

## Efficacy of Latin Studies in the Information Age

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*The purpose of this paper is to review the efficacy of studying Latin as a means of improving English skills, facilitating the learning of another foreign language, and improving critical thinking skills. The historical background of Latin education, as well as the reasons for the deletion of Latin from the curriculum, are documented. Results of research indicate that Latin education on all grade levels, particularly on the elementary grade levels, is related to improved general English comprehension (including reading, vocabulary, grammar and comprehension for both native and non-native speakers) and in facilitating the acquisition of a second foreign language. At the secondary level the study of Latin is related to increased levels of language achievement as demonstrated on both the Scholastic Aptitude Test (SAT) and the American College Test (ACT) verbal scores and increased use of critical thinking as evidenced by increased mathematics scores on these same tests. An additional side effect is students' improved motivation and interest in learning another language and improved self-concept.*

John Ruskin (1876), a Victorian England art and social critic, wrote in his letter 67 of *Fors Clavigera*, "The first duty of government is to see that people have food, fuel, and clothes. The second, that they have means of moral and intellectual education" (as cited in Boyer & Banks, 1954, p. 487). His statement still holds true today. The government must be concerned with not only the required knowledge and skills of the next generation of its citizens, but also oversee instruction in those areas. The public schooling system is the primary means by which the government discharges this responsibility.

The purpose of this paper is to investigate the efficacy of teaching Latin as part of the process of developing our children's facility in language usage. Perhaps the United States should once again heed the words of Thomas Jefferson who wrote in a letter to J. W. Eppes on 28 July 1787, "In general, I am of [the] opinion, that till the age of about sixteen, we are best employed on languages: Latin, Greek, French, Spanish" (as cited in Simon, 1988, p. 77).

In an interview with *HotWired Magazine*, futurist Alvin Toffler (as cited in Schwartz, 1995) states that in "a world being reconstructed by information," (p. 1) the importance of communication is paramount to power in the new world view paradigm. As the world shifts from an agricultural/industrial- to an information/service-based economy, the focus is not on military supremacy, but for supremacy in the control and dissemination of information. According to Toffler, "Information, including misinformation, will change the world militarily and economically" (as cited in Schwartz, p. 4). The product is no longer the weapon of destruction; the product is the word, the idea, the knowledge at all levels. In order to make sense of that word, idea, or knowledge, students entering the workforce in the information age must not only be educated in vocabulary, math, reading and comprehension skills (Whetzel, 1992), but they must also be taught to use the higher order thinking including critical and creative thinking (Huitt, 1997; Slavin, 1991).

## Latin in the Curriculum

In order to make the informed choices for the best future available to Americans, one must sometimes seek knowledge from the past. For centuries all young people who attended schools, or those who were privately educated, followed a liberal arts curriculum, with particular emphasis on the Latin language. The reasoning was that an educated person must be aware of the past to make judgments about the future and must have the intellectual means, now called critical and creative thinking skills, to make those judgments. Spring (1994) describes the sixteenth century curriculum for a just society from the works of Desiderius Erasmus, who,

"wrote a treatise titled *The Education of the Christian Prince...* [which] calls for the education of a just and wise prince through the study of the Scriptures and the selected works of Plutarch, Seneca, Aristotle, Cicero, and Plato. Of great importance to the grammar schools is the emphasis on the study of classical Greek and Roman writers, which would, it was believed, lead to the development of civic character and the preparation for leadership." (p. 10)

The curriculum for the grammar school of the 1700's continued to require that students emphasize courses in "Latin grammar, Latin conversation and composition, and Latin readings" (1994, p. 11). At America's oldest state university, the University of Georgia, a student enrolling as a freshman was required to have studied and to have available "a correct knowledge of Cicero's orations, Virgil, John and the Acts in the Greek New Testament, Graeca Minora, or Jacob's Greek Reader, English Grammar and Geography, and be well acquainted with Arithmetic" (LaFleur, 1985, p. 341). In fact, most colleges required the same prerequisites for entrance during the nineteenth century.

Until the 1920's Latin constituted a substantial part of any college liberal arts curriculum and was extensively taught at the junior and senior high school levels to all ability levels of students (Sussman, 1978; Herron, 1982; LaFleur, 1985). The study of the Latin language was justified through what was known as the:

"doctrine of transferability--the widespread belief that Latin in particular (as opposed to the other foreign languages) developed certain skills and habits which aided English vocabulary, reading comprehension, and composition, while at the same time instilling logical and precise thought" (Sussman, 1978, p. 347).

