educational considerations

published at kansas state university college of education

In the nearly thirty years since the Soviet launching of Sputnik, American education has undergone an intense period of evaluation, modification, and often misguided renovation. The function of the school has been expanded from that of an educational institution to an entity of unparalleled social awareness. Author and educator Louis F. Weipert suggests that institutions of learning have become the dumping grounds for many of society's ills. America's public schools have been forced to cater to the emotionally, physically and mentally handicapped while feeding the poor, balancing (where enforced) racial inequalities, mediating the ill and accommodating the linguistically different. The American Dream of fairness and equality for all is in essence crippling this nation's schools. While all are being served, few are being educated.

The result of such diverse and disjointed efforts on the part of academia is a general and widespread apathy regarding education. In the wake of the overwhelming social responsibilities being placed on the school, America is now being faced with a malaise regarded by Weipert as educational abdication.

The author defines the educational abdicator as one who has relinquished any responsibility for education but continues to influence it nonetheless. An abdicator is identified as not only one whose career lies within the realm of education but encompasses those from outside who likewise influence and shape the nature of public education. Among those whose indifference to scholastic endeavors most negatively affects education are students who habitually enroll in extracurricular activities that remove them from the classroom or those who opt for classes designed to entertain instead of instruct and inform. Also detrimental are parents who send their offspring to school without first having taught the basic disciplines of manners and courtesy. Valuable instructional time is lost when civility must be taught in the classroom. Educators at all levels abdicate their responsibility when they permit boredom and indifference to creep into their classrooms or reduce their academic and behavioral expectations in an effort to avoid conflict. Administrators are seen by Weipert as abdicating when the public relations aspect of their positions takes precedence over that of instructional leader. Increasingly troublesome are the special interest pressure groups who, although representative of a minority of the population, are demanding equal representation in a system already overburdened with a multiplicity of nonacademic obligations.

Weipert offers no immediate cures for our educational ills. That which is disabling our nation's schools has not evolved overnight. Responsibility for it rests with each of us, as the author indicates, we are all the malefactors as well as the unwitting victims.

While Weipert's biased and often hostile rhetoric may offend and perhaps anger readers of liberal educational persuasion, he does nevertheless open some emotionally charged topics of education to much needed scrutiny. This is a book that must be read by educators and administrators alike. It will undoubtedly be discussed and debated for some time.

—by Susan Day Harmison

Basics of Education

Focus of ECS Report

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For more information on Education Advisory: 1985, contact Sonia Weiss, ECS public information officer, at 303-830-3553. Copies at $10 each may be ordered through the ECS Distribution Center at 1880 Lincoln Street, Suite 300, Denver, Colo. 80218, 303-830-3692.

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The Education Commission of the States is a nonprofit, nationwide compact formed in 1965 to help governors, state legislators, state education officials and others develop policies to improve the quality of education. Forty-eight states and the District of Columbia, American Samoa, Puerto Rico and the Virgin Islands are members. Offices are in Denver, Colo., and Washington, D.C.
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PUBLICATION INFORMATION

Educational Considerations is published three times yearly in the fall, winter and spring. Editorial offices are located at the College of Education, Bluebonnet Hall, Kansas State University, Manhattan, Kansas 66506. Correspondence regarding manuscripts must be accompanied by a self-addressed stamped envelope. No remuneration is offered for accepted articles or other material submitted.

Material submitted to Educational Considerations may vary in length from a paragraph to 2,000 words. All material, including quoted information and footnotes, is to be typed double-spaced. Footnotes should be listed at the end of the manuscript. Headings are not to be underlined. The author’s complete name, address and telephone number should be typed on a separate sheet and attached to the original copy of the manuscript. Three copies of each manuscript are to be submitted. Photographs, drawings, cartoons and other illustrations are welcome. Authors should be prepared to provide copies of permission to quote copyrighted material. Queries concerning proposed articles are welcome. The editors reserve the right to make grammatical corrections and minor changes in articles to improve clarity. Address questions regarding specific styles to the Editor.

Subscription to Educational Considerations is $4.00 per year, with single copies $1.00 each. Correspondence about subscriptions should be addressed to the Business Manager, Educational Considerations, College of Education, Kansas State University, Manhattan, Kansas 66506. Checks for subscriptions should be made out to Educational Considerations.

Printed in the United States of America.
The controversy continues.

Mueller v. Allen: A New Direction in the Public School-Private School Controversy

by Robert M. Craig

Religion has always had an important place in America's history, culture, and institutions. The growth of schooling, one of the nation's most important institutions, has been strongly influenced by sectarian concerns. The relationship between religion and schooling, while contributing to our heritage, has also created extensive controversy. During the last forty years this controversy has given rise to much litigation in the federal court system of the United States. In 1993 the Supreme Court added fuel to this controversial fire in its decision in Mueller v. Allen. The Supreme Court's reasoning in Mueller will be remembered for the Court's approval of the legality of a Minnesota statute allowing tax deductions for transportation, textbooks, and tuition to parents sending their children to sectarian schools. The Mueller decision represents a new direction in the Supreme Court's attitude toward public and private schooling.

Background

Religious issues in the public schools center primarily on the Establishment and Free Exercise clauses in the First Amendment to the U.S. Constitution: "Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof." In this short statement our religious guarantees are set forth. It was not until 1947 in Everson v. Board of Education, however, that the Supreme Court held that the Establishment Clause applied to the states, through judicial incorporation of the Establishment Clause with the Fourteenth Amendment. Seven years prior to the Everson decision, the Free Exercise Clause was held to apply to the states in Cantwell v. Connecticut. As church-state litigation grew, the Court sought to systematize and standardize a set of rules upon which to judge such cases.

In companion cases in 1962 (Abington School District v. Shempp and Murray v. Curlett) the Supreme Court made an attempt to establish a set of rules or a test with which to judge cases involving religion and public schooling. Delivering the opinion of the Supreme Court, Justice Clark stated that in cases involving First Amendment religious guarantees the Court must consider "what are the purpose and the primary effect of the enactment? If either is the advancement or the inhibition of religion, then the enactment exceeds the scope of the legislative power as circumscribed by the Constitution." In 1970, a third test was added to the purpose and primary effect test. In Walz v. Tax Commission, the Court's third test was stated as follows, "We must also be sure that the end result—the effect—is not an excessive governmental entanglement with religion." The three tests were consolidated and revoked one year later by Chief Justice Burger in Lemon v. Kurtzman. Since 1971, the three-prong test has been used to judge church-state issues before the Court.

The three-prong test has been criticized since its inception. Some of the more valid criticisms assert that the Lemon test has "not produced coherence" (Martin, 1981), "has led to sheer ad hoc determination of law-judgments" (Stevens, 1980) and that "the Court's efforts have failed to meet both the practical and theoretical goals of constitutional adjudication" (Gray, 1981). More specific to the concerns of this review are Justice Rehnquist's comments in regards to the three-prong test: "We can only dimly perceive the lines of demarcation in this ordinarly sensitive area of constitutional law ... while the principle [the three-prong test] is well settled, our cases have also emphasized that it provides no more than a helpful sign post . . . ."

While the Mueller decision does not represent a complete abandonment of the Lemon test, it seriously undermines its intent. Indeed, Justice Rehnquist uses the test in delivering the majority opinion of the Court in Mueller. It is his interpretation of the facts of the case with the three-prong test that leaves one in wonder as to why the test was used at all. The majority opinion of the Court may have more to do with the prevailing social and political mood of the justices than with a clearly articulated theoretical foundation of the law.

The Case

The statute under examination is a Minnesota law allowing state taxpayers, in computing their state income tax, to deduct expenses incurred in providing textbooks, transportation, and tuition for all children attending elementary and secondary schools. The main beneficiaries of the tax deduction plan were parents who sent their children to religious schools, as 95 percent of those attending private schools attended sectarian schools. Minnesota's public schools are generally prohibited by law from charging tuition. Only 79 students out of 900,000 public school students in Minnesota, during the 1978-79 school year, were eligible for the tax credits.

In spite of the revealing statistical evidence, the majority opinion of the Court reasoned that the Minnesota statute had a secular religious purpose. "An educated populace," said Justice Rehnquist, "is essential to the political and economic health of any community, and a state's efforts to assist parents in meeting the rising costs of educational expenses plainly serves this secular purpose . . . ."
delivering the majority opinion of the Court, Justice Renquist reasoned that by educating a growing number of school age children private schools will reduce the taxpayers' burden for financing public schooling. In addition, private schools may possibly serve as a "benchmark" for public school emulation, Renquist said. It is difficult to see how tax deductions to parents of parochial school students, which cause funds to flow from a state's treasury, can provide for the reduction of tax burdens.

Next the Court took up the question of the primary effect of the Minnesota statute. Reasoning that the Minnesota statute provided for only several of many deductions, the Court asserted that it thus helped to equalize the tax burden of the citizens of the state. More importantly, said Renquist, the deductions were available to all parents of elementary and secondary students in the state, providing assistance to a broad spectrum of Minnesota citizens. The dissenters to Renquist's assertions on the primary-effect point note that only in the rarest of cases are parents of public school students required to pay tuition for school enrollment in Minnesota. Also argued is the fact that 95 percent of private school students attend some form of sectarian school; thus the clear intent of the law is directed towards financial relief to sectarian schools.

