

\(^8\) Bette Jo Davis and John Harris III, "Minimum Competency and Teacher Preparation, Are Educators Ready?" Education and Urban Society, November 1979, p. 99.

\(^9\) Ibid., p. 100.

percent of the seventeen year olds were functionally illiterate, and that their writing skills had declined.\textsuperscript{11}

In 1972, Oregon instituted a state mandated, state formulated, and state administered device to find out which children were being adequately trained in schools and which schools were doing a good job. "The idea spread quickly until 1977, when it exploded."\textsuperscript{12}

A report circulated by a "blue ribbon committee" chaired by Willard Wirtz, called public attention to the declining Scholastic Aptitude Test scores.\textsuperscript{13} Dissenting opinions by Ralph Tyler and Benjamin Bloom had no effect.

In 1977, Admiral Rickover, testified before a Senate subcommittee regarding the necessity of the Navy having to remediate new recruits to their nuclear program, in the area of mathematics. These individuals were all from the top of their respective graduating classes.

Admiral Rickover, "proposed the development of national scholastic standards."\textsuperscript{14} These standards consisted of minimum competency tests at the following grade levels:

\begin{itemize}
\item \textsuperscript{13}Ibid., p. 49.
\item \textsuperscript{14}Loheyde, p. 120.
\end{itemize}
second, fourth, eighth, tenth, and twelfth." In addition, there should be a formal system of tests to show against national norms, but also, whether students meet the minimum competency requirements."  

For the first time, "parents would be able to have a means to hold teachers and schools accountable for the quality of work."  

Rickover's position raised several questions. Among those are "the criterion of a national scholastic standard impinges on the right of state governments to control public schooling; and his recommendations did not include mention of content; and which areas are to be developed."  

There were other attempts at getting national legislation for mandated minimum competency testing. For example, "Democratic Congressman Ronald Mottl, from Ohio, proposed to establish a National Commission on Basic Education, which would administer national proficiency tests in the basics of reading, writing, and mathematics. The initial bill proposed in October, 1977, did not pass. Mottl, later

15 Loheyde, p. 120.
16 Ibid., p. 121.
17 Ibid., p. 121.
18 Ibid., p. 122.
tried to add an amendment to the 1965, Secondary Education Act, but failed.\textsuperscript{19}

National competency exams sponsored by the federal government received little support at the 1978, National Conference on Achievement Testing and Basic Skills.\textsuperscript{20}

The Education Amendments of 1978, granted funds to local states to develop minimum competency testing plans. This is the source of funding for participating states. Local districts in nonparticipating states may apply directly to the federal government for funding.\textsuperscript{21}

Unlike accountability in general, "competency testing is a more contemporary 'invention' designed to respond to the public demand for accountability. It shifts the responsibility from the learner to the educational delivery system, in order to assure that student learners do not leave high school as functional illiterates."\textsuperscript{22}

It is interesting to note that "one hundred years ago, British school inspectors were informed that student papers marked 'fair' on a scale of excellent, good, fair, moderate, imperfect, and failure, may pass."\textsuperscript{23} The word

\begin{itemize}
  \item \textsuperscript{19} Loheyde, p. 122.
  \item \textsuperscript{20} Ibid., p. 122.
  \item \textsuperscript{21} Ibid., p. 123.
  \item \textsuperscript{22} Davis, p. 100.
  \item \textsuperscript{23} Tuman, p. 123.
\end{itemize}
"fair", meant that "reading is intelligible, though not quite good; dictation, legible, and rightly 'spelt' in all common words, though the writing may need improvement, and less common words may be 'misspelt'; and arithmetic, right in method, and at least one sum free from error."²⁴

In 1978, Brickell, listed five possible areas in which competencies might be developed. Those areas were:

"1. Basic skills

2. School subjects

3. Life areas

4. Basic skills applied in each school subject.

5. Basic skills applied in each life area."²⁵

Each would require a separate curriculum, and the schools would have to demonstrate that the skills measured by the proficiency tests were actually taught to each student.

When one compares Brickell and "modern day" concepts to those standards of a hundred years ago, not only is the position and responsibility of education different, so is that of the student and society in general.

Mecklenburger, summarized the rationale for competency testing in four points:

"1. The State through its schools, owes every child an education.

²⁴Tuman, p. 123.

²⁵Loheyde, p. 123.
2. Therefore, when a child graduates, he should be minimally competent at the least.

3. Therefore, schools should be held accountable for seeing to it that every child is minimally competent.

4. To assure that this occurs, we should test every child.26

Competency testing which was required in only seven states at the beginning of 1977, and available in thirty-six states in 1981,27 is now required or being considered in all but four states.28

CURRENT VIEWS

DEFINITION

What is minimum competency? In Craig, Alaska, an island community, one of the graduation requirements in the city schools is to be able to float for two minutes, another is to be able to perform mouth to mouth resuscitation and read a marine chart.29 To be able to perform these tasks in this particular culture, may be considered to be a legitimate minimum competency. It certainly would not be in Dubuque,

26 Davis, p. 100.


29 Goldman, p. 208.
Iowa or Tulsa, Oklahoma.

To many, the notion of "aesthetics as 'basics' and the importance of the humanities in being able to motivate people to learn," is a minimum competency. 30

"Skills generally listed as basic, may not actually be basic. They may be considered elementary or useful, but not necessarily basic." 31

People feel that there are "agreed upon skills," fundamental to other skills and essential for survival in today's world. However, "no such set of skills may exist today." 32

At the 1981, National Institute on Education hearing on minimum competency testing, the following definition was presented:

"Minimum competency refers to programs mandated by a state or local body which have the following characteristics: 1. All or almost all students of designated grades are required to take paper and pencil tests to measure basic academic skills, life or survival skills, or functional literacy. 2. A passing score or standard for acceptable levels of student performance has been set. 3. Test results may be used to certify students for grade promotion, graduation, or diploma award; to classify students for


32 Ibid., p. 327.
or to place students in, remedial or other special services; to allocate compensatory funds to districts; or to evaluate teachers."  

This is the most appropriate definition that this writer found identified in the literature.

Can minimum competency testing work, and in what definition of the term? There have been many articles written "pro and con" regarding minimum competency concepts. A review of the literature has indicated a noticeable tilt toward a sentiment against minimum competency testing. The following sections will take a brief look at the consideration for and against minimum competency testing programs.

**POSITIVE**

Minimum competency testing has a widespread popular appeal to citizens and politicians who see it as a way of holding schools accountable and forcing them "back to the basics."  

Teachers and school administrators also generally support minimum competency testing because "it operationalizes previously vague concepts of accountability and because

---


it motivates low achieving students to study."³⁵

In addition, the minimum competency testing movement may be considered as part of the effort to integrate minorities successfully into the mainstream of society.³⁶

Admiral Rickover, felt that the local communities should welcome federal development of voluntary model standards and tests in reading, writing, and mathematics."³⁷

He suggested the following recommendations:

1. Insure that the primary goal of schools is the intellectual development of the children.

2. Require teachers to be knowledgeable in the subject area that they teach and to demonstrate the reading, writing, and mathematics skills necessary to evaluate student performance and serve as appropriate models for them.

3. Provide close supervision of teachers by administrators and principals, who are competent and experienced teachers themselves.

4. Improve inservice training of teachers.

5. Free teachers as much as possible from responsibilities extraneous to their teaching."³⁸

The end result of implementing these five items would doubtlessly be an increase in the credibility and quality of any instructional system.

³⁵Beard, p. 10. ³⁶Ibid., p. 11.


³⁸Ibid., p. 160.
"The testing program and necessary accompanying remedial instruction program require the implementation of instructional systems and individual instruction, thus helping low end students."\textsuperscript{39}

During the 1980 hearing on minimum competency testing, the National Institute on Education, indicated that, "minimum competency testing can work if: desired competencies are conscientiously identified; the test is criterion referenced rather than nationally normed; the relationship should exist between the test and the local curriculum; the students are given multiple opportunities to pass the test; adequate phase-in-time is established; passing scores are sensibly set and coordinated; and staff development exists so that the list can be used to improve instructional oriented programs."\textsuperscript{40}

It is this writer's opinion that the majority of articles written in favor of minimum competency testing, seem to be in defense of articles written against minimum competency testing.

\textbf{NEGATIVE}

A number of problems have been suggested when considering minimum competency testing. In the area of

\textsuperscript{39}Beard, p. 12.