During the 1920's, the reasons for teaching Latin were challenged by Thorndike and Ruger who both stressed behavioral theories of learning (VanTassel-Baska, 1987). While many behavioral theorists "attacked the justifications of mental discipline and transfer of learning that Latin had professed and stated that Latin students performed better than students not enrolled in Latin due to preselectivity [or placement in Latin of only the best students]" (Sparks, Ganschow, Fluharty, & Little, 1995, p. 165), "they failed to prove that no transfer effect occurred from taking Latin" (VanTassel-Baska, 1987, p. 160). In fact, their studies showed that Latin students did have more mastery of English than did non-Latin students. Vindicated somewhat, teachers of Latin continued to feel instinctively that "there was *something* inherent in Latin study which did indeed help English skills" (Sussman, 1978, p. 347).

Although little research was provided to give credence to the belief in the doctrine of transferability, Latin enrollment continued its increase with the intention of transferring learned information to other areas of curriculum. In an article first published in 1914, Grove E. Barber, a University of Nebraska professor writes about a school in Dorchester, MA. Researchers evaluating the study of Latin in a commercial department showed that in spelling, use of words in sentences, definitions and parts of speech, meaning of words, excellence

in vocabulary, and all their studies the Latin students scored higher by 29% than did the non-Latin students. Evaluators in another study found, "High school students who had studied Latin for two years generally achieved higher scores on tests of native language skill" (Sparks et al., 1995, p. 167) than modern language students. Harris (1915) suggested that "College freshmen who had taken four years of Latin in high school scored higher on spelling and vocabulary tests with words of Latin roots and origin than students who had not studied Latin" (1995, p. 167). In addition, Dallam (1917) wrote, "students who had taken Latin scored higher than modern language students on most measures, particularly in the area of grammar" (1995, p. 167). In 1962, Latin enrollment in the United States had reached a peak of 702,000 in the public high schools (LaFleur, 1985).

However, "too often educational policy in this country is formulated reflexively and without careful consideration of the incidental effects that changes in educational policy can bring about" (Slobodin, 1977, p. 261). Such was the case with the advent of the space age and Sputnik by the Soviet Union in 1957. Although for a short time interest in other languages increased with the International Education Act of 1964, the act was never funded and was superseded by the National Defense Education Act (Simon, 1988). Suddenly the only correct and important method of educating students was through the scientific method. "The Soviet success in launching Sputnik spelled the beginning of an obsession that began as a determination to assert our supremacy in the sciences, but gradually became an assertion of the supremacy of the sciences in educational thought and practice" (Slobodin, 1977, p. 260).

With the stress on science came the loss of Latin as part of the curriculum in most school systems in the country. "Public school Latin enrollments plummeted, falling 79%, from 702,000 in 1962 to a low of 150,000 in 1976" (LaFleur, 1985, p. 342). Gradually "a drop of thirty-three points in the average verbal score on the national Scholastic Aptitude Test...and a sharp increase in college remedial English courses" (Mavrogenes, 1977, p. 268) was evidenced between 1957 and 1973 during a time of continued drop in the number of students enrolled in Latin and increase in the number of science and math classes required. In fact, students who had studied Latin made slight increases in SAT verbal scores (LaFleur, 1985).

### **A Resurgence of Interest in Teaching Latin**

With the public outcry brought on by the worsening SAT scores, former President Jimmy Carter's report by the Commission on Foreign Language and International Studies, *Strength through Wisdom: a Critique of U. S. Capability*, urged a return to foreign language studies "as a means of enhancing general linguistic and communications skills as well as international cultural awareness" (LaFleur, 1985, p. 342). The commission showed a deep concern:

"at a serious deterioration in this country's language and research capacity at a time when an increasingly hazardous international military, political, and economic environment is making unprecedented demands on America's resources, intellectual capacity, and public sensitivity . . . . Nothing less is at issue than the nation's security" (as cited in Pranger, 1980, p. 56).