Finally the Court moved on to the third prong of the Lemon test. In addressing this point, the Court found no evidence of excessive governmental entanglement. The only governmental involvement found was in regard to questions as to whether particular textbooks qualify for deduction. State officials could reasonably question whether particular books were or were not secular in nature, disallowing any deduction for textbooks used to foster any particular religion.

Conclusions

The Mueller decision has debased the importance of the three-prong test as a controlling precedent in church-state issues. By calling the test no more than a "helpful signpost," Justice Renquist was able to construe the facts of the case to meet some sort of social or political agenda.

Using previous decisions in concert with the Mueller decision, it is impossible to build a theoretical base from the use of the three-prong test. What we have then is a series of decisions based upon the nuances and specifics of particular statutes, judged by a particular configuration and collective disposition of justices' opinions.

Tuition tax credits, educational voucher plans and other such alternative financial patterns for parents of private school students have been advocated for some time. In the face of unparalleled criticism of the public schools such plans grow even more attractive. Notwithstanding the criticism of such plans—ones which center around the possibility of fraud, racial discrimination, cost, economic segregation—the impact on the public schools and the church-state issue, the Court ruled in favor of the Minnesota plan. The obstacles to a tuition tax deduction plan were overcome by the Court in what can be considered a political and social statement as to the perceived current condition of compulsory public schooling rather than by the logic of judicial inquiry.

References

Committee for Public Education v. Regan (Justice Stevens' opinion), 444 U.S. 646 (1980).


"What knowledge is of most worth?"

The Foundational Character of Curriculum Inquiry

by William H. Schubert

What is the purpose of arguing that curriculum studies should be considered an area of academic thought and inquiry within the foundations of education? If it is principally to aggrandize curriculum scholars or scholarship, it is inappropriate, unethical, and probably a poorly conceived strategy for achieving aggrandizement, as well. (I say this as both a curriculumist and one who feels great allegiance to foundational studies.)

If, however, the purpose of including curriculum among foundational studies is to enrich both curriculum and foundational studies, thus enabling them to provide more worthwhile educational experiences for children and youth, then the coalition of those studies would indeed be worth pursuing.

It is the latter position that motivates the remainder of this paper. I want to call for a deeper integration between curriculum and foundational studies. Too many proponents of curriculum studies are guilty of mere tactical decision-making that avoids the interpretive, normative, and critical probing of assumptions and consequences of the techniques that they advocate. Likewise, too many foundational scholars pursue issues of philosophic, historical, sociological, and other disciplinary merit without directly addressing questions of how individuals and specific situations might benefit from such inquiry, i.e., from the curricular and instructional correlates of their work. Despite this too frequent myopia of curriculumists and foundationalists, I suggest that there exist precedents for the productive integration of curricular and foundational concerns.

The question that is probably considered to be the most basic curricular question is also a basic foundational question. Although its form varies with place, time and circumstance, this question is well summarized by Spencer’s query: “What knowledge is of most worth?” Clearly, this question is much older than is curriculum studies as a specialized area of inquiry. The concern for the best education to enable children and youth to live worthwhile lives, personally and socially, has perplexed the greatest of philosophers, historians, and social thinkers from the earliest of their writings.

One has only to survey a history of educational thought, such as Robert Ulrich’s Three Thousand Years of Educational Wisdom, to see clearly that curriculum is at the heart of much of the most important pre-20th century inquiry. The course of the race toward the good life was central to ethics; it was necessitated by and necessary for metaphysical and epistemological speculation. Likewise, philosophers from Plato and Aristotle through Froebel, Herbert, and Dewey, exemplify a quality of curriculum inquiry that goes beyond technique to arete, the search for excellence or virtue, that characterizes aesthetics, axiology, and political philosophy.

What is interesting, but depressing, is that these early threads of curriculum inquiry were overshadowed by a turn to the technical when curriculum became a specialized area of inquiry early in the twentieth century.

At the turn of this century, curriculum specialists began to be invented in schools for the purpose of supplying substantive content to the rapidly accelerating process of universal schooling. Departments of education responded to this demand by supplying credentials for curriculum consultants and by developing a rudimentary body of knowledge couched in curriculum books.

By the end of the 1920s, 115 books had been contributed to this emerging field of inquiry known as the curriculum field. During this time period, technique was indeed prominent with Bobbitt, Chaters, and Harap providing guidelines or recipes for curriculum-making. At the same time, other editors emerged to ask that assumptions be carefully explored, e.g., Dewey, Kilpatrick, Bode, Hopkins, and Whitehead.

Notable in the latter regard is the Twenty-sixth Yearbook of the National Society for the Study of Education. Here, those who most prominently represented dominant, and quite different, orientations to curriculum inquiry debated the foundational character of curriculum studies directly. Their deliberations bridged more than two years, resulting in a set of eighteenth central questions, a consensus statement, and carefully argued “minority opinions” by each participant.

Unfortunately, the consensus statement developed for the Twenty-sixth Yearbook brought more of an amalgamation of extant tendencies in curriculum thought than a critical differentiation at the level of assumptions as illustrated by Bode’s comparative analysis of theories in curriculum and educational psychology. Thus, there existed side-by-side the following: a) those who subscribed to Bobbitt’s social behaviorist predisposition to accept as worthwhile curricula, the values and activities of the culturally successful as defined by those who wield power and money; b) those who subscribed to Dewey’s notion that curriculum should be built upon the experiences of learners and their sources of meaning and direction; and c) those who with W. T. Harris saw a liberal education, the structure of its disciplines and their perennial questions, as windows on the soul.

In the 1930s the flow of curriculum books continued to...

William H. Schubert is an associate professor of education at the University of Illinois, Chicago.

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proliferate and fork in many directions. Nearly as many were published as in the three preceding decades.\textsuperscript{18} A need for manageability was evident. It was clear that novices seeking to be curriculum specialists in schools could not become acquainted with more than 200 curriculum books. Hollee Caswell and Doak Campbell pointed to a solution by constructing a synoptic curriculum text in 1953,\textsuperscript{19} followed by a collection of readings in 1937.\textsuperscript{20} Together, these two volumes provided a summarized account of curriculum knowledge that set the precedent for the kind of curriculum books that would socialize curriculumists for the next four and one-half decades.

While synoptic texts and books of readings solved the problem of rapid socialization, they perpetuated the problem of amalgamating diverse orientations and provided watered-down versions of complex foundational issues. Granted, nearly every synoptic text praised the necessity for understanding curriculum within a foundational context, but few provided more than cursory treatment. Synoptic texts by Smith, Stanley, and Shores, Tabe, Zaiss, and Tanner and Tanner are notable exceptions.\textsuperscript{21}

Meanwhile, the questions that curriculumists addressed are numberless in number; they are, however, manageable. This was largely due to Ralph Tyler's Basic Principles of Curriculum and Instruction in which he identified four categories for curriculum study: purposes, learning experiences, organization of learning experiences, and evaluation.\textsuperscript{22} His book and his numerous commentaries\textsuperscript{23} on it clearly indicate that he wanted deliberation on these categories to be quite thorough, embracing both the practical and the foundational.

Despite this, the predominant response was to translate them into recipes for quick curriculum development in schools. First, one was to think up a philosophy, a sort of quick prerequisite to doing curriculum—something to be completed. Second, purposes were to be stated operationally, preferably in behavioral terms. Third, learning experiences (translated as activities or subject matter) were to be selected to be vehicles to convey the predetermined purposes. Fourth, one considered the question of how to organize learning experiences vis-à-vis instruction, materials, and learning environments. Finally, the question of evaluation was considered.

It is obvious that by the end of the 1960s curriculum, through specialized study, had become a technical enterprise. The quest for \textit{arete}, virtue or excellence that once brought great philosophers to think about curriculum, seemed far away indeed.

iv.

Despite this dominance of \textit{technē} in the curriculum literature of the 1960s, as an elementary school teacher during this time period I felt that my work was closely involved with the search for virtue and excellence. I wanted to introduce my sixth grade students to what Mortimer Adler calls the great conversation.\textsuperscript{24} Having realized the personal sense of meaning and direction that can obtain from exposure to a liberal arts education in undergraduate school, I wanted to share it through teaching and believed that a sense for the value of liberal education needed not be relegated to collegiate studies. It was precisely this motivation that dominated my decision to become a teacher.

As a teacher, however, I was faced not with the abstract notion of \textit{arete}, but with specific students from particular backgrounds. To what literature could I turn for help? Curriculum literature seemed the reasonable resource. I found two kinds. The first was acknowledged to be scholarly. It is the kind that I have been thus far discussing. With a few exceptions, notably Dewey who was a curricularist only by a stretch of the imagination, I found little that treated the quest for excellence and less that addressed how it might be pursued in the elementary school. From Dewey, however, I learned to be attentive to expressed interests of students and how to see these expressed interests as symbolic representations of genuine interests, or what Robert Ulrich called the "great events and mysteries of life: birth, death, love, tradition, society and the crowd, success and failure, salvation, and anxiety."\textsuperscript{25}

The other kind of curriculum literature that I found is what non-curricularists usually think curriculum literature is. It is the recipe-type of material usually found on the shelves labeled "education" of good bookstores for the general public in larger cities. This literature relates specific techniques and approaches that the authors offer as something that worked for them. I found that these "how-to" manuals seldom related to the problems of my students, infrequently dealt with foundational issues, and almost never addressed the overarching question of what is worthwhile to know.