\textsuperscript{40}House, p. 88.
testing for graduation privileges, five problems are especially evident:

1. The lack of a defensible means of setting a passing score.

2. The measurement error associated with test scores.

3. The adverse impact on minority and handicapped students.

4. The lack of evidence of minimum competency testing being valid for the decisions being made. ¹⁴²

5. Confusion of norms with goals. ¹⁴³

It may also be said that "tests do not educate, are not precise tools that measure a limited set of skills, and that they contain cultural and linguistic demands." ¹⁴⁴

The ramifications of a minimum competency test go far beyond a desire for a literate populace. For example, there is "no way to separate teacher competency from student competency." ¹⁴⁵ We should realize that most teachers are not knowledgeable enough about using testing performance data to design viable and need oriented education programs.


¹⁴⁵ Davis, p. 107.
They have little or no training in the selection and administration of various testing instruments, or in correct interpretation of their results."46

If Levine is correct, "the impact of minimum competency testing programs will be exactly the reverse of their averred intent."47 Denying individuals a high school diploma will "have adverse economic effects by seriously reducing their opportunities for making a living."48

Those that are concerned that high school graduation diplomas have become meaningless because of the prevalence of the practice of promoting and graduating students that have not achieved significant proficiency in reading, writing, or mathematic skills49 have become the major proponents of minimum competency testing programs.

However, "when the students have met the time requirements for the diploma, there is an excellent probability that for the student to have remained in school long enough to graduate was most likely something to appreciate

46 Davis, p. 106.
47 Bracey, p. 721.
48 Stronge, p. 218.
Indicators that the school "had meaning or significance, something which held him, something which was expanding him, something which was meeting his needs and probably contributing to his adult future, would seem to indicate that imposing minimum competency tests on this student would yield little. The test would not guarantee his ability to read or write, and as giving the diploma provides little reward, withholding it poses a big hazard."  

What kind of knowledge and skills are of such importance that the state has a right to apply coercion in order to get someone to acquire them?

It has been demonstrated that programs using tests to certify successful completion of a given level of education show that such examinations "quickly influence what is and what is not taught and how students study."  

If students are denied a high school diploma on the basis of minimum competency testing, these tests would quickly become a powerful influence on what is taught in the

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51 Zacharias, p. 51.

52 Loheyde, p. 133.

American schools, leading to a federally controlled curriculum."\(^{54}\)

In an age of accountability, "the impact of a system of educational performance standards can be profound, and is likely to destroy the internal operations and resource allocations of school districts in the direction of the assessment practices and criteria."\(^{55}\)

There are many potential problems regarding minimum competency testing as it applies to all aspects of education. The test itself may contain ambiguous questions, excessive use of multiple choice items and a poor grading system. The test may have a curriculum narrowing effect,\(^ {56}\) may result in didactic teaching\(^ {57}\) as a shortcut to improving student performance, and result in the emergence of different 'classes' of student diplomas, based on the student's scores."\(^ {58}\)

It may be that schools are simply caught in the

\(^{54}\) Berk, p. 41.


\(^{58}\) Ibid., p. 62.
middle of a national problem, the "development of an appropriate balance between the quest for equality and the belief in competition based on competence." \(^{59}\) Failure to find the problem or the solution to the problem of social issues, "will result in decisions being made for educators without input from educators." \(^{60}\)

What was basic yesterday, is not basic today and won't be in ten to fifteen years from now. What is basic to one people is not necessarily basic to another. \(^{61}\)

The generalized sentiment concerning the "cons" of minimum competency testing, can be summed up by a statement from Mecklenburger (1978), when he suggested: "Minimum competency is like finding a bad penny in circulation; it must be taken out of circulation." \(^{62}\)

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**INvolvement**

**Legal**

In addition to their broad political implications

\(^{59}\) Ross, p. 487.

\(^{60}\) Ibid., p. 486.


minimum competency testing programs raise a number of specific legal questions, including both "procedural and substantive due process issues." 63

The Fourteenth Amendment to the United States Constitution, provides that no state shall "deprive any person of life, liberty, or property, without due process of law. The right to juvenile protection has been recognized since the 1967, (In re Gault, 387, US. I) United States Supreme Court decision, where the court upheld a student's right to sue local school board members for denial of constitutional rights." 64

Both property and liberty rights are implicated 65 when minimum competency testing programs do not provide ample opportunity for remediation or as in any sanction resulting from minimum competency testing, such as denial of a diploma. Minimum competency tests also create concern for equal protection issues, especially in the area of use of languages other than English. 66 The Civil Rights Act of 1964, prohibits practices which affect discrimination on the

63 Goldman, p. 215.
64 Ibid., p. 214.
65 Ibid., p. 214.
66 Ibid., p. 214.
basis of race, color, religious affiliation, sex, or national origin. Many of the legal challenges against minimum competency testing, have come about because of "racial discrimination, invalid testing, and due process." Although the options to challenge are excellent, they are narrow.

In guaranteeing a basic amount of skill, the district may be vulnerable to other types of law suits from individuals who fail competency tests. These include suits by people "of protected classes under Title VII, of the Civil Rights Act of 1964, and those brought by graduates who charge malpractice by the schools which have not provided them with the level of mastery guaranteed by statute or constitution." In 1968

One concern of the courts and some legislatures, has been that a "person who fails an examination, whether applying for a job or trying to secure a diploma, be given another chance." 1969

There has been an indication of "possible discrepancy between the performance of blacks and whites to one of

67 Brown, p. 108.
69 Ibid., p. 66.
'cultural bias' in minimum competency testing."70 Opponents to this theory feel that there has been no distinction indicated and no proof of racial motivation exists.

In the area of "due process," it has been argued that minimum competency testing constitutes a denial of due process because it holds a pupil "accountable for a particular level of academic performance on a year's notice or less."71 Opponents to this concern, feel that the tests reflect skills which the schools have actually attempted to teach the children for thirteen years, so it should be no surprise to them.

"The New York City School Board, was held in contempt of court for failing to give a 'suitable education' to a former student who claimed he is too illiterate to complete a job application."72 The New York State Supreme Court ruled that the Board must place the twenty-one year old student in a remedial program or pay for his remedial education.

To avoid problems, local minimum competency tests


71 Ibid., p. 160.

should include:

"1. Initiation: present minimum competency testing as a voluntary step, not as a measure of teachers or students. Include local cultural information.

2. Use: diagnostic and remedial only for individual and instructional practices. No early exit use and no form of graduation or placement denial.


4. Remediation: offered by the school, voluntary or student-parent request.

5. Self-evaluation: evaluate minimum competency tests and testing practices periodically and publicize the findings." 73

FEDERAL

The Federal Government's role in minimum competency testing is one of "support and assistance," 74 to state and local education agencies in their attempt to increase educational achievement. While the federal role has not been to take an active stance regarding the minimum competency testing issue, it remains "supportive to local educational agencies without being coercive in nature." 75

Federal support for state and local testing programs is derived, in part, from the Elementary and Secondary

73 Goldman, p. 215.
74 Shoemaker, p. 25.
75 Ibid., p. 24.
Education Act Amendments, passed in 1979. This act contains a section on Education Proficiency Standards. The section has two provisions: "1. Grants to employment of educational proficiency standards. 2. Achievement testing assistance."\(^\text{76}\)

The section also contains a caveat which states: "Nothing in this section shall authorize the secretary to develop specific tests or test questions."\(^\text{77}\)

In 1977, a bill was actually introduced into Congress, although not passed, to "prohibit state aid to states which did not have a minimum competency test law."\(^\text{78}\)

The proper role for the federal government, in the area of minimum competency testing, is a very limited one. "States and local school districts have the responsibility to provide education; the federal role is therefore only to focus attention on problems of inequity which may arise."\(^\text{79}\)

STATE AND LOCAL

Minimum competency tests are typically administered from the state level, whereas curriculum areas come from local levels. Some freedom of districts having the ability

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\(^{76}\) Shoemaker, p. 25.

\(^{77}\) Ibid., p. 24.

\(^{78}\) Goldman, p. 215.

\(^{79}\) Loheyde, p. 133.
to determine what is taught in the school must be relinquished to the state level when state-wide testing is established. However, local control is in reality "a myth, because the curriculum for most schools is mostly determined by state and national policies. The idea of each school district separately determining a largely unique curriculum simply is not consistent with current practice."\textsuperscript{80}

On the local level, school administrators and especially counselors, may be asked to implement the minimum competency testing programs designated for their districts. They should be able to do the following:

"1. Overall coordination of local minimum competency testing program.
2. Participation in test development or selection.
3. Participation in test administration.
5. Monitor student progress.
6. Parent consultation regarding remediation of deficiencies.
7. Provide counseling for students who fail.
8. Advocating for students who require exceptions to standard testing procedures."\textsuperscript{81}

\textsuperscript{80}Beard, p. 13.