Robert Pranger, former Deputy Assistant Secretary of Defense for the Near East and South Asia, also urged "a comprehensive and immediate national commitment...to enriching our language, cultural, and international studies programs at all levels" (1980, p. 56). Other studies (e.g., the Reagan/Bell Commission on Excellence in Education and the College Board's Educational Equality Project (LaFleur, 1985); *The Paideia Proposal* (Adler, 1982); *A Nation at Risk* (Sparks et al, 1995), suggested that foreign languages, including classical Latin, were important for the education of American youth. By 1985, interest in Latin again was on the rise, up 12% from the low enrollment in 1976, but enrollments had not yet climbed to the high of 1962 (LaFleur, 1985).

## Recent Research

Ganschow and Sparks (1995) write, "Research has shown unequivocally that phonological awareness training and direct instruction in phonology/orthography of a language benefit students with native language reading, writing and spelling difficulties" (p. 107). In the 1970s, educators such as the curriculum director of the Washington, DC, began to place Latin into foreign language programs in the elementary schools (FLES; Sussman, 1978). The justification was that Latin would:

- (1) improve communication skills and, thereby, enhance social and economic opportunities and self-image;
- (2) provide understanding of how language works, with particular application to the structure of English;
- (3) enable students to read and write Latin; and
- (4) provide through the study of Latin, a broader cultural and humanistic perspective (Sussman, p. 348).

Results of experimental programs in the Washington, DC, schools demonstrated the efficacy of Latin as a means to improve reading and reading comprehension skills (Mavrogenes, 1977; Sussman, 1978). Reading scores in English were significantly higher for Latin students than either students who did not take a foreign language or those who took another foreign language. In addition, the amount of improvement was greater in the time allotted before testing began than for either of the other two groups, suggesting that Latin helped students more in understanding English than did studying either another foreign language or not studying a foreign language. The students taking Latin were low-level reading students. Mavrogenes (1977) cites Cederstrom who wrote that those children who participated in the 8-month program "climbed from the lowest level of reading ability to the highest level for their grade, equaling the achievements of pupils who had studied French or Spanish for thirty-eight months" (p. 270).

Macro (1981) suggests, "There is no doubt that the study of Latin and/or Greek aides our understanding of English grammar and syntax and hence provides a competence in writing and reading our own language" (p. 73). In a research project on the effects of Latin on both foreign language aptitude and native language skills, Sparks, Ganschow, Fluharty and Little (1995) found that students taking Latin improved in both foreign language aptitude and native language phonological measures over those not taking Latin.

In Worcester, MA, another group of low-level reading students participated in a Latin school program at seventh-grade level. They showed an increase in reading comprehension well above expectations--a nineteen month increase in a school year (Sussman, 1978). On the California Test of Basic Skills, Los Angeles fifth grade students also, after only three months of Latin, improved three months in reading, while sixth graders improved twice normal expectations. (Mavrogenes, 1987)

The Philadelphia school system implemented a Latin program which showed increases of seven scale points on the California Achievement Test reading portion for the participants as compared to the non-participants (Mavrogenes, 1987). The program consisted of fourth, fifth, and sixth graders who had 15 to 20 minutes of Latin per day with particular stress on vocabulary building through multisensory instruction. The justification was to introduce students to the structure and vocabulary of Latin, including roots and prefixes used in English

vocabulary and to introduce the Roman culture and its relationship to present day culture. The Philadelphia program had grown to an enrollment exceeding 14,000 in 1982 (Masciantonio, 1983, p. 369) and was being taught in some instances by trained paraclassicists. However, student scores continued to surpass those of students who had not taken Latin. In another Pennsylvania school system in Erie County, researchers found that the study of Latin increased scores for students in all areas, including "Word Knowledge, Reading, Language, Math Computation, Math Concepts, and Math Problem Solving" (Masciantonio, 1982, p. 377). In another implementation study, New York students studying Latin in fifth and sixth grades showed reading improvement of 3.6 months over those without Latin (1987).

These research findings demonstrate that reading and reading comprehension can be improved, dramatically at times, with the addition of Latin to the curriculum. However, to improve reading and reading comprehension skills, one must improve vocabulary skills, so one must look at findings for vocabulary comprehension to understand why Latin facilitates the learning of reading and reading comprehension, among other areas of knowledge. According to Adams, "the single immutable and nonoptional fact about skillful reading is that it involves relatively complete processing of the individual letters of print" (as cited in Sparks & Ganschow, 1991, p. 9). Possibly the relationship of Latin words to English allows students to process the individual letters into words, phrases, and then sentences.