Thus, as a teacher I found the greatest help in neither the formal nor the popular curriculum books, but in reading Dewey. Reading Dewey led me back once again into the books of the great conversation. In them I found a spirit of searching for excellence, something that the emergence of a specialized curriculum field somehow lost. This led me to search for serious treatment of curriculum in educational literature, curriculum here interpreted as the experiences that I might create with students in the classroom.

Thus, I was drawn back into the literature of educational foundations to which I had been introduced during my master's degree work when I came to appreciate Dewey. The foundations served as an intellectual context, or repertoire that enabled me to appreciate possibilities, project probable and actual consequences, and invent solutions to situational problems as my students and I shaped curricula that helped us all better deal with our personal meaning and direction. It often did so by enabling us to become better acquainted with perennial sources of human meaning and direction available in the disciplines.

v.

I suppose that there are numerous alternative explanations of this moving of curriculum discourse away from foundational knowledge. Ironically, the specialization of curriculum studies was designed to make curriculum discourse more relevant to curriculum practice, and it did essentially the opposite. Through specialization, it substituted techniques (\textit{technē}) and certification for the search for virtue (\textit{arete}) and for wise and prudent judgment in situational problems.

This is, I believe, precisely the problem that Schwab wrote about when he called curriculum inquiry \textit{moribund} and admonished not only curricularists but all educational researchers to move from the principles of the \textit{theoretic} to the \textit{practical}, quasi-\textit{practical}, and eclectic.\textsuperscript{26} His essential argument to explicate differences between the \textit{theoretic} and \textit{practical} is based on Aristotle's four notions of causation.\textsuperscript{27} The formal cause, or problem source, of the \textit{theoretic} inquiry is a highly generalized problem in the mind of the researcher; it is contrasted with practical research which sees problems in concrete situations. The material cause, or subject matter under inquiry, of the \textit{theoretic} is a faith in

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law-like generalizations; this is contrasted with practical explication of the detailed fabric of situations. The efficient cause, or method of inquiry, of the theoretic is the presumed possibility of objective induction; that of the practical is interaction within the problematic arena. The final cause, or end of theoretic inquiry is knowledge; qua knowledge at best (knowledge qua publication, more often); and for practical inquiry the end is decision and action.

Schwab adds that the practical is not atheoretical at all in the sense that it ignores foundational knowledge. Moreover, he proposes developing "arts of eclectic" that presume a comprehensive and penetrating foundational background. From such a background those who do curriculum (especially teachers and students) must learn to match foundational knowledge to practical problems. They must realize that direct matching is seldom possible, and must learn to tailor and adapt foundational knowledge to practical problems. Realizing that this, too, is necessary, but insufficient, they must realize that the great value of foundational knowledge, when integrated deeply and broadly within the personality of educational decision-makers (especially teachers) resides in its power to generate alternative possibilities and to imagine short-term and long-term consequences. Schwab adds that such consequences must be seen within a new conceptualization of curriculum, not as a reified entity such as a curriculum guide or syllabus presupposed in some celestial realm and bestowed upon classrooms; instead, Schwab asserts that curriculum is the dynamic interaction among four classroom commonplaces: teachers, learners, subject matter, and milieu.31

What Schwab fails to say in his treatment of the practical in curriculum, seems partially implicit in his writing on liberal education and science, and is more evident in many of Dewey's writings which often seem archetypal of Schwab. First, he leaves the door open for criticism that his practical is nothing more than a naive disjointed incrementalism (to use the productive Brayer and Lindlof terms). In other words, his practical inquiry can be seen as a floundering pragmatism with no basis for critique. I submit that to counter this argument, Aristotel's treatment of arête as the guiding force of practical inquiry must be made explicit.32

Secondly, the commonplaces of teachers and students must be seen as the agents, not primarily the recipients, of curriculum inquiry.33

What I am suggesting is that in the practical educational situation, curriculum implementation must become curriculum inquiry for the persons and the community in that situation. I submit that a practical curriculum inquiry in which teachers and students see curriculum creation as that which can give meaning and direction to their lives is indeed foundational. It is foundational in the sense that the classroom becomes a microcosm of foundational inquiry. Teachers and students search together for the educational history that has forged their lives. They investigate the social and cultural contexts that shape their decision and action. They continuously reconstruct the philosophical assumptions that underlie the "theories" of living, theories that provide images of their world and how it works. Such theories provide an evolving basis for critique, not by and for philosophers, but by, for, and of teachers and students as they encounter problems, address what is worthwhile, decide, and act.34

This kind of curriculum creation probes more deeply and broadly than the classroom. It empowers teachers and students to realize that curriculum creation is not merely a function of schooling, but a function of living. Thus, curriculum inquiry becomes embedded in the life of the culture, not of schooling alone. To understand and direct the curriculum of one's life, curriculum inquiry must embrace the teachers, students, subject matter, and milieu of the culture that creates the classroom.

Thus, curriculum inquiry is foundational because curriculum is embedded in and created by historical, philosophical, cultural, economic, social, and psychological contexts. To seek a technical study of curriculum that disregards these contexts is to seek a will-of-the-wisp.

Curriculum inquiry is foundational in another sense as well. As a feature of its practical character, it focuses on particular persons in particular situations. When practical curriculum inquiry is conducted by teachers and students in an effort to discover more worthwhile lives for themselves, it is foundational in a personal and concrete sense, deep within the fabric of human life.

Curriculum inquiry is foundational because it fashion foundational questions into the situational problems of human lives. It is here that curriculum and foundational inquiry merge, and curriculum becomes the seeking of curricular experiences that give foundation or grounding to lived lives by those who live those lives themselves. To enable others to better pursue such foundation should give practical worth to scholarly pursuits in the foundations, and it should give substance of greater depth to curriculum work. It is by inquiring together about improving the foundations of actual human lives that both foundationalists and curricularists can mutually enrich their work.

Notes

1. I wish to thank Ann Lopez Schubert for many discussions that contributed centrally to ideas expressed here, and for help in preparing the manuscript.


24. I am indebted to Harry S. Broudy, Thomas Green, William Frankena, and Robert Ulrich who remind us to distinguish between *arete* and *technē* in contemporary society.
31. Ibid.
34. I wish to thank Max van Manen of the University of Alberta for emphasizing the point about the lack of explicit treatment of *arete*, in conversations at the University of Victoria, British Columbia, Summer 1981.
36. The idea of viewing teachers as evolving theories is discussed in “Teacher Education as Theory Development,” *Educational Considerations* (1982) forthcoming. This idea applies not only to teachers, but to students as well.
37. See sources in note 35.
The current effective teaching literature has identified certain process skills as critically important.

Developing Process Curriculum Materials to Enhance Teacher Effectiveness

by Gerald D. Bailey

The flurry of curriculum development activities across the nation has never been greater than in the last decade. Thousands of schools have been actively involved in creating curriculum materials to enhance their effectiveness. Schools, competencies, instructional objectives, and other curriculum materials have found their way into schools. Perhaps the most significant change lies in the curriculum activities that have not been concerned with creating new material as much as writing down what is currently being done; that is, identifying the existing curriculum. What appears to be missing in most of these curriculum development efforts is the creation of new curriculum materials in the form of process materials.

Process materials deal with student behaviors or skills which relate to learning or behaviors vital in the learning process, and, therefore, effective teaching literature has identified certain process skills as critically important in student learning. Specifically, the effective teacher research suggests that teachers organize and prepare students in the beginning of the school year with regard to rules and procedures, routines (Anderson, Everson and Emmer, 1980; Brophy and Putnam, 1979; Brophy, 1982; Emmer, Everson and Anderson, 1980; Emmer, Everson, Sanford, Clements and Worsham, 1984; Everson, Emmer, Clements, Sanford and Worsham, 1984). The effective teacher literature stresses that teachers need to instruct students on how to function in the classroom and that this type of instruction should be repeated throughout the school year. Equally important, the research suggests that effective teachers should instruct students about process as a matter of instruction rather than as a control strategy. Curriculum materials which deal with process (teacher effectiveness findings) are difficult, if not impossible, to locate in most school district curriculum materials. Many school districts have failed to identify those specific student process skills which they deem essential in classroom learning. Second, few attempts have been made to identify the sequence of how these concepts should be taught in the curriculum.

What is Process?

Process deals with student knowledge and behaviors which relate to learning of those behaviors vital in learning. Process involves rules and procedures, routines, and methods (activities). Process skills are different from cognitive, affective, and psychomotor outcomes. Process skills are concerned with student behaviors or understandings which are essential in acquiring cognitive, affective, and psychomotor outcomes found in the curriculum.

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What do Process Materials Deal With?

Process can be classified into three major areas: (1) rules and procedures, (2) routines, and (3) methods (activities). Generally, rules and procedures are those mechanical...
things which occur on a daily basis and govern personal behavior and classroom decorum. They do not necessarily deal with academic learning but influence the learning environment. Routines are those things which need to be understood by the student and dealt with academic learning. They are skills which assist the student during the daily and weekly functioning of learning. Methods or activities are those skills which actually need to be understood and demonstrated during learning activities. They include specific behaviors and actions which are necessary to learn content, develop attitudes or perform in the classroom. Examples of specific items found under the rules and procedures, routines and methods classification are identified in Table I. Those examples found in Table I are not intended to be all inclusive. Many other items can and should be added to the list (See Emmer, et al., 1984; Everton et al., 1984).