"9. Be aware of federal funding requirements and restrictions."\textsuperscript{82}

OTHER STATES

In California, the Hart Act, involved two waves of minimum competency legislation. "In 1972, it allowed sixteen and seventeen year olds to take the California High School Proficiency Examination, or attend a regional occupational center in order to graduate."\textsuperscript{83} Those who passed the C.H.S.P.E., were given proficiency certificates rather than diplomas. In 1975, legislation made the State Board provide each school district with the framework for assessing pupil proficiency in reading, writing, and mathematics.\textsuperscript{84}

Oregon's minimum competency testing law was designed to allow early or delayed graduation. Providing flexibility, it was a way to overcome the ridgedness of the Carnegie Credit. "As a condition of flexibility, the state required school districts to identify their own competencies."\textsuperscript{85}


\textsuperscript{83}Anne Dodd, "A New Design For Public Education," \textit{Phi Delta Kappan}, June 1984, p. 685.

\textsuperscript{84}Ibid., p. 687.

The New York, State Board of Education, (referred to as the Regents) passed a regulation that all June, 1979, graduates must pass a competency test in order to graduate from high school. Those who fail will not get a diploma, nor a certificate. Mentally retarded students may get a "certificate of attendance."\(^\text{86}\) Being issued a certificate of attendance in New York, leaves one with the stigma of being "retarded" for life.

The Commissioner of Education of New Jersey, in 1975, who finds a district has failed to show sufficient progress in reaching pertinent goals and standards, must direct local school boards to submit plans of remedial action. The state statute which directs competency testing, is designed to correct inequities in "financing."\(^\text{87}\)

In 1977, North Carolina, passed a minimum competency test for high school graduation. Remediation funding to the local district was determined mainly on the basis of the number of test failures within each district, and was contingent upon the local agency acceptance of state guidelines for remediation.\(^\text{88}\) Those guidelines were:

\(^\text{86}\) Brown, F., p. 118.
\(^\text{87}\) Lynch, p. 80.
1. Designation of a remedial coordinator for each school and each L.E.A.

2. Identification of high risk students.

3. Development of an individual instruction plan for each high risk and failing student.

4. Designation of an individual responsible for the implementation of each plan.\textsuperscript{89}

Possibly, the most noted state mandated minimum competency testing program in the United States, is the Florida program. In the early 1970's, the state of Florida, implemented a competency program for public schools. In 1976, the Florida legislature passed the Education Accountability Act, which changed and expanded the competency program. It also required passage of the statewide student assessment test as a requirement for receiving the high school diploma.\textsuperscript{90}

In 1977, "Florida students in four grades were given minimum competency tests. The results would be used to pass the student to the next grade level or graduate from high school. Among the eleventh graders "thirty-seven percent failed. Among the black students, seventy-five percent failed."\textsuperscript{91} This was the beginning of the controversy

\textsuperscript{89}Davies, p. 536.


surrounding the Florida minimum competency testing program.

The tests that were given to the eleventh grade Florida students, were the Functional Literacy Test and the eleventh grade Basic Skills Test. Because of the poor scores, a number of problems developed. It was found that the seventy percent grade cutoff had been derived subjectively. Many felt that the juniors should not be punished by a new test for what they were taught during the preceding three years."^{92}

The Florida and the California minimum competency tests were developed to protect students, employers, and society, against "faulty credentials."^{93}

The testing problems went to court in 1979, in the Debra P.V. Turlington case, where Federal District Judge George Carr, upheld the competency test, but delayed its use as a requirement for the diploma, until the 1982-1983 school year."^{94}

Proponents of the Florida minimum competency test say that it has not narrowed the program of education; has not resulted in massive exiting of students; has not demoralized students; has not resulted in abusive use of test

^{92} Impact, p. 31.
^{93} Lynch, p. 80.
^{94} Pinkney, p. 322.
results; has not been culturally biased."\(^{95}\) The same proponents relate that in fact, the Florida test has:

"1. Helped teachers and students reinforce their concern for the cognitive development of students as the highest priority.

2. Evidence shows students are working harder to learn.

3. School districts reorganized and reinforced the use of human resources based upon the needs of the students as identified through test results."\(^{96}\)

Within the state of Illinois, this writer would like to comment on two programs: the North Boone School District, in Popular Grove, and the Peoria, Unit 150, school district.

North Boone, spent two years creating a minimum competency test for grade level passage. The minimum competency test is regiven once with remediation between testing dates. Minimum competencies are posted in each classroom as the requirements for passage of that particular class, although the test only evaluates reading, writing, and mathematics.\(^{97}\) The North Boone, levels of proficiency are:

"1. Graduation: 9th grade proficiency.

2. Enter 9th grade: 6.0 grade proficiency.

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\(^{95}\) Pinkney, p. 321.

\(^{96}\) Ibid., p. 322.

3. Enter 7th grade: 4.0 grade proficiency.
4. Enter 5th grade: 3.0 grade proficiency.
5. Enter 3rd grade: 1.5 grade proficiency.

The only criticism to date, has been that the entry levels are too low.\textsuperscript{98}

The Peoria school district, has established a minimum competency testing program, which has met with quite a lot of "bad press," however, it has been defended from within and from the outside, as a very strong program.

Three examinations are given in the areas of reading, mathematics, and language arts. These examinations are partially used for promotion and graduation, and are given at grades three, eight, and twelve. All students must pass all three of the tests in order to graduate from high school. Students that fail to pass all three exams, may elect to receive a "certificate of completion," and go through the regular graduation procedures. Students may elect remediation to pass the minimum competency test they failed, and may continue to receive this remediation until age twenty-one.

"The test is a paper and pencil examination, with average test time for seventh and eleventh graders being ninety minutes. There is no time limit for completing the test. Each testing objective is documented with a teaching

\textsuperscript{98}Cook, p. 48.
objective in the curriculum. Program evaluation and student remediation are major elements of the program."

Prior to establishing the minimum competency test, twelve hundred members of the community were sampled to create the goals of the program. Testing objectives were written by fifteen member subject area teams.

The writer has identified several programs that are in the field of minimum competency testing. These programs are not the only ones in existence, or necessarily the best ones available, they simply represent several of the different types of programs which have been implemented.

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100 Ibid., p. 21.
CHAPTER III

THE PROJECT

PREPARATION

This study includes a student developed minimum competency examination which has been designed by a group of twelfth grade students, with the aid of this writer.

In constructing a minimum competency test, there are several considerations which must be determined. For example, should the test standards be set for the "cognitive domain, affective domain, or psychomotor domain, or a combination"? There should be an adequate number of questions in each of the skill areas and those questions should assess the skill outcomes in the manner in which they were taught in the classroom.

The proficiency level could be set anywhere between fifty percent and one-hundred percent mastery. In making the decision, one must look closely at the nature of the students, staff, and community. "While a grade requirement of ninety percent, may serve as a motivational factor for some, it would be a source of frustration for others."

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102 Ibid., p. 64.
103 Ibid., p. 63.
The impact of test anxiety on test performance, may be affected by knowledge of the arrangement. "Such information may augment test anxiety, especially under certain item arrangements. For example, a highly anxious test taker with items arranged easy to hard may find knowledge of the fact that items increase in difficulty, anxiety producing. The results would be debilitating to test performance."\(^{104}\)

There are several different kinds of sex bias problems to consider in test content:

1. Quantity bias: number of males and females referred to in the questions.
2. Stereotype bias: kinds of roles males and females are portrayed in.
3. Status bias: the status given to either males or females.

Sex bias in test content may lead to sex differences in test performances."\(^{105}\)

A state or district that calls in commercial experts to set up sample items, a framework, or an exemplary test, may be buying what has been in the drawer of the firm for many years. The test constructors are simply redoing versions of one test over and over. "Scratch a standardized

---

\(^{104}\) Barbara Palke, "Item Arrangement and Knowledge of Arrangement on Test Scores," *Journal Experimental Education* 49 (Fall 1980): 56.