Philadelphia researchers showed Latin students had vocabulary growth similar to reading growth. On the Iowa Test of Basic Skills vocabulary subtest, "the control group place[d] *exactly a year below*" (Sussman, 1978, p. 349) Latin students. Again, in Indianapolis, "in each category [of the Metropolitan Achievement Test] they [Latin students] demonstrated an approximate average of a half year's greater progress than the control group" (1978, p. 349). The Indianapolis experiment results also showed that in vocabulary "70 percent of the experimental group advanced to a mastery level of more than 80 percent, while only 2 percent of the control group advanced to that level" (Mavrogenes, 1977, p. 270). In Easthampton, Massachusetts, the achievement was similar to the other schools' findings. "Latin pupils showed marked improvement in all six categories" (1977, p. 270) of the Stanford Achievement Vocabulary Test. Findings by researchers in Worcester, Massachusetts, showed "Latin students [below normal readers] increased their vocabulary scores by fourteen months...during the school year" (Sussman, 1978, p. 350), exceeding the normal six months improvement expected. Fromchuck (1984) and Polsky (1986) also demonstrated that Latin affects vocabulary and comprehension skills positively in the New York City schools' experiment (Sparks et al, 1995).

Two other studies of older students or adults were performed in Washington and Boston. In Washington, students who had taken a foreign language and Latin scored in the 58th percentile on their English vocabulary level, while those with no foreign language scored an average percentile of 28 (Mavrogenes, 1977). In Boston, two groups of high school juniors, one who had taken both Latin and another foreign language for two years each and one that had taken no foreign language, were tested on vocabulary knowledge. The Latin group consistently scored higher than the non-foreign language students (1977). Another experiment described in an article by VanTassel-Baska (1982) cites that a study of "verbally precocious junior high age students revealed significant increases [ $p < .01$ ] in English vocabulary and grammar" (p. 160) after studying Latin. Mavrogenes (1977) cites Bowker (1975): "the primary effect of Latin study on vocabulary may not be an increased ability to recognize Latin derivatives, but in fostering a more general word-awareness" (p. 271).

Although general vocabulary knowledge is demonstrably improved with Latin study, spelling does not always seem to improve. However, Carlisle and Liberman (1989) found that some Latin students were better at spelling English words in one experiment, perhaps because "Latin focuses attention on word structures that are relevant

to English spelling" (Carlisle, 1993, p. 340). Henry (1993) wrote that learning "specific strategies for decoding and spelling" (p. 239) is beneficial, since many English words are derivatives of both Latin and Greek words. Learning "frequently used Latin and Greek word roots and affixes enhances not only decoding and spelling ability, but vocabulary development as well" (p. 239).

Brown (1947) "noted that 80% of the English words borrowed from other languages come to us from Latin and Greek and make up approximately 60% of our language" (as cited in Henry, 1993, p. 231). His analysis of Latin and Greek word roots concluded "12 Latin and 2 Greek roots, along with 20 of the most frequently used prefixes would generate an estimated 100,000 words" (p. 231). Again because English is largely taken from Latin, the study of Latin should improve vocabulary, perhaps to 100,000 words, thereby improving reading. This conclusion has been demonstrated in research studies in many of the same school systems.

VanTassel-Baska (1982) writes, "if vocabulary development and linguistic competence in English are desirable gifted program objectives, then Latin would be a logical language choice" (p. 160). If educators care to extrapolate, they could suggest that Latin could be the logical language choice for study if vocabulary development and linguistic competence were desirable program objectives for all students. Many of these studies were performed in the inner-city areas of New York, Los Angeles, Washington and Philadelphia; the results "dramatically demonstrated how Latin can help underprivileged inner-city children achieve great improvement in English communication skills" (Sussman, 1978, p. 351). In addition, students from middle- and upper-income level communities can also show improvement in English after Latin study.

The wealth of information demonstrates that Latin should be an important part of the elementary school program for its ability to improve reading, reading comprehension, vocabulary, and in some instances, mathematical ability requiring higher order thinking skills.

### **Important Higher Order Thinking Skills**

Higher order thinking skills, so necessary in today's information age, can be improved through the study of Latin. Carroll and Pimsleur listed four important language variables that are needed in order to learn a foreign language: phonetic coding, grammatical sensitivity, inductive language learning ability, and rote learning ability (Ganschow & Sparks, 1991). While modern languages require logical reasoning (Morgan, 1989), they focus on the four proficiencies of reading, writing, speaking and understanding the language. On the other hand, the study of Latin requires that students use the higher order thinking skills, like analysis, synthesis and evaluation while translating at greater levels of difficulty. "[I]n that respect, it represents a verbal analogue to the teaching of mathematics as a cumulatively organized subject area" (VanTassel-Baska, 1987, p. 160).