Brophy and Everton believe instructing students about classroom rules, procedures, and routines is very important. They argue that students at the early grade levels need a great deal of formal instruction in rules, expectations, classroom procedures, and routines while those students at the upper grade levels require less formal instruction in these areas (Brophy and Everton, 1982). While it is easy to agree with Brophy and Everton that rules and procedures, and routines need less emphasis at the upper grade levels, it does not seem feasible to make this same generalization about methods and activities. The depth of knowledge concerning methods and activities is quite substantial, and students need considerable training in how to use these methods at all grade levels.

What are the Necessary Steps in Process Curriculum Material Development?

One of the first steps that the school district needs to undertake is to identify major process competencies. These process competencies can be drawn from the three major categories related to process skills identified in Table I. Selected competencies from the three categories include the following:

1. **Rules and Procedures:**
   - The student will be able to exit safely and promptly from the school building during a practice fire drill.
   - The student will be able to participate in recess activities for relaxation and enjoyment purposes.

2. **Routines:**
   - The student will be able to work independently during seat work activities.
   - The student will be able to take notes which provide accurate information concerning subject matter.

3. **Methods (Activities)**
   - The student will be able to identify and use the five steps of the scientific method.
   - The student will be able to function in teacher-centered contracts (semi-independent learning).

Major K-12 competencies related to process skills should be identified by the staff. Process competencies are distinctly different from subject matter competencies. Process competencies deal with how the student acquires subject matter outcomes while subject matter competencies deal with cognitive, psychomotor and affective student outcomes.

The second major school district activity should include the identification and creation of process scope and sequence charts. A process scope and sequence chart is a written plan for specifying what process skills are to be included in the K-12 curriculum and when the process skills are to be taught. Scope is defined as what while sequence is defined as when. A comprehensive process scope and sequence chart is a graphic representation of those process skills included in a school curriculum. The major purpose of a process scope and sequence chart is to develop a master blueprint for process skill teaching. Process scope and sequence charts are distinctly different from subject matter scope and sequence charts. Process scope and sequence charts deal with how students learn subject matter while subject matter scope and sequence charts deal with cognitive, psychomotor, and affective student outcomes. The final major activity is the creation of curriculum materials which explain the process in great detail. These materials are included in the curriculum guide and they are used on a day-to-day basis.

**What Do Process Scope and Sequence Charts Look Like?**

While it is impossible to develop process scope and sequence charts which fit all school district situations, the following are illustrations of process scope and sequence charts drawn from current school districts' process materials dealing with rules and procedures (Table II) and methodologies (Table III). School districts must create process scope and sequence charts to suit their own needs and situation, and process curriculum materials must be created by the total school district faculty which includes elementary, middle level, and secondary personnel. Ownership of the curriculum materials is vital if school districts expect the materials to be valued and used.

Process scope and sequence charts are not intended to dictate how the teachers should teach. They simply identify the what and where of process skills. Several advantages accrue from the development of such process materials:

1. Teachers will recognize when and where specific process skills are being taught.
2. Unplanned process repetition can be eliminated.
3. Planned repetition of certain process skills can be initiated systematically.
4. Students will recognize there is a planned progression of process skill development. They see there is a building block approach in acquiring process competencies.
5. Teachers are able to coordinate planning with other teachers as it relates to process skills.
6. The school system can ensure students will master specific process skills in a systematic fashion.

While there is no set approach to building process scope and sequence charts, rules and procedures charts can be identified for all subject areas while the scope and sequence charts for methods should be plotted for individual subject areas (e.g. science, social studies, math, language arts).

**Conclusion**

Traditional content curriculum materials are vitally important in identifying the “what” of the school curricu-
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lum. The process curriculum materials identify an equally important segment of the curriculum dealing with the "how." The individual teacher's prerogative of determining how curriculum content is to be taught has been held sacred for many decades. While the development of process materials does not take this responsibility away from the teacher, it does require the teacher to identify what means are being used to teach that content. Teachers should maintain the right to teach using routines and methods with which they feel comfortable, but their total process efforts should be coordinated and planned with process curriculum materials. When there is no concerted effort to coordinate process outcomes, much student learning and ease of learning are left to happenstance. Process competencies and process scope and sequence charts should complement the existing content curriculum materials. Well-articulated content curriculum materials can be implemented with greater ease and efficiency with the assistance of clearly defined process scope and sequence charts.

The ultimate outcome of a well-articulated process curriculum is a more well-rounded learner. One axiom of skilled crafts is that correct tools are needed to create quality products. Process curriculum materials become the correct tools with which teachers can create and deliver quality curriculum. The understanding of process skills allows students to become better and more satisfied learners. Those curriculum leaders who are desirous of enhancing student achievement and attitudes will find the creation and use of process materials exciting and rewarding.

These process scope and sequence charts should not be viewed as exemplary or complete. They represent examples drawn from selected school districts who are working on experimental process materials. Individual school districts' process materials may vary considerably.

**Bibliography**


What will happen to "mass education" in an era of personal communication?

The Personalization of Educational Media

by Sandra E. Moriarty and Ted W. Vaughan

The educational press is filled with articles about computers and what their impact will be on education. The big picture of technological change at the end of the 20th century has more significance to education than simply the effect of computers; however, this survey of technological change will look first at the impact of new technology on mass media, spot observable cultural and social trends created by these changes, and then analyze the effect of these trends on education.

Elements of Technological Change

1. Personal Computers

Silicon Valley's greatest contribution to civilization, the microchip, has brought miniaturization to all kinds of information systems and, as a result, has made the power of computers available to everyone. Our watches, cars, televisions, and soon our homes, businesses and schools will be run by microcircuits.

Computers deal in information, any information that can be expressed in binary form, and we are finding that more and more information can be converted to ones and zeros. First, numbers and words were converted; then came visual information such as drawings, charts, photographs, and television pictures. Now engineers have developed high-fidelity audio in digital form and are making breakthroughs in voice recognition and generation. Soon we will be able to carry on normal voice conversations with computers who speak through the words of the program's author.

2. Video Images

The continuing improvement of video images eventually will produce the quality of graphic image production we are accustomed to seeing in commercial cinema. Digitizing permits far better detail and more faithful reproduction of color values. The development of digital, high-definition video is already well underway. Most video special effects are digitally created.

Another benefit of digital video is international standardization. Currently, American TV screens scan images with a 525-line NTSC system which is below the quality of European systems that use the 625-line PAL standard. A Japanese company has developed a system that reproduces images with 1,125 horizontal lines. Should digital video be universally adopted, incompatibility problems would be removed, and the quality of video imaging would be substantially improved.

In addition to improving the quality of image resolution on television, the technology now exists to reproduce the images in three dimensions. The Visidep system creates the illusion of depth by using multiple cameras and alternating images. When Visidep becomes available to the consumer market, it will be possible to watch 3-D television without wearing funny glasses.

3. Printing

With electronic, plateless printing it is now possible to eliminate most of the dirty drudgery involved in print production. Using laser scanning, digitized images and ink jet printing, we are not far from a day when we will see clean, instant printing providing the quality of the finest rotogravure.

Another change in printing involves a tie-in with video technology. A new Mitsubishi television comes with a built-in thermal printer. The Mitsubishi TV, among other things, is one step closer to the day when you can select electronic information in either print or video form.

4. Transmission

Major metropolitan newspapers are now printing their regional editions with electronic impulses transmitted by phone lines. Fiber optics and digitizing of images has made this form of electronic transmission more efficient. The new USA Today has carried that a step further with electronic images transmitted by satellite to decentralized printing centers around the country.

The next step will be transmission of images direct to homes and businesses using privately owned satellite receivers. This technology already exists for television. The concave dishes are in use, particularly in rural areas where there is either no cable or very poor reception. Sears and COM-SAT, a privately owned satellite company, hope that through mass marketing the price will drop around $300, and we can all replace our antennas with dishes small enough to sit on a window ledge. When that happens every home and business will have access to unlimited programming and will no longer have to rely on local stations or networks to make program choices.

Effect of Technological Change on Mass Media

In the television series, "Connections," the point is made that certain interrelated events have to happen before we can make major technological and cultural leaps. What will happen when all of the above changes come together in the living room? The day is near...

—when every home and business is equipped with its own terminal including a digital television linked by phone or satellite to unlimited networks of information programming and sources.

Sandra E. Moriarty is an associate professor of journalism and mass communication at the University of Colorado, Boulder.
Ted W. Vaughan is an associate professor of education at the University of Wyoming, Laramie.

Educational Considerations, Vol. 12, No. 1, Winter, 1995
—when the screen sits side-by-side with a high-quality ink-jet printer capable of producing the finest-quality graphic image.
—when the terminal is equipped with a voice synthesizer so you can talk with it.

When that day comes (and it won't be too far away since all the technology exists at present), it will be possible to access enormous databanks on a TV screen and select material of interest to be assembled in an individually designed program or publication—produced for an audience of one: one's own personal limited edition. And no one will have to worry about audience ratings, mail strikes or newspaper carriers with bad aim.

But what does this mean to the conventional mass media? Television, under the pressure of cable systems and satellites, will bring hundreds of channels with highly specialized programming to every home. This concept of “narrowcasting” to a special interest audience is a byproduct of the rise of the cable industry. The old concept of a mass audience on which network television is based will be challenged by the new media’s ability to appeal directly to special interests, or the interests of an audience of one. Magazines, radio, and cable TV have already begun the changeover.

And what will happen to “mass education” in an era of personal communication?