\(^{105}\) Thomas Donlon, Ruth Ekstrom, and Marlaine Lockheed, "Sex Differences and Sex Bias in Test Content," *Education Horizons*, Fall 1979, p. 47.
achievement test and you have a scholastic aptitude test; scratch one more layer and you have the famous Stanford Binet, one criterion measure that has dominated the field since World War I.\textsuperscript{106}

Of the state mandated minimum competency test programs, less than one-half use tests developed or selected by the states; the remaining use tests developed locally or part local and part state.\textsuperscript{107}

There are other advantages and disadvantages to commercially prepared tests. Some of the advantages are:

"1. Time
2. Technical advantages
3. Scoring availability
4. Legal action via staff legal services
5. Staff expertise"\textsuperscript{108}

Some of the disadvantages are:

"1. Content coverage
2. Technical considerations: are your students the same as the original sample?
3. High cost of scoring

\textsuperscript{106}Lynch, p. 80.
\textsuperscript{107}Atkinson, p. 27.
4. Legal action: homemades defend better

5. Availability and equivalence.109

"It is far easier to mandate minimum competency testing, than it is to develop good tests and testing programs."110 Test makers should be able to undertake "self-evaluation"111 during the test construction process. The following guidelines should facilitate the construction of criterion referenced tests at the classroom, school, and state levels:

1. Type of decision: in general the larger the number of quality items the greater confidence one can place in evaluation decisions.

2. Tentative decisions: minimum number of items that should be used in decision making is five.

3. Permanent decisions: minimum number of ten items per behavioral objective.

4. Importance of objectives: some are more important that others.

5. Number of objectives

6. Random sampling

7. Stratified allocation

8. Item writing time

9. Administrative time

10. Student characteristics.112

109 Fox, p. 369. 110 Ibid.


PARTICIPATION

This project was completed by a group of eight female and two male, twelfth grade students. The students represent the top third of a class of thirty-one seniors. It is acknowledged that this represents a very small sample, and potentially a biased group. However, a total of twenty-one students representing both the top and the bottom levels of the senior class were offered the opportunity to participate in this project. Only the top third of the class responded in a favorable manner. Lack of participation of the lower level students seems to echo the basic problems of education today. Students that did not participate, indicated that they did not have the time, interest, or ability to put forth such an effort (especially when they did not have to). Each student was made aware that participation was optional and nonparticipation would bring no penalty. Faculty members were made aware of the project and instructed to be patient as the senior group went about its task. Students were not told that they could not use the teaching staff as a resource for either their questions or major curricular area selections. It was assumed that individual students may make contact with teachers of each major curricular division.

A basic flow chart for the procedures involved in the project is identified in the following diagram.
TABLE 1

PROJECT SEQUENCE

<table>
<thead>
<tr>
<th>Steps</th>
<th>Action Taken</th>
<th>Target</th>
<th>Results Desired</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Review of the Literature</td>
<td>Writer Students</td>
<td>Increase writer's and student's knowledge about minimum competency tests.</td>
</tr>
<tr>
<td></td>
<td>ERIC Search</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Selection of Student Group</td>
<td>10 Seniors</td>
<td>Obtain group of interested 12th grade students to participate in the project.</td>
</tr>
<tr>
<td>3.</td>
<td>Group (student) Indoctrination</td>
<td></td>
<td>Present information from the literature review, to the student group.</td>
</tr>
<tr>
<td>4.</td>
<td>Handout Phase I Group</td>
<td></td>
<td>Each individual student selects and rates major curricular areas for minimum competency test.</td>
</tr>
<tr>
<td></td>
<td>Worksheet (Discuss)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Handout Phase II Group</td>
<td></td>
<td>Student &quot;group&quot; finalizes ranking of major curricular areas. This is group work.</td>
</tr>
<tr>
<td></td>
<td>Worksheet (Discuss)</td>
<td></td>
<td>Individual students identify sub-curricular areas.</td>
</tr>
<tr>
<td>6.</td>
<td>Handout Phase III Group</td>
<td></td>
<td>Each student writes set of questions for each of the sub-curricular areas.</td>
</tr>
<tr>
<td></td>
<td>Worksheet (Discuss)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Assemble and Evaluate Test</td>
<td>Writer Reader</td>
<td>Assemble all questions and obtain a complete test. Identify areas for potential curriculum study.</td>
</tr>
<tr>
<td>8.</td>
<td>Use of Project Results</td>
<td>Writer Students</td>
<td>Increase writer's and student's knowledge about minimum competency tests.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Writer Writer</td>
<td>Curriculum evaluation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Minimum Competency Test</td>
<td></td>
</tr>
</tbody>
</table>
FIRST PHASE

At the first meeting of the student group, the discussion was centered on basic concepts of minimum competency testing as was described in the literature. A Phase I Worksheet was given to the students (Appendix A), for them to complete and return prior to the next meeting. The handout requested that the student indicate subject areas which they felt should be required knowledge for all graduating seniors. They were to rank the information in order of importance. The student was then asked to identify the reason why he or she selected these particular areas and to write a brief opinion of minimum competency testing.

The committee responded to the first phase of the project in the following manner.

TABLE 2
PHASE 1 CURRICULUM RANKING RESULTS AND SELECTION FREQUENCY

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Curriculum Areas</th>
<th>Number of Students Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Mathematics</td>
<td>10</td>
</tr>
<tr>
<td>2.</td>
<td>English</td>
<td>10</td>
</tr>
<tr>
<td>3.</td>
<td>Government</td>
<td>10</td>
</tr>
<tr>
<td>4.</td>
<td>Economics</td>
<td>10</td>
</tr>
<tr>
<td>5.</td>
<td>History</td>
<td>8</td>
</tr>
<tr>
<td>6.</td>
<td>Business</td>
<td>6</td>
</tr>
<tr>
<td>7.</td>
<td>Home Economics</td>
<td>3</td>
</tr>
<tr>
<td>8.</td>
<td>Science</td>
<td>2</td>
</tr>
<tr>
<td>9.</td>
<td>Driver Education</td>
<td>2</td>
</tr>
<tr>
<td>10.</td>
<td>Typing</td>
<td>2</td>
</tr>
<tr>
<td>11.</td>
<td>Industrial Arts</td>
<td>2</td>
</tr>
<tr>
<td>12.</td>
<td>Computers</td>
<td>2</td>
</tr>
<tr>
<td>13.</td>
<td>Geography</td>
<td>1</td>
</tr>
<tr>
<td>14.</td>
<td>Health</td>
<td>1</td>
</tr>
</tbody>
</table>
The "number of students responding" is in reference to the number of students from the group of ten, that selected that particular curricular area. Mathematics, English, and Government-Economics, were all selected by each of the group members. There were no limitations to the number of areas that a student could select and no particular areas were either suggested or recommended. The students responded to this initial phase individually and not as a working group. This was an attempt at getting individual responses, not a group consensus, which would come later.

It may be interesting to note that of the responses returned by the students, the number of curricular areas identified as to frequency of response, averaged 6.3 for the female students, and 10.0 for the male students. No female student selected more than seven different areas.

In the second part of the questionnaire, all ten students indicated that they based their order of preference on what they felt were "life skills." No response was indicated as a needed preparation for college. The students clearly acknowledged that they were selecting "basics" for survival in what the students often referred to as the "outside world."

Responding to the third section of the questionnaire all ten students felt minimum competency testing "should be required as a means for determining graduation from high
school." Several went so far as to mention that minimum competency testing should be national and that such implementation would end the school's practice of placing individuals on the streets who would soon become "burdens of society."

Several students felt that minimum competency testing would end the practice of "cheating," and of athletes "getting by," which is a problem as they see it.

SECOND PHASE

The second phase of the project was to meet with the students and discuss the findings of the first questionnaire. The next assignment was for the group to rank curricular areas already identified, (Appendix B). The group could add areas not previously identified in phase one, or it could delete items it felt no longer represented its opinions. The students would then break each major curricular area down into sub-curricular areas. The sub-curricular areas were to be chosen individually and not as a group. At this point, the student was committed to the final group selected, main curricular areas; but, could define those areas as he or she felt best, in the sub-curricular listings.