Sparks and Ganschow (1991) write that "IQ is *not* a critical variable in determining [foreign language] learning potential. However, basic language aptitudes may be important" (p. 4). As several other experimenters demonstrated in their findings, Sussman (1978) writes that students who studied Latin in Indianapolis not only demonstrated increased skills in vocabulary, spelling and reading as measured on the Metropolitan Achievement Test, but "greater progress than the control group [in] three areas of mathematics achievement (computation, concepts, and problem solving)" (p. 350). He concludes that the test results should be studied carefully since they demonstrate "transfer not only in the specific areas of language skills, but also in logical, precise thinking, as exemplified by the mathematics achievement scores" (1978, p. 350). Masciantonio (1982) concurred with Sussman (1978) in his research of the Erie, Pennsylvania Schools: "The study of Latin contributed to better performance on tests in vocabulary and verbal ability, and in higher grades" (p. 379) overall.

Mavrogenes (1977) cites Vygotsky, a Russian psychologist and cognitive theorist, who stressed that foreign language study influences the students' cognitive skills through Piaget's concept of 'decentration':"

"Learning a new language forces a person to realign his whole system of ideas, to reorganize his entire world view, and to operate a higher level of intellectual mastery. Therefore, foreign language training provides a special intellectual training that cannot be offered by any other discipline." (p. 269)

Just as Vygotsky suggested that foreign language has all the requirements needed for intellectual training, Jarvis (1980) concluded that foreign language students actively use all forms and levels of learning while studying the target language. Jarvis further explained:

"[F]oreign language learning is rich in the various types of learning or kinds of cognitive functioning (analyzing, discriminating, identifying, categorizing, inferring, including, deconstructing)...Given this principle, it is possible to argue that language study provides abundant practice in mental skills." (Herron, 1982, pp. 445-446))

The 1980 Report of the Commission on the Humanities of the Rockefeller Foundation stressed that "All people have the capacity to reach for high standards of expression, interpretation, and discrimination" (as cited in Herron, p. 446). The members of the commission concluded that the study of foreign languages requires classifying, comparing, and logical thinking and insisted:

"These conceptual skills are no less basic than literacy itself. They enable young people to go beyond merely functional tasks to wonder, imagine, and decide what is good, enjoyable, how their lives should be lived" (as cited in Herron, p. 446) .

The American Council on the Teaching of Foreign Languages (ACTFL) in 1978 listed the cognitive skills that foreign languages improve as: native language skills, problem-solving skills, increased creativity, and open-mindedness or flexibility. Carton (as cited in Herron, 1982) researched "how the use of interlingual cues (derivations, loan words, cognates) can contribute to the cognitive process of inferencing" (1982, p. 446). Although all of these processes seem to improve higher order thinking skills or cognitive abilities, some sort of observation instrument is needed to persuade others of the facts. Researchers have shown that math computation, concepts, math problem-solving scores of Latin learners were higher than non-Latin learners in the classroom, but another instrument to test critical thinking skills will assure the generalizability of these thinking processes.

### **Improved Scores on Standardized Exams**

Often, improved scores on the SAT provide an observable means of demonstrating improved higher order thinking skills. From research, it can be concluded that each additional year of foreign language study, particularly Latin, will improve both the SAT and ACT scores. LaFleur (1981) reported that in 1980:

"the SAT Verbal average for those taking the Latin Achievement Test . . . was 144 points higher than the national average for all students. . . . Moreover, while national SAT Math averages also dropped slightly . . . , Latin Achievement Test participants scored . . . 122 points higher than the mean for all students." (p. 254)

Latin students also scored higher than those students taking other foreign languages. In 1981 "the average Verbal SAT score for students taking the Latin AT [Achievement Test] was 134 points higher than the national average" (Sparks et al., 1996, p. 168 ).

Cooper (1987) suggested that students taking foreign languages learn language strategies that assist them in the verbal portion of the SAT. They include:

- 1) learning vocabulary in context;
- 2) developing a sensitivity for nuance in the meaning of words;
- 3) using contextual cues to guess at the meaning of unknown words in a passage; and
- 4) reading a text with care and special attention to thematic development, style, and the author's stance to his material (p. 386).