Mass culture is currently sustained by the economic system of mass marketing. It is in industry’s interest to be able to reach large groups of people as efficiently as possible with commercial messages. As soon as the technology makes it possible to reach an audience of one as efficiently as audiences of one million, then a great cultural shift will occur. The personalization of communication media will change all the basic institutions of society: economics and industry, media, the workplace, politics and government, as well as education.

Implications for Education

One major result of the shift from a mass culture to a personal culture will be an assault on mass public education as we know it. Individualized instruction, instead of mass education, has been an unrealized goal of modern pedagogy. Current educational patterns, however, are based on large schools, classrooms of people all the same age and all doing essentially the same thing. Norms, pre-determined tracks called grade levels, and even big groups of “different” students labeled with such terms as gifted, slow learners, and educables.

Personal communication media will make individualized instruction a reality, one based on personal interest and motivation, learning style, and readiness level. With this will come more learner responsibility and self-direction. Already we are watching a generation of “microkids” grow up, a group of students who are teaching themselves sophisticated computer and programming skills. Thomas O’Brien, a former NATO Senior Research Fellow in Science, has observed that there are several points to be learned from these “teen-age computer jocks.” He explains: “One is that children (and people in general) are often immensely more able than we think. Second, they are often self-taught. Third, their growth is often self-sustaining.” He observes that the third point is often overlooked by parents and teachers “who see themselves as the only source of knowledge.”

These people are independent learners working at their own speed with an unusual degree of motivation in areas of interest to them. Often they are using a second language that they have taught themselves. They are reading technical manuals way beyond their reading levels, learning to do flow charts and computations, and thinking in highly logical patterns.

The 1992 National Assessment of Educational Progress found that 62 percent of the 13-year-olds have used computers but only 23 percent have used them at school. Most have access to a personal computer at home. Schools are falling behind, obviously, but the students are keeping up regardless. It also seems obvious that schools are not the only source of literacy and, in this case, the teachers and administrators may be less literate than their students.

This is not an earthshaking phenomenon—young people have been teaching themselves about cars, stereos, and model airplane building without teacher direction for years. What is earthshaking is that the new technology will make it possible to tap into that wellspring of personal interest in every child, to stimulate and encourage the inherent motivational set of every learner. In order to do that, however, educational systems have to move away from all the trappings of mass education—the tracks and grade levels, the norms, and the prescribed curricula.

This does not mean the elimination of group-based education. Classes are great laboratories to teach one thing—group processes and social interaction. Socialization has always been an important function of education, and that need will be even more important after the fall of mass culture. As Wallace Judd, a former teacher and now president of a California computer company, commented, “Futuristic visions of students studying exclusively in carrels ignores the fact that people need people.” Yet, the need for social contact is only part of the classroom picture, the other mission is to teach what Arthur Shostak, a sociologist and futurist, calls “the art of group membership.”

There is no need for large and expensive school physical plants to teach subjects such as sociology, psychology, politics and government. They can just as easily be taught on a neighborhood or block basis using the community or the neighborhood as an active laboratory. There is no need for age grouping either. In terms of learning social interaction, the old one-room schoolhouse with its range of ages and abilities may have been the much more efficient as a learning center.

Two public school educators, William Sharpe and John Goodman, asked in an article in Instructinal Innovator if the electronic revolution may make classrooms obsolete. Their point is that “parents may decide that buying their own equipment may make more sense than sending them to school.” It is not just the parents’ concern over quality education that threatens schools, it is the tremendously expensive system we use for modern education. Schools are costly to run; the public is largely dissatisfied with the product; and taxpayers are in revolt. The concept of “schooling” is vulnerable.

Large schools may become the dinosaurs of the 21st century, but the real question is who will control education in the day when the big schools die? If parents decide to use education on home-based media as the primary delivery source, then the software and media companies will be selling directly to parents-schools could become unnecessary middlemen—as unnecessary as advertising agencies in the day of personalized marketing.

A satirical piece in Phi Delta Kappan, Robert Snider, a staff member of the National Education Association, pro-
jects a time in the 1990s when education is dominated by a small number of very large, very powerful, multinational cognitive combines. These "knowledge utilities" supported by tuition tax credits eventually bankrupt the public school systems which are unable to compete. While this is a fantasy piece, there are some very real signals here.

Klaus Haefner points out that the educational system is slow to act and vulnerable as a result: "The information technology industry is fast moving, profitable, powerful and well funded. Compared to this the educational system is slow, inflexible and badly funded." It is quite possible that future education may wind up in the hands of private industry as the development of personal media make it possible to teach efficiently and turn a profit at the same time. As the market continues to develop, it is realistic to expect a greater proportion of our best talent in education will leave education for the more lucrative and responsive private sector. This will be particularly true of those trained in instructional design.

**Teachers**

Obviously the role of teachers will be affected by whether education continues to be directed by publicly funded professional educators or by privately employed educational marketers. Assuming that public education can stay ahead of the changes, then the role of teacher will continue to exist—but the role may change radically. The biggest change for teachers will be that of moving from being the source of information to being a manager of the information searching process.

Teachers' daily activities will change. They will work independently, running the neighborhood learning centers where they are in charge of developing and monitoring their students' progress. More time will be spent in diagnostic and planning activities; less time will be spent in delivery of instructional content. Teachers will have more time to be involved with the personal self-development of each child. Such topics as self-concept and self-motivation will be critical concerns for future teachers. With learning programs based on patterns of self-interest, the teacher's greatest challenge will be to analyze and stimulate each student's individual set of interests and curiosities.

**Content**

Access to enormous databases through the home terminal suggests a major shift in our view of knowledge. A traditional view of an educated person is someone who knows much. The traditional teacher's role is disseminator of knowledge. With student access to unlimited information, the ability of the human brain to contain knowledge will be much less important than the ability to search, organize and present knowledge.

Content areas, as we know them, may be less relevant than ways of thinking in the particular disciplines. There may be a shift from learning science to learning scientific method—with scientific knowledge evolving too fast to be learned. "Learning facts" is simply a procedure for stopping the evolution of knowledge and encapsulating what is known at that point in time. It may become an archaic activity. Judgment, logic and communication skills will be essential. Thinking, planning, evaluating and problem solving will be more important than knowing.

Dorothy Deringer, program director of the National Science Foundation, makes the point that computer programs can do the mechanical operations of solving equations better and faster than mathematicians—these programs allow students to concentrate on "the thinking portion of algebra—problem formulation and solution." She also observes that some skills rarely taught in a traditional curriculum may be even more important in the Information Age. Estimation, for example, is something the human brain can do better than the computer. Computers provide the information, but it takes a human brain combined with intuition and experience to successfully estimate outcomes. She asks, "Shouldn't we be concentrating on developing thinking skills and devoting less time to mechanical techniques?"

Creative skills are needed for problem solving but creativity extends beyond that into the realm of thinking the unknown—inventions. Two education professors, Christopher Dece and Dwight Allen, wrote in the Phi Delta Kappa that a "now neglected but potentially vital skill is creativity, a special talent within all individuals that allows construction of alternate responses to problem or tasks."

Some writers wonder if we have reached a plateau in our inventive power. The microchip is seen as the last great breakthrough. The new era is predicted to be one of maintaining, adaptation and application. Invention arouses a curiosity about how things work, and that curiosity must be encouraged. Our society has shifted to a mental set of "replace" rather than "repair," and with that shift we may be losing certain skills necessary to fuel the inventive capacity.

**Teacher Education**

The shift in the content of education will mean a concomitant shift in teacher education. There will be less need for specialized methods courses focusing on the collected knowledge of an area and more need for universal information processing skills. A net profit from this shift will be more efficient teacher training and fewer required courses in teacher education curricula.

The educated person in the electronic Information Age will need to know how to manipulate vast data banks—how to access, sort, search, specify, store and retrieve information. And that's just to be an educated user of information. The processors of information will need logic, organization and explanation skills. They will have to package information so it can be retrieved by other users. One of the flat tires in the microcomputer bandwagon is poorly designed software. And even if the software does what its designer hoped it would do, the accompanying documentation is often dreadful. The challenge to teacher education is to develop curricula which produce educators with the skills to teach others to think logically.

Education is becoming more and more of a personal ongoing process. As education becomes personalized and self-directed, then learners will find themselves in a continuous process of education and re-education. The concept of "schooling" with its discrete time lines will collapse. Deringer describes a society in which the educated person is a self-starter and self-renewing. "Herman Niebuhr, a psychologist, also describes education as self-directed and lifelong. He observes that retraining may be just as important as initial training. If schools can help people teach themselves and direct learning along the lines of personal self-interest, then the role of education in the electronic Information Age may be bigger and brighter than it is now because people will never "leave school."
Notes
2. Ibid.
12. Deringer, op. cit.
There are five principles that implement a coherent homework policy.

Homework Implementation: Covering the Bases

by Dr. Harvey C. Foyle and Dr. Gerald D. Bailey

The baseball World Series is finished, and winter baseball has started. Can spring training be far behind? One of the key ingredients in successful baseball is that the runner touch all the bases after the ball is hit. Numerous national reports have called for more homework in the public schools. Administrators, supervisors, and teachers face the necessity of implementing homework. The baseball manager does not allow each team member to play the game without overall guidance. Likewise, administrators need to give overall guidance to the implementation of homework procedures and practices.