Table 2, indicates the final group selection of the main curricular areas. It may be interesting to note the difference between table two and table one.
The final list of major curricular areas from which the test would be developed and listed in order of importance, is as follows:

**TABLE 3**

**PHASE 2 FINAL CURRICULAR AREA SELECTION**

<table>
<thead>
<tr>
<th>Ranking:</th>
<th>Curricular Area:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>English</td>
</tr>
<tr>
<td>2.</td>
<td>Math</td>
</tr>
<tr>
<td>3.</td>
<td>Government-Economics</td>
</tr>
<tr>
<td>4.</td>
<td>Business</td>
</tr>
<tr>
<td>5.</td>
<td>History</td>
</tr>
<tr>
<td>6.</td>
<td>Science</td>
</tr>
<tr>
<td>7.</td>
<td>Geography</td>
</tr>
</tbody>
</table>

Table 2, indicates that as a result of the group effort, the final number of curricular areas to be included in the test was cut in half. It may also be evident that the more "basic" areas have emerged, and that science is rated in what may be an unusually low order of importance. Why twelfth grade students, all college bound, and all four year science students, would rate science sixth out of seven, may require further consideration. This could be a good investigative point for the beginning of a curriculum study in the area of the present high school science program.
The final list of sub-curricular areas from which the test will be developed is as follows:

English

1. Reading
2. Vocabulary
3. Grammar
4. Writing
5. Spelling
6. Literature

Math

1. Addition
2. Subtraction
3. Multiplication
4. Division
5. Fractions
6. Percentages
7. Metrics
8. Decimals
9. Story Problems

Government-Economics

1. Inflation
2. Elections
3. U.S. Constitution
4. Laws
5. Supply and Demand
6. Workings of Government
7. Voting
8. Citizen's Rights

Business

1. Accounting
2. Typing
3. Checking Accounts
4. Taxes
5. Giving Change
6. Budgeting
7. Credit and Loans
8. Employment Applications

History

1. Warfare
After selecting the sub-curricular areas, the group discussed the aspects of the type of questions that were to be created or selected for the test. Included in the discussion was concern over the type of questions that could be used. There were no rules given as to restrictions on the number of true and false, multiple choice, fill in the blank, or matching, questions that the student could use.

Consideration regarding the placement of the test questions, the length of the test, and sex bias, was given, but no restrictions were made as to these items. No discussion of possible sources of questions took place. Students were not encouraged nor prohibited from making contact with the teaching staff for examples of questions.
THIRD PHASE

The test contains 199 questions from seven selected curricular areas. The chart below indicates the number of questions per area, and the type of question representing that particular section.

TABLE 4

PHASE 3 QUESTION TYPE AND COUNT

<table>
<thead>
<tr>
<th>Curriculum Area:</th>
<th>Number of Questions:</th>
<th>Multiple Choice:</th>
<th>True False:</th>
<th>Short Answer:</th>
<th>Matching:</th>
<th>Essay:</th>
<th>Math:</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>22</td>
<td>18</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Math</td>
<td>37</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>37</td>
</tr>
<tr>
<td>Economics-Government</td>
<td>35</td>
<td>11</td>
<td>14</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Business</td>
<td>31</td>
<td>13</td>
<td>17</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>History</td>
<td>29</td>
<td>18</td>
<td>0</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Science</td>
<td>20</td>
<td>5</td>
<td>10</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Geography</td>
<td>15</td>
<td>12</td>
<td>0</td>
<td>13</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>199</strong></td>
<td><strong>77</strong></td>
<td><strong>41</strong></td>
<td><strong>35</strong></td>
<td><strong>5</strong></td>
<td><strong>2</strong></td>
<td><strong>37</strong></td>
</tr>
</tbody>
</table>

This writer did not add or subtract from any of the student questions on the test, nor were any questions altered. The student was instructed to create the question and provide the correct answer (Appendix C). The students were not asked to provide alternate answers. Approximately sixty percent of the questions were returned with alternate answer choices (example: H144); they were not included on the test.
sheet, since they were not complete.

Estimated time for a student completing this test is less than three hours; however, it is recommended that no time limit be imposed. The problem of "speediness, rests essentially with students who might not pass the test simply because they did not have sufficient time."¹¹³

For the purpose of identification, each test question listed in the paper is identified by a code number. For example, H144/mc/Neil Armstrong, indicates that the question is test question 144, found in the history section, it is a multiple choice question, and the answer is Neil Armstrong. When the test is administered to students, these code instructions will not be placed on the test.

CHAPTER IV

APPLICATIONS AND RECOMMENDATIONS

MINIMUM COMPETENCY TEST

Predictably, building administrators have the highest degree of involvement in high school administrative decisions. "Central office staff, Board of Education, and teachers, appear to be involved to some degree, while students and citizens are rarely involved." 114 It would only seem correct that if "testing helps students learn to evaluate their own learning," 115 participating in the creation process should even be of greater benefit to their academic awareness.

Opportunity for educational experiences are not uniform for all students. "A district wide minimal competency testing program imposes a uniform standard for all students." 116

The test that the seniors at Donovan High School made is not meant to stand alone as a "perfect" testing instrument.


It is an information gathering process that has the possibilities of representing what students may feel are the most important curricular areas to be considered.

The test which was created by a group of graduating seniors, represented a conscientious effort at completing an assigned task. Several problems became evident while reviewing the test. Sex bias was found in a couple of questions, especially E-17 through E-22 (Appendix D). The article on Anorexia Nervosa was clearly sex biased. The choice of this particular question may have been the result of the eighty percent female influence on the group. Even with the sex bias, the type of article demonstrates that the students not only wanted to test reading comprehension, but also intended to educate the test taker in the problems associated with Anorexia Nervosa. Their intention was certainly a good one.

The diversity of question responses indicated an interest in having answers made through a number of different methods (Table 3), not just multiple choice or true and false. The problem with such diversity is that the grading process may be lengthy. Since most of the classes at Donovan High School, do not exceed thirty-five students in any given year, this would not pose a major problem.

In implementing this examination, a formal passing score would have to be decided. The students felt that a
passing score of sixty percent would be adequate based on the fact that the score of sixty percent is minimum passing in all their high school course work. A score of fifty-nine percent could be appealed, but a score of fifty-eight percent would require remediation. This policy would be consistent with existing district grading policies.

There are eight questions to consider prior to instituting a minimum competency program.

"1. Will the test actually test minimum competencies?
2. What competencies should be tested?
3. How should they be measured?
4. When (year in school) should they be tested?
5. How many minimums should be established?
6. How high should the minimum level be?
7. Are competency tests for the schools or the students?
8. What should be done with the incompetent?"  

Item number eight, indicates a problem in the evaluation process. The district must have a feasible program for remediation ready to implement.

The principal should consider four steps as any remedial program is developed.

"1. The administration should plan for remedial programs by fully utilizing the results of minimum competency, achievement, and ability tests."

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117 Cook, p. 48.
2. Organize remedial programs by consulting professional personnel, reinforcing the regular curriculum, develop a remedial laboratory, and creating a workable program.

3. Be aware of state funding for such a program.

4. Monitor remedial processes.118

According to the literature, minimum competency testing will work if the following seven items are satisfied:

"1. The competencies must be conscientiously identified.
2. A relationship should exist between curriculum and test.
3. The competency test should be criterion referenced rather than nationally normed.
4. Students should be given multiple opportunities to take the test.
5. There should be an adequate phase in time.
6. The passing score should be sensibly set.
7. Competency tests should be used to improve instruction."119

Based on these seven items, this student developed competency test should work. Through normal follow-up evaluations, item number one would be strengthened to a point of greater representation.

In addition to using the student developed competency

118Dickens, p. 29.

test as an actual examination, it has even greater flexibility for indicating strengths and weaknesses in the curriculum. The next section will discuss the implications of this test for curriculum study.

**CURRICULUM CHANGE**

"We must look at curriculum, and look at what we are doing in schools and decide whether or not those things are in the service of our central mission."\(^{120}\) Minimum competency programs are viewed by proponents as offering "definite curriculum improvements over more traditional school curriculum designs, in that minimum competency testing is viewed as a clinical approach to education."\(^{121}\)

The following words were written in the context of an article entitled, "Nation at Risk" taken from "A New Design for Public Education." "A school is a school, and a student is a student. What is alleged to be good for the college bound must be good for all, and that means more science, more math, more computers, for everyone."\(^{122}\) It may be interesting to note that in the selection of the major curricular areas, the students who created this test


had placed science as number six out of seven areas ranked in order of most important to least important. It is also interesting to note that there were no computer questions selected for the test. These considerations become notable when one understands that all of the students in the group are experienced in computers, have had four years of mathematics, and are planning on attending four year colleges. It appears as if they are taking advantage of many of the upper level courses offered in the curriculum, but at the same time, they do not feel that knowledge in these areas is essential to basic learning.