He also suggested that "foreign language students' accrued exposure to the problems of processing and interpreting language may have a positive influence on their performance on standardized language tests" (p. 386-387). In addition to making higher SAT or ACT scores, students of Latin achieved a higher overall high school grade point average.

Townsley (1985) concluded that Latin students generally outscore other students by "nearly 150 points" (p. 4) on the SAT. Additionally, Morgan (1989) studied the 1987 SAT scores and concluded that four or more years of a foreign language made a difference on the average of 150 points on the SAT verbal. On the math portion, students who had four years of foreign language study outscored non-foreign language students by 155 points. When comparing SAT scores for Latin students to students of other foreign languages, Latin students scored higher than all others, except students of Russian, on both the verbal and math sections of the SAT (Morgan, 1989). On the ACT results showed, "The foreign language group performed at a significantly higher level than did the non-foreign language group" (Eddy, 1981, p. 20).

Holmes and Keffer (1995), after studying the effects of Latin on SAT scores, conducted a study using software with Latin and Greek terms to be studied before taking the SAT-I test. Students who studied the computer programmed words, scored 40 points higher than the other two groups. However, since confounding variables interfered with the conclusion, researchers suggested that the "teaching of Latin upon English verbal skills uniformly found a positive effect and disagreed only with the magnitude of the effect" (p. 50). An additional area of study questioned whether students who took foreign language studies in high school performed better academically in college. Wiley (1984-1985) wrote that high school foreign language students "had a cumulative college GPA of approximately 2.80, compared with those students who did not take a high school foreign language (2.38 average)" (p. 34). Latin studies showed the students with the highest average GPA of 2.89, higher than French, German or Spanish.

### **Additional Benefits**

There are some additional important benefits of teaching Latin: it helps in the acquisition of a second foreign language, it can motivate student learning, it can impact student self-image and curiosity, and provides an opportunity for an enriching cultural experience.

Acquisition of a Second Foreign Language. Just as Latin students as compared to non-Latin students achieve the

highest average college GPA and highest SAT scores, students taking Latin have also shown a facility in the acquisition of a second foreign language. In a study at Gallaudet College, Townsley (1985) demonstrated that students "whose native language was not English could make sudden and extraordinary jumps in vocabulary and verbal skills--advancing on average a full year above those not taking Latin" (p. 4). The students who participated in the study were hearing impaired and had as their native language American Sign Language, not English. In effect, the students were learning Latin as a first foreign language and English as a second foreign language. The results showed an eight month increase in vocabulary grade equivalent after only one semester of Latin.

Motivation. An additional side effect of Latin seen in the Gallaudet study was "above-average motivation" (1985, p. 8). Students demonstrated "appreciation for how much it [Latin] improved their comprehension of English, that other foreign language which so many of them (like so many of their hearing counterparts) consider very difficult to master" (Townsley, 1985, p. 5). That same side effect was demonstrated in several other research projects, as reported by participating teachers' observations (Abbott, 1991). Latin is possibly one of the only subjects that all students begin in the same position; they all know nothing. "The success that students feel in learning this new language provides some of them with a sense of self-esteem and pride that they may not experience in learning other subjects" (Abbott, p. 28).

Self-Image and Curiosity. In a program sponsored by Beloit College, inner-city minority students attended a Saturday school called Beloit Academy (Magner, 1991). The curriculum covers a story about an Ethiopian family in the second century written in Latin and English. The program was begun to improve the students' self-image and develop a "curiosity of mind and a certain discipline" (p. A32). In addition, the story allows the students to learn Latin while it increases their cultural understanding. Results show that "many of the children say learning Latin is one of the things that they like best about the academy" ( p. A32).

Teachers who were involved in the Worcester, MA, Latin program reported that their students demonstrated improved motivation, were more self-reliant, and had a higher self-image at the conclusion of the program (Sussman, 1978; Masciantonio, 1982). Additionally, teachers and parents involved in the Easthampton program "valued highly the intangible and untestable results in the development by the students of a more cosmopolitan outlook and a better understanding of others--an essential component of humanistic education" (1978, p. 350). In Los Angeles, student self-concept was also rated, as were interests and attitudes. The results showed that students were significantly more interested in studying a foreign language and had higher concepts of themselves than those who did not participate in the program (Masciantonio, 1982).