Homework has numerous aspects but there are five principles that implement a coherent homework policy. Administrators can leave the details of individual homework assignments to individual teachers, but, like baseball managers, administrators must set up the principles for a uniform district homework policy. Based on our teaching experiences and our homework research, the following homework bases were developed and applied in a classroom homework experiment.

1. Homework should be regularly assigned (Leonard, 1965). Homework does produce higher student achievement when assigned about three times per week in a high school subject area. During the 1983-84 school year, the current researchers conducted a classroom homework experiment in tenth-grade American History. At Emporia High School, Emporia, Kansas, six intact classes (131 students) were divided into three groups: (1) preparation homework, (2) practice homework, and (3) no homework. Two instructors, Ann North and Harvey Foyle, taught the classes in the usual manner with the exception of the homework assignments mentioned. The researcher used an analysis of covariance to hold student ability and previous course knowledge constant. The researcher found that (a) factual content homework increased the students' achievement when compared to the students who were not assigned homework, (b) either preparation homework or practice homework can be assigned to students since both types of homework raise students' achievement when compared to the students who were not assigned homework, and (c) females and males achieved the same regardless of the type of homework assigned to them.

The length of homework assignments must be carefully considered. At the high school level, a daily maximum of thirty minutes per homework assignment given three times a week leads to one and one half hours of homework per week in one subject area. Thus, in a high school with six daily subjects there is a maximum of three hours per day of homework, and a minimum of no homework at all since every teacher might choose not to assign homework on that day. Hence, an individual teacher needs to know what other teachers are assigning for homework, or a school might need a staggered system of homework for each course on specified days, or student might need to inform the teacher of heavy homework evenings. Junior high schools need to have less homework than high schools. At the elementary level forty-five minute of homework per night for grades one through three and sixty minutes of homework per night for grades four through six would be a maximum ("Information", 1981). However, the current researchers feel that no homework should be given in grades one through three, and only classwork not finished during school time should be given in grades four through six. Student achievement does increase when homework is regularly assigned.

2. Homework should be clearly stated (Foyle, 1984). If the teacher expects students to complete a certain assignment, writing the assignment on the board is appropriate. However, a clearly written homework instruction sheet which states the assignment is better. Students often miscopy assignments written on the board or even forget to write the assignment down. Students can write their responses on the instruction sheet. The assignment is clearly stated and accurately placed in the hands of the student. Thus, all homework assignments should be in writing and handed to the student.

3. Homework should be regularly collected (Shockley, 1964). Encouraging students to do voluntary homework does work with motivated students. However, with less-motivated students, required homework must be collected or students will not complete the assignment. When homework is collected from students, the teacher shows the student that homework is important.

4. Homework should be promptly graded. Teachers who assign a grade to homework indicate to the student that homework is a priority. However, the whole assignment does not need to be read or graded. The teacher may select a portion of the assignment for grading. Spot checking of homework assignments produces similar student achievement results when compared to complete checking of homework. (Austin, 1974). Likewise, comments do not need to be made on each homework assignment or about each part of the homework assignment (Austin, 1976).

5. Homework should be promptly returned. Immediate feedback increases student achievement (Vitale and Hebler, 1978; Cardelle and Corno, 1981; Ghandour, 1982). Homework can and should be returned during the next class period or day. Spot checking and limited comments will speed the grading and returning of homework papers.

Harvey C. Foyle is a teacher of social studies at Emporia High School, Emporia, Kansas.
Gerald D. Bailey is a professor of curriculum and instruction at Kansas State University, Manhattan, Kansas.

Educational Considerations, Vol. 12, No. 1, Winter, 1985
During class time, the teacher should comment upon items that were misunderstood by the students. A winning baseball team has variety in its plays. If the batters always bunted, the opposition not only figures out what you are doing but will beat you. Teachers can bring variety to homework assignments. There are four basic types of homework that can provide variety (Lee and Pruitt, 1979; LaConte, 1981). Teachers need to touch these four bases just like a runner in a baseball game: preparation homework, practice homework, extension homework, and creativity homework.

1. Preparation homework. One of the most common types of homework is preparation homework which is found in textbook reading courses. Preparation homework is getting ready before the classroom lesson. Usually students are assigned a section to read and questions to answer that cover the section. Then, the teacher covers the material during the classroom lesson. Preparation homework (getting ready) is commonly assigned in social studies, language arts, and science classes.

2. Practice homework. Another common type of homework is practice homework which is found in skill-building courses. Practice homework is doing something again after the concept or skill was taught. The teacher covers a concept or skill during classroom lesson. Students practice the concept or skill during class time or as homework in order to do the concept or skill once again. Practice homework (doing again) is often found in mathematics, typing, and shorthand.

3. Extension homework. This form of homework is assigned in order to observe whether a student can transfer an idea or skill to a new or different situation. A teacher can assign extension homework which indicates whether or not a student can go beyond basic facts or skills. The use of story problems in mathematics is an example of extension homework. The use of business letters in typing is another example. In social studies and language arts, students write a newspaper story about the Great Depression of the 1930s or the recession of the 1980s. Extension homework (going beyond) is often found in the high school debate research class or the elementary school “Dear Mr. President” letter.

4. Creativity homework. Probably the least-used form of homework is creativity homework which is found at all grade levels and subject areas. Creativity homework is putting together concepts and skills in new and different ways. Usually, creativity homework takes longer to complete than preparation, practice, or extension homework. At the elementary level, a student could build a wooden, motorized model airplane which would incorporate reading about airplanes (history), building the airplane (mathematics), painting the airplane (art), explaining the process to the class (language arts), and flying the airplane (physical education). At the high school level a research report or project lends itself to this type of homework. Students can be creative in topic choice and demonstration of the knowledge or skill. Creativity homework (putting together) is a way in which students can integrate many skills and concepts.

Thus, teachers need to touch the bases, the four types of homework, in order to provide variety. Our homework research, research experiment, and teaching experience substantiate the use of the five homework principles and the four homework types. Administrators, just like winning baseball managers, can implement a uniform and coherent homework policy which leads to a successful season. Now is the time to start training with a district homework committee (“Information,” 1981) so that your 1985-86 staff team will be a World Series winner. “Play ball!”

**Selected References**


"Starting Small—" Faculty Development for Computer Literacy In Small and Rural Schools

by Ronald L. Wirtz

In recent years considerable attention has been focused on the theme of computer literacy, both in professional education journals and in general interest publications. For the most part, the research and developmental work cited has been directed toward the acquisition of computer skills by students, while faculty education in computer utilization has been left to the traditional staff development channels of short-term workshops, college and university extension, continuing education courses, and individual initiative. As has been true of a number of technologically based educational innovations in the past, it has been assumed that the "bandwagon" effect, in combination with conventional in-service methods, will entice teachers to make use of the potential savings in time and effort offered by use of the computer in the classroom. Unfortunately, it appears that many of these traditional approaches to faculty development are ineffective (Rubin, 1971; Houston, 1980).

While many individual teachers have made important contributions to student learning through computer usage, effective districtwide computer literacy programs are still the exception rather than the rule. This is especially evident in small and rural school districts which often lack planned and coordinated programs for long-term professional development of teaching faculty and administrators. Many small-town educators have not acknowledged the extensive body of research on innovation and change which shows that lack of a set of planned and coordinated implementation procedures will most often result in no implementation at all (Fullan and Pomfret, 1977; Hargrove, 1971), and that intense teacher collaboration in planning, adoption, and implementation is an extremely effective way to minimize teacher concerns, increase individual ownership of a change, and thereby promote the success of an innovation or change (Louches and Hall, 1981; Osuji, 1981; Joyce, 1976; Petton and Anglin, 1982).

In many districts, the basic problem is simply a lack of commitment to the concept of guided and meaningful professional growth. School boards and faculty groups may have developed policies which allow "professional growth" credit for in-service attendance, college credit hours, or in-service workshops, without giving consideration to the fact that such experiences may have only the slightest practical application in the classroom. In the case of computer utilization, such general approaches to professional growth may only discourage desired teacher behavior. For example, teachers who take a recommended university course on how to apply the microcomputer to the curriculum may experience great frustration when they discover they are only oriented to writing simple drill-and-practice lessons. These teachers recognize that students have acquired much more sophistication from constant exposure to video games, television, and their own home computers than can be challenged by simple BASIC text programs, and these students will resent the effort required to produce such outdated and outmoded materials when superior software can be purchased and comparatively inexpensively. The use of dependable reviewing media makes the selection of suitable educational software no longer a matter of guesswork, and the expenditure of time in writing, rewriting, and "debugging" elaborate BASIC programs is rarely defensible. Most teachers cannot afford the time to write a useful series of CAI programs for use in their classrooms. They are simply too busy with daily preparation, grading, and clerical work to be able to undertake projects that can promise little advantage to them or to their students. These teachers want materials that can be put to work immediately, with a minimum of modification, and do not require a significantly greater expenditure of energy and time. Such a desire is entirely justifiable since there is little point in investing time, money, and energy in systems or materials that do not "pay off" in more efficient and enhanced student learning experiences. It is only after the satisfaction of immediate needs and concerns, moreover, that the individual can reach beyond them to plan for long-term goal achievement. An appropriately planned in-service should, therefore, provide for both short- and long-term considerations.