To Dewey, the process of education "was a process of living rather than a preparation for future living; he felt that education was a high purpose in itself rather than serving as a mere instrument for preparing individuals for the existing social order."¹²³ It is possible that this is the basis for curriculum selection by high achievers. It may be that curriculums should be adjusted in such a manner as to clearly distinguish this fact.

If the major instructional objective of minimum competency is "students ability to perform a particular activity, then the students must be assured that if they submit themselves to the educational strategies, they will

acquire the competencies."  

"Measurements are a waste if implications of the data are not drawn upon and acted on in modifying the basic curriculum."  

It is difficult to ascertain what are the correct competencies to teach. "It is estimated that less than one-fourth of all adult Americans maintain checking accounts."  

Does this mean that Americans don't know how to operate a checking account or don't want to have one. The students who made the Donovan competency test, felt that it should be required knowledge (question: B110).  

The contents of curriculum do not come from any single source, but rather several sources must be taken into account. "The most widely accepted position identifies as the proper source of the curriculum, the learner, the society, and the subject matter."  

It may be interesting to look at the 1984 Gallup Poll, and see that the rating of most important curricular area to least important is: Math, English, History-Government,  

---  

124 McKenna, p. 19. 


126 McKenna, p. 19. 

Science, and Business, for college bound students; and Mathematics, English, History-Government, Business, and Science, for non-college bound students. These ratings compare favorably to those identified by the students that assisted in this project. Their ranking was: English, Mathematics, Government-Economics, Business, History, and Science. Only Science scored lower with the students than it did in the poll with the adult responses.

The Gallup Poll, indicated that in communities of less than 2,500 population, the sentiment of having a standard nationwide test for high school graduation is split. While Donovan's test making group was heavily in favor of the concept, it should be remembered that this is a small sampling of extreme upper level students, and not necessarily representative of other students in general.

In using minimum competency examinations to aid the local curriculum, the principal should:

1. Define the present problem to the teachers.
2. Collect all relevant information about student performance and curriculum protocol.
3. Dissiminate the information with opportunities for analysis and commentary from other persons.
4. List all possible solutions to the issue.
5. Analyze related strengths and weaknesses of the suggestion.

6. Identify potential problems.
7. Develop alternative solutions.
8. By consensus, select most appropriate suggestions.
9. Implement various courses of action.
10. Designate responsibility and clearly define procedures for evaluation.¹²⁹

In some instances, in which competency based curricula were developed, the content of the previously used curricula was merely reorganized and stated in behavioral terms or in terms of competencies.¹³⁰ Whether existing programs are simply rearranged or completely rebuilt, identified performance standards can be employed at two levels:

"1. They can be used to ascertain student proficiencies for the purpose of setting out programs of instruction at the classroom level.

2. They can be used to determine whether students have minimal levels of competencies for obtaining educational certificates such as high school diplomas."¹³¹

The student originated minimum competency test identifies a base from which attempts at improving the

¹²⁹ Dickens, p. 29.
¹³¹ Iwanicki, p. 64.
educational system can be launched. It identifies curricular areas that are of concern to the students as well as those that are of lesser concern. It would be appropriate to include the same group of students in any type of curriculum study so that their views could be shared.
SUMMARY

A review of the literature has indicated that because of declining scores on Scholastic Aptitude Tests, there developed a demand for minimum competency tests to guarantee that students would not graduate from high school with diplomas, yet having educations ranging from functional illiterate through less than adequate.

Although minimum competency tests are not new in either theory or practice, the wholesale implementation of them in the United States is. Practically all states have a minimum competency testing program, either at the state level or at one of the local levels. These programs have been suspect in many situations and have come under fire both from the legal community as well as the educational profession.

Legally, minimum competency testing programs draw the most problems when they are used as a determinate as to high school graduation.

Professionally they are under scrutiny simply because they are often mandated, bring about legal confrontations, and may lead to a greater federal intervention in local
curriculum development.

Most favorable responses to minimum competency testing, are results of programs that use the testing process for curriculum development and change, rather than grade level placement or graduation requirements. Positive reactions also follow programs in which a strong remediation program has been developed and implemented.

A student developed minimum competency test should not only represent what students consider to be important aspects of education and curriculum, but it should be a more acceptable testing form, since it was developed in part or in whole by students.

A group of ten students developed the test included in this project. It is not intended that this test be a foolproof, valid and reliable, competency examination. Rather, it is an indication of student interest, knowledge, an indicator of potential curriculum change, and a possible starting place for a locally developed minimum competency test.

The results were interesting to this writer, and the implications of its use in curriculum change or minimum competency test development, seem to demand additional study. Development of this test has indicated that students are able to assess their own programs, and learning experiences. It also demonstrates that they are able to respond with what they feel are the minimum amounts of knowledge necessary to
successfully enter the "real world" or at least the world as they see it.

CONCLUSIONS AND RECOMMENDATIONS

It may be concluded that the development of a minimum competency test by students is feasible, and that such a test could assist local teachers and administrators in assessing the educational programs in their districts.

It is suggested that the test which has been created as a result of this project, be administered to a class of twelfth grade students. The results of the test would provide the feedback necessary for revision and improvement of the present model. It is not intended that it be used as a terminal judgement as to the success of either the student or the school, in either application of the local educational program.

It is also recommended that members of the student group that develops a local competency test, be selected to participate in the curriculum studies that may be initiated as a result of the deployment and evaluation of such test.

This project may indicate a strong beginning point from which other studies could be developed. Gaining knowledge and insight into student perceptions of curriculum, and minimum knowledge requirements, will allow districts to make better applications of their programs for the benefit of quality education.
APPENDIX A

PHASE 1 WORKSHEET

Your name:

Indicate subject areas which you feel should be included in a "required" senior level competency test.

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Why these areas?

Note: Although there are 10 lines, you may indicate more or less than 10 choices.

Please rank your choices in order of importance. The most important first.

Give your opinion of minimum competency testing on the back of this sheet.

Other comments?
APPENDIX B

PHASE 2 WORKSHEET: PAGE 1

Your name:

Competency Examination: Curriculum Areas (Group decision)

1. Most
2.
3.
4.
5. Order of Importance
6.
7.
8.
9.
10. Least

Sub-Curricular Areas (Individual decision)

Item 1. (list) Item 2. (list)
APPENDIX B

PHASE 2 WORKSHEET: PAGE 2

Item 3. (list) Item 4. (list)

Item 5. (list) Item 6. (list)

Item 7. (list) Item 8. (list)

Item 9. (list) Item 10. (list)
APPENDIX C

PHASE 3 WORKSHEET: TEST QUESTIONS

Your name:

Curricular Area

Sub-Curricular Area

Question: Answer:

Question: Answer:

Question: Answer:

Question: Answer:

Use additional sheets if necessary.
APPENDIX D

DONOVAN HIGH SCHOOL 12th GRADE
MINIMUM COMPETENCY TEST

English (Vocabulary-Context)

1. Define DETRIMENTAL
   E1/mc/harmful

2. Define APPALLED
   E2/mc/dismayed

3. Choose correct definition for the underlined word from its context:
   The church’s interior was extremely ORNATE.
   E3/mc/decorated

4. The maze consists of an INTRICATE network of passageways.
   E4/mc/complicated

5. A car driven by a person who has been drinking often turns out to be a LETHAL weapon.
   E5/mc/deadly

English (Spelling)

6. Indicate correct spelling of PERCEIVE
   E6/mc/perceive

7. Indicate correct spelling of APPEALED.
   E7/mc/appealed

8. Indicate correct spelling of FOREIGN
   E8/mc/foreign

9. Indicate correct spelling of ACCOMPANY.
   E9/mc/accompany

Code: E (English) 1 (first question) mc (multiple choice) followed by the answer.
10. Indicate correct spelling of RHYTHM.  

11. Circle correct verb:  
The cells in your brain (need, needs) oxygen.  

12. The color of the rainbow (is, are) beautiful to the beholder.  

13. Some of the apples (were, was) eaten.  

14. (Has, Have) all of the students returned?  

15. A dog or a cat (is, are) tearing up the paper.  

16. My father and his friend (has, have) finished the plans for the house.  

English (Grammar)  

Students: Read the article and respond to the questions.  