Culture and History. In addition to the building of good self-image, students involved had the opportunity to learn about ancient Rome. This provided them with a "rich cultural basis for topic discussion" (VanTassel-Baska, 1987, p. 161) and required them to use their "critical thinking and research skills" (1987, p. 161). Abbott (1991) writes that Latin students "are exposed to a great literature, which offers them the opportunity to examine political, social and moral questions posed in ancient times and allows them to draw parallels and gain insight into their own complex world" (p. 27). Strasheim (1984-85) suggested that Latin is an important asset to global education. In explaining a student's ability to see himself as an active member of this world encompassing society, she cited Lee Anderson, who wrote in Schooling and citizenship in a global age: An exploration of the meaning and significance of global education, that a competent person is able:

to perceive that all peoples at all levels of social organization --from the individual to the whole society--are both 'cultural borrowers' and 'cultural depositors'; they both draw from and

contribute to a 'global bank of human culture' that has been and continues to be fed by contributions from all peoples, in all geographical regions, and in all periods of time. (p. 57)

### Summary and Conclusions

Presently, the United States is in the midst of a global economic crisis and a corresponding educational crisis., There is both debate on what students need to know and be able to do as well as how to teach these to students. Based on the research reviewed in this paper, educators should consider Latin studies as one aspect of educational reform. It has been shown to increase native language communication skills, increase higher order thinking skills, and impact student's knowledge in the area of global understanding.

The natural conclusion is that Latin curriculum should be implemented in our elementary or middle schools now in order to allow students to become self-sufficient, working members of the information age and the global information economy that is their future. The study of Latin would allow students to view the contributions of an ancient people who added words to the English vocabulary, who created the concepts of a governing system on which America's laws are based, and who created literature and art that are still viewed as powerful in today's society. American educators must look beyond the borders to the world for answers.

Senator Paul Simon (1988) described a conversation Genelle Morain, a language education professor at the University of Georgia, who, when confronted by a Georgia school board member who questioned: "Why should a student who will never leave Macon, Georgia, study a foreign language?" replied, "That's *why* he should study another language" (p. 76).

All Americans will be required to "go beyond" the shelter of their homes into that global economy and must be prepared to face that future. Not with just a foreign language, but with the knowledge to use information gleaned carefully, completely and correctly for the improvement and the sustaining of American society. Implementation of Latin programs in the schools once more can help America's students become better students, an important asset in this fast-changing, global village we now live in. As Booth (1980), a high school administrator, wrote: "students com[e] to Latin highly disorganized and leav[e] it with invaluable organizational skills...with an ability to pay attention to detail...to make sense of it all and...to find the hidden patterns...diligent young people ready for [the future.]" (p. 84).

### References

- Abbott, M. G. (1991). Critical issues in the classics for American schools. Foreign Language Annals, 24(1), 27-37.
- ACTFL Committee on the Basics (1978). Foreign language and the basics. NY: ACTFL Materials Center. (ERIC Document Reproduction No. ED 163 801)
- Adler, M. (1982). The Paideia proposal: An educational manifesto. New York : Macmillan.
- Barber, G. E. (1985). Latin as a practical study (reprinted from the December 1914 issue of The University Journal). The Classical Journal, 81, 158-160.
- Booth, F. M. (1980). A high school administrator's defense of Latin. The Classical Outlook, 57 (4), 84-85.
- Carlisle, J. F. (1993, December). The influence of a second language on improvement in spelling. Reading and Writing, 5, 339-353.
- Cooper, T. C. (1987). Foreign language study and SAT-Verbal scores. The Modern Language Journal, 71, 381-387.