Schools which lack systematic and ongoing provision for change and growth may be precipitated into computer usage programs without sufficient preparation. Outside forces, such as concerned parents, state legislative mandates, or action by interested commercial parties, may force schools into decisions and programs that later prove to have been ill-advised. Lack of knowledge concerning computer capabilities and software quality, availability, and compatibility, failure to develop a working set of goals and objectives, lack of a definition of computer literacy, and a general conviction that mathematics and science teachers are better equipped to teach computer-related courses than...
other faculty normally lead to poor utilization of costly resources.

Installation of machines in a math classroom or a "computer lab" is analogous to the learning laboratories of the 1960s and 1970s. While this type of arrangement guarantees a high degree of use by selected segments of the student population, it may have the unfortunate result of eliminating students and faculty from the humanities, social sciences, and vocational subject areas from access to the equipment either as management tools or in conjunction with classroom instruction. Staff development for a variety of types of computer utilization, in company with enlightened and liberal policies concerning equipment location and use, can be helpful in achieving maximum utility and productivity from expensive computers. However, as in the case of general staff development, small school districts often do not have long-range goals, objectives, or policies relative to the use of computers in the schools. Where such policies do exist, they are often restrictive in nature.

The essential problem, then, is fourfold:

1. lack of staff development relating to potential uses of computers,
2. lack of proficient and committed administrative and faculty leadership in staff development and need assessment,
3. absence of goals, objectives, policies, and guidelines relative to computer use,
4. inconsistent or improper allocation of resources on the basis of defective or nonexistent long-term planning.

All of these problems may be effectively dealt with through a comprehensive effort at a program of staff development which entails considerable pre-planning, needs assessment, and evaluation. Perhaps the key element of any such program is the development of an effective leadership structure. Research by Hall, Hord and Griffin (1980), Humphries (1981), and Youngs (1983) point out the importance of the building principal in providing support and commitment to staff development and change, but the two latter studies, along with one by Smyth (1983), indicate that the principal may not actually be the most effective staff development leader. This is due to a fundamental conflict between the principal's roles as supervisor/evaluator and promoter. The administrator's function is essential but best consists of selecting and arranging for the training of key faculty "change agents," organizing these and other key staff into a project steering committee, negotiating for resources, funding, and facilities with central administration, and maintaining and expressing a high degree of commitment both to the importance of the program and to the development of a considerable level of individual commitment and responsibility among all faculty. Considerable courage is called for on the part of the building administrator in this delegation of authority and responsibility, but as Sergiovanni (1982), Sergiovanni and Carver (1980), and Ouchi (1981) note, the good will, voluntary cooperation, and general support elicited from staff members in such a situation will ultimately create considerable intrinsic motivation on the part of the faculty, a greater degree of job satisfaction, general staff "ownership" of the components of the program, and a high degree of organizational patriotism which will increasingly offset the involvement in both time and effort required by such a collegial approach to decision-making.

The task of actually developing the needs assessment instruments, using them to collect information regarding proposed changes, developing a hierarchy of goals and objectives, and drawing up specifications for equipment, facilities, personnel support, and software belongs to the project steering committee. In order to promote a free exchange of ideas and a spirit of collegiality, cooperation, and mutual respect, chairmanship of the committee should rotate among members of the committee, including the principal, at specified intervals. The importance of collaborative planning by the steering committee, and the need for inclusion of input and feedback from general staff in the overall planning process cannot be overemphasized. Patton and Anglin (1982), Joyce (1976), Burrello and Orbaub (1962) all note that collaborative approaches to in-service are more effective than non-collaborative ones, and Humphries (1981) concludes that:

Through its very strong effect on in-service training, and its moderate effect on the degree of change in classroom practice, collaborative planning exerts a pervasive influence on the implementation process. It may be the catalyst which generates commitment to project objectives while ensuring that support strategies are relevant to the needs of local staff (p. 236).

In considering the staff development needs of the building or district, the committee should examine the current state of computer usage in light of a preliminary statement of goals, philosophy, and objectives. Questions to be considered might include the following:

1. Are machines already present? If so, have they been found to be adequate as far as student use is concerned?
2. Would the machines and software currently on hand be appropriate for wider utilization in the general context of the school, both for staff and students? If not, what resources would better serve projected use patterns?
3. Is there a developmental sequence among the resources, both hardware and software, currently existing? If not, why not? Should compatibility of machines and programs be a consideration?
4. Should specific resources be earmarked for faculty use only? If so, what should these resources be, and what are reasons for choosing them?
5. Are building or district personnel available as trainers for other staff, or will it be necessary to hire other staff or consultants? If outside assistance is needed, how might it be obtained? Are grants or other funding possible source of revenue for training purposes or to secure needed resources?
6. When and where will training take place? How much time is to be allocated for faculty development? Is this to be a long-term or a short-term effort? Will support be present to help integrate teacher-acquired skills and knowledge into the curriculum? How might this be done?

Of course, other considerations will arise depending on the type and extent of the staff development program envisioned. It is important to bear in mind that the processes of discussion and decision making which have been very generally outlined above may be critically important to achieving effective change and a high level of project participation among the faculty.
Questions five and six listed above should be given special attention due to their potential importance for the success of any faculty development program. The staff development facilitator in small schools has traditionally been a member of the school administration or an outside consultant. However, these choices may not be ideal for a number of reasons. An administrator who has little knowledge of needed information or techniques will be ignored by staff members, and the in-service will become an exercise in futility. Furthermore, Joyce (1978) found that facutly were almost unanimous in rejecting their evaluators as trainers. In the studies cited by Hall (1979) and Hall and Loucks (1978), the change facilitator is seen as a consultant from outside the school system, utilizing specific observation tools and skills to construct "interventions" to promote change. These observation tools and protocols can provide needed structure and verified instruments for determining the extent and level of implementation, and can be valuable when personnel trained in their use are available. However, the use of an outside facilitator has several serious disadvantages. Consultants often find it difficult to establish their credibility with teacher clients. Patton and Anglin (1982) state that a consultant has an average of only twenty minutes in which to establish credibility if he is to be effective. Those same researchers, along with Mazzarella (1980), Williamson and Elfman (1982), and Levin and Levin (1983) comment on the greater effectiveness of local faculty as staff development facilitators in comparison to outside consultants, who have no real vested interest in the success of a particular school's program. The 1982 study by Peters and Waterman notes that the "volunteer champion" is one of the more significant factors in the success of an undertaking, especially as such an individual has "adopted" an idea as his own and is willing to dedicate much more time, effort, and energy to it than could reasonably be expected.

It would seem that the selection and training of within-system computer "experts" should be given a very high priority when planning for staff development, and every effort should be made to encourage individuals who may already possess needed skills to increase their proficiency and to serve as special resource personnel. Williamson and Elfman (1982) also suggest paying such staff resource persons just as outside consultants would be paid. It should be emphasized that the one-time "in-service" provided by many computer equipment companies has very little real value, and probably should be considered just another type of sales promotion.

Finally, the time element and the location of the staff development activities should be given careful attention. As was noted previously, one of the primary considerations implicit in the collegial nature of planning for effective staff development is the creation of attitudes and feelings favorable to the success of the program. Although off-site activities may be effective in teaching skills and behaviors, Lawrence (1974) found that on-site activities are also capable of causing affective change as well. For that reason, planners should give priority to staff development activities that take place in the target building, and which utilize the facilities, materials, and equipment that will be in actual use by teaching staff.

The allocation of time is also of considerable importance. Many teachers will resent the need to allocate time for planning and development unless they can be persuaded to "own" an idea. One way of securing additional time is to instruct teachers in a number of simple computer functions that may result in immediate and considerable time savings for them. It is a relatively simple matter to learn how to use a computer gracebook, and the payoff in both time and efficiency can be both immediate and gratifying. Another simple, yet highly effective, timesaving tool is an integrated word processor filing-program calculator. The ability to use such a program would allow the teacher to spend much less time in typing tests and worksheets, and to manage scores, accounts, letters to parents, and resource files with a single item of software. The feeling of accomplishment generated by competence with just one of these programs can contribute greatly to a realization of the need for computer literacy by students as well.

In lieu of summary, a word of warning is perhaps in order. Before a school system can require or even request staff participation in a staff development project with implications as wide-ranging as that generated by faculty computer literacy, the school system, including administrators, must make a long-term commitment to the process and the project. W. Robert Houston (1980) notes that the poor planning of most efforts stems from a lack of commitment to in-service as long-term professional growth. Too many teachers—and administrators—have grown accustomed to what Caldwell and Marshall (1980) qualify as authoritative, "top-down," pseudo staff development, designed to fulfill the requirements of state law at the lowest possible cost and inconvenience. It is almost inevitable that such an approach leads ultimately to short-term frustration and long-term disillusionment. American education can no longer afford such waste, either of funds or of personnel.

Society has given our schools the mandate to provide computer literacy to our children as a means of preparing them for the future. Typically, this mandate has not been accompanied by a corresponding increase in funds. As is customary in our educational system, the largest share of available funding has been spent for the initiation of the project and the provision of basic resources, and little or nothing remains for appropriate training. Training is necessary, however, if we are to fulfill society's mandate. Thankfully, the "workshop peddlers" and self-proclaimed "experts" have not generally produced programs designed to teach faculty computer literacy. They recognize that such a need can only be filled by an ongoing school district commitment. Colleges and universities have done so, however, with distressing results in many cases. It appears that if the schools are to fulfill their mission, they must find ways to provide appropriate training at low cost and over a sufficiently long period of time. This need can only be met by staff development which provides motivation, support, price of "ownership" through collegial relationships and group problem-solving, assurance of long-term professional growth, and inspiration through a sense of organizational patriotism.