Anorexia Nervosa  

Anorexia Nervosa is a refusal to eat that can lead to extreme loss of weight, hormonal disturbances, and even death. It is primarily an illness of adolescent girls. Though it is generally treated as a disease in itself, Anorexia Nervosa is often a symptom of a psychological problem closely associated with family background. Anorexic girls tend to come from families that frequently think and talk about the "right" amounts or kinds of things to eat, and these girls may use their refusal to eat as a tool for manipulating their parents, whose increasing concern gradually turns each mealtime into a battle. The illness usually starts with normal dieting to lose weight, but the girl eats less and less every day. She gives false reasons for doing so, insisting, for example that her legs or arms are still too fat. The less she eats, the less she wants. Sometimes, however, she may go on binges in which she gobbles up quantities of a particular food and then vomits. To counter family pressure she may take food
and throw it away, claiming she has eaten it. When her weight drops to about 12kg (about 26 lbs.) below normal, she may stop having periods and her body may become more hairy.

A girl who has anorexia nervosa is often abnormally energetic. She may cook large meals for others while starving herself, and she will insist that she feels fine. But, her skin may begin to look sallow and thin and she eventually will become very obviously ill. Whether or not she is constipated, she may take large doses of a laxative in the belief that by hurrying food through her system, she will keep from growing fat. In later stages of the illness she may lapse into severe depressive states.

Anorexia Nervosa fortunately is a rare disease. It appears almost exclusively in adolescent girls. Many teenagers go through a temporary phase of excessive dieting, but only a minority develop Anorexia Nervosa. Of those that do, up to 15 percent die of starvation or from secondary infections caused by undernourishment, dehydration caused by excessive use of laxatives or suicide because of depression.

If your adolescent daughter has an unrealistic image of herself as being too fat and seems to be dieting excessively, see your physician without delay. Treatment of Anorexia Nervosa becomes increasingly difficult as the condition progresses. After examining the girl, the physician may decide that she is not actually ill, and may simply give you and her some advice on how to avoid problems with excessive weight loss. If her condition is diagnosed as Anorexia Nervosa, the doctor will probably arrange for immediate hospitalization. (Source and author unknown)

17. What is Anorexia Nervosa? E17/essay/varies

18. Anorexia Nervosa is always a result of a mental problem? E18/TF/F

19. As the condition progresses treatment of Anorexia Nervosa becomes: E19/TF/Increasingly difficult

20. A victim of Anorexia Nervosa loosen all energy. E20/TF/F

21. Who can this disease strike? E21/TF/Both boys and girls

22. Write a short paragraph essay on the effects of Anorexia Nervosa. E22/essay/varies
Mathematics (Addition)

23. Add: 65,499  
   +5,888  
   _______  
   71,387

24. Add: 27,934 + 10 + 3,499,817=  
   M24/math/3,527,761

25. Add: 56,094,899  
   19,990,137  
   55,555  
   _______  
   371,426

26. Add: 25,609  
   +12,487  
   _______  
   38,096

27. In a school of 4,631 there are 4 different clubs. In the Math Club and Media Club, there are 1,619 and 784 members. In the Athletic Club there are 578 members and the FHA Club has 2,312. How many students are in clubs at this school?  
   M27/math/4,293

Mathematics (Subtraction)

28. 61,822  
    -5,715  
    _______  
    56,107

29. 384,087  
    -95,998  
    _______  
    288,089

30. 25,900 - 7,853=  
    M30/math/18,047

31. 16,000  
    -2,999  
    _______  
    13,001

32. If a basketball team scores 60 points in a game and 48 were from field goals, how many free throws were made?  
   M32/math/12
Mathematics (Multiplication)

33. \(54 \times 2 \times 86 = \)

34. \((9+5)(86+22) = \)

35. \[
\begin{array}{c}
256 \\
\times 480 \\
\end{array}
\]

36. \(3(45-8) = \)

37. \(9(5\cdot20) + 4(64-39) = \)

Mathematics (Division)

38. \(34 \div 2788 = \)

39. \(11,700 \div 468 = \)

40. \(867 \div (10-7) = \)

41. \(25 \div 68,526 = \)

42. \(98 \div 25 = \)

Mathematics (Decimals)

43. Henry had $10.00 to buy a loaf of bread and gallon of milk. Milk was on sale for 1.29 and bread was 89¢. What change did he receive? \(M43/math/$7.82\)

44. Jan had saved $360.00 for a new stereo system. The stereo cost $468.99. How much more does she have to save? \(M44/math/$108.99\)

Mathematics (Story Problems)

45. Stacie bought 10 candy bars at 45¢ each and 4 cans of pop at 50¢ each. How much did she have to pay? \(M45/math/$6.50\)
46. The volleyball team has played 18 games. $\frac{1}{3}$ of the games were home. They won $\frac{1}{2}$ of their away games. How many away games did they lose? M46/math/6

47. John and William live 3 miles from school. If their car gets 21 miles per gallon, how much did it cost to go to and from school in one week? M47/math/$\$1.70$

Mathematics (Fractions)

48. $\frac{2}{3} + \frac{6}{8} + \frac{12}{3} =$ M48/math/85/12

49. $\frac{16}{5} - \frac{8}{2} =$ M49/math/-4/5

50. $\frac{4}{9} \cdot \frac{12}{3} =$ M50/math/16/9

51. $\frac{8}{9} \div \frac{24}{3} =$ M51/math/1/9

Mathematics (Percentages)

Change the following number to a percent:

52. 9635 M52/math/96.35%

53. 57% of 960= M53/math/547.20

54. In a class of 6,500, 28% of the students have an average higher than a B. How many student's averages are lower than a B? In percentage. M54/math/72% of the class

55. 87% of 3654= M55/math/3178.98
56. In a class of 400, 268 are girls. 27% of the boys are in basketball. How many boys are in basketball?  

Mathematics (Decimals)

57. $1.85 + 25.80 + 26.043 = $\quad$M57/math/53.693

58. \[
\begin{array}{c}
7.85 \\
\times 2.6
\end{array}
\]

59. $0.5 \div 93.60 = $\quad$M59/math/187.2

Economics-Government (Inflation)

60. What is inflation? $\quad$M60/sa/increase in price without increase in value

61. What is a recession? $\quad$M61/sa/period of declining business activity


63. If a product cost $40.00 in 1983 and there was 10% inflation, what would the current cost be? $\quad$M63/sa/$44.00

64. Inflation increases the money available for savings? $\quad$M64/tf/F

Economics-Government (Elections)

65. In a presidential election-if two candidates have the exact same number of popular votes, who becomes the President? $\quad$M65/sa/candidate with the most electoral votes.

66. If a person does not vote, the police will find them and put them in jail. $\quad$E66/tf/F
67. The number of representatives a state has in the House of Representatives depends on? Population of state

68. A Supreme Court Justice is elected by the people.

69. How many years can a person serve as the President? Just under 12

Economics-Government (Constitution-Laws)

70. What is the first part of the Constitution known as? Preamble

71. The 19th Amendment gave women the right to vote?

72. According to the Constitution, how old must a person be to run for President?

73. The first state to ratify the Constitution was?

74. After an amendment is proposed by 2/3 of each house of Congress, what fraction of states must ratify it for it to be added to the Constitution? 3/4 or 75%

Economics-Government (Citizen's Rights)

75. Some jobs are open to only citizens of the United States.

76. Only citizens of the United States are protected by the Constitution.

77. The right to "keep and bear arms" is an absolute privilege granted under the Bill of Rights.
78. Statements printed in a newspaper that maliciously injure someone's good name, may be cause for a law suit under the laws against? E78/sa/slander/libel

79. If one or both of a person's parents have American citizenship, is this person automatically a citizen at birth? E79/sa/yes

Economics-Government (Voting)

80. The minimum voting age is 18 and 75. E80/tf/F

81. What day is Election Day? E81/mc/1st Tues. in Nov.

82. What is a vote on a specific issue called? E82/mc/referendum

83. If you want to vote for everyone in a certain political party, you can do so by punching how many punches? E83/mc/1

84. What is the minimum voting age in Illinois? E84/mc/18

Economics-Government (Supply and Demand)

85. If the demand for a good exceeds its supply, what happens to the price of that good? E85/mc/price will go up

86. The supply of a product has nothing to do with the price. E86/tf/F

87. It is possible to satisfy all human wants. E87/tf/F

88. Economics is the study of? E88/mc/how limited goods, services and property, are made available for human wants.
89. If a large number of people are unemployed, prices are likely to rise.  