- Eddy, P. A. (1981). Effect of foreign language study in high school on verbal ability as measured by the Scholastic Aptitude Test-Verbal (Final Report). Center for Applied Linguistics (ERIC Document Reproduction Service No. ED 196 312)
- Ganschow, L. & Sparks, R. L. (1991, October). A screening instrument for the identification of foreign language learning problems. Foreign Language Annals, 24, 383-398.
- Ganschow, L. & Sparks, R. L. (1995, February). Effects of direct instruction in Spanish phonology on the native language skills and foreign language aptitude of at-risk foreign-language learners. Journal of Learning Disabilities, 28, 107-120.
- Henry, M. K. (1993) Morphological structure: Latin and Greek roots and affixes as upper grade code strategies. Reading and Writing: An Interdisciplinary Journal, 5, 227-241.
- Herron, C. (1982). Who should study a foreign language? The myth of elitism. Foreign Language Annals, 15 (6), 441-449.
- Holmes, C. T. & Keffer, R. L. (1995, September/October). A computerized method to teach Latin and Greek root words: Effect on verbal SAT scores. The Journal of Educational Research, 89, 47-50.
- Huitt, W. (1997). The SCANS report revisited. In P. Anderson (Ed.), Proceedings of the Fifth Annual Gulf South Business and Vocational Education Conference. Valdosta, GA: Valdosta State University.
- LaFleur, R. A. (1981). Latin students score high on SAT and achievement tests. Classical Journal, 76 (3), 254.
- LaFleur, R. A. (1985-1984). Latin in the United States: Twenty years after the fall. Foreign Language Annals, 18 (4), 341-347.
- Macro, A. D. (1981). Applied classics: Using Latin and Greek in the modern world. The Classical Journal, 50 (3), 73-75.
- Magner, D. K. (1993, March 27). Using Latin and history, Beloit College aims to instill desire for higher education in low-income children. The Chronicle of Higher Education, 37, A31-A32.
- Masciantonio, R. (1983). Language arts through Latin: A staff development project. Foreign Language Annals, 16 (5), 369-372.
- Masciantonio, R. (1978). Tangible benefits of the study of Latin. Foreign Language Annals, 10 (4), 375-382.
- Mavrogenes, N. A. (1987). Latin and language arts: An update. Foreign Language Annals, 20 (2), 131-137.
- Mavrogenes, N. A. (1977). The effect of elementary Latin instruction on language arts performance. Elementary School Journal, 77 (4), 268-273.
- Morgan, R. (1989). An examination of the relationship of academic course work with admissions test performance (College Board Report No. 89-6). NY: College Entrance Examination Board. (ERIC Document Reproduction Service No. ED 315 441)
- Pranger, R. J. (1980, May 12). The real threat to America's security. The Chronicle of Higher Education, 56.
- Ruskin, J. (1876) Fors Clavigera, letter 67. In J. W. Boyer & J. L. Banks (Eds.), The Victorian Age (p. 487). Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Schwartz, P. (1996). Shockwave (anti) warrior. Hotwired [On-line serial], Available: <http://www.wired.com/wired/1.5/features/toffler.html>.
- Simon, P. (1988). The tongue-tied American. New York, NY: Continuum Publishing Company.
- Slavin, R. E. (1991) Educational psychology (3rd ed.). Needham Heights, MA: Allyn & Bacon.
- Slobodin, C. S. (1977). Sputnik and its aftermath: A critical look at the form and the substance of American educational thought and practice since 1957. Elementary School Journal, 77 (4), 261-264.

- Sparks, R. L. & Ganschow, L. (1991). Foreign language learning differences: Affective or native language aptitude differences? The Modern Language Journal, 75, 3-16.
- Sparks, R. L. , Ganschow, L., Fluharty, K. & Little, S. (1995-96, December/January). An exploratory study on the effects of Latin on native language skills and foreign language aptitude of students with and without learning disabilities. The Classical Journal, 91, 165-184.
- Spring, J. (1994). The American school 1642-1993 (3rd ed.) . New York, NY: McGraw-Hill, Inc.
- Strasheim, L. A. (1984-85). Latin and emerging adolescent education. The Classical Outlook, 62 (2), 55-58.
- Sussman, L. A. (1978). The decline of basic skills: A suggestion so old that it's new. The Classical Journal, 73 (4), 346-352.
- Townsley, L. (1985). Latin as a vocabulary builder for hearing-impaired and second-language students of English. Teaching English to Deaf and Second-Language Students, 3 (1), 4-8.
- VanTassel-Baska, J. (1987, February). A case for the teaching of Latin to the verbally talented. Roeper Review, 9, 159-167.
- Whetzel, D. (1992). The Secretary of Labor's Commission on Achieving Necessary Skills. (U. S. Department of Education Report No. RI88062003) Washington, D. C.: Office of Educational Research and Improvement. (ERIC Document Reproduction Service No. ED 339 749)
- Wiley, P. D. (1984-85) High school foreign language study and college academic performance. Classical Outlook 62 (2), 33-36.