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Just what influence does children's literature, sexist or not, have upon socialization of children?

Teachers' Read-Aloud Preferences: Perpetuating Sex-Role Stereotypes

by Nancy J. Smith, M. Jean Greenlaw and Carolyn Scott

A major goal of reading programs is to prepare readers who not only can read but who do read. One recommended strategy that facilitates learners' ability to read, as well as the choice to read, is the teacher reading aloud to them. Teachers realize the role this can have in developing students' schemata. Vocabulary is enhanced, concepts are broadened, and a model of fluency is presented. It can influence students' decisions to read by introducing them to interesting and exciting literature and by creating positive, pleasurable associations for the act of reading and for books.

These listeners are also learning some other lessons from the teachers' selections of read-aloud material that are part of the hidden curriculum. Without ever directly stating what is important, interesting, valued, or acceptable, those messages are sent to children indirectly by the content in the books that teachers choose to read aloud to them. A study of Kansas and Texas teachers' read-aloud choices reported in this article indicates a very strong message is being sent to boys and girls about what is important, interesting, valued, and acceptable in terms of sex roles. This message seems to be part of a sexist curriculum that is inserting sex-bias into the socialization process of young people.

Just what influence does children's literature, sexist or not, have upon the socialization of children? The term socialization is used to identify the process by which a person slowly develops a set of values and attitudes, likes and dislikes, goals and purposes, patterns of response and concept of self. This image of self is arrived at through a gradual, complicated process which continues throughout life. It takes place largely through the learning of a role which consists of the three aspects: duties, status, and temperament (Racism and Sexism Center for Educators, 1979).

The importance of books as potential socializing agents has been attested to by numerous researchers (Weitzman, et al, 1972; Kimmel, 1970: Zimet, 1968). Child, Potter, and Levine (1948) state:

It is assumed that when reading a story, a child goes through symbolically, or reenacts the episode that is being described. The same principles, then, are expected to govern the effect of the reading on the child as would govern the effect of actually going through such an incident in real life (p.3).

An examination of the study of Kansas and Texas teachers' read-aloud habits conducted by the authors will demonstrate the important role this teaching strategy has in children's acquisition of attitudes towards sex roles in their socialization processes. Quantitative and qualitative aspects of teachers' read-aloud habits will be considered.

A total of 254 elementary teachers were asked to list their favorite books to read aloud to children. The teachers represent an average of 12.3 years of teaching experience with a median of three years' experience and a total of 3,119 years. The average number of times they reported reading aloud was 4.3 per week. The amount of time spent per read aloud was 20 minutes. Two mathematical manipulations with these data suggest the potential magnitude of their read-aloud selections upon children's socialization. If these teachers had average classes of 25 students for a total of 3,119 combined years, then nearly 78,000 students have been exposed to these teachers read-aloud preferences. Second, if these teachers read aloud 20 minutes 4.3 times for a school year of 30 weeks, then a child will have listened to teachers' read-aloud preferences 361 hours from kindergarten through sixth grade. It is to be hoped that any instructional experience that students engage in almost daily for 20 minutes will yield results.

In addition to improving reading ability and desire to read, this teaching practice is probably influencing the listeners' socialization process through its messages about sex roles. This message is communicated in several ways. These teachers listed 631 favorite books for reading aloud. Of the total number, 43 percent have male protagonists, 21 percent have female protagonists, 13 percent have a male and female protagonist, and the remaining percentage had a neuter protagonist or none (Table 1). This means that more than double the time the children are hearing about a male protagonist. Is a hidden message communicated by this imbalance?

<table>
<thead>
<tr>
<th>Table 1</th>
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<tr>
<td>Gender of protagonists in Selections included in Teachers' Read-Aloud Preferences</td>
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<tr>
<td>43</td>
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Nancy J. Smith is an associate professor of education at Kansas State University, Manhattan, Kansas. M. Jean Greenlaw is a professor of education at North Texas State University, Denton, Texas. Carolyn Scott is an elementary teacher with Junction City Schools, Junction City, Kansas.

Educational Considerations, Vol. 12, No. 1, Winter, 1985
How do the roles depicted in the teachers’ read-aloud preferences characterize people by gender? An examination of the gender characterizations in the most popular titles overall and by grade level at the primary level yields alarming results. From a simple count of the protagonists in the top ten titles listed by teachers, it can be seen that a serious imbalance exists (Table 2). Eight of the books have male protagonists, one has a female protagonist, and one has both. Worse than the quantitative imbalance is the qualitative aspect of these books. The adult women in these selections are characterized as mothers or homemakers only. Certainly it is desirable that images of women as mothers and homemakers be presented to children, but that should not be the only role that characterizes them. Of further concern, are the personalities of some of these characters. In *The Mouse and the Motorcycle*, the mothers of the boy and the mouse are somewhat neurotic as are the mothers and the grandmother in *Charlie and the Chocolate Factory*. The aunts in *James and the Giant Peach* are cruel, selfish, cranky old women. In *Mrs. Frisby and the Rats of Nimh*, the mother is brave on behalf of her children, but without the assistance of the entire male animal population she could seemingly not solve a problem. Are these stereotypical female characters the images teachers should choose to present to children?

It is essential that one point be made clear. It is realistic to characterize women in these roles and with these personalities. It is the cumulative effect on children’s socialization processes of having these characterizations dominate the images of women presented through teachers’ read-aloud choices that is extremely problematic. The most admirable female characters in the top ten titles are animals, Charlotte and Mrs. Frisby. It must also be noted that this group includes no female protagonist of the elementary child’s age for the girls to identify with and even the girl in *Charlotte’s Web* has a fate similar to Jo in *Little Women*; she finally pursues the traditional, appropriate activities and interests for a young girl.

<table>
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<tr>
<th>Table 2</th>
<th>Books Most Frequently Read Aloud in the Primary Grades</th>
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<tbody>
<tr>
<td>Kindergarten</td>
<td>Alexander and the Terrible, Horrible, No Good, Very Bad Day</td>
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<tr>
<td>Charlotte’s Web</td>
<td>Curious George</td>
</tr>
<tr>
<td>Clown of God</td>
<td>Corduroy</td>
</tr>
<tr>
<td>The Giving Tree</td>
<td>Katya No-Pocket</td>
</tr>
<tr>
<td>Little Bear</td>
<td>Snowy Day</td>
</tr>
<tr>
<td>First Grade</td>
<td>Alexander and the Terrible, Horrible, No Good, Very Bad Day</td>
</tr>
<tr>
<td>Charlotte’s Web</td>
<td>Curious George</td>
</tr>
<tr>
<td>Where the Wild Things Are</td>
<td>The Giving Tree</td>
</tr>
<tr>
<td>How the Grinch Stole Christmas</td>
<td>Millions of Cats</td>
</tr>
<tr>
<td>The Night Before Christmas</td>
<td>The Snowy Day</td>
</tr>
<tr>
<td>Winnie the Pooh</td>
<td>The Tale of Peter Rabbit</td>
</tr>
<tr>
<td>Second Grade</td>
<td>Alexander and the Terrible, Horrible, No Good, Very Bad Day</td>
</tr>
<tr>
<td>Charlotte’s Web</td>
<td>Curious George</td>
</tr>
<tr>
<td>The Mouse and the Motorcycle</td>
<td>Ramona the Pest</td>
</tr>
<tr>
<td>Where the Wild Things Are</td>
<td>Amelia Bedelia</td>
</tr>
<tr>
<td>Miss Nelson Is Missing</td>
<td>Ribsy</td>
</tr>
<tr>
<td>Charlie and the Chocolate Factory</td>
<td>Curious George</td>
</tr>
<tr>
<td>Henry Huggins</td>
<td>The Three Billy Goats Gruff</td>
</tr>
</tbody>
</table>

Minorities are depicted only in negative images in these selections. The black savages in *Charlie and the Chocolate Factory* are miniature, ignorant, happy-to-be creatures. The old people in *Charlie* are made to look ridiculous, also. People with disabilities have neither positive or negative images included in these selections; they are excluded.

A review of the preferred titles listed by primary teach-
More sex-fair books are written with female protagonists and/or it is more socially acceptable for females to be portrayed in a wider range of roles than it is for males. Either interpretation is evidence of the need to reconsider the inhibiting message presented to boys.

Table 5

<table>
<thead>
<tr>
<th></th>
<th>male</th>
<th>female</th>
<th>both</th>
<th>neuter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did You Carry the Flag Today, Charlie?</td>
<td>14</td>
<td>34</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

The study found that teachers in Kansas and Texas have read-aloud preferences that include twice as many books with male protagonists as female protagonists. The most popular selections include very few female protagonists; the images of the female characters in the most popular books are narrowly defined and frequently negative; and the images of boys are positive but limited to the traditional male stereotype. The most important conclusion the authors have drawn is that teachers are probably unaware of the degree of sex-bias in their read-aloud preferences, but they are contributing to the perpetuation of sex role stereotyping that has been part of the socialization process for all of us for too long. Another concern needs to be added to the concerns for fostering children's reading growth through reading aloud. In addition to developing their reading ability and desire to read, teachers need to actively and consciously select books to read aloud that present a more balanced characterization of sex roles. A commitment to preparing every young person to be capable of determining the quality of their own lives requires that educators not inhibit them in any way based on their gender.

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