Economics-Government (Workings of Government)

90. To work for the government, which employment test must you take?  

91. The President has the right to void a bill he doesn't like.  

92. Which of the following is the legislative branch of our government?  

93. The Congress has the power to tax.  

94. Government policies are law and they never change.  

Business (Applications)

95. When filling out an application, you should always include your correct social security number.  

96. When filling out an application, never give incorrect information.  

97. You should put down a reference without asking them first.  

98. A person can apply for more than one job at the same time.  

99. If you do not hear from a business after one week, assume you did not get the job.
Business (Typing)

100. The keys are arranged in alphabetical order.

101. What key is depressed to begin a new line?

102. When the bell sounds at the end of the line, it means it is time to return.

103. When typing, you should always look at your hand not the copy.

104. An electric typewriter cannot be?

Business (Loans and Credit)

105. A person seeking a loan should go to?

106. Consideration for a loan depends on your assets and credit rating.

107. A person taking out a loan needs collateral to back it up.

108. In order to get a credit card, a person must have at least two forms of identification.

109. Anyone can take out a loan even if they do not have the proper credit.

Business (Checking)

110. You owe $125.50 for rent expenses for July. The name of your landlord is Jane Silvers. Fill out the check correctly. Payment is due the first of every month.
Your name
your address

Pay to
the order of $__________

Dollars.

Memo

Acct.1234567 Member: Super Club

110.  

Business (Making Change)

111. How many nickels in $1.35 B111/mc/27

112. How many pennies in $10.00 B112/mc/1,000

113. If you buy a pen for 79¢ and you have a $1.00 bill, how much change will you receive? B113/mc/21¢

114. How much money do you have if you have 6 quarters, 3 nickels, 7 dimes, 9 pennies? B114/mc/$2.44

115. An item costs $1.62 and you get back 38¢, how much did you give? B115/mc/$2.00

Business (Taxes)

116. Every working person is required to have a social security tax taken from their paycheck. B116/tf/T

117. An excise tax is placed on all goods purchased by consumers. B117/tf/T

118. A student who is making less than $3,300.00 yearly, doesn't need to file an Income Tax Return. B118/tf/F
119. A person making less than $3,300.00 yearly, can file exempt for the year and get a refund at the end of the year.  

120. A person's income taxes are not based on their family income.  

Business (Budgeting)  

121. If you make $400.00 a month and spend $125.00 for rent and $68.00 for car repairs, how much is left for other expenses?  

122. You want to purchase an album that costs $9.26 and you have $4.35, how much do you need to save?  

123. You have 3 apples and there are 9 people, how would you divide them equally?  

124. If you have $7.00 and candy bars are 35¢ each, how many can you buy?  

125. If you have $3.60 and bubble gum is 30¢ per pack, how many can you buy?  

History (Founding of America)  

126. What year did Christopher Columbus discover America?  

127. What is the name of the people who came over in the Mayflower?  

128. Where did the Mayflower voyagers land?
129. Name 7 of the original 13 colonies.  
B129/sa/list

130. Where was the Declaration of Independence signed and who wrote it?  
Thomas Jefferson

131. Name the first three Presidents of the United States in correct order.  

132. Name the two men who explored the Louisiana Purchase.  
B132/sa/Meriwether Lewis William Clark

133. What early form of government attempted by the United States and failed?  
B133/mc/confederation

134. The shift to factories and machines was known as the?  
B134/mc/industrial revolution

135. What program helped restore the South after the Civil War?  
B135/mc/Reconstruction

History (Warfare and Other Major Events)

136. What country helped the colonies with their fight against England in the Revolutionary War?  
H136/mc/France

137. There was a President for the Union and the Confederacy during the Civil War, who were they?  
H137/mc/A.Lincoln, J.Davis

138. Who were the military commanders for the North and the South during the Civil War?  
H138/mc/S.Grant, R.E. Lee
139. What were the years of World War I? H139/mc/1914-1918
140. What was the date of the bombing of Pearl Harbor? H140/mc/Dec. 7, 1941
141. Name the leaders of the United States, England, and Germany, during World War II. H141/sa/F.D.Roosevelt, W. Churchill, A.Hitler
142. What side did the United States aid during the Korean Conflict? H142/mc/South Korea
143. What political force occupied North Vietnam during the Vietnam War? H143/mc/communists
*144. Name the first American who stepped on the moon? H144/mc/Neil Armstrong
   a. George Jetson
   b. Neil Armstrong
   c. John Glen
   d. William Shatner

History (State Landmarks)
146. Where is the Liberty Bell located? H146/mc/Philadelphia, Pa.
147. In which city is the Statue of Liberty located and what country gave her to us? H147/sa/New York City, N.Y. France
148. In what state did Abraham Lincoln give his Gettysberg Address? H148/mc/Pennsylvania

* Question contains student selected answer choices.
149. What faces are carved into Mount Rushmore and what state is this monument in? T. Roosevelt
A. Lincoln
H149/sa/G. Washington
T. Jefferson
S. Dakota

History (U.S.S.R. Relations)

150. The United States and England met with Russia on two occasions during and after World War II. Where were the two places they met? H150/sa/Yalta and Potsdam

151. What term is used to describe the relationship between the U.S.S.R. and the U.S.A. after World War II? H151/mc/cold war

152. What caused the invasion of the Bay of Pigs? H152/sa/Americans spotted Soviet ships with missiles going into Cuba.

153. President Nixon and Soviet leader Leonid Brezhnev signed two documents that were intended to limit nuclear armaments. What were the negotiations that led to these called? H153/sa/Strategic Arms Limitations Talks

154. The Soviet invasion of what country led to the embargo of grain and electronic equipment, and the boycott of the 1980, summer Olympics by the United States? H154/sa/Afghanistan

Science (Basic Health)

155. What is your normal body temperature? S155/mc/98.6°F.
156. The skin acts as a barrier against germs and also controls body temperature. S156/tf/T

157. You should have a physical every? S157/mc/year

158. The heat energy in our bodies is measured by? S158/mc/calories

159. Cocaine, L.S.D., and alcohol are all addictive drugs. S159/tf/T

Science (Weather and Environment)

160. Earthquakes only happen on the west coast. S160/tf/F

161. Warm air rises. S161/tf/T

162. Altitude affects the temperature. S162/tf/T

163. Less than 1/5 of the earth's surface is water. S163/tf/F

164. Rain and snow are both forms of precipitation. S164/tf/T

Science (Human Anatomy)

165. The body organ that pumps blood is the? S165/mc/heart

166. As you inhale, air is taken into your body causing your _____ to expand. S166/mc/lungs

167. The large intestine connects the liver to the spleen. S167/tf/F

168. The average human is born with two kidneys. S168/tf/T

169. A person would die without his or her appendix. S169/tf/F
Science (Basic Chemistry)

Matching: 170-174

170. carbon monoxide

171. bleach

172. sodium

173. hydrogen peroxide

174. sucrose

Geography (Geographic Areas)

175. Name two of the states in which the Rocky Mountains are located.

176. What ocean lies to the east of North America?

177. What ocean lies to the west of North America?

178. On which continent are the Andes Mountains located?

179. On which continent is the Sahara Desert located?

Geography (Map Reading)

180. Label the directions of the compass.

\[
\begin{array}{c|c|c|c|c|c|c}
& N & W & S & E \\
\hline
X & & X & & \\
X & X & & \\
 & & X & & \\
\end{array}
\]
181. What would this symbol stand for on a road map?  

G181/mc/Interstate Highway

182. What would this symbol stand for on a road map?  

G182/mc/state capital

183. What is the following used for on a map?  

G183/mc/to determine number of miles between two points

184. What natural bodies do the shaded areas on this map represent?  

G184/cm/Great Lakes

185. Name this state and its capital.  

G185/sa/Illinois, Springfield

186. Name this state and its capital.  

G186/sa/Texas, Austin
187. Name this state and its capital.  
*California, Sacramento*

188. Name this state and its capital.  
*Florida, Tallahassee*

189. Name this state and its capital.  
*Indiana, Indianapolis*

**Geography (Continents)**

190. Name five of the seven continents.  
*North America, South America, Africa, Europe, Antartica, Asia, Australia*

195. What channel separates Great Britain and France?  
*English Channel*

196. Is Romania located in Eastern or Western Europe?  
*Eastern*

197. What common shape does Italy look like?  
*a boot*
198. What is the largest country in Asia? G198/mc/Russia

199. What nation is on the southern border of the United States? G199/mc/Mexico
BIBLIOGRAPHY


Donlon, Thomas F.; Ekstrom, Ruth B.; Lockheed, Marlaine E. "Sex Differences and Sex Bias in Test Content." Education Horizons, Fall 1979, pp. 47-51.


